DECEMBER 3, 1984

AGENDA

CITY COUNCIL OF THE CITY OF MORENO VALLEY
MORENO VALLEY COMMUNITY SERVICES DISTRICT
CITY AS SUCCESSOR AGENCY FOR THE COMMUNITY REDEVELOPMENT AGENCY OF THE CITY OF MORENO VALLEY
MORENO VALLEY HOUSING AUTHORITY
BOARD OF LIBRARY TRUSTEES

March 11, 2014

SPECIAL PRESENTATIONS – 5:30 P.M.
REGULAR MEETING – 6:00 P.M.

City Council Study Sessions
First & Third Tuesdays of each month – 6:00 p.m.
City Council Meetings
Second & Fourth Tuesdays of each month – 6:00 p.m.
City Council Closed Sessions
Immediately following Regular City Council Meetings and
Study Sessions, unless no Closed Session Items are Scheduled

City Hall Council Chamber - 14177 Frederick Street

Upon request, this agenda will be made available in appropriate alternative formats to persons with disabilities, in compliance with the Americans with Disabilities Act of 1990. Any person with a disability who requires a modification or accommodation in order to participate in a meeting should direct such request to Mel Alonzo, ADA Coordinator, at 951.413.3705 at least 48 hours before the meeting. The 48-hour notification will enable the City to make reasonable arrangements to ensure accessibility to this meeting.

Tom Owings, Mayor
Victoria Baca, Mayor Pro Tem
Jesse L. Molina, Council Member
Richard A. Stewart, Council Member
Yxstian Gutierrez, Council Member

AGENDA
CITY COUNCIL OF THE CITY OF MORENO VALLEY
March 11, 2014

CALL TO ORDER – 5:30 PM

SPECIAL PRESENTATIONS

1) Proclamation Recognizing American Cancer Society - Relay for Life of Moreno Valley

2) Business Spotlight

    a) Stater Bros.

    b) Better Be Donuts

AGENDA
JOINT MEETING OF THE
CITY COUNCIL OF THE CITY OF MORENO VALLEY
MORENO VALLEY COMMUNITY SERVICES DISTRICT
CITY AS SUCCESSOR AGENCY FOR THE COMMUNITY REDEVELOPMENT AGENCY OF THE CITY OF MORENO VALLEY
MORENO VALLEY HOUSING AUTHORITY
AND THE BOARD OF LIBRARY TRUSTEES

THE CITY COUNCIL RECEIVES A SEPARATE STIPEND FOR CSD MEETINGS

REGULAR MEETING - 6:00 PM
MARCH 11, 2014

CALL TO ORDER

Joint Meeting of the City Council, Community Services District, City as Successor Agency for the Community Redevelopment Agency, Housing Authority and the Board of Library Trustees - actions taken at the Joint Meeting are those of the Agency indicated on each Agenda item.

PLEDGE OF ALLEGIANCE

INVOCATION

Minister Sherman Jones - New Direction Community Church

ROLL CALL

INTRODUCTIONS

PUBLIC COMMENTS ON MATTERS ON THE AGENDA WILL BE TAKEN UP AS THE ITEM IS CALLED FOR BUSINESS, BETWEEN STAFF'S REPORT AND CITY COUNCIL DELIBERATION (SPEAKER SLIPS MAY BE TURNED IN UNTIL THE ITEM IS CALLED FOR BUSINESS.)

PUBLIC COMMENTS ON ANY SUBJECT NOT ON THE AGENDA UNDER THE JURISDICTION OF THE CITY COUNCIL

Those wishing to speak should complete and submit a BLUE speaker slip to the Bailiff. There is a three-minute time limit per person. All remarks and questions shall be addressed to the presiding officer or to the City Council and not to any individual Council member, staff member or other person.

JOINT CONSENT CALENDARS (SECTIONS A-D)

All items listed under the Consent Calendars, Sections A, B, C, and D are considered to be routine and non-controversial, and may be enacted by one motion unless a member of the City Council, Community Services District, City as Successor Agency for the Community Redevelopment Agency, Housing Authority or the Board of Library Trustees requests that an item be removed for separate action. The motion to adopt the Consent Calendars is deemed to be a separate motion by each Agency and shall be so recorded by the City Clerk. Items withdrawn for report or discussion will be heard after public hearing items.

A. CONSENT CALENDAR-CITY COUNCIL

A.1 ORDINANCES - READING BY TITLE ONLY
Recommendation: Waive reading of all Ordinances.

A.2 MINUTES - REGULAR MEETING OF FEBRUARY 25, 2014 (Report of: City Clerk's Department)

Recommendation:

1. Approve as submitted.

A.3 CITY COUNCIL REPORTS ON REIMBURSABLE ACTIVITIES (Report of: City Clerk's Department)

Recommendation:

1. Receive and file the Reports on Reimbursable Activities for the period of February 19 – March 4, 2014.

A.4 APPROVAL OF PAYMENT REGISTER FOR JANUARY, 2014
(Report of: Financial & Management Services Department)

Recommendation:

1. Adopt Resolution No. 2014-19. A Resolution of the City Council of the City of Moreno Valley, California, approving the Payment Register for the month of January, 2014 in the amount of $13,520,401.69.

A.5 AUTHORIZATION TO AWARD CONSTRUCTION CONTRACT TO ALL AMERICAN ASPHALT FOR THE ALESSANDRO BOULEVARD MEDIAN FROM INDIAN STREET TO PERRIS BOULEVARD, PROJECT NO. 801 0039 70 77
(Report of: Public Works Department)

Recommendations

1. Award the construction contract to All American Asphalt, P.O. Box 2229, Corona, California 92878, the lowest responsible bidder, for the

Alessandro Boulevard Median from Indian Street to Perris Boulevard.

2. Authorize the City Manager to execute a contract with All American Asphalt.

3. Authorize the issuance of a Purchase Order to All American Asphalt, for the amount of $1,300,461.80 ($1,182,238.00 bid amount plus 10% contingency) when the contract has been signed by all parties.

4. Authorize the Public Works Director/City Engineer to execute any subsequent related minor change orders to the contract with All American Asphalt up to, but not exceeding, the 10% contingency amount of $118,223.80, subject to the approval of the City Attorney.

5. Authorize the Public Works Director/City Engineer to record the Notice of Completion once he determines the work is complete, accept the improvements into the City's maintained system, and release the retention to All American Asphalt, if no claims are filed against the project.

6. Authorize the re-appropriation of $150,000 from the Annual Pavement Resurfacing project (2001-70-77-80001) Measure A (Fund 2001) fund for the construction costs for the Alessandro Boulevard Median from Indian Street to Perris Boulevard (2001-70-77-80001).

7. Authorize the appropriation of $400,000 from the unencumbered Community Development Block Grant (CDBG) (Fund 2512) fund balance for the construction costs for the Alessandro Boulevard Median from Indian Street to Perris Boulevard (2512-70-77-80001).

A.6 THIRD AMENDMENT TO AGREEMENT WITH RBF CONSULTING FOR ALESSANDRO BOULEVARD MEDIAN FROM INDIAN STREET TO PERRIS BOULEVARD, PROJECT NO. 801 0039 70 77
(Report of: Public Works Department)

Recommendations

1. Approve the Third Amendment to Agreement for Professional Consultant Services with RBF Consulting for construction support services.

2. Authorize the City Manager to execute the Third Amendment to Agreement for Professional Consultant Services with RBF Consulting.

3. Authorize an increase to the Purchase Order to RBF Consulting not to exceed the amount of $21,525 once the Third Amendment to Agreement has been signed by all parties.

B. CONSENT CALENDAR-COMMUNITY SERVICES DISTRICT

B.1 ORDINANCES - READING BY TITLE ONLY
Recommendation: Waive reading of all Ordinances.

B.2 MINUTES - REGULAR MEETING OF FEBRUARY 25, 2014 (Report of: City Clerk's Department)

Recommendation:
1. Approve as submitted.

C. CONSENT CALENDAR - HOUSING AUTHORITY

C.1 ORDINANCES - READING BY TITLE ONLY
Recommendation: Waive reading of all Ordinances.

C.2 MINUTES - REGULAR MEETING OF FEBRUARY 25, 2014 (Report of: City Clerk's Department)

Recommendation:
1. Approve as submitted.

D. CONSENT CALENDAR - BOARD OF LIBRARY TRUSTEES

D.1 ORDINANCES - READING BY TITLE ONLY
Recommendation: Waive reading of all Ordinances.

D.2 MINUTES - REGULAR MEETING OF FEBRUARY 25, 2014 (Report of: City Clerk's Department)

Recommendation:
1. Approve as submitted.

E. PUBLIC HEARINGS

Questions or comments from the public on a Public Hearing matter are limited to five minutes per individual and must pertain to the subject under consideration.
Those wishing to speak should complete and submit a GOLDENROD speaker slip to the Bailiff.

E.1 A PUBLIC HEARING FOR AN APPEAL OF THE PLANNING COMMISSION’S DECEMBER 12, 2013, APPROVAL OF THE FIRST INLAND LOGISTICS CENTER II PROJECT PA12-0023 AND RELATED ENVIRONMENTAL IMPACT REPORT. THE PROJECT PROPOSES A 400,130 SQUARE FOOT WAREHOUSE BUILDING LOCATED ON 17.3

ACRES AT THE SOUTHWEST CORNER OF PERRIS BOULEVARD AND SAN MICHELE ROAD. THE APPLICANT IS FIRST INDUSTRIAL. THE APPELLANT IS JOHNSON & SEDLACK ATTORNEYS AT LAW ON BEHALF OF RESIDENTS FOR A LIVABLE MORENO VALLEY AND SIERRA CLUB.
(Report of: Community & Economic Development Department)

Recommendations That the City Council:

1. Conduct a public hearing for the Environmental Impact Report (P12-064) and Plot Plan PA12-0023, and subsequent to the public hearing:

2. APPROVE Resolution No. 2014-20. A Resolution of the City Council of the City of Moreno Valley, California, CERTIFYING that the Final Environmental Impact Report has been completed in compliance with the California Environmental Quality Act, ADOPTING Findings and Statement of Overriding Considerations, and APPROVING a Mitigation Monitoring Program for the First Inland Logistics Center II Project generally located in the Industrial Area Specific Plan 208 on the SWC of Perris Boulevard between San Michele Road and Nandina Avenue.

3. APPROVE Resolution No. 2014-21. A Resolution of the City Council of the City of Moreno Valley, California, APPROVING Plot Plan PA12-0023 for the development of a 400,130 square foot warehouse distribution facility on 17.69 acres located on the SWC of Perris Boulevard and San Michele Road Assessor Parcel Numbers 316-200-001, 015, 019, 035 and 034.

F. ITEMS REMOVED FROM CONSENT CALENDARS FOR DISCUSSION OR SEPARATE ACTION

G. REPORTS

G.1 CITY COUNCIL REPORTS ON REGIONAL ACTIVITIES (Informational Oral Presentation - not for Council action)

G.1.1 a) Council Member Jesse Molina report on RTA

G.2 REDISTRICTING PRESENTATION BY NATIONAL DEMOGRAPHICS CORPORATION BY MR. JUSTIN LEVITT, VICE PRESIDENT, NDC
(Report of: City Clerk's Department)

G.3 MID-YEAR BUDGET REVIEW AND APPROVAL OF THE REVISED OPERATING BUDGET FOR FISCAL YEARS 2013/14 AND 2014/15
(Report of: Financial & Management Services Department)

Recommendations That the City Council:

1. Receive and file the mid-year budget summary.

2. Adopt Resolution No. 2014-22. A Resolution approving the Revised Operating Budget for the City of Moreno Valley for FYs 2013/14 and 2014/15, pursuant to the revenue and expenditure changes presented in Exhibits A and B to the Resolution.

3. Approve the Position Control Roster. Specific positions are discussed within the staff report and listed on Attachment 4 to the staff report.

4. Direct the Chief Financial Officer to adjust the designations of certain fund balances as requested within the staff report.

Recommendations That the CSD:

1. Acting in its capacity as the President and Board of Directors of the Moreno Valley Community Services District, adopt Resolution No. CSD 2014-01. A Resolution approving the Revised Operating Budget for the Moreno Valley Community Services District for FYs 2013/14 and 2014/15, pursuant to the revenue and expenditure changes presented in Exhibits A and B to the Resolution.

G.4 CITY MANAGER'S REPORT (Informational Oral Presentation - not for Council action)

G.5 CITY ATTORNEY'S REPORT (Informational Oral Presentation - not for Council action)

H. LEGISLATIVE ACTIONS

H.1 ORDINANCES - 1ST READING AND INTRODUCTION - NONE

H.2 ORDINANCES - 2ND READING AND ADOPTION

H.2.1 ORDINANCE NO. 873 - AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF MORENO VALLEY, CALIFORNIA, AMENDING SECTIONS 2.25.010 AND 2.25.020 OF TITLE 2 OF THE CITY OF MORENO VALLEY MUNICIPAL CODE RELATING TO THE COMPOSITION OF THE UTILITIES COMMISSION (RECEIVED FIRST READING AND INTRODUCTION ON FEBRUARY 25, 2014 ON A 5-0 VOTE) (Report of: Public Works Department)

Recommendations That the City Council:

1. Adopt Ordinance No. 873. An Ordinance of the City Council of the City of Moreno Valley, California amending sections 2.25.010 and 2.25.020 of Title 2 of the City of Moreno Valley Municipal Code

relating to the composition of the Utilities Commission.

H.3 ORDINANCES - URGENCY ORDINANCES - NONE

H.4 RESOLUTIONS - NONE

CLOSING COMMENTS AND/OR REPORTS OF THE CITY COUNCIL, COMMUNITY SERVICES DISTRICT, CITY AS SUCCESSOR AGENCY FOR THE COMMUNITY REDEVELOPMENT AGENCY OR HOUSING AUTHORITY

Materials related to an item on this Agenda submitted to the City Council/Community Services District/City as Successor Agency for the Community Redevelopment Agency/Housing Authority or Board of Library Trustees after distribution of the agenda packet are available for public inspection in the City Clerk's office at 14177 Frederick Street during normal business hours.

CLOSED SESSION

A Closed Session of the City Council, Community Services District, City as Successor Agency for the Community Redevelopment Agency and Housing Authority will be held in City Manager's Conference Room, Second Floor, City Hall. The City Council will meet in Closed Session to confer with its legal counsel regarding the following matter(s) and any additional matter(s) publicly and orally announced by the City Attorney in the Council Chamber at the time of convening the Closed Session.

- PUBLIC COMMENTS ON MATTERS ON THE CLOSED SESSION AGENDA UNDER THE JURISDICTION OF THE CITY COUNCIL

There is a three-minute time limit per person. Please complete and submit a BLUE speaker slip to the City Clerk. All remarks and questions shall be addressed to the presiding officer or to the City Council and not to any individual Council member, staff member or other person.

The Closed Session will be held pursuant to Government Code:

1 SECTION 54956.9(d)(1) - CONFERENCE WITH LEGAL COUNSEL - EXISTING LITIGATION

a) Case: *SILVER CREEK INDUSTRIES, INC. V. CITY OF MORENO VALLEY*
Court: RIVERSIDE SUPERIOR COURT
Case No: RIC 1306308

b) Case: *CITY OF MORENO VALLEY V. STI INC. TRUCKING AND MATERIALS, SURE TEC INSURANCE COMPANY*
Court: RIVERSIDE SUPERIOR COURT
Case No: RIC 1314428

c) Case: *CITY OF MORENO VALLEY V. MATOSANTOS, CHIANG, ANGULO, MARCH JOINT POWERS AUTHORITY, SUCCESSOR AGENCY TO THE MARCH JOINT POWERS REDEVELOPMENT AGENCY*
Court: SACRAMENTO SUPERIOR
Case No: 34-2013-80001478

2 SIGNIFICANT EXPOSURE TO LITIGATION PURSUANT TO

PARAGRAPH (2) OR (3) OF SUBDIVISION (D) OF SECTION 54956.9

Number of Cases: 5

3 SECTION 54956.9(d)(4) - CONFERENCE WITH LEGAL COUNSEL - INITIATION OF LITIGATION

Number of Cases: 5

REPORT OF ACTION FROM CLOSED SESSION, IF ANY, BY CITY ATTORNEY

ADJOURNMENT

CERTIFICATION

I, Jane Halstead, City Clerk of the City of Moreno Valley, California, certify that the City Council Agenda was posted in the following places pursuant to City of Moreno Valley Resolution No. 2007-40:

City Hall, City of Moreno Valley
14177 Frederick Street

Moreno Valley Library
25480 Alessandro Boulevard

Moreno Valley Senior/Community Center
25075 Fir Avenue

Jane Halstead, CMC,
City Clerk

Date Posted: March 5, 2014

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MINUTES
CITY COUNCIL REGULAR MEETING OF THE CITY OF MORENO VALLEY
February 25, 2014

CALL TO ORDER

SPECIAL PRESENTATIONS

Public comments were received from Deanna Reeder.

1) Inland Empire Branch of the American Public Works Association (APWA) 2013 Project of the Year Award for the Morrison Park Fire Station #99

2) Southern California Chapter of the American Public Works Association (APWA) 2013 Project of the Year Award for the Cactus Avenue / Nason Street Improvement Project

MINUTES
JOINT MEETING OF THE
CITY COUNCIL OF THE CITY OF MORENO VALLEY
MORENO VALLEY COMMUNITY SERVICES DISTRICT
CITY AS SUCCESSOR AGENCY FOR THE
COMMUNITY REDEVELOPMENT AGENCY OF
THE CITY OF MORENO VALLEY
MORENO VALLEY HOUSING AUTHORITY
BOARD OF LIBRARY TRUSTEES

REGULAR MEETING – 6:00 PM
February 25, 2014

CALL TO ORDER

The Joint Meeting of the City Council of the City of Moreno Valley, Moreno Valley Community Services District, City as Successor Agency for the Community Redevelopment Agency of the City of Moreno Valley, Moreno Valley Housing Authority and the Board of Library Trustees was called to order at 6:03 p.m. by Mayor Tom Owings in the Council Chamber located at 14177 Frederick Street

Mayor Tom Owings announced that the City Council receives a separate stipend for CSD meetings.

PLEDGE OF ALLEGIANCE

The pledge of allegiance was led by Pete Bleckert

INVOCATION

Dr. Dale Lacquement - Faith Baptist Church

ROLL CALL

Council:

Tom Owings	Mayor
Victoria Baca	Mayor Pro Tem
Yxstian Gutierrez	Council Member
Jesse L. Molina	Council Member
Richard A. Stewart	Council Member

Staff:

Jane Halstead	City Clerk
Kathy Gross	Executive Assistant
Richard Teichert	Chief Financial Officer/City Treasurer
Suzanne Bryant	City Attorney

Michelle Dawson	City Manager
Tom DeSantis	Assistant City Manager
Ahmad Ansari	Public Works Director
Chris Paxton	Administrative Services Director
Joel Ontiveros	Police Chief
Abdul Ahmad	Fire Chief
John Terell	Community and Economic Development Director

PUBLIC COMMENTS **ON ANY SUBJECT NOT ON THE AGENDA** UNDER THE JURISDICTION OF THE CITY COUNCIL

Deanna Reeder
1. Mayor’s comments and Brown Act
2. Developer

Jose Chavez
1. Discourse
2. changes forthcoming

Debra Craig
1. Developer
2. Recall

Susan Gilmore Owings
1. Resident comments
2. resident's interview regarding investigation

Scott Heveran
1. Recall

David Marquez
1. Comments directed to Mayor and previous statements made

Tom Jerele, Sr.
1. Thanked Council for Televised Study Sessions
2. Wind Symphony - Latin concert
3. reminder of Veteran's

Chris Baca
1. Speaker's statement
2. Recall
3. Violation of 4th amendment
4. Redistricting
5. Council candidate

Louise Palomarez

1. Council doing a lot
2. Aldi foods coming

Craig Givens

1. No vision for the City
2. expectations for City

Curtis Gardner

1. Future vision for the City
2. opinion of Council

JOINT CONSENT CALENDARS (SECTIONS A-D) OF THE CITY COUNCIL OF THE CITY OF MORENO VALLEY, MORENO VALLEY COMMUNITY SERVICES DISTRICT, CITY AS SUCCESSOR AGENCY FOR THE COMMUNITY REDEVELOPMENT AGENCY OF THE CITY OF MORENO VALLEY, MORENO VALLEY HOUSING AUTHORITY AND THE BOARD OF LIBRARY TRUSTEES

Mayor Tom Owings opened the agenda items for the Consent Calendars for public comments; there being none, public comments were closed.

A. CONSENT CALENDAR-CITY COUNCIL

A.1 ORDINANCES - READING BY TITLE ONLY
Recommendation: Waive reading of all Ordinances.

A.2 MINUTES - REGULAR MEETING OF FEBRUARY 11, 2014 (Report of: City Clerk's Department)

Recommendation:
Approve as submitted.

A.3 CITY COUNCIL REPORTS ON REIMBURSABLE ACTIVITIES (Report of: City Clerk's Department)

Recommendation:
Receive and file the Reports on Reimbursable Activities for the period of February 5 – 18, 2014.

A.4 AUTHORIZATION TO AWARD THE CONSTRUCTION CONTRACT TO RUIZ CONCRETE & PAVING, INC. DBA RUIZ ENGINEERING FOR THE CYCLE 2 CITYWIDE SIDEWALKS AND ACCESS RAMPS, PROJECT NO. 801 0044 70 76
(Report of: Public Works Department)

Recommendations

1. Award the construction contract to Ruiz Concrete & Paving, Inc. dba Ruiz Engineering (Ruiz Concrete & Paving, Inc.), 1344 Temple Avenue, Long Beach, California 90804, the lowest responsible bidder, for the Cycle 2 Citywide Sidewalks and Access Ramps.

2. Authorize the City Manager to execute a contract with Ruiz Concrete & Paving, Inc.

3. Authorize the issuance of a Purchase Order to Ruiz Concrete & Paving, Inc., for the amount of $165,898.80 ($138,249.00 bid amount plus 20% contingency) when the contract has been signed by all parties.

4. Authorize the Public Works Director/City Engineer to execute any subsequent related minor change orders to the contract with Ruiz Concrete & Paving, Inc. up to, but not exceeding, the contingency amount of $27,649.80, subject to the approval of the City Attorney.

5. Authorize the Public Works Director/City Engineer to record the Notice of Completion once he determines the work is complete, accept the improvements into the City's maintained system and release the retention to Ruiz Concrete & Paving, Inc., if no claims are filed against the project.

A.5 AUTHORIZATION TO AWARD AGREEMENT FOR PROFESSIONAL CONSULTANT DESIGN SERVICES TO ALBERT A. WEBB ASSOCIATES FOR THE EAST SUNNYMEAD BOULEVARD STORM DRAIN IMPROVEMENTS –
PROJECT NO. 804 0006 70 77

(Report of: Public Works Department)

Recommendations

1. Approve the Agreement for Professional Consultant Services with Albert A. Webb Associates, 3788 McCray Street, Riverside, CA 92506, to provide design services for the East Sunnymead Boulevard Storm Drain Improvements project.

2. Authorize the City Manager to execute the Agreement for Professional Consultant Services with Albert A. Webb Associates.

3. Authorize an issuance of a Purchase Order with Albert A. Webb Associates totaling $126,815 when the Agreement has been signed by all parties.

A.6 PA07-0048 (PM 35500) RIGHT-OF-WAY EASEMENT (APN 316-190-035) FOR SAN CELESTE ROAD STREET IMPROVEMENTS

(Report of: Public Works Department)

Recommendations

1. Adopt Resolution No. 2014-13. A Resolution of the City Council of the City of Moreno Valley, California, granting a public roadway easement on a city owned parcel fronting the east side of San Celeste Road between San Michelle Road and Rivard Road. Assessor Parcel Number 316-190-035.

2. Authorize the granting of a roadway easement for the City owned parcel known as Assessor Parcel Number 316-190-035.

3. Direct the City Clerk to forward the Resolution to the Mayor for execution and the roadway Easement Deed to the Public Works Director/City Engineer for execution and to forward the document to the County Recorder's Office for recordation for Assessor Parcel Number 316-190-035.

A.7 APPROVE AND ADOPT RESOLUTION NO. 2014-14 ACCEPTING DEDICATION OF PROPERTY FOR PUBLIC RIGHT-OF-WAY AND ACCEPTING THE IMPROVED PORTIONS OF KENTLAND LANE SOUTH OF EUCALYPTUS AVENUE, WILSON PLACE, AND KENNY DRIVE INTO THE CITY MAINTAINED ROAD SYSTEM, PROJECT NO. 801 0011 70 77
(Report of: Public Works Department)

Recommendations

1. Approve and adopt Resolution No. 2014-14 accepting dedication of property for public right-of-way and accepting the improved portions of Kentland Lane south of Eucalyptus Avenue, Wilson Place, and Kenny Drive into the City maintained road system.

2. Direct the City Engineer to certify the acceptance of said dedication and cause said certification to be recorded at the office of the Recorder of the County of Riverside together with said Resolution.

A.8 RESOLUTION OF THE CITY OF MORENO VALLEY SERVING AS THE SUCCESSOR AGENCY FOR THE COMMUNITY REDEVELOPMENT AGENCY OF THE CITY OF MORENO VALLEY APPROVING THE RECOGNIZED OBLIGATION PAYMENT SCHEDULE INCLUDING ADMINISTRATIVE BUDGET FOR THE PERIOD OF JULY 1, 2014 THROUGH DECEMBER 31, 2014 (ROPS 14-15A)
(Report of: Community & Economic Development Department)

Recommendations

1. Adopt Resolution No. SA 2014-01. A Resolution of the City Council of the City of Moreno Valley, California, serving as Successor

Agency to the Community Redevelopment Agency of the City of Moreno Valley approving the Recognized Obligation Payment Schedule (ROPS 14-15A), including administrative budget, for the period of July 1, 2014 through December 31, 2014 and authorizing the Executive Director or his designee to make modifications thereto.

2. Authorize the Executive Director or his designee to make modifications to the Schedule.

3. Authorize the transmittal of the ROPS 14-15A to the Oversight Board for review and approval.

A.9 APPROVE THE FIRST AMENDMENT TO THE AGREEMENT FOR PROFESSIONAL CONSULTANT SERVICES WITH PARSONS FOR THE SR-60/NASON STREET OVERCROSSING IMPROVEMENTS – PROJECT NO. 802 0003 70 77
(Report of: Public Works Department)

Recommendations

1. Approve the "First Amendment to Agreement for Professional Consultant Services" with Parsons to provide additional construction support services during construction of the SR-60/Nason Street Overcrossing Improvements for $50,000.

2. Authorize the City Manager to execute the First Amendment to Agreement for Professional Consultant Services with Parsons.

3. Authorize a Change Order to increase the Purchase Order with Parsons for the amount of $50,000 when the First Amendment has been signed by all parties.

A.10 RECEIPT OF QUARTERLY INVESTMENT REPORT – QUARTER ENDED DECEMBER 31, 2013
(Report of: Financial & Management Services Department)

Recommendation:
Receive and file the Quarterly Investment Report, in compliance with the City's Investment Policy.

A.11 APPROVE RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MORENO VALLEY, CALIFORNIA, DETERMINING THAT THE SPECIAL TAX OBLIGATION FOR PROPERTY IN COMMUNITY FACILITIES DISTRICT NO. 3 (AUTO MALL REFINANCING) OF THE CITY OF MORENO VALLEY FOR THE PAYMENT OF SPECIAL TAXES HAS BEEN SATISFIED, AND ORDERING THE RECORDING OF A NOTICE OF CANCELLATION OF THE SPECIAL TAX LIEN

(Report of: Financial & Management Services Department)

Recommendation:
Approve Resolution No. 2014-15. A Resolution of the City Council of the City of Moreno Valley, California, Determining that the special tax obligation for property in Community Facilities District No. 3 (Auto Mall Refinancing) of the City of Moreno Valley for the payment of special taxes has been satisfied, and ordering the recording of a Notice of Cancellation of the special tax lien.

A.12 ACCEPTANCE OF THE CITY OF MORENO VALLEY STRATEGIC PLAN STRATEGIES, PHASE 3 (SOUTHERN CALIFORNIA EDISON ENERGY EFFICIENCY STRATEGIC SOLICITATION)
(Report of: Community & Economic Development Department)

Recommendations
Adopt Resolution No. 2014-16. A Resolution of the City Council of the City of Moreno Valley, California, accepting the City of Moreno Valley Strategic Plan Strategies, Phase 3 (Southern California Edison Energy Efficiency Strategic Solicitation) and authorizing the Chief Financial Officer/City Treasurer to create the necessary budgetary appropriations for the Phase 3 Solicitation.

A.13 ACCEPTANCE OF THE RIVERSIDE COUNTY TRANSPORTATION COMMISSION'S CONGESTION MANAGEMENT AND AIR QUALITY GRANT, AUTHORIZE EXECUTION OF A MEMORANDUM OF UNDERSTANDING, AUTHORIZE AN APPROPRIATION OF FUNDS FOR THE AQUEDUCT TRAIL PROJECT FROM THE MORENO VALLEY MALL AREA TO LAKE PERRIS STATE RECREATION AREA, AND AMEND THE FISCAL YEAR 2013/2014 ADOPTED CAPITAL IMPROVEMENT PLAN TO INCLUDE THE SUBJECT PROJECT AS A FUNDED STREET PROJECT, PROJECT NO. 801 0055 70 77
(Report of: Public Works Department)

Recommendations

1. Accept the Congestion Management and Air Quality (CMAQ) grant award from the Riverside County Transportation Commission (RCTC) of up to $340,000 for the Project Approval and Environmental Document (PA&ED) phase of the Aqueduct Trail Project from the Moreno Valley Mall Area to Lake Perris State Recreation Area (Aqueduct Trail Project).

2. Authorize the City Manager to execute a Memorandum of Understanding (MOU) with RCTC when it is received for the Aqueduct Trail Project, subject to approval of the City Attorney.

3. Authorize the Chief Financial Officer to appropriate $340,000 as revenue and expense in the Capital Projects Reimbursements fund (Fund 3008), and the $85,000 local match requirement as expense in the Measure A Fund (Fund 2001) for the PA&ED phase of the Aqueduct Trail Project.

4. Amend the Fiscal Year 2013/2014 Adopted Capital Improvement Plan (CIP) to include the Aqueduct Trail Project as a funded Street project, Project No. 801 0055 70 77.

A.14 APPROVE THE FIRST AMENDMENT TO THE AGREEMENT WITH PSOMAS FOR THE SR-60/NASON STREET OVERCROSSING IMPROVEMENTS –
PROJECT NO. 802 0003 70 77
(Report of: Public Works Department)

Recommendations

1. Approve the "First Amendment to Agreement for Professional Consultant Services" with PSOMAS to provide professional survey services of the SR-60/Nason Street Overcrossing Improvements for $27,913.

2. Authorize the City Manager to execute the First Amendment to Agreement for Professional Consultant Services with PSOMAS.

3. Authorize a Change Order to increase the Purchase Order with PSOMAS for the amount of $27,913 when the First Amendment has been signed by all parties.

A.15 AUTHORIZE A CHANGE ORDER TO INCREASE THE EXISTING PURCHASE ORDER WITH BEDON CONSTRUCTION, INC. FOR THE MORENO MASTER DRAINAGE PLAN LINE "F", STAGE 2 CHANNEL IMPROVEMENTS – PROJECT NO. 804 0005 70 77
(Report of: Public Works Department)

Recommendations

1. Authorize a Change Order to increase the existing Purchase Order with Bedon Construction, Inc. by an additional $100,000 to offset a portion of the construction costs pertaining to additional Eastern Municipal Water District requirements.

2. Authorize the Public Works Director/City Engineer to execute the Change Order to the Purchase Order for Bedon Construction, Inc.

3. Authorize the Public Works Director/City Engineer to execute any subsequent related minor change orders to the contract with Bedon

Construction, Inc. up to the revised Purchase Order amount, subject to the approval of the City Attorney.

A.16 APPROVE THE SECOND AMENDMENT TO THE AGREEMENT WITH FALCON ENGINEERING SERVICES, INC. FOR THE SR-60/NASON STREET OVERCROSSING IMPROVEMENTS –
PROJECT NO. 802 0003 70 77
(Report of: Public Works Department)

Recommendations

1. Approve the "Second Amendment to Agreement for Professional Consultant Services" with Falcon Engineering Services, Inc. (Falcon) to provide additional construction management and inspection services during construction of the SR-60/Nason Street Overcrossing Improvements for $512,522.81.

2. Authorize the City Manager to execute the Second Amendment to Agreement for Professional Consultant Services with Falcon.

3. Authorize a Change Order to increase the Purchase Order with Falcon for the amount of $512,522.81 when the Second Amendment has been signed by all parties.

A.17 AUTHORIZATION TO APPLY AND ACCEPT A $7,500 GRANT FROM THE DEPARTMENT OF ALCOHOLIC BEVERAGE CONTROL, "MINOR DECOY/SHOULDER TAP PROGRAM"
(Report of: Police Department)

Recommendations

1. Authorize the Riverside County Sheriff's Department to apply and accept on the City's behalf, the FY2014 Alcohol Beverage Control (ABC) grant, in the amount of $7,500.00, to conduct Minor Decoy/Shoulder Tap Programs, for the period beginning January 1, 2014 and ending June 30, 2014.

2. Authorize that all Police Department equipment costs and City personnel overtime costs associated with this grant, will be directly billed to the Riverside County Sheriff's Department Grant Unit who will manage this grant. All reimbursement funds will be sent directly to the Sheriff's Department and will not affect the City General Fund revenue or expense budgets. Therefore, there is no impact to the City General Fund and the Police Department's FY2013/2014 budget will not be affected.

A.18 AUTHORIZATION TO AWARD AGREEMENT FOR PROFESSIONAL CONSULTANT DESIGN SERVICES TO AKM CONSULTING ENGINEERS

FOR THE SAN TIMOTEO FOOTHILL NEIGHBORHOOD FLOOD PROTECTION - MORENO MASTER DRAINAGE PLAN STORM DRAIN LINES K-1 AND K-4 –
PROJECT NO. 804 0007 70 77
(Report of: Public Works Department)

Recommendations

1. Approve the Agreement for Professional Consultant Services with AKM Consulting Engineers, 553 Walk, Irvine, CA 92618, to provide design services for the San Timoteo Foothill Neighborhood Flood Protection - Moreno Master Drainage Plan Storm Drain Lines K-1 and K-4 project.

2. Authorize the City Manager to execute the Agreement for Professional Consultant Services with AKM Consulting Engineers.

3. Authorize an issuance of a Purchase Order with AKM Consulting Engineers in the amount of $349,788 when the Agreement has been signed by all parties.

A.19 NOTICE OF COMPLETION AND ACCEPTANCE OF PEDESTRIAN RELATED IMPROVEMENTS FOR CITYWIDE PEDESTRIAN ENHANCEMENTS – PROJECT NO. 801 0040 70 77
(Report of: Public Works Department)

Recommendations

1. Authorize the Public Works Director/City Engineer to accept the work as completed for construction of the Citywide Pedestrian Enhancements constructed by PTM General Engineering Services, Inc., 5942 Acorn Street, Riverside, CA 92504.

2. Direct the City Clerk to record the Notice of Completion within ten (10) calendar days after the Public Works Director/City Engineer accepts the improvements as complete at the office of the County Recorder of Riverside County as required by Section 3093 of the California Civil Code.

3. Authorize the release of the retention to PTM General Engineering Services, Inc. 35 calendar days after the date of recordation of the Notice of Completion if no claims are filed against the project.

4. Authorize the Public Works Director/City Engineer to accept the improvements into the City's maintained system upon acceptance of the improvements as complete.

A.20 PA07-0080, PM 35672 – REQUEST TO EXTEND THE FULL ROAD CLOSURE OF INDIAN STREET FROM IRIS AVENUE TO KRAMERIA AVENUE AND IRIS AVENUE BETWEEN INDIAN STREET AND CONCORD WAY FOR THE CONSTRUCTION OF STREET IMPROVEMENTS UNTIL APRIL 7, 2014
(Report of: Public Works Department)

Recommendations

1. Authorize the extension of a full road closure of Indian Street from Iris Avenue to Krameria Avenue and Iris Avenue between Indian Avenue and Concord Way for the construction of street improvements until April 7, 2014.

2. Authorize the City Engineer to allow for an additional 30-day extension in addition to the extension being requested to the proposed road closure window if the project is delayed due to unforeseen construction issues.

B. CONSENT CALENDAR-COMMUNITY SERVICES DISTRICT

B.1 ORDINANCES - READING BY TITLE ONLY
Recommendation: Waive reading of all Ordinances.

B.2 MINUTES - REGULAR MEETING OF FEBRUARY 11, 2014 (Report of: City Clerk's Department)

Recommendation:
Approve as submitted.

C. CONSENT CALENDAR - HOUSING AUTHORITY

C.1 ORDINANCES - READING BY TITLE ONLY
Recommendation: Waive reading of all Ordinances.

C.2 MINUTES - REGULAR MEETING OF FEBRUARY 11, 2014 (Report of: City Clerk's Department)

Recommendation:
Approve as submitted.

D. CONSENT CALENDAR - BOARD OF LIBRARY TRUSTEES

D.1 ORDINANCES - READING BY TITLE ONLY
Recommendation: Waive reading of all Ordinances.

D.2 MINUTES - REGULAR MEETING OF FEBRUARY 11, 2014 (Report of: City Clerk's Department)

Recommendation:
Approve as submitted.

Motion to Approve Joint Consent Calendar Items A.1 through D.2, with the exception of Items A.2, B.2, C.2 and D.2, by m/Mayor Pro Tem Victoria Baca, s/Council Member Yxstian Gutierrez

Approved by a vote of 5-0.

Motion to approve Items A.2. B.2, C.2 and D.2, by m/Mayor Pro Tem Baca, s/Council Member Yxstian Gutierrez

Approved by a vote of 4-0-1, Council Member Stewart abstained.

E. PUBLIC HEARINGS

E.1 PUBLIC HEARING REGARDING THE MAIL BALLOT PROCEEDINGS FOR ASSESSOR'S PARCEL NUMBERS 482-190-019; AND 316-210-071, -073, -075, AND -079 BALLOTING FOR NPDES
(Report of: Financial & Management Services Department)

Recommendations That the City Council:

1. Conduct the Public Hearing and accept public testimony regarding the mail ballot proceedings for Assessor's Parcel Numbers (APNs) 482-190-019; and 316-210-071, -073, -075, and -079 for approval of the National Pollutant Discharge Elimination System (NPDES) maximum annual rate.

2. Direct the City Clerk to tabulate the NPDES ballots for APNs 482-190-019; and 316-210-071, -073, -075, and -079.

3. Verify and accept the results of the mail ballot proceedings as identified on the Official Tally Sheet.

4. Receive and file with the City Clerk's office the accepted Official Tally Sheet.

5. If approved, authorize and impose the NPDES maximum commercial/industrial regulatory rate to APNs 482-190-019; and 316-210-071, -073, -075, and -079.

Mayor Tom Owings opened the public testimony portion of the public hearing; there being none, public testimony was closed.

Direct the City Clerk to tabulate the NPDES ballots for APNs 482-190-019; and 316-210-071, -073, -075, and -079.

Motion to approve by m/Mayor Pro Tem Mayor Pro Tem Victoria Baca, s/Council Member Richard A. Stewart

Approved by a vote of 5-0.

The City Clerk announced the results as follows:

APN: 482-190-019 "Yes"
316-210-071 "Yes"
316-210-073 "Yes"
316-210-075 "Yes"
316-210-079 "Yes"

Verify and accept the results of the mail ballot proceedings as identified on the Official Tally Sheet.

Receive and file with the City Clerk's office the accepted Official Tally Sheet.

If approved, authorize and impose the NPDES maximum commercial/industrial regulatory rate to APNs 482-190-019; and 316-210-071, -073, -075, and -079 Motion to approve by m/Mayor Pro Tem Victoria Baca, s/Council Member Jesse L. Molina

Approved by a vote of 5-0.

E.2 PUBLIC HEARING REGARDING THE MAIL BALLOT PROCEEDINGS FOR ASSESSOR'S PARCEL NUMBERS 482-190-019; AND 316-210-071, -073, -075, AND -079. BALLOTING FOR THE CSD ZONE M ANNUAL PARCEL CHARGE.
(Report of: Financial & Management Services Department)

Recommendations That the CSD:

1. Conduct the Public Hearing and accept public testimony regarding the mail ballot proceedings for Assessor's Parcel Numbers (APNs) 482-190-019; and 316-210-071, -073, -075, and -079 for inclusion into and approval of the annual charges for the CSD Zone M (Commercial, Industrial, and Multifamily Improved Median Maintenance) program.

2. Direct the Secretary of the CSD Board (City Clerk) to tabulate the CSD Zone M ballots for APNs 482-190-019; and 316-210-071, -073,

-075, and -079.

3. Verify and accept the results of the mail ballot proceedings as identified on the Official Tally Sheet.

4. Receive and file with the City Clerk's office the accepted Official Tally Sheet.

5. If approved, authorize and impose the CSD Zone M (Commercial, Industrial, and Multifamily Improved Median Maintenance) annual parcel charge to APNs 482-190-019; and 316-210-071, -073, -075, and -079.

Mayor Tom Owings opened the public testimony portion of the public hearing; there being none, public testimony was closed.

Direct the Secretary of the CSD Board (City Clerk) to tabulate the CSD Zone M ballots for APNs 482-190-019; and 316-210-071, -073, -075, and -079.

Motion to approve by m/Mayor Pro Tem Victoria Baca, s/Council Member Council Member Jesse L. Molina

Approved by a vote of 5-0.

The City Clerk announced the results as follows:

APN: 482-190-019 "Yes"
316-210-071 "Yes"
316-210-073 "Yes"
316-210-075 "Yes"
316-210-079 "Yes"

Verify and accept the results of the mail ballot proceedings as identified on the Official Tally Sheet.

Receive and file with the City Clerk's office the accepted Official Tally Sheet.

If approved, authorize and impose the CSD Zone M (Commercial, Industrial, and Multifamily Improved Median Maintenance) annual parcel charge to APNs 482-190-019; and 316-210-071, -073, -075, and -079.

Motion to approved by m/Mayor Pro Tem Victoria Baca, s/Council Member Jesse L. Molina

Approved by a vote of 5-0.

E.3 APPEAL OF THE PLANNING COMMISSION'S JANUARY 16, 2014 APPROVAL OF AMENDED PLOT PLAN P13-111 TO CONSTRUCT AN 800,430 SQUARE FOOT REFRIGERATED WAREHOUSE DISTRIBUTION FACILITY IN PLACE OF THE 937,260 SQUARE FOOT WAREHOUSE FACILITY ORIGINALLY APPROVED FOR THE WEST RIDGE COMMERCE CENTER PROJECT (PA08-0097). THE PROJECT IS LOCATED ON THE SOUTH SIDE OF STATE ROUTE 60, ON THE NORTH SIDE OF EUCALYPTUS AVENUE AND APPROXIMATELY 650 FEET WEST OF REDLANDS BOULEVARD. THE APPLICANT IS ALDI FOODS. THE APPELLANT IS LEIBOLD, MCCLENDON & MANN ON BEHALF OF CITIZENS OF THE CITY OF MORENO VALLEY
(Report of: Community & Economic Development Department)

Recommendations That the City Council:

1. Conduct a public hearing for Amended Plot Plan P13-111 and subsequent to the public hearing:

2. APPROVE Resolution No. 2014-17. A Resolution of the City Council of the City of Moreno Valley, California, recognizing the preparation of an addendum to the Certified West Ridge Commerce Center Environmental Impact Report (Sch #2009101008) and approving Amended Plot Plan Application No. P13-111 for an 800,430 square foot Refrigerated Warehouse Distribution Facility on 55 acres within Assessor's Parcel Numbers 488-330-003 to -006 and -026.

Mayor Tom Owings opened the public testimony portion of the public hearing. Public testimony was received from Deanna Reeder (supports); Tom Thornsley (opposed), and Tom Jerele, Sr. (supports)

Approve Resolution No. 2014-17. A Resolution of the City Council of the City of Moreno Valley, California, recognizing the preparation of an addendum to the Certified West Ridge Commerce Center Environmental Impact Report (Sch #2009101008) and approving Amended Plot Plan Application No. P13-111 for an 800,430 square foot Refrigerated Warehouse Distribution Facility on 55 acres within Assessor's Parcel Numbers 488-330-003 to -006 and -026.

Motion to approve by m/Mayor Pro Tem Victoria Baca, s/Council Member Jesse L. Molina

Approved by a vote of 5-0.

F. ITEMS REMOVED FROM CONSENT CALENDARS FOR DISCUSSION OR SEPARATE ACTION - None

G. REPORTS

G.1 TRAFFIC SAFETY COMMISSION ANNUAL REPORT (Informational only, not for Council Action)

G.2 MONTHLY REPORT: MORENO VALLEY ANIMAL SHELTER ADOPTION RATE
(Report of: Administrative Services Department)

Recommendations That the City Council:
Receive and file the Monthly Report: Moreno Valley Animal Adoption Rate for the period of January 1 to January 31, 2014.

Mayor Tom Owings opened the agenda item for public comments; which was received from Marcia Amino.

G.3 DIRECTION TO STAFF REGARDING PROCESS TO CALL FOR AN ELECTION TO CREATE THE OFFICE OF A DIRECTLY ELECTED MAYOR AND APPROVAL OF RELATED RESOLUTION
(Report of: City Attorney Department)

Recommendations That the City Council:

1. Determine whether to call for an election to create the office of a directly elected Mayor for the City of Moreno Valley, and if so

2. Determine whether the City should be divided into four (4), six (6) or eight (8) new City Council Districts to submit to the voters along with the question of creating the office of directly elected Mayor.

3. Authorize the proposed redistricting of the City into four (4), six (6) or eight (8) City Council Districts; authorize the City to execute a contract for redistricting consultant services; and authorize the Chief Financial Officer to make appropriation changes as may be required.

4. Direct staff to prepare all necessary documents and ordinances for the City Council to call an election on the matter of a directly elected Mayor and four (4), six (6) or eight (8) City Council Districts for the November 4, 2014 municipal general election.

5. Adopt Resolution No. 2014-18. A Resolution of the City Council of the City of Moreno Valley, California, relating to the Direct Election of the Mayor and Reapportionment of Councilmanic Districts; and

authorizing the drafting of Redistricting Plans.

Mayor Tom Owings opened the agenda item for public comments; which were received from Deanna Reeder (supports), Debra Craig, Basil Kimbrew, Pete Bleckert and Craig Givens.

To call for an election to create the office of a directly elected Mayor for the City of Moreno Valley, approved by a vote of 5-0.

Motion to approve by m/Mayor Pro Tem Victoria Baca, s/Council Member Yxstian Gutierrez

Approved by a vote of 5-0.

Authorize the proposed redistricting of the City into four (4), City Council Districts; authorize the City to execute a contract for redistricting consultant services; and authorize the Chief Financial Officer to make appropriation changes as may be required.

Motion to approve by m/Mayor Pro Tem Victoria Baca, s/Council Member Yxstian Gutierrez

Approved by a vote of 4-1-0, Council Member Richard A. Stewart opposed.

Direct staff to prepare all necessary documents and ordinances for the City Council to call an election on the matter of a directly elected Mayor and four (4) City Council Districts for the November 4, 2014 municipal general election.

Motion to approve by m/Council Member Yxstian Gutierrez, s/Mayor Pro Tem Victoria Baca

Approved by a vote of 5-0.

Adopt Resolution No. 2014-18. A Resolution of the City Council of the City of Moreno Valley, California, relating to the Direct Election of the Mayor and Reapportionment of Councilmanic Districts; and authorizing the drafting of Redistricting Plans.

Motion to approve by m/Mayor Pro Tem Victoria Baca, s/Council Member Yxstian Gutierrez

Approved by a vote of 5-0.

G.4 APPOINTMENTS TO THE JULY 4TH ADVISORY BOARD

(Report of: City Clerk Department)

Recommendations That the City Council:

1. Appoint those applicants who received majority vote by the City Council.

2. If vacancies are not filled by a majority vote of the City Council, authorize the City Clerk to re-advertise the positions as vacant and carry over the current applications for reconsideration of appointment at a future date.

Mayor Tom Owings opened the agenda item for public comments; which was received from Scott Heveran (supports).

Appoint those applicants who received majority vote by the City Council: applicants appointed the following with a term expiring July 31, 2014 – Michelle M. DeJohnette, Ellen Hampton, Ashley Holguin; Appointed the following with a term expiring July 31, 2015 – Janet McMillan and Vevesi Save; Appointed the following with a term expiring July 31, 2016 Oscar Valdepena and Erick McKain. Appointed Melissa Curley as Teen Member with a term expiring July 31, 2016.

Motion to approve by m/Council Member Richard A. Stewart, s/Mayor Pro Tem Victoria Baca

Approved by a vote of 5-0.

G.5 AUTHORIZATION TO BEGIN USING THE CALIFORNIA OFFICE OF TRAFFIC SAFETY (OTS) - SOBRIETY CHECKPOINT GRANT FUNDS – GRANT # SC14272
(Report of: Police Department)

Recommendations That the City Council:

1. Authorize the use of the OTS Sobriety Checkpoint Grant funds in the amount of $156,410, for which City Council authorized the Riverside County Sheriff's Department to apply on the City's behalf. The grant period began on October 1, 2013 and ends September 30, 2014.

2. Authorize all equipment costs and City personnel overtime to be directly billed to the Sheriff's Department Grant Unit which is managing this grant. The grant funds from OTS are currently available to the Sheriff's Department where they are maintained and reconciled. No appropriations or expenditures will be encumbered by the City, and the Police Department is not asking for a change to revenue or expense budgets.

Mayor Tom Owings opened the agenda item for public comments; which was received from George Price (supports).

Authorize the use of the OTS Sobriety Checkpoint Grant funds in the amount of $156,410, for which City Council authorized the Riverside County Sheriff's Department to apply on the City's behalf. The grant period began on October 1, 2013 and ends September 30, 2014.

Authorize all equipment costs and City personnel overtime to be directly billed to the Sheriff's Department Grant Unit which is managing this grant. The grant funds from OTS are currently available to the Sheriff's Department where they are maintained and reconciled. No appropriations or expenditures will be encumbered by the City, and the Police Department is not asking for a change to revenue or expense budgets.

Motion to approve by m/Council Member Richard A. Stewart, s/Mayor Tom Owings

Approved by a vote of 4-1-0, Pro Tem Victoria Baca opposed.

G.6 AUTHORIZATION TO APPLY AND ACCEPT THE FY2014/2015 CALIFORNIA OFFICE OF TRAFFIC SAFETY (OTS) - SELECTIVE TRAFFIC ENFORCEMENT PROGRAM (STEP) GRANT - APPLICATION # 21741
(Report of: Police Department)

Recommendations That the City Council:

1. Authorize the Riverside County Sheriff's Department to apply for and accept on the City's behalf (if awarded), the FY2014/2015 California Office of Traffic Safety (OTS) Selective Traffic Enforcement Program (STEP) grant in the amount of $328,607.69 for the period beginning October 1, 2014, and ending September 30, 2015.

2. Authorize all equipment costs and City personnel overtime to be directly billed to the Sheriff's Department Grant Unit which is managing this grant. All reimbursement funds will be sent directly to the Sheriff's Department and will not affect the City General Fund revenue or expense budgets. Therefore, there is no impact to the City General Fund and the Police Department's FY2014/2015 budget will not be affected.

Mayor Tom Owings opened the agenda item for public comments; there being none, public comments were closed.

Motion to approve the verbal motion as presented: with a provision that will entail a two-step process that once the money is accepted Council will see the Comprehensive Plan.

Motion to approve by m/Council Member Yxstian Gutierrez, s/Council Member Jesse L. Molina

Approved by a vote of 4-1-0, Mayor Pro Tem Victoria Baca opposed.

G.7 CITY MANAGER'S REPORT (Informational Oral Presentation - not for Council action)

Public Works Director/City Engineer reported there is a storm approaching in Southern California with ¼ to ½ inch of rain Friday and Saturday. Public Works is on full alert, all the information is on the Press Release. Sand bags are available at the CRC. There is no limitation on the amount of sand bags. Flooding signs have been placed in troubled locations. Advised the public to call 911 if there is a life in danger.

G.8 CITY ATTORNEY'S REPORT (Informational Oral Presentation - not for Council action) – No report

H. LEGISLATIVE ACTIONS

H.1 ORDINANCES - 1ST READING AND INTRODUCTION

H.1.1 AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF MORENO VALLEY, CALIFORNIA, AMENDING SECTIONS 2.25.010 AND 2.25.020 OF TITLE 2 OF THE CITY OF MORENO VALLEY MUNICIPAL CODE RELATING TO THE COMPOSITION OF THE UTILITIES COMMISSION (Report of: Public Works Department)

Recommendations That the City Council:
Introduce Ordinance No. 873. An Ordinance of the City Council of the City of Moreno Valley, California amending sections 2.25.010 and 2.25.020 of Title 2 of the City of Moreno Valley Municipal Code relating to the composition of the Utilities Commission.

Mayor Tom Owings opened the agenda item for public comments; there being none, public comments were closed.

Introduce Ordinance No. 873. An Ordinance of the City Council of the City of Moreno Valley, California amending sections 2.25.010 and 2.25.020 of Title 2 of the City of Moreno Valley Municipal Code relating to the composition of the Utilities Commission.

Motion to approve by m/Council Member Jesse L. Molina, s/Mayor Pro Tem Victoria Baca

Approved by a vote of 5-0.

H.2 ORDINANCES - 2ND READING AND ADOPTION - NONE

H.3 ORDINANCES - URGENCY ORDINANCES - NONE

H.4 RESOLUTIONS - NONE

CLOSING COMMENTS AND/OR REPORTS OF THE CITY COUNCIL, COMMUNITY SERVICES DISTRICT, CITY AS SUCCESSOR AGENCY FOR THE COMMUNITY REDEVELOPMENT AGENCY OR HOUSING AUTHORITY

Council Member Yxstian Gutierrez

1. Congratulated Michelle Dejonetta for her appointment to the July 4th Advisory Board
2. Thanked the Traffic Safety Commission
3. Regarding shared vision is open to meet with Craig Givens and Curtis Gardner to share his vision
4. As a community we need to be business friendly; we need to have jobs here; Aldi's is coming which will create jobs; mentioned the under employed
5. Attended a USC workshop and executive session, major discussion on baby boomers; not enough workers to fund Social Security or Medicare; water and housing policies; innovative government; public should be considered as partners in government; today's students will be our future; moral obligation to invest in our children, in order that children receive an education
6. Mindmixer program asked staff to look into it
7. Reported on After School programs - Badger Springs Middle School students are doing a drama class; Palm Middle School students working on paintings; Val Verde Middle School working on Alice in Wonderland
8. Will be holding a Financial Literacy workshop in District 4 at Badger Springs Middle School on Saturday 9:00-11:00 a.m.
9. Upcoming Latin concert

Council Member Jesse L. Molina

1. Fire on Sunnymead; thanked Public Works for preparing for the flood, and making sure there are no shopping carts blocking the canals
2. Heart goes out to the homeless; thank you to Chief Ontiveros for making the encampment safer
3. Will be attending a tour for US Veterans, Lutheran Charities and Pathways
4. New legislature coming up
5. Thank you to staff; minimize the negativity in town; do unto others as they would do unto you
6. Volunteers needed for the citywide camera; other volunteers also needed please check the City's website; keep positive and your eye on the ball.
7. Thanked his wife

Mayor Tom Owings

1. Inquired if public speakers making statement about City's vision, if they had attended the February 2, 2013 Study Session and heard the following City Council's vision of the City:
    - institute a program to create jobs
    - restore services
    - elect a City-wide Mayor
    - form an Utilities Commission
    - organize neighborhoods
    - institute term limits
    - lower crime rates
    - would cut spending
    - fix the problems in Edgemont
    - seven divisions of the City we would do economic development

    - clean up Sunnymead Boulevard

2. Black History Month, Dr. King talked about creating a County where there was quality opportunity. He did not envision a City of haves or have nots. Moreno Valley is not a City of haves and have nots. It doesn't have to be and it shouldn't be. Dr. King envisioned a day we would all realize the American dream. It was a dream of equality of opportunity and property widely distributed. Dr. King’s dream here in Moreno Valley; we must provide clear pathways for education; make sure our residents have the right skills for the thousands of jobs we will be bringing to Moreno Valley. It begins with having good schools. To the two teachers here, my vision is to have a City where we have the best schools in the Country, not the worst, not the second worst, but the absolute best. My vision for Moreno Valley is where it graduates 95% of the students; plenty of vision here on the Council.

Mayor Pro Tem Victoria Baca

1. Congratulations - the Elected Mayor will be on the ballot; agrees with four Council Members and one Mayor; does not believe having more people on the dais is fiscally sensible
2. Visited UCR and learned about our history
3. Sweet Paws, Valentine's Day event was a success; euthanasia rates are down and sometimes there is nothing that can be done and they don't want to do it; euthanasia is a sensitive issue, encouraged the public to adopt a dog or cat; staff is working diligently and they get the job done
4. Looks forward to the redistricting of the City and encourages the community to submit maps

CLOSED SESSION - none

ADJOURNMENT

There being no further business to conduct, the meeting was adjourned at 11:47 p.m. by unanimous informal consent.

Submitted by:

____
City Clerk City Clerk Jane Halstead, CMC
Secretary, Moreno Valley Community Services District
Secretary, City as Successor Agency for the Community Redevelopment Agency of the City of Moreno Valley
Secretary, Moreno Valley Housing Authority
Secretary, Board of Library Trustees

Approved by:

____
Mayor Tom Owings
President, Moreno Valley Community Services District
Chairperson, City as Successor Agency for the Community Redevelopment Agency of the City of Moreno Valley
Chairperson, Moreno Valley Housing Authority
Chairperson, Board of Library Trustees

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CITY OF MORENO VALLEY
DECEMBER 3, 1984

Report to City Council

TO: Mayor and City Council

FROM: Jane Halstead, City Clerk

AGENDA DATE: March 11, 2014

TITLE: CITY COUNCIL REPORTS ON REIMBURSABLE ACTIVITIES

RECOMMENDED ACTION

Recommendation:

1. Receive and file the Reports on Reimbursable Activities for the period of February 19 – March 4, 2014.

Reports on Reimbursable Activities
[DATE]

Council Member	Date	Meeting	Cost
Victoria Baca		None	
Yxstian A. Gutierrez	2/20/14–2/22/14	USC Executive Education Forum, Local Leaders Program	$700.78
Jesse L. Molina		None	
Tom Owings		None	
Richard A. Stewart	3/4/14	Moreno Valley Hispanic Chamber of Commerce – Adelante	$10.00

Prepared By:
Cindy Miller
Executive Assistant to the Mayor/City Council

Department Head Approval:
Jane Halstead
City Clerk

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DECEMBER 3, 1984

APPROVALS	
BUDGET OFFICER	me
CITY ATTORNEY	SMB
CITY MANAGER	

Report to City Council

TO: Mayor and City Council

FROM: Richard Teichert, Chief Financial Officer

AGENDA DATE: March 11, 2014

TITLE: APPROVAL OF PAYMENT REGISTER FOR JANUARY, 2014

RECOMMENDED ACTION

Recommendation:

1. Adopt Resolution No. 2014-19. A Resolution of the City Council of the City of Moreno Valley, California, approving the Payment Register for the month of January, 2014 in the amount of $13,520,401.69.

DISCUSSION

To facilitate Council's review, the Payment Register lists in alphabetical order all checks and wires in the amount of $25,000 or greater, followed by a listing in alphabetical order of all checks and wires less than $25,000. The Payment Register also includes the fiscal year-to-date (FYTD) amount paid to each vendor.

FISCAL IMPACT

The disbursements itemized in the attached Payment Register are reflected in the 2013-14 budget. Therefore, there is no fiscal impact other than the expenditure of budgeted funds.

ATTACHMENTS

Attachment 1: Proposed Resolution
Attachment 2: Payment Register for Month of January, 2014

Prepared By:	Department Head Approval:
Dena Heald	Richard Teichert
Financial Operations Division Manager	Chief Financial Officer

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Attachment 1

RESOLUTION NO. 2014-19

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MORENO VALLEY, CALIFORNIA, APPROVING THE PAYMENT REGISTER FOR THE MONTH OF JANUARY, 2014

WHEREAS, the Financial & Management Services Department has prepared and provided the Payment Register for the period January 1, 2014 through January 31, 2014, for review and approval by the City Council of the City of Moreno Valley; and

WHEREAS, it is in the best interest of the City that the referenced Payment Register be approved.

NOW, THEREFORE, IT IS HEREBY RESOLVED BY THE CITY COUNCIL OF THE CITY OF MORENO VALLEY, CALIFORNIA, that the Payment Register for the period January 1, 2014 through January 31, 2014, in the total amount of $13,520,401.69 is approved.

APPROVED AND ADOPTED this 11th day of March, 2014.

____
Mayor

ATTEST:

____
City Clerk

APPROVED AS TO FORM:

____
City Attorney

RESOLUTION JURAT

STATE OF CALIFORNIA)
COUNTY OF RIVERSIDE) ss.
CITY OF MORENO VALLEY)

I, Jane Halstead, City Clerk of the City of Moreno Valley, California, do hereby certify that Resolution No. 2014-19 was duly and regularly adopted by the City Council of the City of Moreno Valley at a regular meeting thereof held on the 11th day of March, 2014 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

____
CITY CLERK

City of Moreno Valley
Payment Register
For Period 1/1/2014 through 1/31/2014

CHECKS IN THE AMOUNT OF $25,000 OR GREATER

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description	Payment Amount
BEDON CONSTRUCTION, INC	11450	01/27/2014	16752	MV MASTER DRAINAGE LINE F	$468,251.37
Remit to: TEMECULA, CA					FYTD: $2,788,220.56
CITY OF MORENO VALLEY VEBA TRUST	11453	01/27/2014	2014-00000233	4020 - EXEC VEBA*	$74,223.00
Remit to: MORENO VALLEY, CA					FYTD: $243,421.28
COUNTY OF RIVERSIDE FIRE DEPT	11403	01/21/2014	231803	FIRE SVCS CONTRACT-1ST QTR (FPARC-MV,231803,13-14-Q1)	$3,300,239.42
Remit to: PERRIS, CA					FYTD: $6,311,630.20
COUNTY OF RIVERSIDE SHERIFF	11455	01/27/2014	SH0000022679	CONTRACT LAW ENF. BILLING #3 (8/22-9/18/13)	$2,382,224.55
Remit to: RIVERSIDE, CA					FYTD: $19,832,179.08
COUNTY OF RIVERSIDE, AUDITOR- CONTROLLER	219918	01/27/2014	NOV-13	TRANSMITTAL OF AB544-PARKING CONTROL FEES	$84,051.82
			OCT-13	TRANSMITTAL OF AB544-PARKING CONTROL FEES	
			SEPT-13	TRANSMITTAL OF AB544-PARKING CONTROL FEES	
			AUG-13	TRANSMITTAL OF AB544-PARKING CONTROL FEES	
Remit to: RIVERSIDE, CA					FYTD: $217,398.13
D. WEBB INCORPORATED	219910	01/21/2014	2014-01-04-41135	FIRE STATION NO. 6 MULTIPURPOSE ANNEX	$59,943.10
Remit to: YUCCA VALLEY, CA					FYTD: $59,943.10
EASTERN MUNICIPAL WATER DISTRICT	219825	01/21/2014	DEC-13 1/21/14	WATER CHARGES	$34,660.90
Remit to: PERRIS, CA					FYTD: $1,241,135.89

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CHECKS IN THE AMOUNT OF $25,000 OR GREATER

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
EASTERN MUNICIPAL WATER DISTRICT	219921	01/27/2014	DEC-13 1/27/14	WATER CHARGES		$37,398.26
Remit to: PERRIS, CA					FYTD:	$1,241,135.89
EMPLOYMENT DEVELOPMENT DEPARTMENT	11391	01/10/2014	2014-00000220	CA TAX - STATE TAX WITHHOLDING*		$31,396.37
Remit to: SACRAMENTO, CA					FYTD:	$613,254.26
EMPLOYMENT DEVELOPMENT DEPARTMENT	11447	01/24/2014	2014-00000235	CA TAX - STATE TAX WITHHOLDING*		$46,728.72
Remit to: SACRAMENTO, CA					FYTD:	$613,254.26
ENL SERVICE, INC	219922	01/27/2014	1	FIRST FLOOR RESTROOM RENOVATION		$28,975.00
Remit to: SOUTH GATE, CA					FYTD:	$28,975.00
FALCON ENGINEERING SERVICES, INC.	11256	01/06/2014	2012-15 PARTIAL	SR 60 NASON STREET OVERCROSSING		$93,483.66
Remit to: CORONA, CA					FYTD:	$1,174,145.01
FALCON ENGINEERING SERVICES, INC.	11458	01/27/2014	2012-16	SR-60 NASON STREET INTERCHANGE IMPROV. PROJECT		$111,655.22
Remit to: CORONA, CA					FYTD:	$1,174,145.01
FUSION SIGN AND DESIGN, INC	11258	01/06/2014	62816	WAYFINDING SIGNS		$30,306.43
Remit to: RIVERSIDE, CA					FYTD:	$132,239.51
FUSION SIGN AND DESIGN, INC	11359	01/13/2014	60777	CONSTRUCTION CONTRACT - WAYFINDING SIGNS		$28,557.57
Remit to: RIVERSIDE, CA					FYTD:	$132,239.51

CHECKS IN THE AMOUNT OF $25,000 OR GREATER

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
INTERNAL REVENUE SERVICE CENTER	11392	01/10/2014	2014-00000221	FED TAX - FEDERAL TAX WITHHOLDING*		$121,356.82
Remit to: OGDEN, UT					FYTD:	$2,316,712.90
INTERNAL REVENUE SERVICE CENTER	11448	01/24/2014	2014-00000236	FED TAX - FEDERAL TAX WITHHOLDING*		$192,641.41
Remit to: OGDEN, UT					FYTD:	$2,316,712.90
LEAGUE OF CALIFORNIA CITIES-RIV CNTY DIV	219835	01/21/2014	137156	MEMBERSHIP DUES FOR CY2014 & OPTIONAL LITIGTN SURCHRG		$34,799.60
Remit to: SACRAMENTO, CA					FYTD:	$35,164.60
MARCH JOINT POWERS AUTHORITY	219715	01/06/2014	0029460	SURVEY SERVICES - HEACOCK CHANNEL		$77,052.06
Remit to: RIVERSIDE, CA					FYTD:	$189,576.87
MERCHANTS LANDSCAPE SERVICES INC	11422	01/21/2014	41857	IRRIGATION REPAIRS-ZONE E3-DEC13		$69,719.03
			41856	INSTALLATION OF PLANT MATERIAL AND MULCH THROUGHOUT ZONE E-12		
			41801	LANDSCAPE MAINT.-ZONES E8,E12,E14 & E15-DEC13		
			41802	LANDSCAPE MAINT.-ZONES E-3 & E-3A-DEC13		
Remit to: Santa Ana, CA					FYTD:	$198,941.04
MEYERS, NAVE, RIBACK, SILVER & WILSON	219769	01/13/2014	2013110669	LEGAL SERVICES-NOV13		$25,054.96
			2013110676	LEGAL SERVICES-FED SUBPOENAS		
Remit to: OAKLAND, CA					FYTD:	$289,996.64

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
MEYERS, NAVE, RIBACK, SILVER & WILSON	219838	01/21/2014	2013110670	LEGAL SERVICES-MJPA-NOV13		$94,283.06
			2013110671	LEGAL SERVICES-FED SUBPOENAS		
Remit to: OAKLAND, CA					FYTD:	$289,996.64
MORENO VALLEY UTILITY	219841	01/21/2014	JAN-14 1/21/14	ELECTRICITY		$50,975.18
Remit to: HEMET, CA					FYTD:	$585,666.33
MV HEMLOCK LIMITED PARTNERSHIP	11469	01/30/2014	W140104	FINAL DISBURSEMENT-HEMLOCK FAMILY AFFORDABLE HOUSING PROJ.		$757,000.00
Remit to: RIVERSIDE, CA					FYTD:	$2,500,000.00
NATIONWIDE RETIREMENT SOLUTIONS CP	11388	01/10/2014	2014-00000217	8010 - DEF COMP 457 - NATIONWIDE*		$26,095.87
Remit to: COLUMBUS, OH					FYTD:	$512,941.33
NATIONWIDE RETIREMENT SOLUTIONS CP	11446	01/24/2014	2014-00000234	8010 - DEF COMP 457 - NATIONWIDE*		$58,466.71
Remit to: COLUMBUS, OH					FYTD:	$512,941.33
NOBLE AMERICAS ENERGY SOLUTIONS	11370	01/13/2014	133440003322873	ELECTRIC ENERGY PURCHASE FOR MV UTILITY		$277,150.13
Remit to: PASADENA, CA					FYTD:	$2,354,955.63
PERS HEALTH INSURANCE	11384	01/09/2014	W140101	EMPLOYEE HEALTH INSURANCE		$187,169.21
Remit to: SACRAMENTO, CA					FYTD:	$1,558,502.32
PERS RETIREMENT	11270	01/03/2014	P131220	PERS - RETIREMENT DEPOSIT CLASSIC		$229,439.25

CHECKS IN THE AMOUNT OF $25,000 OR GREATER

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
Remit to: SACRAMENTO, CA					FYTD:	$3,875,402.20
PERS RETIREMENT	11393	01/17/2014	P140103	PERS RETIREMENT DEPOSIT - CLASSIC		$223,459.61
Remit to: SACRAMENTO, CA					FYTD:	$3,875,402.20
PERS RETIREMENT	11576	01/31/2014	P140117	PERS RETIREMENT DEPOSIT - CLASSIC		$226,495.17
Remit to: SACRAMENTO, CA					FYTD:	$3,875,402.20
POWELL CONSTRUCTORS, INC.	11470	01/31/2014	W140105	RETENTION RELEASE PER ESCROW AGREEMENT-INV#12 & #13		$32,580.16
Remit to: FONTANA, CA					FYTD:	$1,637,195.89
POWELL CONSTRUCTORS, INC.	219844	01/21/2014	13	SR-60 MORENO BEACH PH 1		$224,676.32
Remit to: FONTANA, CA					FYTD:	$1,637,195.89
PRICE FAMILY CHARITABLE TRUST	219937	01/27/2014	3RD QTR 2013	SALES TAX REIMBURSEMENT		$119,282.00
Remit to: LA JOLLA, CA					FYTD:	$361,483.00
RIVERSIDE CONSTRUCTION COMPANY, INC	11449	01/17/2014	W140102	RETENTION RELEASE PER ESCROW AGREEMENT-INV#10		$39,952.80
Remit to: RIVERSIDE, CA					FYTD:	$5,062,287.85
RIVERSIDE CONSTRUCTION COMPANY, INC	11465	01/27/2014	131105	SR-60 NASON STREET OVERCROSSING		$586,717.50
Remit to: RIVERSIDE, CA					FYTD:	$5,062,287.85
SOCO GROUP, INC	11266	01/06/2014	698416	FUEL FOR CITY VEHICLES & EQUIPMENT		$25,112.11
			699145	FUEL FOR CITY VEHICLES & EQUIPMENT		
			699428	FUEL FOR CITY VEHICLES & EQUIPMENT		

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
SOCO GROUP, INC	11266	01/06/2014	163888	FUEL FOR CITY VEHICLES & EQUIPMENT		$25,112.11
Remit to: PERRIS, CA					FYTD:	$257,379.24
SOUTHERN CALIFORNIA EDISON 1	219773	01/13/2014	7500365956	RELIABILITY SERVICE-DLAP_SCE_SEES_HV		$33,223.72
			7500365141	WDAT CHARGES-IRIS AVE. LOCATION		
			7500365142	WDAT CHARGES-GRAHAM ST. LOCATION		
			7500365143	WDAT CHARGES-GLOBE ST. LOCATION		
			7500365144	WDAT CHARGES-NANDINA AVE. LOCATION		
			7500365145	WDAT CHARGES-FREDERICK AVE. LOCATION		
			7500365146	WDAT CHARGES-SUBSTATION 115KV INTERCONNECTION		
Remit to: ROSEMEAD, CA					FYTD:	$1,922,374.97
SOUTHERN CALIFORNIA EDISON 1	219849	01/21/2014	DEC-13 1/21/14	ELECTRICITY		$143,918.96
Remit to: ROSEMEAD, CA					FYTD:	$1,922,374.97
STANDARD INSURANCE CO	11332	01/07/2014	140101a	LIFE & DISABILITY INSURANCE		$26,501.87
Remit to: PORTLAND, OR					FYTD:	$189,378.19
THINK TOGETHER, INC	11467	01/27/2014	111000-13/14-5	ASES PROGRAM MANAGEMENT SERVICES		$493,437.50
Remit to: LOS ANGELES, CA					FYTD:	$2,478,108.65
TR DESIGN GROUP, INC.	11378	01/13/2014	1850	CONSTRUCTION DOCUMENTS - FIRE STATION NO 48 REMOLDELING		$32,539.32
Remit to: RIVERSIDE, CA					FYTD:	$71,439.42
U.S. BANK/CALCARDS	11379	01/13/2014	12-27-13	PAYMENT FOR DEC 2013 CALCARD ACTIVITY		$163,588.65

CHECKS IN THE AMOUNT OF $25,000 OR GREATER

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description	Payment Amount
Remit to: ST. LOUIS, MO				FYTD:	$1,597,168.77
WELLS FARGO CORPORATE TRUST	11468	01/27/2014	W140103	2007 TAX ALLOC SERIES A DEBT SVC-FEB14 INT PMT	$1,010,639.95
Remit to: LOS ANGELES, CA				FYTD:	$5,240,424.96
WRCOG WESTERN RIVERSIDE CO. OF GOVT'S.	219780	01/13/2014	DEC-13 TUMF	TUMF FEES COLLECTED FOR 12/1-12/31/13	$70,984.00
Remit to: RIVERSIDE, CA				FYTD:	$1,613,529.21
WURM'S JANITORIAL SERVICES, INC.	11438	01/21/2014	227929	JANITORIAL SERVICES-CONFERENCE & REC CTR.	$27,241.79
			227939	JANITORIAL SERVICES-SUNNYMEAD MIDDLE SCHOOL/ASES	
			227937	JANITORIAL SERVICES-RED MAPLE ELEMENTARY FOR JAN.	
			22791	SPECIAL CLEANINGS FOR DEC. EVENT RENTALS AT TOWNGATE COMM. CTR.	
			22790	SPECIAL CLEANINGS FOR DEC. EVENT RENTALS AT CRC	
			227931	JANITORIAL SERVICES-EMP. RESOURCE CTR.	
			227936	JANITORIAL SERVICES-RAINBOW RIDGE ELEMENTARY	
			227942	JANITORIAL SERVICES-ANNEX 1 BLDG.	
			227941	JANITORIAL SERVICES-TOWNGATE COMM. CTR.	
			227928	JANITORIAL SERVICES-CITY YARD & TRANSP. TRAILER	
			227933	JANITORIAL SERVICES-MARCH FIELD PARK COMM. CTR.	
			227940	JANITORIAL SERVICES-SUNNYMEAD ELEMENTARY	
			227930	JANITORIAL SERVICES-EOC	
			227935	JANITORIAL SERVICES-GANG TASK FORCE OFFICE	
			227932	JANITORIAL SERVICES-LIBRARY	

CHECKS IN THE AMOUNT OF $25,000 OR GREATER

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description	Payment Amount
WURM'S JANITORIAL SERVICES, INC.	11438	01/21/2014	227938	JANITORIAL SERVICES-SENIOR CENTER	$27,241.79
			227934	JANITORIAL SERVICES-PUBLIC SAFETY BLDG.	
			227927	JANITORIAL SERVICES-CITY HALL	

Remit to: CORONA, CA

FYTD: $185,588.11

TOTAL AMOUNTS OF $25,000 OR GREATER **$12,493,650.11**

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description	Payment Amount
452ND AIR MOBILITY WING	219950	01/27/2014	02-22-14	452D AIR MOBILITY WING ANNUA AWARDS BANQUET	$35.00
Remit to: MARCH ARB, CA				FYTD:	$35.00
ACCESS SECURITY CONTROLS INT., INC.	219756	01/13/2014	13-3239	QUARTERLY MONITORING-SUNNYMEAD M/S (JAN-MAR14)	$150.00
			13-3238	QUARTERLY MONITORING-ERC (JAN-MAR14)	
Remit to: TEMECULA, CA				FYTD:	$450.00
ACTION DOOR REPAIR CORP.	11396	01/21/2014	88096	INITIAL SVC-INSPECTED DOORS-FS#58	$469.97
			88049	FRONT DOOR REPAIRS-FS#6	
Remit to: ORLANDO, FL				FYTD:	$10,840.60
ADAMS, MARK L.	11273	01/07/2014	140101	RETIREE MED JAN '14	$318.73
Remit to: REDLANDS, CA				FYTD:	$2,549.84
ADLERHORST INTERNATIONAL INC.	11349	01/13/2014	19462	MONTHLY K-9 TRAINING-DRE-NOV13	$425.01
			19463	MONTHLY K-9 TRAINING-OZZI-NOV13	
			19464	MONTHLY K-9 TRAINING-IVAN-NOV13	
Remit to: RIVERSIDE, CA				FYTD:	$11,733.60
ADLERHORST INTERNATIONAL INC.	11397	01/21/2014	19563	MONTHLY K-9 TRAINING-IVAN-DEC13	$425.01
			19562	MONTHLY K-9 TRAINING-OZZI-DEC13	
			19561	MONTHLY K-9 TRAINING-DRE-DEC13	
Remit to: RIVERSIDE, CA				FYTD:	$11,733.60

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description	Payment Amount
ADVANCE REFRIGERATION & ICE SYSTEMS, INC	219914	01/27/2014	3284-37982	ICE MACHINE MAINT-SENIOR CTR	$195.00
Remit to: RIVERSIDE, CA				FYTD:	$5,758.41
ADVANCED ELECTRIC	219818	01/21/2014	10407	ELECTRICAL REPAIRS-ANIMAL SHELTER	$8,259.15
			10935	ELECTRICAL WORKS (RELAMPING)-PSB	
			10950	ELECTRICAL WORKS (RELAMPING)-PSB	
			10925	ELECTRICAL REPAIRS-ANIMAL SHELTER	
Remit to: RIVERSIDE, CA				FYTD:	$50,603.08
AEI-CASC ENGINEERING	11350	01/13/2014	0030476	PLAN CHECK SVCS-PWQMP	$378.00
Remit to: COLTON, CA				FYTD:	$27,274.37
AES OVERHEAD DOOR & GATE COMPANY, INC.	11351	01/13/2014	10054	ROLL UP DOORS PREVENTATIVE MAINT-PSB-DEC13	$989.00
			10062	ROLL UP DOORS PREVENTATIVE MAINT-FS#99-DEC13	
			10061	ROLL UP DOORS PREVENTATIVE MAINT-FS#91-DEC13	
			10058	ROLL UP DOORS PREVENTATIVE MAINT-FS#48-DEC13	
			10059	ROLL UP DOORS PREVENTATIVE MAINT-FS#2-DEC13	
			10057	ROLL UP DOORS PREVENTATIVE MAINT-FS#6-DEC13	
			10055	ROLL UP DOORS PREVENTATIVE MAINT-ANNEX BLDG #1-DEC13	
			10056	ROLL UP DOORS PREVENTATIVE MAINT-ANIMAL SHLTR-DEC13	
			10060	ROLL UP DOORS PREVENTATIVE MAINT-FS#65-DEC13	
Remit to: RANCHO CUCAMONGA, CA				FYTD:	$5,340.37
AES OVERHEAD DOOR & GATE COMPANY, INC.	11398	01/21/2014	10053	ROLL UP DOORS PREVENTIVE MAINT-CITY YARD-DEC13	$683.00

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description	Payment Amount
AES OVERHEAD DOOR & GATE COMPANY, INC.	11398	01/21/2014	10064	ROLL UP DOORS PREVENTIVE MAINT-FS#58-DEC13	$683.00
			10063	ROLL UP DOORS PREVENTIVE MAINT-UTILITY FIELD OFFICE-DEC13	
Remit to: RANCHO CUCAMONGA, CA				FYTD:	$5,340.37
AMERICAN FORENSIC NURSES	11399	01/21/2014	64176	PHLEBOTOMY SERVICES	$3,941.00
			64147	PHLEBOTOMY SERVICES	
			64235	PHLEBOTOMY SERVICES	
			64236	PHLEBOTOMY SERVICES	
Remit to: PALM SPRINGS, CA				FYTD:	$35,046.44
AMERICAN TOWERS	11352	01/13/2014	1613443	RADIO EQUIPMENT TOWER LEASE-JAN14	$3,150.00
Remit to: CHARLOTTE, NC				FYTD:	$15,750.00
ANGELA NAILS & SPA	219958	01/27/2014	BL#15492/ YR2014	REFUND OF OVERPAYMENT FOR BL#15492	$67.50
Remit to: MORENO VALLEY, CA				FYTD:	$67.50
ANIMAL EMERGENCY CLINIC, INC.	11400	01/21/2014	146E	AFTER HOURS EMERGENCY VET SVCS	$360.00
			146H	AFTER HOURS EMERGENCY VET SVCS	
			146J	AFTER HOURS EMERGENCY VET SVCS	
			146G	AFTER HOURS EMERGENCY VET SVCS	
			146I	AFTER HOURS EMERGENCY VET SVCS	
			146D	AFTER HOURS EMERGENCY VET SVCS	
Remit to: GRAND TERRACE, CA				FYTD:	$1,900.00
ANIMAL PEST MANAGEMENT SERVICES, INC.	11253	01/06/2014	119096	PEST CONTROL SVCS-CFD #1	$1,525.50

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ANIMAL PEST MANAGEMENT SERVICES, INC.	11253	01/06/2014	118989	PEST CONTROL SVCS-SCE ESMNT/AQDCT/BIKEWAY	$1,525.50
			119114	PEST CONTROL SVCS-GOLF COURSE	
			118991	PEST CONTROL SVCS-MARCH FIELD CNTR	
			118990	PEST CONTROL SVCS-MARB/CHILD CARE GRNDS/BALLFIELDS	
			118988	PEST CONTROL SVCS-CITY PARKS	
Remit to: CHINO, CA				FYTD:	$12,804.00
ARROW FLOORS, INC	219959	01/27/2014	BL#15866/ YR2014	REFUND OF OVER PAYMENT FOR B/L#15866	$17.75
Remit to: CHINO, CA				FYTD:	$17.75
AT SUNNY HILLS HOME CARE	219960	01/27/2014	BL#27365/ YR2014	REFUND OF OVER PAYMENT FOR B/L#27365	$62.00
Remit to: MORENO VALLEY, CA				FYTD:	$62.00
AT&T/MCI	219757	01/13/2014	4956212	LANDLINE PHONE SVC-GANG TASK FORCE	$184.57
Remit to: CAROL STREAM, IL				FYTD:	$1,478.12
AXBERG, PATSY	219873	01/21/2014	R13-068280	AS REFUND-RABIES AND S/N DEPOSITS	$95.00
Remit to: RIVERSIDE, CA				FYTD:	$95.00
BACHER, GRACE	219726	01/07/2014	140101	RETIREE MED JAN '14	$208.36
Remit to: HEMET, CA				FYTD:	$1,949.30
BARTLETT, NANCY	219788	01/13/2014	LD130035	REFUND-RESEARCH FEE	$87.00
Remit to: MORENO VALLEY, CA				FYTD:	$87.00
BAUTISTA, JOSEPH C.	11274	01/07/2014	140101	RETIREE MED JAN '14	$318.73

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
Remit to: FONTANA, CA					FYTD:	$2,549.84
BECKNER, PATRICK	11275	01/07/2014	140101	RETIREE MED NOV-DEC '13 , PD JAN '14		$491.22
Remit to: MURRIETA, CA					FYTD:	$1,719.27
BELMUDES, DEBRA	11276	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: MORENO VALLEY, CA					FYTD:	$2,549.84
BEMUS LANDSCAPE, INC.	11254	01/06/2014	249771	TEMPORARY RAN MAIN LINE AND WIRE ABOVE GROUND TO SIDEWALK		$2,116.80
Remit to: SAN CLEMENTE, CA					FYTD:	$106,164.17
BEMUS LANDSCAPE, INC.	219819	01/21/2014	254573	LANDSCAPE MAINT-ANNEX BLDG-NOV13		$9,448.60
			256154	LANDSCAPE MAINT-FIRE STATIONS-DEC13		
			256152	LANDSCAPE MAINT-ANNEX BLDG-DEC13		
			256153	LANDSCAPE MAINT-CITY HALL-DEC13		
			254572	LANDSCAPE MAINT-VETERAN'S MEMORIAL-NOV13		
			254585	LANSCAPE MAINT-FIRE STATIONS-NOV13		
			256151	LANDSCAPE MAINT-VETERAN'S MEMORIAL		
			254584	LANDSCAPE MAINT-CITY HALL-NOV13		
Remit to: SAN CLEMENTE, CA					FYTD:	$106,164.17
BLAIR, CHERYL	219951	01/27/2014	JAN-2014	INSTRUCTOR SERVICES-BELLY DANCING CLASS		$81.00
Remit to: RIVERSIDE, CA					FYTD:	$594.00
BMW MOTORCYCLES OF RIVERSIDE	11401	01/21/2014	6006734	MAINT & REPAIRS-NEW TRAFFIC MOTORCYCLES		$1,691.85

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
BMW MOTORCYCLES OF RIVERSIDE	11401	01/21/2014	6006772	MAINT & REPAIRS FOR NEW TRAFFIC MOTORCYCLES		$1,691.85
			6006795	MAINT & REPAIRS-NEW TRAFFIC MOTORCYCLES		
Remit to: RIVERSIDE, CA					FYTD:	$64,932.59
BOW TILE CORP	219874	01/21/2014	YR2013-B/L#26184	REFUND OF OVERPAYMENT FOR B/L#26184		$10.00
Remit to: VAN NUYS, CA					FYTD:	$10.00
BOX SPRINGS MUTUAL WATER COMPANY	219758	01/13/2014	12302013	WATER USAGE-ACCT#721-1 ZONE E-1		$77.46
Remit to: MORENO VALLEY, CA					FYTD:	$792.06
BRANDON'S DINER	219789	01/13/2014	1100616	CRC RENTAL REFUND		$750.00
Remit to: MORENO VALLEY, CA					FYTD:	$750.00
BRIGHT LIGHT ENTERTAINMENT, INC	219781	01/13/2014	105	DEPOSIT-7/4/14 PERFORMANCE (MVMS)		$1,000.00
Remit to: SIMI VALLEY, CA					FYTD:	$1,000.00
BROWN, JAMES	219875	01/21/2014	1099016	REFUND FOR TOWNGATE RENTAL DEPOSIT		$200.00
Remit to: MORENO VALLEY, CA					FYTD:	$200.00
BROWN, SHERRY	11277	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: MORENO VALLEY, CA					FYTD:	$3,187.30
BROWN, SHUNTAY	219961	01/27/2014	1080782	REFUND CANCELLED PICNIC RESERVATION		$38.40
Remit to: RIVERSIDE, CA					FYTD:	$38.40

City of Moreno Valley
Payment Register
For Period 1/1/2014 through 1/31/2014

CHECKS UNDER $25,000

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
BUCKINGHAM, STAN	219727	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: TEMECULA, CA					FYTD:	$2,549.84
BUHR, EDWARD	219790	01/13/2014	#13289159	GRANTED WAIVE FALSE ALARM		$40.00
Remit to: MORENO VALLEY, CA					FYTD:	$40.00
BULLARD, THOMAS/KATHLEEN	219876	01/21/2014	R14-069220	AS REFUND-RABIES AND S/N DEPOSITS		$95.00
Remit to: MANHATTAN BEACH, CA					FYTD:	$95.00
BURKE, WILLIAMS & SORENSEN, LLP.	219915	01/27/2014	173402	LEGAL SVCS-DEC13-L. COMPTON CASE		$427.50
Remit to: LOS ANGELES, CA					FYTD:	$9,939.44
CAIN, GREGORY	11278	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: TAMPA, FL					FYTD:	$2,549.84
CALIFORNIA BUILDING STANDARDS COMMISSION	219810	01/13/2014	4TH QTR 2013	SB1473 FEES COLLECTED FOR BLDG. STANDARDS COMMISSION		$3,996.90
Remit to: SACRAMENTO, CA					FYTD:	$5,304.60
CALIFORNIA DEPARTMENT OF SOCIAL SERVICES	219820	01/21/2014	FAC. 334818292	COMMUNITY CARE LICENSING FEES-SUNNYMEAD ELEM./FAC. #334818292		$660.00
			FAC. 334815843	COMMUNITY CARE LICENSING FEES-RED MAPLE/FACILITY #334815843		
Remit to: RIVERSIDE, CA					FYTD:	$1,100.00
CALIFORNIA TRANSCRIPTION, LLC	11402	01/21/2014	1607	TRANSCRIPTION SVCS-OCT13		$356.30
Remit to: MORONGO VALLEY, CA					FYTD:	$1,666.36

CHECKS UNDER $25,000

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
CALIFORNIA TRANSCRIPTION, LLC	11451	01/27/2014	1418	TRANSCRIPTION SVCS-NOV13		$668.38
Remit to: MORONGO VALLEY, CA					FYTD:	$1,666.36
CALIFORNIA WATERSHED ENGINEERING CORP.	219916	01/27/2014	14186	PLAN CHECK SVCS-PWQMP-DEC13		$3,333.33
Remit to: ANAHEIM, CA					FYTD:	$20,106.58
CANNON, ANA M.	11279	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: HASLET, TX					FYTD:	$2,549.84
CARDON, CARMEN	219791	01/13/2014	R13-068729	AS REFUND-OVERCHARGE ON LICENCE FEES		$3.00
Remit to: MORENO VALLEY, CA					FYTD:	$3.00
CASE LAND SURVEYING, INC	219877	01/21/2014	YR2013-B/L#24592	REFUND OF OVERPAYMENT FOR B/L#24592		$23.51
Remit to: ORANGE, CA					FYTD:	$23.51
CASTELLON, FRANCISCO	219792	01/13/2014	R13-068436	AS REFUND-RABIES DEPOSIT		$20.00
Remit to: MORENO VALLEY, CA					FYTD:	$20.00
CEASAR, LANETT	219793	01/13/2014	R13-068691	AS REFUND-RABIES DEPOSIT		$20.00
Remit to: RIVERSIDE, CA					FYTD:	$20.00
CEMEX	219759	01/13/2014	9427564697	PORTLAND CEMENT		$955.14
			9427610334	PORTLAND CEMENT		
Remit to: PASADENA, CA					FYTD:	$20,748.75
CERTIFIED DOOR, INC	219962	01/27/2014	BL#27366 /YR2014	REFUND OF OVER PAYMENT FOR B/L#27366		$63.45

CHECKS UNDER $25,000

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
Remit to: PARAMOUNT, CA					FYTD:	$63.45
CHANCY, CHIZURU	219782	01/13/2014	DEC-2013	INSTRUCTOR SERVICES-ADVANCED HULA AND HAWAIIAN & TAHITIAN DANCE		$701.40
			NOV-2013	INSTRUCTOR SERVICES-ADVANCED HULA AND HAWAIIAN & TAHITIAN DANCE		
			OCT-2013	INSTRUCTOR SERVICES-ADVANCED HULA AND HAWAIIAN & TAHITIAN DANCE		
Remit to: MORENO VALLEY, CA					FYTD:	$1,984.80
CHANDLER ASSET MANAGEMENT, INC	11353	01/13/2014	14161	INVESTMENT MANAGEMENT SVCS-DEC13		$6,943.00
Remit to: SAN DIEGO, CA					FYTD:	$64,932.00
CHAPMAN, STEVE	219728	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: REDLANDS, CA					FYTD:	$2,549.84
CHAPPELL, ISAAC	11280	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: MORENO VALLEY, CA					FYTD:	$2,549.84
CHEN, CONRAD	219963	01/27/2014	7009200-08	SOLAR INCENTIVE REBATE		$6,888.00
Remit to: MORENO VALLEY, CA					FYTD:	$6,888.00
CINTAS CORPORATION	11354	01/13/2014	150212561	UNIFORM RENTAL SVC.-GOLF COURSE		$537.29
			150212555	UNIFORM RENTAL SVC.-CFD #1		
			150212548	UNIFORM RENTAL SVC.-PARK MAINT.		
			150209071	UNIFORM RENTAL SVC.-GOLF COURSE		
			150209065	UNIFORM RENTAL SVC.-CFD #1		

CHECKS UNDER $25,000

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
CINTAS CORPORATION	11354	01/13/2014	150209058	UNIFORM RENTAL SVC.-PARK MAINT.		$537.29
			150212559	UNIFORM RENTAL SVC.-CONCRETE MAINT.		
			150212558	UNIFORM RENTAL SVC.-STREET MAINT.		
			150212560	UNIFORM RENTAL SVC.-FACILITIES		
			150212557	UNIFORM RENTAL SVC.-DRAIN MAINT.		
			150212556	UNIFORM RENTAL SVC.-ST. SWEEPING		
			150212553	UNIFORM RENTAL SVC.-VEHICLE MAINT.		
			150212552	UNIFORM RENTAL SVC.-GRAFFITI RMVL		
			150209062	UNIFORM RENTAL SVC.-GRAFFITI RMVL		
			150209069	UNIFORM RENTAL SVC.-CONCRETE MAINT.		
			150209068	UNIFORM RENTAL SVC.-STREET MAINT.		
			150209067	UNIFORM RENTAL SVC.-DRAIN MAINT.		
			150209066	UNIFORM RENTAL SVC.-ST. SWEEPING		
			150209063	UNIFORM RENTAL SVC.-VEHICLE MAINT.		
Remit to: ONTARIO, CA					FYTD:	$11,578.64
CINTAS CORPORATION	11452	01/27/2014	150212551	UNIFORM RENTAL SVC.-ST. SIGNS/STRIPING		$101.72
			150212550	UNIFORM RENTAL SVC.-TRAFFIC SIGNAL		
Remit to: ONTARIO, CA					FYTD:	$11,578.64
CITY OF MORENO VALLEY VEBA TRUST	11383	01/13/2014	2014-00000209	4020 - EXEC VEBA*		$7,622.50
Remit to: MORENO VALLEY, CA					FYTD:	$243,421.28
CLEVELAND, KATHLEEN	219794	01/13/2014	R13-066970	AS REFUND-S/N AND RABIES DEPOSITS		$95.00

CHECKS UNDER $25,000

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
Remit to: THOUSAND OAKS , CA					FYTD:	$95.00
COLONIAL SUPPLEMENTAL INSURANCE	219860	01/21/2014	7133069-0101599	SUPPLEMENTAL INSURANCE		$5,840.91
Remit to: COLUMBIA, SC					FYTD:	$42,865.01
COMMUNITY HEALTH CHARITIES	219811	01/13/2014	2014-00000210	8725 - CH CHARITY		$88.00
Remit to: COSTA MESA, CA					FYTD:	$4,003.00
COMMUNITY HEALTH CHARITIES	219917	01/27/2014	2014-00000222	8725 - CH CHARITY		$88.00
Remit to: COSTA MESA, CA					FYTD:	$4,003.00
COMMUNITY NOW	11355	01/13/2014	1007	PROF. CONSULTANT SVCS-SR2S PROGRAM		$4,080.00
			1008	NEIGHBORHOODS/NEXTDOOR.COM CONSULTANTS		
Remit to: MORENO VALLEY, CA					FYTD:	$26,265.00
COMMUNITY WORKS DESIGN GROUP	11454	01/27/2014	130937	SECURITY FENCING FIRE STATIONS 48 & 65		$2,800.00
			10781	MV FIRE STATIONS 48 & 65 SECURITY FENCING		
Remit to: RIVERSIDE, CA					FYTD:	$6,501.00
COMPU COM	219710	01/06/2014	62075649	ADOBE PRO LICENSE		$336.58
Remit to: DALLAS, TX					FYTD:	$5,680.02
COMPU COM	219760	01/13/2014	62083698	ADOBE PRO LICENSE		$336.58
Remit to: DALLAS, TX					FYTD:	$5,680.02

CHECKS UNDER $25,000

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
CORNERSTONE RECORDS MANAGEMENT, LLC	11255	01/06/2014	0216269	OFF-SITE STORAGE OF CITY RECORDS		$1,609.82
Remit to: KING OF PRUSSIA, PA					FYTD:	$12,176.64
CORTES, FELIPE	219964	01/27/2014	7013503-02	SOLAR INCENTIVE REBATE		$14,000.00
Remit to: MORENO VALLEY, CA					FYTD:	$14,000.00
COSTCO	219821	01/21/2014	20025	SNACK SUPPLIES-COMMUNITY SVCS EVENTS		$2,189.03
			20220	SNACK SUPPLIES FOR "A CHILD'S PLACE"		
			20235	SNACK SUPPLIES FOR SKATE PARK		
Remit to: MORENO VALLEY, CA					FYTD:	$14,735.29
COUNSELING TEAM, THE	219711	01/06/2014	21878	CONSULTING SVCS-CUSTOMER CARE PROGRAM		$3,315.00
Remit to: SAN BERNARDINO, CA					FYTD:	$29,658.75
COUNTY OF RIVERSIDE	219761	01/13/2014	9990085000-1311	TRAFFIC MOTOR RADIO COMMUNICATION SERVICES FOR PD/NOV-2013		$2,142.84
Remit to: RIVERSIDE, CA					FYTD:	$1,152,861.11
COUNTY OF RIVERSIDE	219911	01/21/2014	9990170000-1311	VPN CONNECTION FOR CODE ENFORCEMENT STAFF		$22.22
Remit to: RIVERSIDE, CA					FYTD:	$1,152,861.11
COUNTY OF RIVERSIDE, AUDITOR- CONTROLLER	219822	01/21/2014	JUL-13	TRANSMITTAL OF AB544-PARKING CONTROL FEES		$20,923.16
Remit to: RIVERSIDE, CA					FYTD:	$217,398.13
CPRS DISTRICT XI	219823	01/21/2014	116412	MEMBERSHIP FOR BRIDGET AMAYA		$150.00

CHECKS UNDER $25,000

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
Remit to: SACRAMENTO, CA					FYTD:	$315.00
CUETO, EDWARD	219878	01/21/2014	1092140	REFUND FOR CRC RENTAL		$500.00
Remit to: MORENO VALLEY, CA					FYTD:	$500.00
DALE, KATHLEEN	11281	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: MORENO VALLEY, CA					FYTD:	$2,549.84
DANIEL, GREG	219795	01/13/2014	R13-068407	AS REFUND-SPAY/NEUTER DEPOSIT		$75.00
Remit to: MORENO VALLEY , CA					FYTD:	$75.00
DATA TICKET, INC.	11404	01/21/2014	50516	ADMIN CITATION PROCESSING-A/S-NOV13		$36.00
Remit to: NEWPORT BEACH, CA					FYTD:	$170,921.17
DATA TICKET, INC.	11456	01/27/2014	50810TPC	THIRD PARTY COLLECTIONS-B&S-NOV13		$116.64
Remit to: NEWPORT BEACH, CA					FYTD:	$170,921.17
DATAQUICK CORPORATE HEADQUARTERS	219762	01/13/2014	B1-2242177	ONLINE SOFTWARE SUBSCRIPTION-POP UNIT-DEC13		$130.50
Remit to: LOS ANGELES, CA					FYTD:	$1,044.00
DAVID TURCH & ASSOCIATES	219919	01/27/2014	JULY/AUGUST 2013	FEDERAL LEGISLATIVE ADVOCATE SERVICES 7/1-7/31/13 & 8/1-8/30/13		$8,333.34
Remit to: WASHINGTON, DC					FYTD:	$12,500.01
DAWSON, MICHELLE	219721	01/06/2014	1/22-1/24/14	TRAVEL PER DIEM-LCC NEW MAYORS & COUNCIL MEMBERS ACADEMY		$152.50
Remit to: RIVERSIDE, CA					FYTD:	$787.65

CHECKS UNDER $25,000

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
DAWSON, MICHELLE	219952	01/27/2014	2/5-2/7/14	TRAVEL PER DIEM & MILEAGE-2014 CITY MANAGERS DEPT. MEETING		$201.24
Remit to: RIVERSIDE, CA					FYTD:	$787.65
DEBINAIRE COMPANY	219824	01/21/2014	713901	BOILER MAINTENANCE-EOC-DEC13		$464.00
			143235	BOILER REPAIRS-ANIMAL SHELTER		
			143231	BOILER REPAIRS-CRC		
Remit to: CORONA, CA					FYTD:	$2,149.80
DEL REY APPRAISAL SRVCS	219920	01/27/2014	DR4004	APPRAISAL SVCS-NSP 3-26066 ROJO TIERRA		$375.00
Remit to: MORENO VALLEY, CA					FYTD:	$1,375.00
DELTA DENTAL OF CALIFORNIA	11405	01/21/2014	BE000705564	EMPLOYEE DENTAL INSURANCE		$10,877.36
Remit to: SAN FRANCISCO, CA					FYTD:	$82,562.09
DENNIS GRUBB & ASSOCIATES, LLC	11356	01/13/2014	1221	PLAN REVIEW SVCS-11/16-11/30/13 FIRE PREV.		$3,935.00
			1216a	PLAN REVIEW SVCS-10/16-10/31/13 ADDL		
Remit to: MIRA LOMA, CA					FYTD:	$98,325.00
DENNIS GRUBB & ASSOCIATES, LLC	11406	01/21/2014	1219	PLAN REVIEW SVCS 11/1-11/15/13-FIRE PREV.		$5,475.00
Remit to: MIRA LOMA, CA					FYTD:	$98,325.00
DENSON, LA JUNE	219796	01/13/2014	R13-067431	AS REFUND-SPAY/NEUTER DEPOSIT		$75.00
Remit to: MORENO VALLEY, CA					FYTD:	$75.00
DEPARTMENT OF CONSERVATION	219763	01/13/2014	4TH QTR 2013	SMI FEES REPORT FOR 10/1-12/31/13		$16,516.17

CHECKS UNDER $25,000

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
Remit to: SACRAMENTO, CA					FYTD:	$21,060.69
DIVISION OF THE STATE ARCHITECT	219812	01/13/2014	4TH QTR 2013	SB1186-STATE PORTION OF DISABILITY ACCESS & EDUC FEES		$181.50
Remit to: SACRAMENTO, CA					FYTD:	$612.00
DMC DESIGN GROUP, INC	11357	01/13/2014	2013-131	HEACOCK STREET SOUTH EXTENSION		$12,683.89
Remit to: CORONA, CA					FYTD:	$111,710.78
DOMMER, JONATHAN	219797	01/13/2014	R13-068179	AS REFUND-SPAY/NEUTER DEPOSIT		$75.00
Remit to: NUEVO, CA					FYTD:	$75.00
DORY, ALLEEN F.	219729	01/07/2014	140101	RETIREE MED JAN '14		$1,333.11
Remit to: HEMET, CA					FYTD:	$2,495.14
DUGGAN, DANA	219798	01/13/2014	R13-066670	AS REFUND-S/N AND RABIES DEPOSITS		$115.00
Remit to: RIVERSIDE, CA					FYTD:	$115.00
DURAN, BLANCA	219783	01/13/2014	DEC-2013	INSTRUCTOR SERVICES-ADULT & YOUTH FOLKLORIC DANCE CLASSES		$138.00
Remit to: MORENO VALLEY, CA					FYTD:	$873.00
E.R. BLOCK PLUMBING & HEATING, INC.	11358	01/13/2014	114020	REPLACED BACKFLOW DEVICE & MISC SUPPLIES-ZONE D		$3,558.66
			114019	REPLACED BACKFLOW DEVICE & MISC SUPPLIES-ZONE M		
			114021	REPLACED BACKFLOW DEVICE & MISC SUPPLIES-ZONE M		
			113096	REPLACED BACKFLOW DEVICE & MISC. PLUMBING SUPPLIES-ZONE M		

CHECKS UNDER $25,000

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
Remit to: RIVERSIDE, CA					FYTD:	$20,179.84
EASTERN MUNICIPAL WATER DISTRICT	219764	01/13/2014	DEC-13 1/13/14	WATER CHARGES		$24,594.33
Remit to: PERRIS, CA					FYTD:	$1,241,135.89
EGGERSTEN, ANNE	219730	01/07/2014	140101	RETIREE MED JAN '14		$208.36
Remit to: RANCHO MIRAGE, CA					FYTD:	$1,949.30
ELAM, STEPHEN	219755	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: TEMECULA, CA					FYTD:	$637.46
ESGIL CORPORATION	11457	01/27/2014	11133660	PLAN CHECK SVCS-NOV13		$2,599.38
Remit to: SAN DIEGO, CA					FYTD:	$9,679.30
EVANS ENGRAVING & AWARDS	11407	01/21/2014	1314-6 123113-2	NAMEPLATES/ENGRAVING-S. HEALTON NAMEPLATES & ENGRAVING-B. AMAYA		$43.20
Remit to: MORENO VALLEY, CA					FYTD:	$495.38
EVERITT, DAVID	219731	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: HEMET, CA					FYTD:	$2,868.57
EVOLUTION MARKETS, INC	219712	01/06/2014	49316	BROKER FEE-RENEWABLE ENERGY/FIXED PHYSICAL		$24,530.00
Remit to: WHITE PLAINS, NY					FYTD:	$24,530.00
EXCEL LANDSCAPE, INC	11408	01/21/2014	79025 79018	IRRIGATION REPAIRS-ZONE E7 IRRIGATION REPAIRS-ZONE E7		$9,171.36

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
EXCEL LANDSCAPE, INC	11408	01/21/2014	79135	LANDSCAPE MAINT-WQB/NPDES		$9,171.36
			78966	IRRIGATION REPAIRS-WQB/NPDES		
			78948	IRRIGATION REPAIRS-WQB/NPDES		
			79020	IRRIGATION REPAIRS-ZONE E7		
			79019	IRRIGATION REPAIRS-WQB/NPDES		
			79010	IRRIGATION REPAIRS-WQB/NPDES		
			79130	LANDSCAPE MAINT-ZONE E7-DEC13		
Remit to: CORONA, CA					FYTD:	$74,804.77
FAMILY SERVICE ASSOCIATION, ATTN: K. VICARIO	219799	01/13/2014	1100963	CRC RENTAL REFUND		$750.00
Remit to: MORENO VALLEY, CA					FYTD:	$750.00
FAST SIGNS	219765	01/13/2014	70-34037	LETTER NAME PLATE		$21.60
Remit to: MORENO VALLEY, CA					FYTD:	$1,474.20
FAST SIGNS	219912	01/21/2014	70-34097	LETTER NAME PLATE-TS		$21.60
Remit to: MORENO VALLEY, CA					FYTD:	$1,474.20
FEENSTRA, JOHN	11282	01/07/2014	140101	RETIREE MED JAN '14		$267.66
Remit to: REDLANDS, CA					FYTD:	$2,702.82
FIERRO, GUSTAVO	219965	01/27/2014	7011052-07	SOLAR INCENTIVE REBATE		$10,582.00
Remit to: MORENO VALLEY, CA					FYTD:	$10,582.00
FIRST AMERICAN CORE LOGIC, INC.	11257	01/06/2014	81033641	REAL QUEST WEB SVCS-NOV13 (IMAGING)		$640.00

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
FIRST AMERICAN CORE LOGIC, INC.	11257	01/06/2014	81033642	REAL QUEST WEB SVCS-NOV13 (ACCESS)		$640.00
Remit to: DALLAS, TX					FYTD:	$5,120.00
FIRST CHOICE SERVICES	11409	01/21/2014	536935	EMPLOYEE PAID COFFEE SVC-CITY YARD		$619.86
			536949	EMPLOYEE PAID COFFEE SVC-CH/CITY COUNCIL		
			536947	EMPLOYEE PAID COFFEE SVC-CH/PUBLIC WORKS		
			536948	EMPLOYEE PAID COFFEE SVC-CH/COUNCIL CHAMBERS		
			821522	EMPLOYEE PAID COFFEE SVC-CH/BREAKROOM		
			536946	EMPLOYEE PAID COFFEE SVC-CH/CITY MGR		
Remit to: ONTARIO, CA					FYTD:	$5,944.47
FITNESS 19 CA 155 11C	219923	01/27/2014	2014-00000232	8730 - GYM MEMBERSHIP*		$143.00
Remit to: MORENO VALLEY, CA					FYTD:	$1,421.50
FOCUS ESTATES, INC	219924	01/27/2014	2013-0115	MOBILE HOME GRANT-E. SILVA-RETENTION RELEASE		$1,112.00
Remit to: MORENO VALLEY, CA					FYTD:	$11,120.00
FOSTER, NANCY A.	11283	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: GRASS VALLEY, CA					FYTD:	$2,549.84
FOSTER, ZACHARY F.	11284	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: GRASS VALLEY, CA					FYTD:	$2,549.84
FRANCE PUBLICATIONS, INC.	219925	01/27/2014	SB57872	ADVERTISING-SHOPPING CTR BUS. MAGAZINE-DEC13		$6,400.00
			SB57874	ADVERTISING-SHOPPING CTR BUS. MAGAZINE-JAN14		

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
Remit to: ATLANTA, GA					FYTD:	$6,400.00
FRANCHISE TAX BOARD	219813	01/13/2014	2014-00000211	1015 - GARNISHMENT - CREDITOR %*		$212.06
Remit to: SACRAMENTO, CA					FYTD:	$9,082.23
FRANCHISE TAX BOARD	219926	01/27/2014	2014-00000223	1015 - GARNISHMENT - CREDITOR %*		$212.24
Remit to: SACRAMENTO, CA					FYTD:	$9,082.23
FRANCHISE TAX BOARD (1)	219722	01/06/2014	FY 2011-12	FORM 199 FILING FEE-MV PUBLIC FACILITIES FIN CORP		$20.00
			FY 2012-13	FORM 199 FILING FEE-MV PUBLIC FACILITIES FIN CORP		
Remit to: RANCHO CORDOVA, CA					FYTD:	$20.00
FRANKLIN, L. C.	219861	01/21/2014	12/2-12/10/13	MILEAGE REIMBURSEMENT		$87.58
Remit to: PERRIS, CA					FYTD:	$1,378.73
FRAZEE INDUSTRIES, INC	219766	01/13/2014	9530501177561	GRAFFITI REMOVAL PRODUCTS		$103.70
Remit to: LOS ANGELES, CA					FYTD:	$8,234.80
FRED'S GLASS & MIRROR, INC.	219927	01/27/2014	184792	INSTALLATION OF GLASS-SENIOR CTR DISPLAY CASE		$525.31
Remit to: RIVERSIDE, CA					FYTD:	$4,513.36
FURRY ANGELS FOUNDATION RESCUE	219879	01/21/2014	R13-066971	AS REFUND-SPAY/NEUTER DEPOSIT		$75.00
Remit to: RANCHO MIRAGE, CA					FYTD:	$75.00
FUSION SIGN AND DESIGN, INC	11410	01/21/2014	62816 BAL	WAYFINDING SIGNS		$1,595.08
Remit to: RIVERSIDE, CA					FYTD:	$132,239.51

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
G/M BUSINESS INTERIORS, INC.	219767	01/13/2014	0095499-IN	CITY HALL 2ND FLOOR PROJECT		$5,985.55
			0096158-IN	ERGON TASK CHAIR, SIZE B		
			0095879-IN	CITY HALL 2ND FLOOR PROJECT		
			0095299-IN	CITY HALL 2ND FLOOR PROJECT		
			0095298-IN	CITY HALL 2ND FLOOR PROJECT		
			0095163-IN	CITY HALL 2ND FLOOR PROJECT		
Remit to: RIVERSIDE, CA					FYTD:	$110,867.83
G/M BUSINESS INTERIORS, INC.	219928	01/27/2014	0200035-IN	CUBICLE TRANSACTION CTR-CH/CITY COUNCIL		$181.54
Remit to: RIVERSIDE, CA					FYTD:	$110,867.83
GALLEGOS, JOYCE	219880	01/21/2014	R14-069321	AS REFUND-OVERPMT ON LICENSE		$7.00
Remit to: MORENO VALLEY, CA					FYTD:	$7.00
GARCIA, MANUEL	11285	01/07/2014	140101	RETIREE MED NOV '13, PD JAN '14		$318.73
Remit to: CORONA, CA					FYTD:	$2,549.84
GARCIA, RICO	219862	01/21/2014	1/20-1/31/14	TRAVEL PER DIEM - ICI HOMICIDE INVESTIGATIONS TRAINING		$400.00
Remit to: MORENO VALLEY, CA					FYTD:	$400.00
GARDNER COMPANY, INC.	219713	01/06/2014	54120	HVAC OPTIMIZATION/PREVENTIVE MAINT-LIBRARY		$3,118.68
			54066	HVAC OPTIMIZATION/PREVENTATIVE MAINT-SENIOR CTR		
			54067	HVAC OPTIMIZATION/PREVENTATIVE MAINT-SENIOR CTR		
Remit to: MURRIETA, CA					FYTD:	$34,930.88
GARDNER COMPANY, INC.	219826	01/21/2014	53832	HVAC OPTIMIZATION/PREVENTIVE MAINT-FS#91		$941.10

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GARDNER COMPANY, INC.	219826	01/21/2014	53917	HVAC OPTIMIZATION/PREVENTIVE MAINT-CITY YARD	$941.10
			53841	HVAC OPTIMIZATION/PREVENTIVE MAINT-FS#2	
Remit to: MURRIETA, CA				FYTD:	$34,930.88
GARDNER COMPANY, INC.	219929	01/27/2014	1963	HVAC OPTIMIZATION/PREVENTIVE MAINT-SENIOR CTR	$1,955.00
			53840	HVAC OPTIMIZATION/PREVENTIVE MAINT-FS#48	
			53833	HVAC OPTIMIZATON/PREVENTIVE MAINT-FS#65	
			53834	HVAC OPTIMIZATION/PREVENTIVE MAINT-FS#6	
Remit to: MURRIETA, CA				FYTD:	$34,930.88
GARY'S CARPETING, INC	219881	01/21/2014	YR2014-B/L02637	REFUND OF OVERPAYMENT FOR B/L#02637	$26.50
Remit to: CORONA, CA				FYTD:	$26.50
GASKINS, JACQUES	219882	01/21/2014	1103292 1103293	REFUND FOR TG RENTAL DEPOSIT AND CREDIT	$500.00
Remit to: PERRIS, CA				FYTD:	$500.00
GATES, MELISSA	219800	01/13/2014	R13-066886	AS REFUND-RABIES DEPOSIT	$20.00
Remit to: PERRIS, CA				FYTD:	$20.00
GENERAL SECURITY SERVICES, INC.	11360	01/13/2014	176207	SECURITY SVCS-CRC 12/23/13	$3,516.71
			176137	SECURITY SVCS-CRC 12/16-12/19/13	
			175828	SECURITY SVCS-TOWNGATE 11/21/13	
			176154	SECURITY SVCS-CITY HALL 12/16-12/20/13	
			176068	SECURITY SVCS-LIBRARY 12/8-12/14/13	
			175706	SECURITY SVCS-TOWNGATE 11/9/13	

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description	Payment Amount
GENERAL SECURITY SERVICES, INC.	11360	01/13/2014	175767	SECURITY SVCS-CRC SPECIAL EVENTS 11/16/13	$3,516.71
			176157	SECURITY SVCS-LIBRARY 12/15-12/21/13	
			176066	SECURITY SVCS-CITY HALL 12/9-12/12/13	
			176049	SECURITY SVCS-CRC SPECIAL EVENTS 12/14/13	
			175827	SECURITY SVCS-CRC SPECIAL EVENTS 11/20/13	
			176034	SECURITY SVCS-TOWNGATE 12/14/13	
			176037	SECURITY SVCS-TOWNGATE 12/14/13	
			176047	SECURITY SVCS-CRC SPECIAL EVENTS 12/13/13	
			176048	SECURITY SVCS-CRC SPECIAL EVENTS 12/13/13	
			176206	SECURITY SVCS-CITY HALL 12/23/13	
			176131	SECURITY SVCS-TOWNGATE 12/21/13	
			176051	SECURITY SVCS-CRC SPECIAL EVENTS 12/15/13	
			176067	SECURITY SVCS-CRC 12/9-12/12/13	
			176237	SECURITY SVCS-ELECTRIC UTILITY 12/16-12/19/13 (REVISED)	
			176208	SECURITY SVCS-LIBRARY 12/22-12/28/13	
			175826	SECURITY SVCS-CRC SPECIAL EVENTS 11/22-11/23/13	
Remit to: WILMINGTON, CA				FYTD:	$42,404.94
GENERAL SECURITY SERVICES, INC.	11411	01/21/2014	176184	SECURITY SVCS-CRC SPECIAL EVENTS 12/18-12/19/13	$1,698.91
			175929	SECURITY SVCS-CRC 11/25-11/27/13	
			176183	SECURITY SVCS-CRC SPECIAL EVENTS 12/15/13	
			175220	SECURITY SVCS-SENIOR CTR 9/22/13	
			174738	SECURITY SVCS-CRC 8/5-8/8/13	

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description	Payment Amount
GENERAL SECURITY SERVICES, INC.	11411	01/21/2014	176142	SECURITY SVCS-TOWNGATE 10/5/13	$1,698.91
			176284	SECURITY SVCS-CITY HALL 1/2/14	
			176287	SECURITY SVCS-LIBRARY 12/29/13, 1/3-1/4/14	
			175973	SECURITY SVCS-CRC SPECIAL EVENT 12/7/13	
			176368	SECURITY SVCS-CRC 1/2/14	
Remit to: WILMINGTON, CA				FYTD:	$42,404.94
GENERAL SECURITY SERVICES, INC.	11459	01/27/2014	176382	SECURITY SVCS-LIBRARY 1/5-1/11/14	$579.09
			176379	SECURITY SVCS-CITY HALL 1/6-1/10/14	
Remit to: WILMINGTON, CA				FYTD:	$42,404.94
GEYSER PRESSURE WASHING	219966	01/27/2014	BL#19214/ YR2014	REFUND OF OVER PAYMENT FOR B/L#19214	$68.00
Remit to: MORENO VALLEY, CA				FYTD:	$68.00
GHOURY, MOHAMMAD A.	219883	01/21/2014	7012916-04	SOLAR INCENTIVE REBATE	$6,720.00
Remit to: MORENO VALLEY, CA				FYTD:	$6,720.00
GIBBS, GIDEN, LOCHER,TURNER, SENET & WITTBRODT LLP	11259	01/06/2014	221922-003	SILVER CREEK IND. MORRISON PARK FIRE STATION	$1,055.43
Remit to: LOS ANGELES, CA				FYTD:	$48,485.94
GIBBS, GIDEN, LOCHER,TURNER, SENET & WITTBRODT LLP	11412	01/21/2014	222295-001	LEGAL SVCS-BOND SAFEGUARD	$533.00
Remit to: LOS ANGELES, CA				FYTD:	$48,485.94

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
GIBBS, GIDEN, LOCHER,TURNER, SENET & WITTBRODT LLP	11460	01/27/2014	222511-001	LEGAL SVCS-RE: AEI-CASC (DAY ST)		$3,980.96
			222511-002	PROFESSIONAL SVCS		
			222511-003	PROFESSIONAL SERVICES		
Remit to: LOS ANGELES, CA					FYTD:	$48,485.94
GONZALES, AMERICA DEL CARMEN	219973	01/27/2014	MV3130322002	REFUND-CITATION OVERPAYMENT		$58.00
Remit to: MORENO VALLEY, CA					FYTD:	$58.00
GONZALES, CECILIA	11286	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: CORONA, CA					FYTD:	$1,274.92
GONZALES, LORENZ R.	219953	01/27/2014	7/9/13-12/17/13	MILEAGE REIMBURSEMENT		$154.82
Remit to: WILDOMAR, CA					FYTD:	$305.68
GOZDECKI, DAN	11361	01/13/2014	JAN-2014 YOUTH	INSTRUCTOR SERVICES-KUNG FU CLASS		$567.00
			JAN-2014 ADULT	INSTRUCTOR SERVICES-KUNG FU CLASS		
Remit to: MORENO VALLEY, CA					FYTD:	$5,346.00
GRAVES & KING, LLP	219827	01/21/2014	1311-0009459	LEGAL SVCS-CLAIM#MV1329 S. BOE		$16,041.02
Remit to: RIVERSIDE, CA					FYTD:	$80,455.23
GRAYSON, DAPHNE	219967	01/27/2014	1106296	COTTONWOOD RENTAL DEPOSIT REFUND		$200.00
Remit to: MORENO VALLEY, CA					FYTD:	$200.00
GRIBBELL, DAN	219801	01/13/2014	R13-068766	AS REFUND-RET ADOPT,VACS,RAB DEP		$71.00

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
Remit to: MURRIETA, CA					FYTD:	$71.00
GRIFFIN, MARLENE C	11287	01/07/2014	140101	RETIREE MED JAN '14		$208.36
Remit to: GREEN VALLEY, AZ					FYTD:	$1,949.30
GROSS, MARK D.	219863	01/21/2014	141168	REIMBURSEMENT-APA MEMBERSHIP		$545.00
Remit to: RIVERSIDE, CA					FYTD:	$725.00
GUERRERO INVESTIGATIVE SERVICES	219828	01/21/2014	DEC 2013	BACKGROUND INVESTIGATION SERVICES		$928.80
Remit to: RIVERSIDE, CA					FYTD:	$928.80
GUIDANCE SOFTWARE, INC	219829	01/21/2014	3081716	ENCASE PORTABLE V4 WITH YEARLY LICENSING FEE		$396.07
Remit to: PASADENA, CA					FYTD:	$396.07
GUILLAN, REBECCA S.	11288	01/07/2014	140101	RETIREE MED DEC '13, PD JAN '14		$304.26
Remit to: ADVANCE, NC					FYTD:	$2,392.86
GUTIERREZ, MIGUEL OR ROSEMARY	219974	01/27/2014	MV3130920030	REFUND-CITATION OVERPAYMENT		$17.50
Remit to: MORENO VALLEY, CA					FYTD:	$17.50
GUTIERREZ, ROBERT	11289	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: LA VERNE, CA					FYTD:	$2,549.84
GUTIERREZ, YXSTIAN	219723	01/06/2014	1/22-1/24/14	TRAVEL PER DIEM-LCC NEW MAYORS & COUNCIL MEMBERS ACADEMY		$152.50
Remit to: MORENO VALLEY, CA					FYTD:	$152.50

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
HAAKER EQUIPMENT	219830	01/21/2014	W31681	PARTS/REPAIRS FOR FLOOR SCRUBBER-ANIMAL SHLTR		$2,219.20
			W31404	PARTS/REPAIRS FOR FLOOR SCRUBBER-ANIMAL SHLTR		
			W31321	PARTS/REPAIRS FOR FLOOR SCRUBBER-ANIMAL SHLTR		
Remit to: LA VERNE, CA					FYTD:	$2,219.20
HABITAT FOR HUMANITY RIVERSIDE	11413	01/21/2014	DRAW NO. 04	NSP 3 - 8 SINGLE FAMILY HOMES-24265 MYERS AVE		$15,315.32
Remit to: RIVERSIDE, CA					FYTD:	$112,745.73
HAMLIN, WILLIAM R.	11290	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: BEAUMONT, CA					FYTD:	$2,549.84
HANES, MARTIN D.	11291	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: MORENO VALLEY, CA					FYTD:	$2,549.84
HARDING, JOHN	219732	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: BANNING, CA					FYTD:	$2,549.84
HARRISON-MOORE, EILEEN	219802	01/13/2014	R13-068620	AS REFUND-TRAP DEPOSIT		$50.00
Remit to: MORENO VALLEY, CA					FYTD:	$50.00
HARTMANN, RICK	219733	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: SAN DIMAS, CA					FYTD:	$2,549.84
HATFIELD, CHARLES	11292	01/07/2014	140101	RETIREE MED JAN '14		$188.23
Remit to: LAS VEGAS, NV					FYTD:	$1,856.88

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HDR ENGINEERING, INC.	219714	01/06/2014	117575-B	MV MASTER DRAINAGE LINE F		$900.53
Remit to: OMAHA, NE					FYTD:	$9,369.54
HEATH, DANIELLE	219968	01/27/2014	7013526-02	SOLAR INCENTIVE REBATE		$11,660.00
Remit to: MORENO VALLEY, CA					FYTD:	$11,660.00
HEFFLEY, ROSS W.	11293	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: HEMET, CA					FYTD:	$2,549.84
HENDERSON, GINA	219954	01/27/2014	FALL 2013	TUITION REIMBURSEMENT		$1,500.00
Remit to: MORENO VALLEY, CA					FYTD:	$1,500.00
HERRICK, ROBERT D.	219734	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: MORENO VALLEY, CA					FYTD:	$2,549.84
HILLCREST CONTRACTING, INC	11461	01/27/2014	PB 22564	PERRIS BLVD IMPROVEMENT		$22,087.70
Remit to: CORONA, CA					FYTD:	$806,548.14
HOFFMAN, VERONICA	219803	01/13/2014	R14-068954	AS REFUND-DIFF FR 3 YR TO 1 YR LICENSE		$53.00
Remit to: MORENO VALLEY, CA					FYTD:	$53.00
HOGARD, JOHN T.	11294	01/07/2014	140101	RETIREE MED APRIL-DEC '13, PD JAN '14		$2,043.65
Remit to: CORONA, CA					FYTD:	$2,043.65
HOLGUIN, SYLVIA	219884	01/21/2014	1104248	REFUND CALSS CANCELLED INSTRUCTOR NO LONGER AVAILABLE		$45.00
Remit to: MORENO VALLEY, CA					FYTD:	$45.00

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
HOLT, ANITRA N	219735	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: CLERMONT, FL					FYTD:	$2,549.84
HONDA YAMAHA OF REDLANDS	219768	01/13/2014	29513	MAINT & REPAIRS-TRAFFIC MOTORCYCLES		$1,042.08
Remit to: REDLANDS, CA					FYTD:	$4,835.24
HOUSER, EDITH E.	219736	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: MORENO VALLEY, CA					FYTD:	$2,549.84
HUSPEK, CLAIRE	219885	01/21/2014	R14-069114	AS REFUND-ADOPTION,CHIP,LIC,VAC		$82.00
Remit to: MORENO VALLEY, CA					FYTD:	$82.00
ICMA RETIREMENT CORP	11386	01/10/2014	2014-00000215	8030 - DEF COMP 457 - ICMA		$10,124.93
Remit to: BALTIMORE, MD					FYTD:	$136,484.86
ICMA RETIREMENT CORP	11442	01/24/2014	2014-00000228	8030 - DEF COMP 457 - ICMA		$10,124.93
Remit to: BALTIMORE, MD					FYTD:	$136,484.86
IES COMMERCIAL, INC	11260	01/06/2014	104137	FRONT LOBBY DOOR REPAIRS-ANIMAL SHELTER		$225.00
			104138	FRONT LOBBY DOOR REPAIRS-ANIMAL SHELTER		
Remit to: TEMPE, AZ					FYTD:	$12,407.31
ING USA ANNUITY & LIFE INSURANCE CO.	219930	01/27/2014	2014-00000224	8792 - ING - EMPLOYEE *		$325.00
Remit to: DES MOINES, IA					FYTD:	$2,600.00
INLAND EMPIRE BIKING ALLIANCE	219831	01/21/2014	1001	RIDE MOVAL BIKE RACE SUPPLIES		$3,395.85

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INLAND EMPIRE BIKING ALLIANCE	219831	01/21/2014	1002	CONSULTING SVCS-RIDE MOVAL BIKING EVENT		$3,395.85
Remit to: BANNING, CA					FYTD:	$3,395.85
INLAND EMPIRE PROPERTY SERVICE, INC	11441	01/21/2014	3174	MAINTENANCE SVCS-27913 COTTONWOOD AVE		$9,299.00
Remit to: MORENO VALLEY, CA					FYTD:	$75,175.93
INSIDE PLANTS, INC.	219832	01/21/2014	49560	INDOOR PLANTS MAINT-JAN14		$327.00
Remit to: CORONA, CA					FYTD:	$2,616.00
INTERNAL REVENUE SERVICE CENTER	11385	01/10/2014	F140101	4TH QTR 2013 TAX DEPOSIT		$2,000.00
Remit to: OGDEN, UT					FYTD:	$2,316,712.90
J D H CONTRACTING	11462	01/27/2014	012114-01	REMOVAL OF 3 COLUMNS AT THE LIBRARY		$2,940.00
Remit to: RIVERSIDE, CA					FYTD:	$64,358.87
JANNEY & JANNEY ATTORNEY SVCS, INC.	219931	01/27/2014	00131233036	MONTHLY RETAINER-DELIVERY OF COURT FILINGS-JAN14		$75.00
Remit to: RIVERSIDE, CA					FYTD:	$915.00
JEFF MCNEAL PRODUCTIONS, LLC	219784	01/13/2014	104	DEPOSIT- 6/26/14 PERFORMANCE (CRC)		$375.00
Remit to: TEMECULA, CA					FYTD:	$750.00
JENKINS, PAUL	11295	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: LAS VEGAS, NV					FYTD:	$1,593.65
JOHNSON, DARLENE	219804	01/13/2014	R13-068767	AS REFUND-S/N AND RABIES DEPOSITS		$95.00

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Remit to: MORENO VALLEY, CA					FYTD:	$95.00
JOHNSON, ELLEN	219737	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: MORENO VALLEY, CA					FYTD:	$2,231.11
JONES, SUSAN	11296	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: MORENO VALLEY, CA					FYTD:	$2,549.84
KDM MERIDIAN, INC.	11362	01/13/2014	3459	CITYWIDE PEDESTRIAN ENHANCEMENTS		$3,055.00
Remit to: LAKE FOREST, CA					FYTD:	$18,225.00
KEN STARR, INC.	219886	01/21/2014	B1302704	REFUND 80% OF PERMIT FEE FOR CANCELLED PROJECT-22650 MORALIA DR.		$146.32
Remit to: ANAHEIM, CA					FYTD:	$146.32
KENNEY, ROBERT W	219814	01/13/2014	100	1/22/14 BASIC HOMICIDE SCHOOL REGISTR.-J. MANJARREZ & V. MAGANA		$640.00
Remit to: YORBA LINDA, CA					FYTD:	$640.00
KEPLER, JANELLE	11414	01/21/2014	JAN-2014	INSTRUCTOR SERVICES-CHEERLEADING 101 & HIP HOP JAZZ CLASSES		$405.20
Remit to: RIVERSIDE, CA					FYTD:	$3,768.40
KIMLEY-HORN & ASSOC., INC.	11261	01/06/2014	5299982	TRANSPORTATION MANAGEMENT CENTER		$10,745.58
Remit to: CITY OF INDUSTRY, CA					FYTD:	$47,489.35
KING, PATRICIA A.	219738	01/07/2014	140101	RETIREE MED JAN '14		$188.23
Remit to: LAS VEGAS, NV					FYTD:	$1,640.90

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
KOLB, CHARLES E.	11297	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: MORENO VALLEY, CA					FYTD:	$2,549.84
KOLLAR, KYLE	11298	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: MORENO VALLEY, CA					FYTD:	$2,549.84
KOSMONT COMPANIES	219932	01/27/2014	0001	ECONOMIC DEVT. CONSULTANT-OCT13		$12,967.95
			0003	ECONOMIC DEVT. CONSULTANT-DEC13		
			0002	ECONOMIC DEVT.CONSULTANT-NOV13		
Remit to: LOS ANGELES, CA					FYTD:	$12,967.95
KRONICK, MOSKOVITZ, TIEDEMANN & GIRARD	11415	01/21/2014	270019	LEGAL SVCS-DISSOLUTION OF REDEVELOPMENT		$3,437.50
Remit to: SACRAMENTO, CA					FYTD:	$9,214.00
KTU+A	11363	01/13/2014	26451	BICYCLE MASTER PLAN		$24,440.76
			26370	BICYCLE MASTER PLAN UPDATE		
			26324	BICYCLE MASTER PLAN UPDATE		
Remit to: SAN DIEGO, CA					FYTD:	$56,859.70
KUPSAK, STEVE	11299	01/07/2014	140101	RETIREE MED NOV '13, PD JAN '14		$318.73
Remit to: LAS VEGAS, NV					FYTD:	$1,759.31
KYLE, GARY M.	11300	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: PRESCOTT VALLEY, AZ					FYTD:	$2,549.84

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LA FOLLETTE, JOHNSON, DE HAAS, FESLER & AMES	219833	01/21/2014	274292	LEGAL SVCS-RE: E. BALCAZAR		$8,815.68
Remit to: LOS ANGELES, CA					FYTD:	$55,477.13
LAFATA, JOSEPHINE	11301	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: MORENO VALLEY, CA					FYTD:	$2,549.84
LANCE, SOLL & LUNGHARD, LLP	219834	01/21/2014	9173	AUDIT SVCS-2013 SINGLE AUDIT		$3,976.00
			9174	AUDIT SVCS-CHILD CARE PROGRM-FINAL		
Remit to: BREA, CA					FYTD:	$78,290.00
LANGDON, KELSEY	219805	01/13/2014	R13-066499	AS REFUND-RABIES DEPOSIT		$20.00
Remit to: MORENO VALLEY, CA					FYTD:	$20.00
LEAGUE OF CALIFORNIA CITIES-RIV CNTY DIV 1	219836	01/21/2014	1/13/14 GEN. MTG	ATTENDANCE OF GENERAL MEETING FOR COUNCIL MBR. JESSE L. MOLINA		$40.00
Remit to: MIRA LOMA, CA					FYTD:	$685.00
LEE & STIRES, INC	219887	01/21/2014	YR2014-B/L#03885	REFUND OF OVERPAYMENT FOR B/L#03885		$33.61
Remit to: MONTCLAIR, CA					FYTD:	$33.61
LEE, JERI	219864	01/21/2014	DEC-2013	INSTRUCTOR SERVICES-ZUMBA KIDS CLASS		$72.00
Remit to: MORENO VALLEY, CA					FYTD:	$542.80
LEE, JERI	219955	01/27/2014	JAN-2014	INSTRUCTOR SERVICES-ZUMBA KIDS CLASS		$36.00
Remit to: MORENO VALLEY, CA					FYTD:	$542.80
LEIGHTON CONSULTING, INC.	11416	01/21/2014	13849	MV MASTER DRAINAGE LINE F		$20,025.50

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
LEIGHTON CONSULTING, INC.	11416	01/21/2014	13266	MV MASTER DRAINAGE LINE F		$20,025.50
			13638	MV MASTER DRAINAGE LINE F		
Remit to: IRVINE, CA					FYTD:	$128,249.28
LEIGHTON CONSULTING, INC.	11463	01/27/2014	14105	MV MASTER DRAINAGE LINE F		$3,928.00
Remit to: IRVINE, CA					FYTD:	$128,249.28
LEIVAS, INC. DBA. LEIVAS LIGHTING	11364	01/13/2014	236308	LANDSCAPE LIGHTING MAINT-ZONE D ADDL WORK		$1,718.25
			236305	LANDSCAPE LIGHTNING MAINT-ZONE E7 ADDL WORK		
			236307	LANDSCAPE LIGHTING MAINT-ZONE D ADDL WORK		
			236306	LANDSCAPE LIGHTING MAINT-ZONE E1 ADDL WORK		
Remit to: RIVERSIDE, CA					FYTD:	$8,505.65
LEIVAS, INC. DBA. LEIVAS LIGHTING	11417	01/21/2014	236393	LANDSCAPE LIGHTING MAINT-DEC13		$150.00
Remit to: RIVERSIDE, CA					FYTD:	$8,505.65
LEWIS, CAROLYN S.	11302	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: MIDLAND, TX					FYTD:	$2,419.34
LEXISNEXIS PRACTICE MGMT.	11418	01/21/2014	1312081468	LEGAL RESEARCH TOOLS-CITY ATTY-DEC13		$1,180.00
Remit to: LOS ANGELES, CA					FYTD:	$9,440.00
LIEBERT, CASSIDY, WHITMORE	219837	01/21/2014	174096	LEGAL SVCS-CL#MO140-00013		$18,138.45
Remit to: LOS ANGELES, CA					FYTD:	$43,111.45

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
LINDO, HERMINA G.	11303	01/07/2014	140101	RETIREE MED NOV '13 (MED), PD JAN '14		$232.62
Remit to: TITUSVILLE, FL					FYTD:	$1,963.96
LOERA, JUAN	219806	01/13/2014	1102221	REFUND DUE TO CLIENT CANCALLED FIELD RESERVATION		$48.00
Remit to: MORENO VALLEY, CA					FYTD:	$48.00
LOGAN, CHARLES	11304	01/07/2014	140101	RETIREE MED JAN '14		$188.23
Remit to: LAS VEGAS, NV					FYTD:	$1,531.14
LONGDYKE, DENNIS	11305	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: BEAUMONT, CA					FYTD:	$2,549.84
LUMLEY, ROBERT C.	11306	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: MORENO VALLEY, CA					FYTD:	$2,549.84
LYNCH. PATRICK	219865	01/21/2014	1/25-1/29/14	TRAVEL PER DIEM-CDR SUMMIT/TECHNICIAN CLASSES		$215.00
Remit to: MORENO VALLEY, CA					FYTD:	$215.00
MALCOLM SMITH MOTORCYCLES, INC.	11365	01/13/2014	100105821	MAINT & REPAIRS-TRAFFIC MOTORCYCLES		$1,882.22
			100107832	MAINT & REPAIRS-TRAFFIC MOTORCYCLES		
Remit to: RIVERSIDE, CA					FYTD:	$10,747.94
MARINA LANDSCAPE, INC	11419	01/21/2014	8216111300	LANDSCAPE MAINT.-ZONE E-1 & E-1A-NOV13		$11,466.68
			8216121300	LANDSCAPE MAINT.-ZONE E-1 & E-1A-DEC13		
Remit to: ANAHEIM, CA					FYTD:	$59,689.88

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
MARIPOSA HORTICULTURAL ENTERPRISES, INC.	11420	01/21/2014	62261	LANDSCAPE MAINT-UTILITY-NOV13		$9,619.08
			62247	LANDSCAPE MAINT-VANDENBRG/FAY AQDCT-NOV13		
			62246	LANDSCAPE MAINT-DELPH/PERHAM-JFK AQDCT-NOV13		
			62245	LANDSCAPE MAINT-BAY/GRAHAM AQDCT-NOV13		
			62244	LANDSCAPE MAINT-TWNGTE AQDCT BIKEWY-NOV13		
			62033	LANDSCAPE MAINT-TWNGTE COMM CTR-NOV13		
			62248	LANDSCAPE MAINT-NORTH AQDCT-NOV13		
			62249	LANDSCAPE MAINT-PAN AM AQDCT-NOV13		
			62251	LANDSCAPE MAINT-SOUTH AQDCT B-NOV13		
			62252	ANDSCAPE MAINT-SCE/OLD LAKE DR-NOV13		
			62253	LANDSCAPE MAINT-ANIMAL SHLTR-NOV13		
			62254	LANDSCAPE MAINT-ASES BLDG-NOV13		
			62255	LANDSCAPE MAINT-CITY YARD-NOV13		
			62260	LANDSCAPE MAINT-SENIOR CTR-NOV13		
			62257	LANDSCAPE MAINT-ELECTRIC SUBSTATION-NOV13		
			62259	LANDSCAPE MAINT-PSB-NOV13		
			62250	LANDSCAPE MAINT-SOUTH AQDCT A-NOV13		
Remit to: IRWINDALE, CA					FYTD:	$263,729.57
MATHIS, NOLAN	11307	01/07/2014	140101	RETIREE MED NOV '13, PD JAN '14		$298.20
Remit to: JACKSON, KY					FYTD:	$2,385.60
MAXINOSKI, SUE A.	11308	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: AVINGER, TX					FYTD:	$2,549.84

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
MAYA, MARIA	219888	01/21/2014	R13-068344	AS REFUND-ADOPTION,CHIP,VACS,RAB DEP		$70.00
Remit to: PERRIS, CA					FYTD:	$70.00
MCCOMB, MONIKA	219889	01/21/2014	R13-068120&128	AS REFUND-S/N DEPOSITS ON 2 ANIMALS		$150.00
Remit to: NORCO, CA					FYTD:	$150.00
MEEKS, DANIEL	11421	01/21/2014	121513	SPORTS OFFICIATING SERVICES-SOFTBALL		$100.00
			010214	SPORTS OFFICIATING SERVICES-SOFTBALL		
Remit to: PERRIS, CA					FYTD:	$1,840.00
MENGISTU, YESHIALEM	219866	01/21/2014	12/2-12/20/13	MILEAGE REIMBURSEMENT		$138.43
Remit to: MORENO VALLEY, CA					FYTD:	$1,096.60
MESSIN, LOUIS	11309	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: BULLHEAD CITY, AZ					FYTD:	$2,549.84
MILES, ROBERT	11310	01/07/2014	140101	RETIREE MED JAN '14		$179.21
Remit to: MORENO VALLEY, CA					FYTD:	$1,236.34
MINARD, MARK E.	11311	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: REDLANDS, CA					FYTD:	$2,549.84
MIRACLE RECREATION EQUIPMENT	11366	01/13/2014	744674	PLAYGROUND EQUIPMENT PARTS-CFD#1		$699.94
Remit to: CHICAGO, IL					FYTD:	$472,660.01
MOLLICA, MIKE	11312	01/07/2014	140101	RETIREE MED JAN '14		$401.42

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
Remit to: DUNNELLON, FL					FYTD:	$3,211.36
MONROVIA NURSERY COMPANY	11367	01/13/2014	987351	LANDSCAPING MATERIALS (BAL.ON INVOICE)		$11.88
Remit to: AZUSA, CA					FYTD:	$1,780.94
MONTERROSA, BLANCA	219890	01/21/2014	R13-066382	AS REFUND-RABIES DEPOSIT		$20.00
Remit to: MORENO VALLEY, CA					FYTD:	$20.00
MONTGOMERY KEITH COMPANY	219891	01/21/2014	YR2014-B/L#25998	REFUND OF OVERPAYMENT FOR B/L#25998		$12.50
Remit to: COSTA MESA, CA					FYTD:	$12.50
MONTGOMERY PLUMBING INC	219839	01/21/2014	121113	PLUMBING SERVICES-CRC BOILER -WO#13-2175		$125.00
Remit to: MORENO VALLEY, CA					FYTD:	$5,678.50
MONTGOMERY PLUMBING INC	219933	01/27/2014	122313	REPAIR OF WASH SINK AT LIBRARY - WO#13-0074		$525.00
Remit to: MORENO VALLEY, CA					FYTD:	$5,678.50
MOOSEPOINT TECHNOLOGY, INC.	219934	01/27/2014	MVHOST0114	GIS INTERNET SITE HOSTING SVCS-FINAL PMT		$250.00
Remit to: SONOMA, CA					FYTD:	$3,370.00
MORA, PATRICIA A.	11313	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: MORENO VALLEY, CA					FYTD:	$2,549.84
MORALES, KAREN R.	219739	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: PERRIS, CA					FYTD:	$1,274.92
MORENO VALLEY CHAMBER OF COMMERCE	219785	01/13/2014	3998	WAKE-UP MEETING ATTENDANCE-12/18/13		$60.00

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
Remit to: MORENO VALLEY, CA					FYTD:	$12,591.07
MORENO VALLEY CHAMBER OF COMMERCE	219867	01/21/2014	3983	GOLD CHAIRMAN'S CIRCLE JAN-DEC. 2014		$10,000.00
Remit to: MORENO VALLEY, CA					FYTD:	$12,591.07
MORENO VALLEY CITY EMPLOYEES ASSOC.	11387	01/10/2014	2014-00000216	8710 - MVCEA EMPLOYEE DUES		$1,312.00
Remit to: MORENO VALLEY, CA					FYTD:	$20,150.50
MORENO VALLEY CITY EMPLOYEES ASSOC.	11443	01/24/2014	2014-00000229	8710 - MVCEA EMPLOYEE DUES		$1,316.00
Remit to: MORENO VALLEY, CA					FYTD:	$20,150.50
MORENO VALLEY COMMUNITY BAND	219770	01/13/2014	110	GRANT FUNDS AGREEMENT SUPPORT/COMMUNITY REC PROGRAMS		$5,000.00
Remit to: MORENO VALLEY, CA					FYTD:	$5,000.00
MORENO VALLEY HISPANIC CHAMBER OF COMMER	219956	01/27/2014	01/21/2014	ANNUAL MEMBERSHIP TO MV HISPANIC CHAMBER OF COMMERCE		$300.00
Remit to: MORENO VALLEY, CA					FYTD:	$460.00
MORENO VALLEY UNIFIED SCHOOL DISTRICT	219840	01/21/2014	140569	CUSTODIAL USE OF VVHS 7/4/13 AND MTN VIEW MIDDLE 7/3 & 7/4/13		$1,404.00
Remit to: MORENO VALLEY, CA					FYTD:	$1,904.00
MORGAN, LISA A.	11314	01/07/2014	140101	RETIREE MED JAN '14		$276.50
Remit to: MENTONE, CA					FYTD:	$2,465.38
MOTOPORT USA	219771	01/13/2014	141257	NEW REPLACEMENT UNIFORMS FOR TRAFFIC MOTOR OFFICERS		$785.22

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description	Payment Amount
Remit to: SAN MARCOS, CA				FYTD:	$8,658.69
MSDS ONLINE, INC	219909	01/21/2014	429961	ANNUAL ACCOUNT & SITE RENEWAL	$2,599.00
Remit to: CHICAGO, IL				FYTD:	$2,599.00
MTGL, INC	11368	01/13/2014	48132	MTGL - CITYWIDE PEDESTRIAN	$895.00
Remit to: ANAHEIM, CA				FYTD:	$2,530.00
MUNI-FED ENERGY, INC.	11423	01/21/2014	1023	E-SERIES EQUIPMENT LEASE-JAN '14	$851.43
Remit to: LONG BEACH, CA				FYTD:	$5,404.73
MURPHY, JILL	219892	01/21/2014	1104295	REFUND CALSS CANCELLED DUE TO LACK OF REGISTRATION	$87.00
Remit to: MORENO VALLEY, CA				FYTD:	$87.00
NAIOP-NATIONAL ASSOC OF INDUSTRIAL & OFF	219842	01/21/2014	1-000084322	ADVERTISEMENT IN DEVELOPMENT MAGAZINE	$395.00
Remit to: CHANTILLY, VA				FYTD:	$395.00
NATIONWIDE RETIREMENT SOLUTIONS CP	11389	01/10/2014	2014-00000218	8020 - DEF COMP PST - NATIONWIDE	$1,058.80
Remit to: COLUMBUS, OH				FYTD:	$512,941.33
NATIONWIDE RETIREMENT SOLUTIONS CP	11444	01/24/2014	2014-00000230	8020 - DEF COMP PST - NATIONWIDE	$1,596.51
Remit to: COLUMBUS, OH				FYTD:	$512,941.33
NAVARRETTE, RALPH	11315	01/07/2014	140101	RETIREE MED JAN '14	$179.21
Remit to: RANCHO CUCAMONGA, CA				FYTD:	$1,236.34

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
NAVCO NETWORKS & SECURITY	11369	01/13/2014	360113	PURCHASE & INSTALLATION OF NEW STATION SURVEILLANCE EQUIPMENT		$7,179.32
Remit to: ANAHEIM, CA					FYTD:	$8,439.32
NELSON PAVING	219843	01/21/2014	1112330	SEAL COAT AND STRIPING OF PARKING LOT & ENTRY AT CRC		$16,342.00
			1112334	SEAL COAT AND STRIPING OF PARKING LOT AT ANIMAL SHELTER		
Remit to: PERRIS, CA					FYTD:	$16,342.00
NELSON, ROBERT	11316	01/07/2014	140101	RETIREE MED JAN '14		$208.36
Remit to: ONTARIO, CA					FYTD:	$1,949.30
NEUSTAEDTER, CRAIG S	219740	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: IRVINE, CA					FYTD:	$2,549.84
NGUYEN, SON L.	219893	01/21/2014	ACCT. 7008092-03	SOLAR INCENTIVE REBATE		$6,884.00
Remit to: MORENO VALLEY, CA					FYTD:	$6,884.00
NIEBURGER, JUDITH A.	219741	01/07/2014	140101	RETIREE MED JAN '14		$401.42
Remit to: MORENO VALLEY, CA					FYTD:	$3,211.36
NINYO & MOORE GEOTECHNICAL	11262	01/06/2014	177153	SR-60 MORENO BEACH PHASE 1		$2,100.25
Remit to: SAN DIEGO, CA					FYTD:	$25,401.50
NOBEL SYSTEMS	11263	01/06/2014	13108	UPDATING STORM DRAIN FEATURES INTO GIS		$9,960.00
Remit to: SAN BERNARDINO, CA					FYTD:	$18,360.00
NOSSAMAN	219935	01/27/2014	421565	LEGAL SERVICES		$1,782.00

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
Remit to: LOS ANGELES, CA					FYTD:	$12,515.69
ORMSBY, CHRISTOPHER B.	219868	01/21/2014	REIMB. 01/13/14	REIMBURSEMENT FOR MAILING OF PLANNING COMMISSION PACKETS & RFP		$104.24
Remit to: RIVERSIDE, CA					FYTD:	$293.86
OROZCO, BRENDA	219894	01/21/2014	R13-066651	AS REFUND-SPAY/NEUTER DEPOSIT		$75.00
Remit to: PERRIS, CA					FYTD:	$75.00
ORROCK, POPKA, FORTINO & BRISLIN	11424	01/21/2014	90-039M STMT 5	LEGAL DEFENSE COSTS - M. MOSLEY CASE		$5,525.73
			90-038M STMT 5	LEGAL DEFENSE COSTS - N. THOMPSON CASE		
			90-040M STMT 2	LEGAL DEFENSE COSTS - WALDEN ENVIRONMENT CASE		
			90-037M STMT 7	LEGAL DEFENSE COSTS - O. RODRIGUEZ CASE		
Remit to: RIVERSIDE, CA					FYTD:	$25,508.82
ORTIZ, TATIANA	219895	01/21/2014	1102913	REFUND RENTAL DEPOSIT CONTRACT 25249 SR CTR		$300.00
Remit to: MORENO VALLEY, CA					FYTD:	$300.00
PACIFIC TELEMANAGEMENT SERVICES	11425	01/21/2014	604258a	STATION PAY PHONE SERVICES		$313.20
			604258	PAY PHONE SERVICES		
Remit to: SAN RAMON, CA					FYTD:	$2,850.12
PARADIGM ENERGY CONSULTING	11371	01/13/2014	MVU-10-2013	CONSULTING SERVICES RE: MV UTILITY 10-YR RESOURCE PLAN		$9,350.00
			MVU-11-2013	CONSULTING SERVICES RE: MV UTILITY 10-YR RESOURCE PLAN		
Remit to: SACRAMENTO, CA					FYTD:	$38,774.98

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
PATTERSON, ALFREY	219742	01/07/2014	140101	RETIREE MED JAN '14		$179.21
Remit to: MORENO VALLEY, CA					FYTD:	$1,236.34
PAUL GROTEFEND	219753	01/07/2014	1/6-1/10/14	PER DIEM-COMPUTER CRIME/INV OF INTERNET CRIME		$250.00
Remit to: MORENO VALLEY, CA					FYTD:	$250.00
PERRY, NORMA	11317	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: LOCKEFORD, CA					FYTD:	$2,549.84
PERS LONG TERM CARE PROGRAM	219815	01/13/2014	2014-00000212	4720 - PERS LONG TERM CARE		$458.63
Remit to: PASADENA, CA					FYTD:	$7,796.71
PERS LONG TERM CARE PROGRAM	219936	01/27/2014	2014-00000225	4720 - PERS LONG TERM CARE		$458.63
Remit to: PASADENA, CA					FYTD:	$7,796.71
PERS RETIREMENT	11271	01/03/2014	P131206a	PERS RETIREMENT - CLASSIC		$2,276.08
Remit to: SACRAMENTO, CA					FYTD:	$3,875,402.20
PERS RETIREMENT	11272	01/03/2014	P131206b	PERS RETIREMENT - PEPRA		$9,550.44
Remit to: SACRAMENTO, CA					FYTD:	$3,875,402.20
PERS RETIREMENT	11394	01/10/2014	P131220b	PERS RETIREMENT - PEPRA		$10,750.40
Remit to: SACRAMENTO, CA					FYTD:	$3,875,402.20
PERS RETIREMENT	11395	01/17/2014	P131220a	PERS RETIREMENT - CLASSIC		$1,249.47

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
Remit to: SACRAMENTO, CA					FYTD:	$3,875,402.20
PERS RETIREMENT	11577	01/31/2014	P140103a	PERS RETIREMENT - CLASSIC		$1,352.77
Remit to: SACRAMENTO, CA					FYTD:	$3,875,402.20
PERS RETIREMENT	11578	01/31/2014	P140103b	MISCELLANEOUS SERVICES		$10,410.02
Remit to: SACRAMENTO, CA					FYTD:	$3,875,402.20
PINA, AURORA	219896	01/21/2014	1105768	CRC RENTAL REFUND		$750.00
Remit to: RIVERSIDE, CA					FYTD:	$750.00
PITASSI ARCHITECTS, INC	11426	01/21/2014	13691	CORPORATE YARD FACILITY & SEWER		$15,215.20
Remit to: RANCHO CUCAMONGA, CA					FYTD:	$15,215.20
POUNDS, NANCY	11318	01/07/2014	140101	RETIREE MED DEC '13, PD JAN '14		$318.73
Remit to: BOISE, ID					FYTD:	$2,549.84
PRASCH, SHASTA	219897	01/21/2014	1104291	REFUND CLASS CANCELLED DUE TO LACK OF REGISTRATION		$52.00
Remit to: MORENO VALLEY, CA					FYTD:	$52.00
PRICE, GEORGE E.	11319	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: MORENO VALLEY, CA					FYTD:	$2,549.84
PROFESSIONAL COMMUNICATIONS NETWORK PCN	219938	01/27/2014	140100450	LIVE ANSWERING SERVICE FOR TOW PROGRAM		$493.55
Remit to: RIVERSIDE, CA					FYTD:	$5,076.65

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
PRUD'HOMME, OLIVIER	219786	01/13/2014	103	DEPOSIT FOR CONCERT PERFORMANCE ON 7/24/14 AT CRC		$300.00
Remit to: STUDIO CITY, CA					FYTD:	$300.00
PULLIAM, TRENT D.	11320	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: MISSION VIEJO, CA					FYTD:	$2,549.84
PUSEY, AUDREY	219898	01/21/2014	#14002096	REFUND GRANTED APPEAL BY PD		$32.00
Remit to: MORENO VALLEY, CA					FYTD:	$32.00
RAIMI & ASSOCIATES, INC	11372	01/13/2014	13-736	HIGHWAY 60 CORRIDOR STUDY (PA13-0003)		$11,225.84
Remit to: BERKELEY, CA					FYTD:	$30,073.72
RAIMI & ASSOCIATES, INC	11427	01/21/2014	13-740	HIGHWAY 60 CORRIDOR STUDY (PA13-0003)		$2,605.83
Remit to: BERKELEY, CA					FYTD:	$30,073.72
RAMEY, PETER	11321	01/07/2014	140101	RETIREE MED OCT-DEC '13, PD JAN '14		$956.19
Remit to: MORENO VALLEY, CA					FYTD:	$5,418.41
RAMOS, ROBERTO	219869	01/21/2014	DEC-2013	INSTRUCTOR SERVICES-KINDER KARATE & TAE KWON DO CLASSES		$234.00
Remit to: MORENO VALLEY, CA					FYTD:	$4,605.80
RAY-RAMIREZ, DARCY L.	219743	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: RIVERSIDE, CA					FYTD:	$2,549.84
RESCUE ROOTER	219845	01/21/2014	263529	HYDROJET & PUMP OUT GREASE TRAP AT SENIOR CENTER		$720.00
Remit to: RIVERSIDE, CA					FYTD:	$720.00

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
RICK ENGINEERING COMPANY	11264	01/06/2014	0034259	SURVEYING SERVICES - MV LINE F		$8,060.00
Remit to: RIVERSIDE, CA					FYTD:	$68,017.50
RICK ENGINEERING COMPANY	11428	01/21/2014	34709	LINE F STAGE 2		$5,330.00
			34710	KENTLAND LANE, WILSON PLACE AND KENNY DR		
Remit to: RIVERSIDE, CA					FYTD:	$68,017.50
RICK ENGINEERING COMPANY	11464	01/27/2014	35098	KENTLAND LANE, WILSON PLACE AND KENNY DRIVE		$7,947.50
			35107	CACTUS AVENUE / NASON STREET IMPROVEMENT		
Remit to: RIVERSIDE, CA					FYTD:	$68,017.50
RICKS, JAMES	219744	01/07/2014	140101	RETIREE MED DEC '13, PD JAN '14		$318.73
Remit to: MORENO VALLEY, CA					FYTD:	$637.46
RIGHTWAY SITE SERVICES, INC.	219846	01/21/2014	734057	PORTABLE RESTROOMS/SVC-EQUESTRIAN CENTER		$525.90
			734058	PORTABLE RESTROOMS/SVC-MARCH MIDDLE SCHOOL		
			734056	PORTABLE RESTROOM/SVC-COTTONWOOD GOLF COURSE		
Remit to: LAKE ELSINORE, CA					FYTD:	$6,002.35
RIVERSIDE COUNTY HABITAT CONSERVATION	219787	01/13/2014	4TH QTR 2013	STEPHEN'S KANGAROO RAT MITIGATION FEES-4TH QTR ENDING 12/31/13		$13,400.00
Remit to: RIVERSIDE, CA					FYTD:	$117,120.00
RLZ ENGINEERING	11265	01/06/2014	1213-F	PROFESSIONAL CONSULTANT SERVICES		$9,637.50
			1213	PROFESSIONAL CONSULTING SERVICES		
Remit to: CORONA, CA					FYTD:	$42,600.00

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
RODRIGUEZ, TALISA	219899	01/21/2014	R13-068757	AS REFUND-RABIES AND S/N DEPOSIT		$95.00
Remit to: MORENO VALLEY, CA					FYTD:	$95.00
ROGERS, EUGENE	11322	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: PEBBLE BEACH, CA					FYTD:	$2,549.84
ROSS, DAVID T.	11323	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: MORENO VALLEY, CA					FYTD:	$2,549.84
ROSSON, LOUIS A.	11324	01/07/2014	140101	RETIREE MED JAN '14		$368.97
Remit to: PERRIS, CA					FYTD:	$2,164.16
ROUNSLEY, CAROL	219969	01/27/2014	CK#212998 6/4/12	REISSUE UNCLAIMED CK FOR RENTAL REFUND		$500.00
Remit to: LAKE ELSINORE, CA					FYTD:	$500.00
RUSSO, JOHN	11325	01/07/2014	140101	RETIREE MED JAN '14		$179.21
Remit to: RANCHO MIRAGE, CA					FYTD:	$1,236.34
SALAIZ, STEVE	219957	01/27/2014	JAN-2014	INSTRUCTOR SERVICES-TAE KWON DO CLASS		$39.00
Remit to: MIRA LOMA, CA					FYTD:	$354.00
SALVATION ARMY	219724	01/06/2014	1098802	REFUND FOR CRC BALLROOM RENTAL		$200.00
Remit to: MORENO VALLEY, CA					FYTD:	$200.00
SAMRA, AMARINDER	219975	01/27/2014	MV3130702053	REFUND-CITATION OVERPAYMENT		$115.00
Remit to: MOUNTAIN HOUSE, CA					FYTD:	$115.00

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
SANTE FE PLUMBING	219900	01/21/2014	YR2014-B/L#26844	REFUND OF OVERPAYMENT FOR B/L#26844		$44.25
Remit to: YORBA LINDA, CA					FYTD:	$44.25
SCHIEFELBEIN, LORI C.	219745	01/07/2014	140101	RETIREE MED DEC '13, PD JAN '14		$318.73
Remit to: BULLHEAD CITY, AZ					FYTD:	$12,786.30
SCHIEFELBEIN, LORI C.	219939	01/27/2014	DEC 2013	CONSULTANT SERVICES-ROTATIONAL TOW PROGRAM		$1,457.50
Remit to: BULLHEAD CITY, AZ					FYTD:	$12,786.30
SCHROEDER, SHERYLL	219847	01/21/2014	1272013	PRIMA FACIE SIGNATURE COUNT ASSISTANCE-RECALL PETITION		$450.00
Remit to: HEMET, CA					FYTD:	$450.00
SCHUMAN, MICHAEL	11326	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: GARDNERVILLE, NV					FYTD:	$2,549.84
SCRUGGS, WANDA	219970	01/27/2014	1106225	TOWNGATE RENTAL DEPOSIT REFUND		$200.00
Remit to: MORENO VALLEY, CA					FYTD:	$200.00
SHARRETT, SHARON K.	11327	01/07/2014	140101	RETIREE MED JAN '14		$175.97
Remit to: ONTARIO, CA					FYTD:	$1,392.16
SHELDON, STUART H.	11328	01/07/2014	140101	RETIREE MED JAN '14		$179.21
Remit to: MURRIETA, CA					FYTD:	$2,270.80
SHELL OIL CO.	219848	01/21/2014	065124489401	FUEL PURCHASES-PD MOTORCYCLES		$1,065.88
Remit to: COLUMBUS, OH					FYTD:	$10,238.81

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
SIAMAS, VICKI	219807	01/13/2014	R13-065846	AS REFUND-RABIES DEPOSIT ON A427072		$20.00
Remit to: HIDDEN HILLS, CA					FYTD:	$20.00
SIERRA PACIFIC ELECTRICAL CONTRACTING	219971	01/27/2014	BL#06075 /YR2014	REFUND OF OVER PAYMENT FOR B/L#06075		$75.00
Remit to: RIVERSIDE, CA					FYTD:	$75.00
SIMONS, JEROME	219901	01/21/2014	1101200	REFUND RENTAL DEPOSIT CONTRACT 25182		$300.00
Remit to: MORENO VALLEY, CA					FYTD:	$300.00
SINGER & COFFIN, APC	11466	01/27/2014	4125	SR-60 MORENO BEACH PHASE 2		$5,303.00
Remit to: IRVINE, CA					FYTD:	$45,709.85
SKECHERS	219902	01/21/2014	7013669-01/DEC13	SOLAR INCENTIVE REBATE-DEC. 2013 FOR 29800 EUCALYPTUS, MV.		$2,978.42
Remit to: MANHATTAN BEACH, CA					FYTD:	$2,978.42
SKONBERG, RIX	11382	01/13/2014	1/13-1/17/14	TRAVEL PER DIEM-CAPPO CONFERENCE		$100.00
Remit to: LA VERNE, CA					FYTD:	$322.99
SKY PUBLISHING	219940	01/27/2014	14_1_10	1/2 PAGE SHOP MOVAL ADVERTISEMENT IN YOUR VILLA MAGAZINE		$857.00
Remit to: MORENO VALLEY, CA					FYTD:	$36,999.00
SMITH, ERNEST FRANK	219746	01/07/2014	140101	RETIREE MED JULY-DEC '13, PD JAN '14		$1,912.38
Remit to: FONTANA, CA					FYTD:	$3,824.76
SMITH, MARIA A.	11329	01/07/2014	140101	RETIREE MED JAN '14		$318.73

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
Remit to: MORENO VALLEY, CA					FYTD:	$2,549.84
SMUS, PAULA	219747	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: RIVERSIDE, CA					FYTD:	$1,593.65
SOLARCITY CORPORATION	219903	01/21/2014	B1302106	REFUND 80% OF PERMIT FEE FOR CANCELLED PROJECT-22404 WEMBLEY DR.		$146.32
Remit to: SAN DIEGO, CA					FYTD:	$146.32
SOUTH COAST AIR QUALITY MGMT DISTRICT	219941	01/27/2014	2663712	FY13-14 EMMISSIONS FEE-FS#2		$1,057.36
			2663559	FY13-14 EMMISSIONS FEE-FS#91		
			2662482	FY13-14 ANNUAL OPERATING FEES-FS#91		
			2662639	FY13-14 ANNUAL OPERATING FEES-FS#2		
Remit to: DIAMOND BAR, CA					FYTD:	$10,460.96
SOUTHERN CALIFORNIA EDISON 1	219716	01/06/2014	DEC-13 1/6/14	ELECTRICITY		$3,497.65
Remit to: ROSEMEAD, CA					FYTD:	$1,922,374.97
SOUTHERN CALIFORNIA EDISON 1	219717	01/06/2014	7500269124	SR 60 MORENO BEACH		$44.23
Remit to: ROSEMEAD, CA					FYTD:	$1,922,374.97
SOUTHERN CALIFORNIA EDISON 1	219772	01/13/2014	DEC-13 1/13/14	ELECTRICITY		$22,162.39
			587-9520 DEC-13	ELECTRICITY-FERC CHARGES		
			721-3449 DEC-13	IFA CHARGES-SUBSTATION		
Remit to: ROSEMEAD, CA					FYTD:	$1,922,374.97

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
SOUTHERN CALIFORNIA EDISON 1	219913	01/21/2014	707-6081 DEC-13	ELECTRICITY		$276.89
Remit to: ROSEMEAD, CA					FYTD:	$1,922,374.97
SOUTHERN CALIFORNIA EDISON 1	219942	01/27/2014	DEC-13 1/27/14	ELECTRICITY		$21,665.30
			JAN-14 1/27/14	ELECTRICITY		
Remit to: ROSEMEAD, CA					FYTD:	$1,922,374.97
SOUTHERN CALIFORNIA GAS CO.	219850	01/21/2014	DEC-2013	GAS CHARGES		$9,585.84
Remit to: MONTEREY PARK, CA					FYTD:	$39,156.85
SPARKLETTS	11373	01/13/2014	7364551 122313	BOTTLED WATER/SVC-SUNNYMEAD ELEMENTARY "A CHILD'S PLACE"		$16.13
Remit to: DALLAS, TX					FYTD:	$761.72
SPARKLETTS	11429	01/21/2014	10050036 120213	BOTTLED WATER/SVC-EOC/ERF		$172.22
			7364596 010214	BOTTLED WATER/SVC-CREEKSIDE ELEMENTARY "A CHILD'S PLACE"		
			8742831 111313	BOTTLED WATER/SVC-EMPLOYMENT RESOURCE CTR.		
			7363683 010214	BOTTLED WATER/SVC-ARMADA ELEMENTARY "A CHILD'S PLACE"		
			7387294 010714	BOTTLED WATER/SVC-COTTONWOOD GOLF COURSE		
Remit to: DALLAS, TX					FYTD:	$761.72
SPECK, GARY B.	11330	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: MORENO VALLEY, CA					FYTD:	$2,549.84
SPENCE, CAROLYN	219904	01/21/2014	R14-068890	AS REFUND-SPAY/NEUTER DEPOSIT		$75.00

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
Remit to: MORENO VALLEY, CA					FYTD:	$75.00
SPENCER, MARTHA	11331	01/07/2014	140101	RETIREE MED JAN '14		$179.21
Remit to: MORENO VALLEY, CA					FYTD:	$1,236.34
SPRINT	11374	01/13/2014	417544340-085	CELLULAR PHONE SERVICE FOR PD GTF		$63.72
Remit to: CAROL STREAM, IL					FYTD:	$3,582.73
SPRINT	11375	01/13/2014	634235346-040	CELLULAR PHONE SERVICE FOR PD SET		$332.67
Remit to: CAROL STREAM, IL					FYTD:	$3,582.73
STANDARD INSURANCE CO	219870	01/21/2014	140101	SUPPLEMENTAL INSURANCE		$1,454.56
Remit to: PORTLAND, OR					FYTD:	$189,378.19
STANLEY CONVERGENT SECURITY SOLUTNS, INC	11430	01/21/2014	10922146	ALARM SYSTEM MONITORING SERVICES-GANG TASK FORCE OFFICE		$2,066.06
			10923072	SECURITY SYSTEM MONITORING-MORRISON PARK SNACK BAR		
			10849563	ALARM SYSTEM MONITORING SERVICES-FIRE ST. #99		
			10850498	ALARM SYSTEM MONITORING SERVICES-TOWNGATE COMM. CTR.		
			10870518	ALARM SYSTEM MONITORING SERVICES-CONFERENCE & REC CTR.		
			10822950	SECURITY SYSTEM MONITORING-SUNNYMEAD & BETHUNE PARKS SNACK BARS		
			10842721	ALARM SYSTEM MONITORING SERVICES-EOC		
			10832704	ALARM SYSTEM MONITORING SERVICE-MARCH FIELD PARK COMM. CTR.		
			10862966	ALARM SYSTEM MONITORING SERVICES-PUBLIC SAFETY BLDG.		
			10914864	ALARM SYSTEM MONITORING SERVICES-RED MAPLE		

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
Remit to: PALATINE, IL					FYTD:	$33,383.89
STATE BOARD OF EQUALIZATION	219943	01/27/2014	4TH QTR 2013	ACCT#31-000177 ELECTRCL ENERGY SURCHRG RETRN OCT-DEC13		$7,806.49
Remit to: SACRAMENTO, CA					FYTD:	$27,912.33
STATE BOARD OF EQUALIZATION 1	11579	01/30/2014	4TH QTR 2013	SALES & USE TAX FOR 10/1-12/31/13		$794.00
Remit to: SACRAMENTO, CA					FYTD:	$13,676.00
STATE DISBURSEMENT UNIT	11390	01/10/2014	2014-00000219	1005 - GARNISHMENT - CHILD SUPPORT*		$1,763.64
Remit to: WEST SACRAMENTO, CA					FYTD:	$29,530.30
STATE DISBURSEMENT UNIT	11445	01/24/2014	2014-00000231	1005 - GARNISHMENT - CHILD SUPPORT*		$1,864.83
Remit to: WEST SACRAMENTO, CA					FYTD:	$29,530.30
STATE OF CALIFORNIA DEPT. OF JUSTICE	219851	01/21/2014	010694	LIVE SCAN FINGERPRINTING APPS FOR PD		$2,927.00
			003972	BLOOD ALCOHOL ANALYSIS SERVICES FOR PD		
Remit to: SACRAMENTO, CA					FYTD:	$23,321.00
STATE OF CALIFORNIA DEPT. OF JUSTICE	219852	01/21/2014	994607 (PCS)	FINGERPRINTING SERVICES-PARKS CONTRACT CLASS INSTRUCTOR		$32.00
Remit to: SACRAMENTO, CA					FYTD:	$23,321.00
STEINER, MIKE	219976	01/27/2014	MV4131018006	REFUND-CITATION DISMISSED		$57.50
Remit to: APPLE VALLEY, CA					FYTD:	$57.50
STENO SOLUTIONS TRANSCRIPTION SVCS., IN	11376	01/13/2014	42655	TRANSCRIPTION SERVICES FOR PD		$2,189.76

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
Remit to: CORONA, CA					FYTD:	$17,822.24
STEWART, CLIFFORD	11333	01/07/2014	140101	RETIREE MED JAN '14		$188.23
Remit to: GLENDALE, AZ					FYTD:	$1,640.90
STILES ANIMAL REMOVAL, INC.	219853	01/21/2014	102506	LARGE ANIMAL CARCASS REMOVAL		$150.00
Remit to: GUASTI, CA					FYTD:	$450.00
STK ARCHITECTURE, INC.	11377	01/13/2014	20029	FIRE STATION NO. 6		$592.00
Remit to: TEMECULA, CA					FYTD:	$12,266.21
STORLIE-SICKLES, ELIZABETH	11334	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: MORENO VALLEY, CA					FYTD:	$2,868.57
STRADLING, YOCCA, CARLSON & RAUTH	11431	01/21/2014	284327-0031	LEGAL SERVICES		$11,160.73
			284333-0000	LEGAL SERVICES		
			284336-0000	LEGAL SERVICES		
Remit to: NEWPORT BEACH, CA					FYTD:	$38,254.95
STRAWN, JENNIFER	219905	01/21/2014	ACCT. 7008079-02	SOLAR INCENTIVE REBATE		$10,498.00
Remit to: MORENO VALLEY, CA					FYTD:	$10,498.00
STRICKLER, JOHN W.	11335	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: SAN BERNARDINO, CA					FYTD:	$2,549.84
SUNNYMEAD ACE HARDWARE	219774	01/13/2014	54605	MISC. SUPPLIES FOR PD		$7.01

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description	Payment Amount
Remit to: MORENO VALLEY, CA					FYTD: $1,050.34
SURVIVAL SOLUTIONS, INC	219854	01/21/2014	4113	HSGP CERT SUPPLIES AND EQUIPMENT	$10,387.44
Remit to: LAYTON, UT					FYTD: $10,457.44
T.Y. LIN INTERNATIONAL	219718	01/06/2014	1311226	SR-60 NASON STREET INTERCHANGE IMPROVEMENT	$740.00
Remit to: SAN DIEGO, CA					FYTD: $2,960.00
TAX COMPLIANCE SERVICES	219775	01/13/2014	2013-2014 STMT 5	UUT AUDIT & CONSULTING SERVICES	$5,000.00
Remit to: THOUSAND OAKS, CA					FYTD: $52,500.00
TIMBERWOLFF CONSTRUCTION, INC	219906	01/21/2014	YR2014-B/L13592	REFUND OF OVERPAYMENT FOR B/L#13592	$62.00
Remit to: UPLAND, CA					FYTD: $62.00
TIME WARNER CABLE	219855	01/21/2014	031518001 1/1/14	CABLE TV SERVICE FOR COTTONWOOD GOLF COURSE	$58.24
Remit to: PITTSBURGH, PA					FYTD: $7,837.62
TIME WARNER CABLE 2	219719	01/06/2014	12/5/13 STMT	CABLE/BROADBAND SVC-FS #58 TRAINING ROOM-ACCT# 8448400551506863	$195.98
Remit to: CITY OF INDUSTRY, CA					FYTD: $1,387.04
TKE ENGINEERING INC	219944	01/27/2014	2013-323	SIDEWALK IMPROVEMENT FOR HEMLOCK & GRAHAM	$13,472.50
Remit to: RIVERSIDE, CA					FYTD: $42,121.16
TOUCHARD, GWENDOLYN G.	219748	01/07/2014	140101	RETIREE MED JAN '14	$318.73
Remit to: MORENO VALLEY, CA					FYTD: $2,231.11

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
TR DESIGN GROUP, INC.	11267	01/06/2014	1857	TRANSPORTATION MANAGEMENT CENTER		$9,955.39
			1858	TRANSPORTATION MANAGEMENT CENTER		
Remit to: RIVERSIDE, CA					FYTD:	$71,439.42
TREMMEL, ANGIE	219808	01/13/2014	R13-067099	AS REFUND-SPAY/NEUTER DEPOSIT		$75.00
Remit to: MORENO VALLEY, CA					FYTD:	$75.00
TRICHE, TARA	219871	01/21/2014	JAN-2014	INSTRUCTOR SERVICES-DANCE CLASSES		$1,880.80
Remit to: MORENO VALLEY, CA					FYTD:	$18,268.10
TRINITY BAPTIST CHURCH, ATTN MARVA REID	219725	01/06/2014	1098930 1098913	REFUND OF DEPOSIT AND PORTION OF RENT		$450.00
Remit to: MORENO VALLEY, CA					FYTD:	$450.00
TRUGREEN LANDCARE	11432	01/21/2014	7632566	LANDSCAPE MAINT.-ZONE S		$18,719.85
			7632562	LANDSCAPE MAINT.-ZONE M		
			7646383	IRRIGATION REPAIRS FOR DEC.-ZONE E-4		
			7632563	LANDSCAPE MAINT.-ZONE E-16		
			7632565	LANDSCAPE MAINT.-ZONES E-4 & E-4A		
Remit to: RIVERSIDE, CA					FYTD:	$168,539.44
TRUJILO, THERESA	219907	01/21/2014	1104123	REFUND CANCELLATION OF PICNIC		$29.60
Remit to: MORENO VALLEY, CA					FYTD:	$29.60
TTG ENGINEERS	219776	01/13/2014	85222	CIVIC CENTER EXTERIOR IMPROVEMENTS		$6,599.85
			85217	CIVIC CENTER EXTERIOR IMPROVEMENTS		

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
Remit to: PASADENA, CA					FYTD:	$30,330.23
TTG ENGINEERS	219945	01/27/2014	84645	CIVIC CENTER EXTERIOR IMPROVEMENTS		$893.65
Remit to: PASADENA, CA					FYTD:	$30,330.23
TW TELECOM	219777	01/13/2014	05906738	TELECOM SVCS-LOCAL/LONG DISTANCE CALLS		$3,062.59
			05906738a	INTERNET & DATA SERVICES		
Remit to: DENVER, CO					FYTD:	$24,862.15
UC REGENTS - GOVT'L & COMMUNITY RELATION	219872	01/21/2014	1/22/14 MEETING	CUC BREAKFAST/MEETING ATTENDANCE-MAYOR PRO TEM VICTORIA BACA		$22.00
Remit to: RIVERSIDE, CA					FYTD:	$69.00
UNDERGROUND SERVICE ALERT	11268	01/06/2014	1120130443 (d)	DIGALERT TICKETS SUBSCRIPTION SERVICE		$89.62
Remit to: CORONA, CA					FYTD:	$2,910.00
UNION BANK OF CALIFORNIA 1	219778	01/13/2014	840340	INVESTMENT SAFEKEEPING SERVICES		$291.67
Remit to: SAN DIEGO, CA					FYTD:	$2,387.69
UNITED ROTARY BRUSH CORP	11380	01/13/2014	277998	STREET SWEEPER BROOM KITS/RECONDITIONING & REPAIR PARTS		$3,339.10
			277939	STREET SWEEPER REPAIR PART		
			278024	STREET SWEEPER BROOM KITS/RECONDITIONING & REPAIR PARTS		
			278104	STREET SWEEPER BROOM KITS/RECONDITIONING		
Remit to: POMONA, CA					FYTD:	$29,970.56
UNITED SITE SERVICES OF CA, INC.	11433	01/21/2014	114-1745776	FENCE RENTAL AT ANIMAL SHELTER		$213.30

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
UNITED SITE SERVICES OF CA, INC.	11433	01/21/2014	114-1689872	FENCE RENTAL AT ANIMAL SHELTER		$213.30
Remit to: PHOENIX, AZ					FYTD:	$959.85
UNITED STATES TREASURY - 4	219816	01/13/2014	2014-00000213	1001 - GARNISHMENT - IRS TAX LEVY		$50.38
Remit to: FRESNO, CA					FYTD:	$848.51
UNITED STATES TREASURY - 4	219946	01/27/2014	2014-00000226	1001 - GARNISHMENT - IRS TAX LEVY		$50.38
Remit to: FRESNO, CA					FYTD:	$848.51
UNITED WAY OF INLAND VALLEYS	219817	01/13/2014	2014-00000214	8720 - UNITED WAY		$344.00
Remit to: RIVERSIDE, CA					FYTD:	$7,061.00
UNITED WAY OF INLAND VALLEYS	219947	01/27/2014	2014-00000227	8720 - UNITED WAY		$344.00
Remit to: RIVERSIDE, CA					FYTD:	$7,061.00
USA MOBILITY/ARCH WIRELESS	11434	01/21/2014	X6218870A	PAGER SERVICE		$34.76
Remit to: SPRINGFIELD, VA					FYTD:	$259.82
VACATE PEST ELIMINATION COMPANY	11435	01/21/2014	46183	PEST CONTROL SERVICE-COTTONWOOD GOLF COURSE		$1,260.00
			46295	PEST CONTROL SERVICE-FIRE STATION #58		
			46191	PEST CONTROL SERVICE-ANIMAL SHELTER		
			46289	PEST CONTROL SERVICE-TOWNGATE COMM. CTR.		
			46288	PEST CONTROL SERVICE-FIRE STATION #48		
			46263	PEST CONTROL SERVICE-FIRE STATION #65		
			46291	PEST CONTROL SERVICE-UTILITY FIELD OFFICE		
			46194	PEST CONTROL SERVICE-TRANSP. TRAILER		

CHECKS UNDER $25,000

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
VACATE PEST ELIMINATION COMPANY	11435	01/21/2014	46193	PEST CONTROL SERVICE-MARCH FIELD PARK COMM. CTR.		$1,260.00
			46192	PEST CONTROL SERVICE-MARCH FIELD ASES BLDG.		
			46187	PEST CONTROL SERVICE-PUBLIC SAFETY BLDG.		
			46294	PEST CONTROL SERVICE-LIBRARY		
			46184	PEST CONTROL SERVICE-CITY HALL		
			46190	PEST CONTROL SERVICE-ANNEX 1 BLDG.		
			46188	PEST CONTROL SERVICE-EOC		
			46290	PEST CONTROL SERVICE-FIRE STATION #99		
			46186	PEST CONTROL SERVICE-CITY YARD		
			46185	PEST CONTROL SERVICE-CONFERENCE & REC CTR.		
			46298	PEST CONTROL SERVICE-FIRE STATION #91		
			46297	PEST CONTROL SERVICE-FIRE STATION #2		
			46296	PEST CONTROL SERVICE-SENIOR CENTER		
			46293	PEST CONTROL SERVICE-FIRE STATION #6		
Remit to: MORENO VALLEY, CA					FYTD:	$13,080.00
VAL VERDE UNIFIED SCHOOL DISTRICT	219856	01/21/2014	H1841	YOUTH SPORTS UNIFORMS		$2,200.00
Remit to: PERRIS, CA					FYTD:	$8,349.33
VASQUEZ, CAROL	219749	01/07/2014	140101	RETIREE MED NOV '13 PD JAN '14		$318.73
Remit to: RIALTO, CA					FYTD:	$2,549.84
VERIZON WIRELESS	219720	01/06/2014	9716483552	CELLULAR SERVICE FOR PD TICKET WRITERS		$159.00

CHECKS UNDER $25,000

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
Remit to: DALLAS, TX					FYTD:	$1,272.60
VIGIL, ERNEST	11336	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: MORENO VALLEY, CA					FYTD:	$2,549.84
VISION SERVICE PLAN	11436	01/21/2014	140101	EMPLOYEE VISION INSURANCE		$4,016.13
Remit to: SAN FRANCISCO, CA					FYTD:	$30,395.61
VULCAN MATERIALS CO, INC.	219779	01/13/2014	70198157	ASPHALTIC MATERIALS		$772.17
			70198158	ASPHALTIC MATERIALS		
			70200671	ASPHALTIC MATERIALS		
			70203181	ASPHALTIC MATERIALS		
			70206457	ASPHALTIC MATERIALS		
			70206458	ASPHALTIC MATERIALS		
Remit to: LOS ANGELES, CA					FYTD:	$17,394.04
WAGGONER JR., GLENN C.	11337	01/07/2014	140101	RETIREE MED NOV '13, PD JAN '14		$318.73
Remit to: RIVERSIDE, CA					FYTD:	$2,549.84
WAGNER, GARY D.	11338	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: MORENO VALLEY, CA					FYTD:	$2,549.84
WAGNER, MARIANNE K	11339	01/07/2014	140101	RETIREE MED JAN '14		$318.73
Remit to: MORENO VALLEY, CA					FYTD:	$2,549.84
WAGONER, ROBERT	11340	01/07/2014	140101	RETIREE MED DEC '13-JAN '14, PD JAN '14		$362.80

CHECKS UNDER $25,000

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
Remit to: ZEPHYRHILLS, FL					FYTD:	$1,451.20
WAGY, CARYLON	219750	01/07/2014	140101	RETIREE MED NOV '13 (MED & DENTAL), PD JAN '14		$291.58
Remit to: MORENO VALLEY, CA					FYTD:	$1,840.74
WEBFORTIS, LLC	219857	01/21/2014	9312	CRM/IT CONSULTING SERVICES		$825.00
Remit to: WALNUT CREEK, CA					FYTD:	$4,413.75
WEST COAST ARBORISTS, INC.	11381	01/13/2014	93633	TREE TRIMMING/CREW RENTAL TO REMOVE PINE LIMBS - ZONE E-4/ZONE D		$13,085.00
			93470	TREE TRIMMING & REMOVAL SERVICES - ZONE E-4		
Remit to: ANAHEIM, CA					FYTD:	$74,855.00
WEST COAST ARBORISTS, INC.	11437	01/21/2014	90470	EMERGENCY TREE TRIMMING & REMOVAL IN ZONE A		$8,500.00
Remit to: ANAHEIM, CA					FYTD:	$74,855.00
WESTECH COLLEGE	219809	01/13/2014	1100562	CRC RENTAL REFUND		$500.00
Remit to: ONTARIO, CA					FYTD:	$500.00
WESTERN MUNICIPAL WATER DISTRICT	219948	01/27/2014	23866-018292/JA4	WATER CHARGES-SKATE PARK		$221.53
			23821-018257/JA4	WATER CHARGES-MFPCC LANDSCAPE		
			23821-018258/JA4	WATER CHARGES-MFPCC BLDG. 938		
Remit to: ARTESIA, CA					FYTD:	$18,012.92
WHITLOCK , JILL	219908	01/21/2014	R13-068839	AS REFUND-SPAY/NEUTER DEPOSIT		$75.00
Remit to: RIVERSIDE, CA					FYTD:	$75.00

CHECKS UNDER $25,000

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description	Payment Amount
WIBERG, CHRISTOPHER	219751	01/07/2014	140101	RETIREE MED JAN '14	$318.73
Remit to: ANAHEIM, CA					FYTD: $2,549.84
WIELIN, RONALD A.	11341	01/07/2014	140101	RETIREE MED JAN '14	$318.73
Remit to: BANNING, CA					FYTD: $2,549.84
WILLIAMS, JANE L.	11342	01/07/2014	140101	RETIREE MED NOV-DEC '13, PD JAN '14; VSP JAN-DEC13	$562.68
Remit to: GRAND FORKS, ND					FYTD: $1,249.04
WILLIAMS, LARRY M.	219754	01/07/2014	140101	RETIREE MED DEC'12-MAY'13&AUG-NOV'13, PD JAN'14	$3,146.92
Remit to: HEMET, CA					FYTD: $3,146.92
WILLIS, ROBERT H	219858	01/21/2014	010214	SPORTS OFFICIATING SERVICES-SOFTBALL	$120.00
			121513	SPORTS OFFICIATING SERVICES-SOFTBALL	
Remit to: PERRIS, CA					FYTD: $2,423.00
WILSON-BEILKE, DENESE	219752	01/07/2014	140101	RETIREE MED JAN '14	$318.73
Remit to: GLENDORA, CA					FYTD: $3,506.03
WURM'S JANITORIAL SERVICES, INC.	11269	01/06/2014	22722	JANITORIAL SERVICES-EMP. RESOURCE CTR.	$532.81
Remit to: CORONA, CA					FYTD: $185,588.11
XEROX CAPITAL SERVICES, LLC	219859	01/21/2014	072020669	COPIER LEASE/BILLABLE PRINTS FOR PARKS DEPT.	$1,794.51
			071917266	COPIER LEASE FOR PARKS DEPT.	
Remit to: PASADENA, CA					FYTD: $22,488.97

CHECKS UNDER $25,000

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
XEROX CAPITAL SERVICES, LLC	219949	01/27/2014	071917268	COPIER LEASE FOR GRAPHICS DEPT.		$1,061.99
			071917267	COPIER LEASE/BILLABLE PRINTS FOR GRAPHICS DEPT.		
Remit to: PASADENA, CA					FYTD:	$22,488.97
YAHYA JABER	219972	01/27/2014	BL#22067/ YR2014	REFUND OF OVER PAYMENT FOR B/L#22067		$25.80
Remit to: RIVERSIDE, CA					FYTD:	$25.80
YAMASHITA, JULIA J.	11343	01/07/2014	140101	RETIREE MED NOV '13, PD JAN '14		$146.90
Remit to: LAGUNA WOODS, CA					FYTD:	$1,175.20

TOTAL CHECKS UNDER $25,000 **$1,026,751.58**

GRAND TOTAL **$13,520,401.69**

CITY OF MORENO VALLEY
DECEMBER 3, 1984

APPROVALS	
BUDGET OFFICER	me
CITY ATTORNEY	SMB
CITY MANAGER	

Report to City Council

TO: Mayor and City Council

FROM: Ahmad R. Ansari, P.E., Public Works Director/City Engineer

AGENDA DATE: March 11, 2014

TITLE: AUTHORIZATION TO AWARD CONSTRUCTION CONTRACT TO ALL AMERICAN ASPHALT FOR THE ALESSANDRO BOULEVARD MEDIAN FROM INDIAN STREET TO PERRIS BOULEVARD, PROJECT NO. 801 0039 70 77

RECOMMENDED ACTION

Recommendations:

1. Award the construction contract to All American Asphalt, P.O. Box 2229, Corona, California 92878, the lowest responsible bidder, for the Alessandro Boulevard Median from Indian Street to Perris Boulevard.

2. Authorize the City Manager to execute a contract with All American Asphalt.

3. Authorize the issuance of a Purchase Order to All American Asphalt, for the amount of $1,300,461.80 ($1,182,238.00 bid amount plus 10% contingency) when the contract has been signed by all parties.

4. Authorize the Public Works Director/City Engineer to execute any subsequent related minor change orders to the contract with All American Asphalt up to, but not exceeding, the 10% contingency amount of $118,223.80, subject to the approval of the City Attorney.

5. Authorize the Public Works Director/City Engineer to record the Notice of Completion once he determines the work is complete, accept the improvements into the City's maintained system, and release the retention to All American Asphalt, if no claims are filed against the project.

6. Authorize the re-appropriation of $150,000 from the Annual Pavement Resurfacing project (2001-70-77-80001) Measure A (Fund 2001) fund for the construction costs for the Alessandro Boulevard Median from Indian Street to Perris Boulevard (2001-70-77-80001).

7. Authorize the appropriation of $400,000 from the unencumbered Community Development Block Grant (CDBG) (Fund 2512) fund balance for the construction costs for the Alessandro Boulevard Median from Indian Street to Perris Boulevard (2512-70-77-80001).

SUMMARY

This report recommends approval of a contract to construct the Alessandro Boulevard Median from Indian Street to Perris Boulevard. The project is funded through an HSIP Grant with a minimum 10% local match from Measure A, as approved in the Fiscal Year 2013/2014 Capital Improvement Plan. Staff recommends supplementing the funding to fully fund the construction through a re-appropriation of Measure A funds from the Annual Pavement Resurfacing project, and the appropriation of unencumbered CDBG funds.

DISCUSSION

On December 13, 2011, the City Council accepted a California Department of Transportation (Caltrans) Highway Safety Improvement Program (HSIP) Cycle 4 grant award of up to $900,000 in funds for the Alessandro Boulevard Median between Indian Street and Perris Boulevard, and authorized an appropriation of unencumbered Measure “A” funds (Fund 2001) for the design and construction costs of the project.

On April 10, 2012 the City Council awarded the Professional Consultant Services agreement to RBF Consulting to provide design services. The design has been completed. The City received Caltrans’ authorization for construction on December 11, 2013.

This project will install/construct the following:

- Raised median along Alessandro Boulevard from 350 feet east of Indian Street to Perris Boulevard.
- A traffic signal at the intersection of Alessandro Boulevard and Covey Quail Lane and construct ADA compliant pedestrian access ramps.
- Dual left turn lanes in the eastbound and westbound directions of Alessandro Boulevard at Perris Boulevard, resurface the roadway, modify the existing traffic signal, and construct ADA compliant pedestrian access ramps.

The raised median along Alessandro Boulevard is anticipated to reduce the collision rates. The proposed traffic signal at Alessandro Boulevard and Covey Quail Lane will assist pedestrians crossing Alessandro Boulevard from the residential area on the north to the commercial centers on the south. Finally, the improvements at Perris Boulevard and Alessandro Boulevard are anticipated to enhance pedestrian mobility through the intersection and reduce congestion.

As identified in the Bidding Documents, the Base Bid items include the median within the project limits utilizing decomposed granite, traffic signal work, and ADA compliant pedestrian access ramps. Alternate Nos. 1 & 2 provide a choice (based on available funding): No. 1 would provide for slurry sealing and No. 2 would grind and overlay the street within the project limits. Alternate Nos. 3, 4, and 5 deduct the cost of the decomposed granite provided for in the Base Bid and provide for the landscaping in successive sections of the median.

The Planning Division of the Community and Economic Development Department determined on April 1, 2013 that this project qualifies for a Class 1 Categorical Exemption as defined in both Section 15301C of the California Environmental Quality Act (CEQA) and Section 4.6B of the City's Rules and Procedures for implementation of CEQA.

Caltrans has determined this project is a Categorical Exclusion per Code of Federal Regulations, Title 23, under the National Environmental Policy Act (NEPA).

The Notice Inviting Bids was advertised for the subject project and formal bidding procedures have been followed in conformance with the Public Contract Code. The City Clerk opened bids at 9:15 on February 11, 2014 for the project. Ten (10) bids were received as follows:

	CONTRACTORS	Verified Bid Amounts
1.	**All American Asphalt, Corona**	**$1,292,530.00**
2.	S T L Landscape, Inc., Los Angeles	$1,359,800.00
3.	Diversified Landscape Management, Inc., Corona	$1,364,711.27
4.	Hillcrest Contracting, Inc., Corona	$1,398,805.48
5.	Roadway Engineering & Contracting, Inc., Mira Loma	$1,422,467.50
6.	KASA Construction, Inc., Chino	$1,539,569.00
7.	P T M General Engineering Services, Inc., Riverside	$1,557,760.50
8.	C S Legacy Construction, Inc., Chino	$1,562,501.50
9.	Cooley Construction, Inc., Hesperia	$1,623,044.25
10.	Riverside Construction Company, Inc., Riverside	$1,657,199.00

The lowest responsible bidder was determined by comparing the cumulative total for all bid items (Base Bid plus Alternate Nos. 1, 2, 3, 4, and 5), as stipulated in the Bidding Documents. Staff has reviewed the bid by All American Asphalt and finds it to be the lowest responsible bidder in possession of a valid license and bid bond. No outstanding issues were identified through review of the references submitted by All American Asphalt in their bid.

Federal Funds require the establishment of project goals for use of Disadvantaged Business Enterprises (DBE). The City's goal for the Contractor was 9% and All

American Asphalt demonstrated a 30.8% DBE commitment, and therefore is eligible for award.

Following the bid opening, staff reviewed the alternate bids and available funding. The City identified an opportunity to leverage the project with Community Development Block Grant (CDBG) funding based on the benefit to the surrounding low-income area and to the disabled community via the ADA improvements. Therefore, staff is recommending the re-appropriation of $150,000 in Measure A funds from the Annual Pavement Resurfacing project, and the appropriation of $400,000 in unencumbered CDBG funds to allow for the full improvements.

Based on the proposed additional funding, staff is recommending the award of the Base Bid items, plus Alternate Nos. 2, 3, 4, and 5. This will provide for the landscaped median with a grind and overlay treatment of the street pavement within the project limits.

ALTERNATIVES

1. Approve and authorize the recommended actions as presented in this staff report. *This alternative will provide for the timely construction of the Alessandro Boulevard Median from Indian Street to Perris Boulevard.*

2. Do not approve and authorize the recommended actions as presented in this staff report. *This alternative will result in delaying the timely construction of the project.*

FISCAL IMPACT

This project is included in the Fiscal Year 2013/2014 Capital Improvement Plan Budget. The HSIP grant provides construction related cost reimbursement of up to 90% ($765,000) with a minimum 10% Measure “A” Funds (Fund 2001) local match ($85,000). In order to construct the landscape median improvements and asphalt grind and overlay the street, staff recommends the re-appropriation of $150,000 of Measure A funds from the Annual Pavement Resurfacing project, and $400,000 of unencumbered CDBG funds. There is no impact to the General Fund.

All American Asphalt’s bid amount for the Base Bid plus Alternate Nos. 2, 3, 4, and 5 is $1,182,238.00. A Contingency of 10% of bid amount ($118,223.80) is added to the Contractor’s Purchase Order. The contingency is added to account for any unforeseen subsurface conditions encountered during construction in this older part of town which may result in changes in costs. Unforeseen conditions may include unsuitable soils, unknown or shallow conflicting utilities, or hazardous wastes which need to be properly processed and removed. At the completion of the project, any remaining project budget balance will be returned to the fund balance to be used for future Measure A funded projects.

PROPOSED BUDGET RE-APPROPRIATION

Cat.	Fund	Project No (PN)	Type	Original Budget	Proposed Adjustment	Revised Budget
CIP	Measure A (2001)	PN – 801 0003 70 77-2001-99	EXP	$1,372,354	($150,000)	$1,222,354
CIP	Measure A (2001)	PN – 801 0039 70 77-2001-99	EXP	$0	$150,000	$150,000

PROPOSED BUDGET APPROPRIATION:

Cat.	Fund	Project No (PN) G/L Account (GL)	Type	Original Budget	Proposed Adjustment	Revised Budget
CIP	CDBG (2512)	PN – 801 0039 70 77-2512-99 GL – 2512-70-77-80001-720199	EXP	$0 $696,243	$400,000 $400,000	$400,000 $1,096,243

PROPOSED BUDGET FOR CONSTRUCTION:

Alessandro Boulevard Median from Indian Street to Perris Boulevard (Acct. No. 2001-70-77-80001, Project No. 801 0039 70 77)	$964,000
Proposed Re-Appropriation from fund 2001 Measure A (Annual Pavement Resurfacing) (Acct. No. 2001-70-77-80001, Project No. 801 0003 70 77)	**$150,000**
Proposed Appropriation from fund 2512 CDBG (unencumbered)	**$400,000**
Total Budget	$1,514,000

ESTIMATED CONSTRUCTION RELATED COSTS:

Design (Construction Support Services)	$22,000
Contractor Construction Costs (includes Contingency)	**$1,300,000**
Construction Survey Services	$30,000
Construction Geotechnical Services	$30,000
Construction Management and Inspection Services*	$75,000
Total Estimated Project Costs	$1,457,000

**City staff will provide Construction Management, and Inspection Services.*

ANTICIPATED PROJECT SCHEDULE:

Start Construction	April 2014
Anticipated Completion of Construction	September 2014

CITY COUNCIL GOALS

PUBLIC SAFETY:

Provide a safe and secure environment for people and property in the community, control the number and severity of fire and hazardous material incidents, and provide protection for citizens who live, work and visit the City of Moreno Valley.

PUBLIC FACILITIES AND CAPITAL PROJECTS:

Ensure that needed public facilities, roadway improvements, and other infrastructure improvements are constructed and maintained.

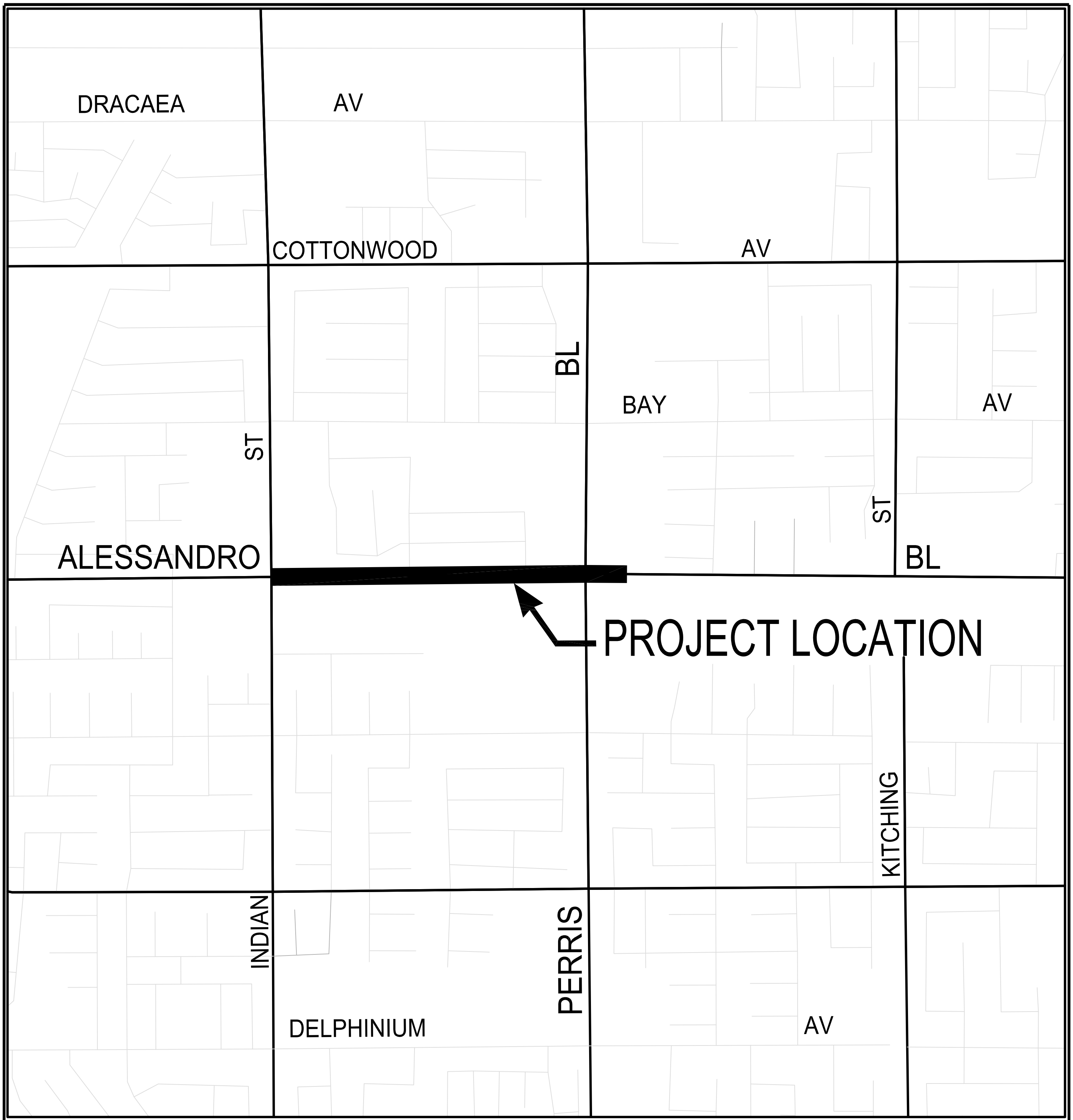
NOTIFICATION

During the design stage, staff made multiple outreach efforts. City staff scheduled two meetings, providing a detailed presentation of the draft design to solicit feedback and to answer questions. Commercial property owners fronting the south side of Alessandro Boulevard were invited to the first meeting, held on August 7, 2012. On December 12, 2012, all commercial property owners and business owners fronting the south side of Alessandro Boulevard and all residential property owners within 600 feet of Alessandro Boulevard on the north side were invited to attend a second meeting. In addition, City staff walked the shopping centers on the south side of Alessandro Boulevard twice (on August 23, 2012 and December 6, 2012) and provided project exhibits, comment forms, and City staff contact information. There were some responses from business owners who provided feedback and support for the project. Prior to the start of construction, staff will notify all business owners and residents in the project area of the impending construction. The Contractor is also required to notify those impacted by the project, typically with a letter or door hanger written in English and Spanish.

ATTACHMENTS

Attachment 1:	Location Map
Attachment 2:	Agreement with All American Asphalt

Prepared By: Lorenz R. Gonzales Senior Engineer, P.E.	Department Head Approval Ahmad R. Ansari, P.E. Public Works Director/City Engineer
Concurred By: Prem Kumar, P.E. Deputy Public Works Director/Assistant City Engineer	Concurred By: John Terell Community and Economic Development Director



CITY OF MORENO VALLEY
DECEMBER 3, 1984

ALESSANDRO BOULEVARD MEDIAN

LOCATION MAP
Public Works Department
Capital Projects Division

ATTACHMENT 1

ALESSANDRO BOULEVARD MEDIAN

FROM INDIAN STREET TO PERRIS BOULEVARD
PROJECT No. 801 0039 70 77

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Agreement No.__________

AGREEMENT

PROJECT NO. 801 0039 70 77

ALESSANDRO BOULEVARD MEDIAN
from Indian Street to Perris Boulevard

THIS Agreement, effective as of the date signed by the City of Moreno Valley, is by and between the City of Moreno Valley, a municipal corporation, County of Riverside, State of California, hereinafter called the "City" and **All American Asphalt**, hereinafter called the "Contractor."

That the City and the Contractor for the consideration hereinafter named, agree as follows:

1. CONTRACT DOCUMENTS. The Contract Documents consist of the following, which are incorporated herein by this reference:

A. Governmental approvals, including, but not limited to, permits required for the Work
B. Any and all Contract Change Orders issued after execution of this Agreement
C. This Agreement
D. Addenda Nos. 1 and 2 inclusive, issued prior to the opening of the Bids
E. City Special Provisions, including the General Provisions and Technical Provisions
F. Standard Specifications for Public Works Construction (“Greenbook”) – latest edition in effect at the Bid Deadline, as modified by the City Special Provisions
G. Reference Specifications/Reference Documents other than those listed in paragraph 2, below
H. Project Plans
I. City Standard Plans
J. Caltrans Standard Plans
K. The bound Bidding Documents
L. Contractor’s Certificates of Insurance and Additional Insured Endorsements
M. Contractor’s Bidder’s Proposal and Subcontractor Listing
N. Bidder’s DBE Commitment Form

In the event of conflict or discrepancy between any of the Contract Documents, the provisions placing a more stringent requirement on the Contractor shall prevail. The Contractor shall provide the better quality or greater quantity of Work and/or materials unless otherwise directed by City in writing. In the event none of the Contract Documents place a more stringent requirement or greater burden on the Contractor, the controlling provision shall be that which is found in the document with higher precedence in accordance with the above order of precedence.

2. REFERENCE DOCUMENTS. The following Reference Documents are not considered Contract Documents and were made available to the Contractor prior to the Bid Deadline for informational purposes:

A. None

3. SCOPE OF WORK. The Contractor shall perform and provide all materials, tools, equipment, labor, and services necessary to complete the Work described in the Contract

Documents, except as otherwise provided in the Plans, Standard Specifications, or City Special Provisions to be the responsibility of others.

4. PAYMENT.

4.1. **Contract Price and Basis for Payment**. In consideration for the Contractor's full, complete, timely, and faithful performance of the Work required by the Contract Documents, the City shall pay Contractor for the actual quantity of Work required under the Bid Items awarded by the City performed in accordance with the lump sum prices and unit prices for Bid Items and Alternate Bid Items, if any, set forth the Bidder's Proposal submitted with the Bid. The sum of the unit prices and lump sum prices for the Base Bid Items and Alternate Bid Items 2, 3, 4 and 5, awarded by the City is One Million One Hundred Eighty Two Thousand Two Hundred Thirty Eight and 00/100 Dollars **($1,182,238.00)** ("Contract Price"). It is understood and agreed that the quantities set forth in the Bidder's Proposal for which unit prices are fixed are estimates only and that City will pay and Contractor will accept, as full payment for these items of work, the unit prices set forth in the Bidder's Proposal multiplied by the actual number of units performed, constructed, or completed as directed by the City Engineer.

4.2. **Payment Procedures**. Based upon applications for payment submitted by the Contractor to the City, the City shall make payments to the Contractor in accordance with Article 9 of the Standard Specifications, as modified by Article 9 of the City Special Provisions.

5. CONTRACT TIME.

A. Initial Notice to Proceed. After the Agreement has been fully executed by the Contractor and the City, the City shall issue the "Notice to Proceed to Fulfill Preconstruction Requirements and Notice to Proceed with Order of Materials." The date specified in the Notice to Proceed to Fulfill Preconstruction Requirements and Notice to Proceed with Order of Materials constitutes the date of commencement of the Contract Time of **ninety-five (95) Working Days**. The Contract Time includes the time necessary to fulfill preconstruction requirements, place the order of materials, and to complete construction of the Project (except as adjusted by subsequent Change Orders).

The Notice to Proceed to Fulfill Preconstruction Requirements and Notice to Proceed with Order of Materials shall further specify that Contractor must complete the preconstruction requirements and order materials within **fifteen (15) Working Days** after the date of commencement of the Contract Time; this duration is part of the Contract Time.

Critical preconstruction requirements include, but are not limited to, the following:

- Submitting and obtaining approval of Traffic Control Plans
- Submitting and obtaining approval of critical required submittals
- Installation of the approved Project Identification Signs
- Obtaining an approved no fee Encroachment Permit
- Obtaining a Temporary Use Permit for a construction yard
- Notifying all agencies, utilities, residents, etc., as outlined in the Bidding Documents

If the City's issuance of a Notice to Proceed to Fulfill Preconstruction Requirements and Notice to Proceed with Order of Materials is delayed due to Contractor's failure to return the fully executed Agreement and insurance and bond documents within ten (10) Working Days after Contract award, then Contractor agrees to the deduction of one (1) Working Day from the number of days to complete the Project for every Working Day of delay in the City's receipt of said documents. This right is in addition to and does not affect the City's right to demand forfeiture of Contractor's Bid Security if Contractor persistently delays in providing the required documentation.

B. Notice to Proceed with Construction. After all preconstruction requirements are met and materials have been ordered in accordance with the Notice to Proceed to Fulfill Preconstruction Requirements and Notice to Proceed with Order of Materials, the City shall issue the "Notice to Proceed with Construction," at which time the Contractor shall diligently prosecute the Work, including corrective items of Work, day to day thereafter, within the remaining Contract Time.

6. LIQUIDATED DAMAGES AND CONTROL OF WORK.

6.1. **Liquidated Damages.** The Contractor and City (collectively, the "Parties") have agreed to liquidate damages with respect to Contractor's failure to order all materials in accordance with the Notice to Proceed with Order of Materials and/or, failure to fulfill the preconstruction requirements, and/or failure to complete the Work within the Contract Time. The Parties intend for the liquidated damages set forth herein to apply to this Contract as set forth in Government Code Section 53069.85. Contractor acknowledges and agrees that the liquidated damages are intended to compensate the City solely for Contractor's failure to meet the deadline for completion of the Work and will not excuse Contractor from liability from any other breach, including any failure of the Work to conform to the requirements of the Contract Documents.

In the event that Contractor fails to order all materials in accordance with the Notice to Proceed with Order of Materials and/or fails to fulfill the preconstruction requirements and/or fails to complete the Work within the Contract Time, Contractor agrees to pay the City **$1,200.00 per Calendar day** that completion of the Work is delayed beyond the Contract Time, as adjusted by Contract Change Orders. The Contractor will not be assessed liquidated damages for delays occasioned by the failure of the City or of the owner of a utility to provide for the removal or relocation of utility facilities.

The Contractor and City acknowledge and agree that the foregoing liquidated damages have been set based on an evaluation of damages that the City will incur in the event of late completion of the Work. The Contractor and City acknowledge and agree that the amount of such damages are impossible to ascertain as of the date of execution hereof and have agreed to such liquidated damages to fix the City's damages and to avoid later disputes. It is understood and agreed by Contractor that liquidated damages payable pursuant to this Agreement are not a penalty and that such amounts are not manifestly unreasonable under the circumstances existing as of the date of execution of this Agreement.

It is further mutually agreed that the City will have the right to deduct liquidated damages against progress payments or retainage and that the City will issue a Change Order or Construction Change Directive and reduce the Contract Price accordingly. In the event the remaining unpaid Contract Price is insufficient to cover the full amount of liquidated damages, Contractor shall pay the difference to the City.

6.2. Any work completed by the Contractor after the issuance of a Stop Work Notice by the City shall be rejected and/or removed and replaced as specified in Section 2-11 of the Special Provisions.

6.3. **Owner is Exempt from Liability for Early Completion Delay Damages**. While the Contractor may schedule completion of all of the Work, or portions thereof, earlier than the Contract Time, the Owner is exempt from liability for and the Contractor will not be entitled to an adjustment of the Contract Sum or to any additional costs, damages, including, but not limited to, claims for extended general conditions costs, home office overhead, jobsite overhead, and management or administrative costs, or compensation whatsoever, for use of float time or for Contractor's inability to complete the Work earlier than the Contract Time for any reason whatsoever, including but not limited to, delay cause by Owner or other Excusable Compensable Delay. See Section 6-6 of the Standard Specifications and City Special Provisions regarding compensation for delays.

7. INSURANCE.

7.1. **General**. The Contractor shall procure and maintain at its sole expense and throughout the term of this Agreement, any extension thereof, Commercial General Liability, Automobile Liability, and Workers' Compensation Insurance with such coverage limits as described herein.

7.2. **Additional Insured Endorsements**. The Contractor shall cause the insurance required by the Contract Document to include the City of Moreno Valley, the City Council and each member thereof, the Moreno Valley Housing Authority (MVHA), and the Moreno Valley Community Services District (CSD), and their respective officials, employees, commission members, officers, directors, agents, employees, volunteers and representatives as an additional insureds. For the Commercial General Liability coverage, said parties shall be named as additional insureds utilizing either:

1. Insurance Services Office ("ISO") Additional Insured endorsement CG 20 10 (11/85); or

2. ISO Additional Insured endorsement CG 20 10 (10/01) and Additional Insured Completed Operations endorsement CG 20 37 (10/01); or

3. substitute endorsements providing equivalent coverage, approved by the City.

The endorsements shall be signed by a person authorized by the insurer to bind coverage on its behalf. The coverage shall contain no special limitations on the scope of protection afforded to such additional insureds. Coverage for such additional insureds does not extend to liability to the extent prohibited by Insurance Code Section 11580.4.

7.3. **Waivers of Subrogation**. All policies of insurance required by the Contract Documents shall include or be endorsed to provide a waiver by the insurers of any rights of recovery or subrogation that the insurers may have at any time against the City of Moreno Valley, the City Council and each member thereof, the Moreno Valley Housing Authority (MVHA), and the Moreno Valley Community Services District (CSD), and their respective officials, employees, commission members, officers, directors, agents, employees, volunteers and representatives.

7.4. **Primary Coverage**. All policies and endorsements shall stipulate that the Contractor's (and the Subcontractors') insurance coverage shall be primary insurance as respects the City of Moreno Valley, the City Council and each member thereof, the Moreno Valley Housing Authority (MVHA), and the Moreno Valley Community Services District (CSD), and their respective officials, employees, commission members, officers, directors, agents, employees, volunteers and representatives, and shall be excess of the Contractor's (and its Subcontractors') insurance and shall not contribute with it.

7.5. **Coverage Applies Separately to Each Insured and Additional Insured**. Coverage shall state that the Contractor's (and its Subcontractors') insurance shall apply separately to each insured or additional insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability. Coverage shall apply to any claim or suit brought by an additional insured against a named insured or other insured.

7.6. **Self-Insurance**. Any self-insurance (including deductibles or self-insured retention in excess of $50,000) in lieu of liability insurance must be declared by Contractor and approved by the City in writing prior to execution of the Agreement. The City's approval of self-insurance, if any, is within the City's sole discretion and is subject to the following conditions:

1. Contractor must, at all times during the term of the Agreement and for a period of at least **one (1)** year after completion of the Project, and any extension of the one-year correction guarantee period in accordance with Section 6-8.1 of the City Special Provisions, maintain and upon Owner's reasonable request provide evidence of:

    (a) Contractor's "net worth" (defined as "total assets" [defined as all items of value owned by the Contractor including tangible items such as cash, land, personal property and equipment and intangible items such as copyrights and business goodwill]) minus total outside liabilities must be reflected in a financial statement for the prior fiscal year reflecting sufficient income and budget for Contractor to afford at least one loss in an amount equal to the amount of self-insurance;

    (b) financial statements showing that Contractor has funds set aside/budgeted to finance the self-insured fund (i.e., Contractor has a program that fulfills functions that a primary insurer would fill; and

    (c) a claims procedure that identifies how a claim is supposed to be tendered to reach the financing provided by the self-insured fund.

2. If at any time after such self-insurance has been approved Contractor fails to meet the financial thresholds or otherwise fails to comply with the provisions set forth in this Paragraph 7, at the option of the City:

    (a) the Contractor shall immediately obtain and thereafter maintain the third party insurance required under this Paragraph 7 and otherwise on the terms required above; or

    (b) the insurer shall reduce or eliminate such deductibles or self-insured retention as respects the City, its officers, officials, employees and volunteers; or

    (c) the Contractor shall procure a bond guaranteeing payment of losses and related investigation, claim administration, and defense expenses.

7.7. **Insurer Financial Rating**. Insurance companies providing insurance hereunder shall be rated A-:VII or better in Best's Insurance Rating Guide and shall be legally licensed and qualified to conduct insurance business in the State of California.

7.8. **Notices to City of Cancellation or Changes**. Each insurance policy described in this Paragraph 7 shall contain a provision or be endorsed to state that coverage will not be cancelled without **thirty (30) days'** prior written notice by certified or registered mail to the City (this obligation may be satisfied in the alternative by requiring such notice to be provided by Contractor's insurance broker and set forth on its Certificate of Insurance provided to the City), except that cancellation for non-payment of premium shall require (10) days prior written notice by certified or registered mail. If an insurance carrier cancels any policy or elects not to renew any policy required to be maintained by Contractor pursuant to the Contract Documents, Contractor agrees to give written notice to the City at the address indicated on the first page of the Agreement. Contractor agrees to provide the same notice of cancellation and non-renewal to the City that is required by such policy(ies) to be provided to the First Named Insured under such policy(ies). Contractor shall provide confirmation that the required policies have been renewed not less than seven (7) days prior to the expiration of existing coverages and shall deliver renewal or replacement policies, certificates and endorsements to the City Clerk within fourteen (14) days of the expiration of existing coverages. Contractor agrees that upon receipt of any notice of cancellation or alteration of the policies, Contractor shall procure within five (5) days, other policies of insurance similar in all respects to the policy or policies to be cancelled or altered. Contractor shall furnish to the City Clerk copies of any endorsements that are subsequently issued amending coverage or limits within fourteen (14) days of the amendment.

7.9. **Commercial General Liability**. Coverage shall be written on an ISO Commercial General Liability "occurrence" form CG 00 01 (10/01 or later edition) or equivalent form approved by the City for coverage on an occurrence basis. The insurance shall cover liability, including, but not limited to, that arising from premises operations, stop gap liability, independent contractors, products-completed operations, personal injury, advertising injury, and liability assumed under an insured contract. The policy shall be endorsed to provide the Aggregate Per Project Endorsement ISO form CG 25 03 (11/85). Coverage shall contain no contractors' limitation or other endorsement limiting the scope of coverage for liability arising from pollution, explosion, collapse, or underground (x, c, u) property damage. Contractor shall provide Products/Completed Operations coverage to be maintained continuously for a minimum of **one (1) year** after Final Acceptance of the Work, and any extension of the one-year correction guarantee period in accordance with Section 6-8.1 of the City Special Provisions.

Contractor shall maintain Commercial General Liability insurance with the following minimum limits: $1,000,000 per occurrence / $2,000,000 aggregate / $2,000,000 products-completed operations.

7.10. **Business Automobile Liability**. Coverage shall be written on ISO form CA 00 01 (12/93 or later edition) or a substitute form providing equivalent coverage for owned, hired, leased and non-owned vehicles, whether scheduled or not, with $1,000,000 combined single limit per accident for bodily injury and property damage. If necessary, the policy shall be endorsed to provide contractual liability coverage.

7.11. **Workers' Compensation**. Contractor shall comply with the applicable sections of the California Labor Code concerning workers' compensation for injuries on the job. Compliance is accomplished in one of the following manners:

1. Provide copy of permissive self-insurance certificate approved by the State of California; or
2. Secure and maintain in force a policy of workers' compensation insurance with statutory limits and Employer's Liability Insurance with a minimal limit of **$1,000,000** per accident; or

3. Provide a "waiver" form certifying that no employees subject to the Labor Code's Workers' Compensation provision will be used in performance of this Contract.

7.12. **Subcontractors' Insurance**. The Contractor shall include all Subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each Subcontractor. All coverages for Subcontractors shall be subject to all of the requirements stated herein.

8. BONDS. The Contractor shall furnish a satisfactory Performance Bond meeting all statutory requirements of the State of California on the form provided by the City. The bond shall be furnished as a guarantee of the faithful performance of the requirements of the Contact Documents as may be amended from time to time, including, but not limited to, liability for delays and damages (both direct and consequential) to the City and the City's Separate Contractors and consultants, warranties, guarantees, and indemnity obligations, in an amount that shall remain equal to one hundred percent (100%) of the Contract Price.

The Contractor shall furnish a satisfactory Labor and Materials Payment Bond meeting all statutory requirements of the State of California on the form provided by the City in an amount that shall remain equal to one hundred percent (100%) of the Contract Price to secure payment of all claims, demands, stop notices, or charges of the State of California, of material suppliers, mechanics, or laborers employed by the Contractor or by any Subcontractor, or any person, form, or entity eligible to file a stop notice with respect to the Work.

All bonds shall be executed by a California-admitted surety insurer. Bonds issued by a California-admitted surety insurer listed on the latest version of the U.S Department of Treasury Circular 570 shall be deemed accepted unless specifically rejected by the City. Bonds issued by sureties not listed in Treasury Circular 570 must be accompanied by all documents enumerated in California Code of Civil Procedure Section 995.660(a). The bonds shall bear the same date as the Contract. The attorney-in-fact who executes the required bonds on behalf of the surety shall affix thereto a certified and current copy of the power of attorney. In the event of changes that increase the Contract Price, the amount of each bond shall be deemed to increase and at all times remain equal to the Contract Price. The signatures shall be acknowledged by a notary public. Every bond must display the surety's bond number and incorporate the Contract for construction of the Work by reference. The terms of the bonds shall provide that the surety agrees that no change, extension of time, alteration, or modification of the Contract Documents or the Work to be performed thereunder shall in any way affect its obligations and shall waive notice of any such change, extension of time, alteration, or modification of the Contract Documents. The surety further agrees that it is obligated under the bonds to any successor, grantee, or assignee of the City.

Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall authorize a copy to be furnished.

Should any bond become insufficient, or should any of the sureties, in the opinion of the City, become non-responsible or unacceptable, the Contractor shall, within ten (10) Calendar Days after receiving notice from the City, provide written documentation to the Satisfaction of the City that Contractor has secured new or additional sureties for the bonds; otherwise the Contractor shall be in default of the Contract. No further payments hall be deemed due or will be made under Contract until a new surety(ies) qualifies and is accepted by the City.

Contractor agrees that the Labor and Materials Payment Bond and Faithful Performance Bond attached to this Agreement are for reference purposes only, and shall not be considered a part of this Agreement. Contractor further agrees that said bonds are separate obligations of the Contractor and its surety, and that any attorney's fee provision contained in any payment bond or performance bond shall not apply to this Agreement. In the event there is any litigation between the parties arising from the breach of this Agreement, each party will bear its own attorneys' fees in the litigation.

9. RECORDS. The Contractor and its Subcontractors shall maintain and keep books, payrolls, invoices of materials, and Project records current, and shall record all transactions pertaining to the Contract in accordance with generally acceptable accounting principles. Said books and records shall be made available to the City of Moreno Valley, Riverside County, the State of California, the Federal Government, and to any authorized representative thereof for purposes of audit and inspection at all reasonable times and places. All such books, payrolls, invoices of materials, and records shall be retained for at least three (3) years after Final Acceptance.

10. INDEMNIFICATION.

10.1. **General**. To the fullest extent permitted by law, the Contractor assumes liability for and agrees, at the Contractor's sole cost and expense, to promptly and fully indemnify, protect, hold harmless and defend (even if the allegations are false, fraudulent, or groundless), the City of Moreno Valley, its City Council, the Moreno Valley Housing Authority (MVHA), and the Moreno Valley Community Services District (CSD), and all of their respective officials, officers, directors, employees, commission members, representatives and agents ("Indemnitees"), from and against any and all claims, allegations, actions, suits, arbitrations, administrative proceedings, regulatory proceedings, or other legal proceeds, causes of action, demands, costs, judgments, liens, stop notices, penalties, liabilities, damages, losses, anticipated losses of revenues, and expenses (including, but not limited to, any fees of accountants, attorneys, experts or other professionals, or investigation expenses), or losses of any kind or nature whatsoever, whether actual, threatened or alleged, arising out of, resulting from, or in any way (either directly or indirectly), related to the Work, the Project or any breach of the Contract by Contractor or any of its officers, agents, employees, Subcontractors, Sub-subcontractors, or any person performing any of the Work, pursuant to a direct or indirect contract with the Contractor ("Indemnity Claims"). Such Indemnity Claims include, but are not limited to, claims for:

A. Any activity on or use of the City's premises or facilities;
B. Any liability incurred due to Contractor acting outside the scope of its authority pursuant to the Contract, whether or not caused in part by an Indemnified Party;
C. The failure of Contractor or the Work to comply with any Applicable Law, permit or orders;
D. Any misrepresentation, misstatement or omission with respect to any statement made in the Contract Documents or any document furnished by the Contractor in connection therewith;
E. Any breach of any duty, obligation or requirement under the Contract Documents, including, but not limited to any breach of Contractor's warranties, representations or agreements set forth in the Contract Documents;
F. Any failure to coordinate the Work with City's Separate Contractors;
G. Any failure to provide notice to any party as required under the Contract Documents;

H. Any failure to act in such a manner as to protect the Project from loss, cost, expense or liability;

I. Bodily or personal injury, emotional injury, sickness or disease, or death at any time to any persons including without limitation employees of Contractor;

J. Damage or injury to real property or personal property, equipment and materials (including, but without limitation, property under the care and custody of the Contractor or the City) sustained by any person or persons (including, but not limited to, companies, corporations, utility company or property owner, Contractor and its employees or agents, and members of the general public);

K. Any liability imposed by Applicable Law including, but not limited to criminal or civil fines or penalties;

L. Any dangerous, hazardous, unsafe or defective condition of, in or on the Site, of any nature whatsoever, which may exist by reason of any act, omission, neglect, or any use or occupation of the Site by Contractor, its officers, agents, employees, or Subcontractors;

M. Any operation conducted upon or any use or occupation of the Site by Contractor, its officers, agents, employees, or Subcontractors under or pursuant to the provisions of the Contract or otherwise;

N. Any acts, errors, omission or negligence of Contractor, its officers, agents, employees, or Subcontractors;

O. Infringement of any patent rights, licenses, copyrights or intellectual property which may be brought against the Contractor or Owner arising out of Contractor's Work, for which the Contractor is responsible; and

P. Any and all claims against the City seeking compensation for labor performed or materials used or furnished to be used in the Work or alleged to have been furnished on the Project, including all incidental or consequential damages resulting to the City from such claims.

10.2. **Effect of Indemnitees' Active Negligence**. Contractor's obligations to indemnify and hold the Indemnitees harmless **exclude** only such portion of any Indemnity Claim which is attributable to the active negligence or willful misconduct of the Indemnitee, provided such active negligence or willful misconduct is determined by agreement of the parties or by findings of a court of competent jurisdiction. In instances where an Indemnitee's active negligence accounts for only a percentage of the liability for the Indemnity Claim involved, the obligation of Contractor will be for that entire percentage of liability for the Indemnity Claim not attributable to the active negligence or willful misconduct of the Indemnitee(s). Such obligation shall not be construed to negate, abridge or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person described in this Paragraph 11. Subject to the limits set forth herein, the Contractor, at its own expense, shall satisfy any resulting judgment that may be rendered against any Indemnitee resulting from an Indemnity Claim. The Indemnitees shall be consulted with regard to any proposed settlement.

10.3. **Independent Defense Obligation.** The duty of the Contractor to indemnify and hold harmless the Indemnitees includes the separate and independent duty to defend the Indemnitees, which duty arises immediately upon receipt by Contractor of the tender of any Indemnity Claim from an Indemnitee. The Contractor's obligation to defend the Indemnitee(s) shall be at Contractor's sole expense, and not be excused because of the Contractor's inability to evaluate liability or because the Contractor evaluates liability and determines that the Contractor is not liable. This duty to defend shall apply whether or not an Indemnity Claim has merit or is meritless, or which involves claims or allegations that any or all of the Indemnitees were actively, passively, or concurrently negligent, or which otherwise asserts that the Indemnitees are responsible, in whole or in part, for any Indemnity Claim. The Contractor shall respond within thirty (30) Calendar Days to the tender of any Indemnity Claim for defense and/or indemnity by an Indemnitee, unless the Indemnitee agrees in writing to an extension of this time. The defense provided to the Indemnitees by Contractor shall be by well qualified, adequately insured and experienced legal counsel acceptable to the City.

10.4. **Intent of Parties Regarding Scope of Indemnity.** It is the intent of the parties that the Contractor and its Subcontractors of all tiers shall provide the Indemnitees with the broadest defense and indemnity permitted by Applicable Law. In the event that any of the defense, indemnity or hold harmless provisions in the Contract Documents are found to be ambiguous, or in conflict with one another, it is the parties' intent that the broadest and most expansive interpretation in favor of providing defense and/or indemnity to the Indemnitees be given effect.

10.5. **Waiver of Indemnity Rights Against Indemnitees.** With respect to third party claims against the Contractor, to the fullest extent permitted by law, the Contractor waives any and all rights to any type of express or implied indemnity against the Indemnitees.

10.6. **Subcontractor Requirements.** In addition to the requirements set forth hereinabove, Contractor shall ensure, by written subcontract agreement, that each of Contractor's Subcontractors of every tier shall protect, defend, indemnify and hold harmless the Indemnitees with respect to Indemnity Claims arising out of, in connection with, or in any way related to each such Subcontractors' Work on the Project in the same manner in which Contractor is required to protect, defend, indemnify and hold the Indemnitees harmless. In the event Contractor fails to obtain such defense and indemnity obligations from others as required herein, Contractor agrees to be fully responsible to the Indemnitees according to the terms of this Paragraph 11.

10.7. **No Limitation or Waiver of Rights.** Contractor's obligations under this Paragraph 11 are in addition to any other rights or remedies which the Indemnitees may have under the law or under the Contract Documents. Contractor's indemnification and defense obligations set forth in this Paragraph 11 are separate and independent from the insurance provisions set forth in the Contract Documents, and do not limit, in any way, the applicability, scope, or obligations set forth in such insurance provisions. The purchase of insurance by the Contractor with respect to the obligations required herein shall in no event be construed as fulfillment or discharge of such obligations. In any and all claims against the Indemnitees by any employee of the Contractor, any Subcontractor, any supplier of the Contractor or Subcontractors, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the obligations under this Paragraph 11 shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any Subcontractor or any supplier of either of them, under workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts. Failure of the City to monitor compliance with these requirements imposes no additional obligations on the City and will in no way act as a waiver of any rights hereunder.

10.8. **Withholding to Secure Obligations.** In the event an Indemnity Claim arises prior to final payment to Contractor, the City may, in its sole discretion, reserve, retain or apply any monies due Contractor for the purpose of resolving such Indemnity Claims; provided, however, the City may release such funds if the Contractor provides the City with reasonable assurances of protection of the Indemnitees' interests. The City shall, in its sole discretion, determine whether such assurances are reasonable.

10.9. **Survival of Indemnity Obligations.** Contractor’s obligations under this Paragraph 11 are binding on Contractor’s and its Subcontractors’ successors, heirs and assigns and shall survive the completion of the Work or termination of the Contractor’s performance of the Work.

11. SUCCESSORS AND ASSIGNS. The Parties bind themselves, their heirs, executors, administrators, successors and assigns the covenants, agreements and obligations contained in the Contract Documents. The Contractor shall not, either voluntarily or by action of law, assign any right or obligation of the Contractor under the Contract Documents without prior written consent of the City.

(SIGNATURE PAGE FOLLOWS)

CITY OF MORENO VALLEY, Municipal Corporation

BY:______________________________
City Manager

DATE:______________________________

INTERNAL USE ONLY

APPROVED AS TO LEGAL FORM:

____
City Attorney

____
Date

RECOMMENDED FOR APPROVAL:

____
Public Works Director/City Engineer

____
Date

All American Asphalt

License No./
Classification:______________________________

Expiration Date:______________________________

Federal I.D. No.:______________________________

PRINT NAME:______________________________

SIGNATURE:______________________________

TITLE:______________________________

DATE:______________________________

PRINT NAME:______________________________

SIGNATURE:______________________________

TITLE:______________________________

DATE:______________________________

SIGNING INSTRUCTIONS TO THE CONTRACTOR:

Signature(s) must be accompanied by a completed notary certificate of acknowledgement attached hereto. A general partner must sign on behalf of a partnership. **Two (2)** corporate officers must sign on behalf of a corporation unless the corporation has a corporate resolution that allows one person to sign on behalf of the corporation; if applicable, said resolution must be attached hereto. The corporate seal may be affixed hereto.

CALIFORNIA ALL-PURPOSE
CERTIFICATE OF ACKNOWLEDGMENT

SAMPLE

State of California

County of ______________________

On __________________ before me, ____,
(Here insert name and title of the officer)

personally appeared ____,

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledgement to me that he/she they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

____
Signature of Notary Public

(Notary Seal)

DESCRIPTION OF THE ATTACHED DOCUMENT

AGREEMENT SIGNATURE PAGE
(Title or description of attached document)

____
(Title or description of attached document continued)

Number of Pages _______

Document Date _______________

____
Additional Information

CAPACITY CLAIMED BY THE SIGNER

☐ Individual(s)
☐ Corporate Officer
____
(Title)
☐ Partner (s)
☐ Attorney-in-Fact
☐ Other _____________________________

ADDITIONAL OPTIONAL INFORMATION

INSTRUCTIONS FOR COMPLETING THIS FORM

Any acknowledgment completed in California must contain verbiage exactly as appears above in the notary section or a separate acknowledgment form must be property completed and attached to that document. The only exception is if a document is recorded outside of California. In such instances, any alternative acknowledgment verbiage as may be printed on such a document so long as the verbiage does not require the notary to do something that is illegal for a notary in California (i.e. certifying the authorized capacity of the signer). Please check the document carefully for proper notarial wording and attach this form if required.

- State and County information must be the State and County where the document signer(s) personally appeared before the notary public for acknowledgment.
- Date of notarization must be the date that the signer(s) personally appeared which must also be the same date the acknowledgment is completed.
- The notary public must print his or her name as it appears within his or her commission followed by a comma and then your title (notary public).
- Print the name(s) of document signer(s) who personally appear at the time of notarization.
- Indicate the correct singular or plural forms by crossing off incorrect forms (i.e. ~~he~~/she/~~they~~, is/~~are~~) or circling the correct forms. Failure to correctly indicate this information may lead to rejection of document recording.
- The notary seal impression must be clear and photographically reproducible. Impression must not cover text or lines. If seal impression smudges, re-seal if a sufficient area permits, otherwise complete a different acknowledgment form.
- Signature of the notary public must match the signature on file with the office of the county clerk.
  - ❖ Additional information is not required but could help to ensure this acknowledgment is not misused or attached to a different document.
  - ❖ Indicate title or type of attached document, number of pages and date.
  - ❖ Indicate the capacity claimed by the signer. If the claimed capacity is a corporate officer, indicate the title (i.e. CEO, CFO, Secretary).
- Securely attach this document to the signed document.

CONTRACTOR'S BONDS

BOND NO. ___________

PREMIUM $___________

FAITHFUL PERFORMANCE BOND
(100% of Total Contract Price)

PROJECT NO. 801 0039 70 77

ALESSANDRO BOULEVARD MEDIAN
from Indian Street to Perris Boulevard

KNOW ALL MEN AND WOMEN BY THESE PRESENTS:

THAT WHEREAS, the City Council of the City of Moreno Valley, State of California, known as "City," has awarded to **All American Asphalt,** as Principal hereinafter designated as "Contractor" and have entered into an Agreement whereby the Contractor agrees to construct or install and complete certain designated public improvements, which said Agreement, effective on the date signed by the City of Moreno Valley, and identified as **Project No. 801 0039 70 77**, and all Contract Documents are hereby referred to and made a part hereof; and

WHEREAS, said Contractor under the terms of said Contract Documents is required to furnish a bond guaranteeing the faithful performance of said Agreement;

NOW THEREFORE, we the undersigned Contractor and___________________________________, as Surety, are held and firmly bound unto the City of Moreno Valley, County of Riverside in the penal sum of __________________________ dollars, ($__________), lawful money of the United States, to be paid to the said City or its certain attorney, its successors and assigns; for which payment, well and truly to be made, we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally liable (CCP 995.320 (a)(1)), firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that if the above bound Contractor, his or her or its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and provisions in said Contract Documents and any alterations thereof made as therein provided, on his or her or their part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless the City of Moreno Valley, its officers, agents and employees, as therein stipulated, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect. In the event suit is brought upon this bond by the City and judgement is recovered, the Surety shall pay all costs incurred by the City in such suit, including a reasonable attorney fee to be fixed by the court.

Contractor and Surety agree that this Faithful Performance Bond shall not be considered a part of the Agreement between Contractor and the City ("Agreement"). Contractor and Surety further agree that this Faithful Performance Bond is a separate obligation of the Contractor and its Surety, and that any attorneys' fee provision contained in this Faithful Performance Bond shall not apply to the Agreement. In the event there is any litigation between the parties arising from the breach of the Agreement, each party will bear its own attorneys' fees in the litigation.

The Surety hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the Contract Documents or to the Work to be performed thereunder, or the Provisions accompanying the same shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract Documents or to the Work or the Provisions.

(SIGNATURE PAGE FOLLOWS)

BOND NO. __________

IN WITNESS WHEREOF, we have hereunto set our hands, and seals on this ______ day of ______________ 20____.

CONTRACTOR (Principal)	SURETY
Contractor Name: ______________________	Name: ___________________________________
Address: ______________________________	Address: _________________________________
______________________________________	____
Telephone No.: _________________________	Telephone No.: ____________________________
Print Name: ___________________________	Print Name: ______________________________ Attorney-in-Fact
Signature: ____________________________	Signature: _______________________________

Approved as to Form this

_____ day of _____________________20____

____
City Attorney
City of Moreno Valley

NOTE:

- **The bond shall be executed by a California admitted surety insurer (CCP 995.311).**
- **The bond shall include an attached Notary Certificate for the Attorney-in-Fact.**
- **The bond shall include an attached Notary Certificate for the Bidder.**
- **The bond shall include an attached original Power of Attorney only authorizing the Attorney-in-Fact to act for the Surety.**
- **The bond shall include the address at which the Principal (Bidder) and Surety may be served with notices, papers and other documents.**
- **The Bidder's and Surety's corporate seal may be affixed hereto.**

CALIFORNIA ALL-PURPOSE
CERTIFICATE OF ACKNOWLEDGMENT

SAMPLE

State of California
County of ______________________

On _________________ before me, ____,
(Here insert name and title of the officer)

personally appeared ____,

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledgement to me that he/she they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

____
Signature of Notary Public

(Notary Seal)

ADDITIONAL OPTIONAL INFORMATION

INSTRUCTIONS FOR COMPLETING THIS FORM

Any acknowledgment completed in California must contain verbiage exactly as appears above in the notary section or a separate acknowledgment form must be property completed and attached to that document. The only exception is if a document is recorded outside of California. In such instances, any alternative acknowledgment verbiage as may be printed on such a document so long as the verbiage does not require the notary to do something that is illegal for a notary in California (i.e. certifying the authorized capacity of the signer). Please check the document carefully for proper notarial wording and attach this form if required.

- State and County information must be the State and County where the document signer(s) personally appeared before the notary public for acknowledgment.
- Date of notarization must be the date that the signer(s) personally appeared which must also be the same date the acknowledgment is completed.
- The notary public must print his or her name as it appears within his or her commission followed by a comma and then your title (notary public).
- Print the name(s) of document signer(s) who personally appear at the time of notarization.
- Indicate the correct singular or plural forms by crossing off incorrect forms (i.e. ~~he~~/she/~~they~~, is/~~are~~) or circling the correct forms. Failure to correctly indicate this information may lead to rejection of document recording.
- The notary seal impression must be clear and photographically reproducible. Impression must not cover text or lines. If seal impression smudges, re-seal if a sufficient area permits, otherwise complete a different acknowledgment form.
- Signature of the notary public must match the signature on file with the office of the county clerk.
  - Additional information is not required but could help to ensure this acknowledgment is not misused or attached to a different document.
  - Indicate title or type of attached document, number of pages and date.
  - Indicate the capacity claimed by the signer. If the claimed capacity is a corporate officer, indicate the title (i.e. CEO, CFO, Secretary).
- Securely attach this document to the signed document.

DESCRIPTION OF THE ATTACHED DOCUMENT

FAITHFUL PERFORMANCE BOND SIGNATURE PAGE
(Title or description of attached document)

____
(Title or description of attached document continued)

Number of Pages _______

Document Date _______________

____
Additional Information

CAPACITY CLAIMED BY THE SIGNER

○ Individual(s)
○ Corporate Officer
____
(Title)
○ Partner (s)
○ Attorney-in-Fact
○ Other ________________________________

BOND NO. ___________

PREMIUM $__________

LABOR AND MATERIALS PAYMENT BOND
(100% of Total Contract Amount)

PROJECT NO. 801 0039 70 77

ALESSANDRO BOULEVARD MEDIAN
from Indian Street to Perris Boulevard

KNOW ALL MEN AND WOMEN BY THESE PRESENTS

THAT WHEREAS, the City Council of the City of Moreno Valley, State of California, known as "City", has awarded to **All American Asphalt,** as Principal hereinafter designated as "Contractor" and have entered into an Agreement whereby the Contractor agrees to construct or install and complete certain designated public improvements, which said Agreement, effective on the date signed by the City of Moreno Valley, and identified as **Project No. 801 0039 70 77**, and Contract Documents are hereby referred to and made a part hereof; and

WHEREAS, said Contractor under the terms of said Contract Documents is required to furnish a bond to secure the payment of claims of laborers, mechanics, materialmen, and other persons, as provided by law;

NOW, THEREFORE, we the undersigned Contractor and __________________________________, as Surety are held and firmly bound unto the City of Moreno Valley, County of Riverside, in the penal sum of ______________________________________dollars, ($_________), lawful money of the United States, for which payment, well and truly to be made, we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally liable (CCP 995.320 (a)(1)), firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that if said Contractor, his or her or its heirs, executors, administrator, successors or assigns, or subcontractors, shall fail to pay any of the persons described in the State of California Civil Code, Section 3181, or amounts due under the Unemployment Insurance Code with respect to work or labor performed by any such claimant, or any amounts required to be deducted, withheld, and paid over to the Franchise Tax Board from the wages of employees of the Contractor and his or her subcontractors, pursuant to Section 13020, of the Unemployment Insurance Code, with respect to such work and labor, that the Surety or Sureties herein will pay for the same in an amount not exceeding the sum specified in this bond, otherwise the above obligation shall be void. In the event suit is brought upon this bond by the City or other person entitled to bring such an action and judgment is recovered, the Surety shall pay all costs incurred by the City in such suit, including a reasonable attorney fee to be fixed by the court.

Contractor and Surety agree that this Labor and Materials Payment Bond shall not be considered a part of the Agreement between Contractor and the City (“Agreement”). Contractor and Surety further agree that this Labor and Materials Payment Bond is a separate obligation of the Contractor and its Surety, and that any attorneys’ fee provision contained in this Labor and Materials Payment Bond shall not apply to the Agreement. In the event there is any litigation between the parties arising from the breach of the Agreement, each party will bear its own attorneys’ fees in the litigation.

This bond shall inure to the benefit of any of the persons described in the State of California Civil Code Section 3181, to give a right of action to such persons or their assigns in any suit brought upon this bond.

(SIGNATURE PAGE FOLLOWS)

BOND NO. ___________

IN WITNESS WHEREOF, we have hereunto set our hands, and seals on this ______ day of ______________ 20____.

CONTRACTOR (Principal)	SURETY
Contractor Name: ______________________	Name: __________________________________
Address: ______________________________	Address: _______________________________
______________________________________	____
Telephone No.: _________________________	Telephone No.: __________________________
Print Name: ____________________________	Print Name: ______________________________ Attorney-in-Fact
Signature: _____________________________	Signature: _______________________________

Approved as to Form this

_____ day of ____________________20___

____
City Attorney
City of Moreno Valley

NOTE:

- **The bond shall be executed by a California admitted surety insurer (CCP 995.311).**
- **The bond shall include an attached Notary Certificate for the Attorney-in-Fact.**
- **The bond shall include an attached Notary Certificate for the Bidder.**
- **The bond shall include an attached original Power of Attorney only authorizing the Attorney-in-Fact to act for the Surety.**
- **The bond shall include the address at which the Principal (Bidder) and Surety may be served with notices, papers and other documents.**
- **The Bidder's and Surety's corporate seal may be affixed hereto.**

CALIFORNIA ALL-PURPOSE
CERTIFICATE OF ACKNOWLEDGMENT

SAMPLE

State of California

County of ______________________

On _________________ before me, ____,
(Here insert name and title of the officer)

personally appeared ____,

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledgement to me that he/she they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

____
Signature of Notary Public

(Notary Seal)

DESCRIPTION OF THE ATTACHED DOCUMENT

LABOR AND MATERIALS PAYMENT BOND
SIGNATURE PAGE
(Title or description of attached document)

____
(Title or description of attached document continued)

Number of Pages _______

Document Date _______________

____
Additional Information

CAPACITY CLAIMED BY THE SIGNER

○ Individual(s)
○ Corporate Officer
____
(Title)
○ Partner (s)
○ Attorney-in-Fact
○ Other ________________________________

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- Securely attach this document to the signed document.

CITY OF MORENO VALLEY
SUPPLEMENTARY GENERAL CONDITIONS

The following provisions, pursuant to 44 Code of Federal Regulations, Part 13, Subpart C, Section 13.36, as it may be amended from time to time, are included in the Agreement and are required to be included in all subcontracts entered into by CONTRACTOR for work pursuant to the Agreement, unless otherwise expressly provided herein. These provisions supersede any conflicting provisions in the General Conditions and shall take precedence over the General Conditions for purposes of interpretation of the General Conditions. These provisions do not otherwise modify or replace General Conditions not in direct conflict with these provisions. Definitions used in these provisions are as contained in the General Conditions.

(1) CONTRACTOR shall be subject to the administrative, contractual, and legal remedies provided in the General Conditions in the event CONTRACTOR violates or breaches terms of the Agreement.

(2) CITY may terminate the Agreement for cause or for convenience, and CONTRACTOR may terminate the Agreement, as provided the General Conditions.

(3) CONTRACTOR shall comply with Executive Order 11246 of September 24, 1965, entitled Equal Employment Opportunity, as amended by Executive Order 11375 of October 13, 1967, and as supplemented in Department of Labor regulations (41 CFR chapter 60). (All construction contracts awarded in excess of $10,000 by CITY and/or subcontracts in excess of $10,000 entered into by CONTRACTOR.)

(4) CONTRACTOR shall comply with the Copeland Anti-Kickback Act (18 U.S.C. 874) as supplemented in Department of Labor regulations (29 CFR Part 3) (All contracts and subcontracts for construction or repair.)

(5) CONTRACTOR shall comply with the Davis-Bacon Act (40 U.S.C. 276a to 276a7) as supplemented by Department of Labor regulations (29 CFR Part 5).

(6) CONTRACTOR shall comply with Sections 103 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. *327330*) as supplemented by Department of Labor regulations (29 CFR Part 5).

(7) CONTRACTOR shall observe CITY requirements and regulations pertaining to reporting included in the General Conditions.

(8) Patent rights with respect to any discovery or invention which arises or is developed in the course of or under the Agreement shall be retained by the CITY.

(9) Copyrights and rights in data developed in the course of or under the Agreement shall be the property of the CITY. FEMA/CalOES reserve a royalty-free, nonexclusive, irrevocable license to reproduce, publish or otherwise use or authorize to others to use for federal purposes a copyright in any work developed under the Agreement and/or subcontracts for work pursuant to the Agreement.

(10) CONTRACTOR shall provide access by the City, the Federal grantor agency, the Comptroller General of the United States, or any of their duly authorized representatives to any books, documents, papers, and records of the contractor which are directly pertinent to that specific contract for the purpose of making audit, examination, excerpts, and transcriptions.

(11) CONTRACTOR shall retain all required records for three years after CITY makes final payments and all other pending matters relating to the Agreement are closed.

(12) CONTRACTOR shall comply with all applicable standards, orders, or requirements issued under section 306 of the Clean Air Act (42 U.S.C. *1857*(h)), section 508 of the Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR part 15). (This provision applies to contracts exceeding $100,000 and to subcontracts entered into pursuant to such contracts.)

(13) CONTRACTOR shall comply with mandatory standards and policies relating to energy efficiency which are contained in the State energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Pub. L. 94163, 89 Stat. 871).

City of Moreno Valley

BY: ______________________________
City Manager

____
Date

Contractor/Consultant Name

BY: ______________________________

TITLE: ______________________________
(Select only one please)
(President or Vice President)

____
Date

BY: ______________________________

TITLE: ______________________________
(Corporate Secretary)

____
Date

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CITY OF MORENO VALLEY
DECEMBER 3, 1984

APPROVALS	
BUDGET OFFICER	me
CITY ATTORNEY	SMB
CITY MANAGER	

Report to City Council

TO: Mayor and City Council

FROM: Ahmad R. Ansari, P.E., Public Works Director/City Engineer

AGENDA DATE: March 11, 2014

TITLE: THIRD AMENDMENT TO AGREEMENT WITH RBF CONSULTING FOR ALESSANDRO BOULEVARD MEDIAN FROM INDIAN STREET TO PERRIS BOULEVARD, PROJECT NO. 801 0039 70 77

RECOMMENDED ACTION

Recommendations:

1. Approve the Third Amendment to Agreement for Professional Consultant Services with RBF Consulting for construction support services.

2. Authorize the City Manager to execute the Third Amendment to Agreement for Professional Consultant Services with RBF Consulting.

3. Authorize an increase to the Purchase Order to RBF Consulting not to exceed the amount of $21,525 once the Third Amendment to Agreement has been signed by all parties.

SUMMARY

This report recommends approval of a Third Amendment to Agreement for Professional Consultant Services with RBF Consulting for construction support services for the Alessandro Boulevard Median from Indian Street to Perris Boulevard. The project is funded through an HSIP Grant with a 10% local match from Measure A, and has been approved in the 2013/2014 Capital Improvement Plan. A Staff Report to award the construction contract and appropriate additional funding is being processed concurrently through the City Council.

DISCUSSION

On December 13, 2011, the City Council accepted a California Department of Transportation (Caltrans) Highway Safety Improvement Program (HSIP) Cycle 4 grant award of up to $900,000 in funds for the Alessandro Boulevard Median between Indian Street and Perris Boulevard, and authorized an appropriation of unencumbered Measure "A" funds (Fund 2001) for the design and construction costs of the project.

On April 10, 2012 the City Council awarded the Professional Consultant Services agreement to RBF Consulting to provide design services. The design has been completed. The City received Caltrans' authorization for construction on December 11, 2013. The contractors' construction bids were opened on February 11, 2014, and RBF Consulting has submitted an updated cost proposal to provide construction support services.

This project will install/construct the following:

- A raised median along Alessandro Boulevard from 350 feet east of Indian Street to Perris Boulevard.
- Install a traffic signal at the intersection of Alessandro Boulevard and Covey Quail Lane and construct ADA compliant pedestrian access ramps.
- Construct dual left turn lanes in the eastbound and westbound directions of Alessandro Boulevard at Perris Boulevard, resurface the roadway, modify the existing traffic signal, and construct ADA compliant pedestrian access ramps.

The raised median along Alessandro Boulevard is anticipated to reduce the collision rates. The proposed traffic signal at Alessandro Boulevard and Covey Quail Lane will assist pedestrians crossing Alessandro Boulevard from the residential area on the north to the commercial centers on the south. Finally, the improvements at Perris Boulevard and Alessandro Boulevard are anticipated to enhance pedestrian mobility through the intersection and reduce congestion.

In accordance with the expanded scope of work delineated in the Third Amendment to Agreement, RBF Consulting will attend meetings, answer design related questions, make design revisions if needed, develop final record drawings, and complete the GASB 34 documentation as part of the construction support services. The termination date of December 31, 2015 is not extended by this Amendment.

ALTERNATIVES

1. Approve and authorize the recommended actions as presented in this staff report. *This alternative will provide for the timely construction of the Alessandro Boulevard Median from Indian Street to Perris Boulevard.*

2. Do not approve and authorize the recommended actions as presented in this staff report. *This alternative will result in delaying the timely construction of the project.*

FISCAL IMPACT

This project is included in the Fiscal Year 2013/2014 Capital Improvement Plan Budget and will be financed with Measure "A" Funds (Fund 2001). The HSIP grant provides construction related cost reimbursement of up to 90% ($765,000) with a minimum 10% Measure "A" Funds (Fund 2001) local match ($85,000). A Staff Report to award the construction contract, re-appropriate $150,000 from Measure A funds from the Annual Pavement Resurfacing project, and appropriate $400,000 of unencumbered CDBG funds is being processed concurrently through the City Council. These additional funds will allow for landscaping the median and an asphalt grind and overlay treatment of the street pavement within the project limits.

PROPOSED BUDGET FOR CONSTRUCTION:

Alessandro Boulevard Median from Indian Street to Perris Boulevard (Acct. No. 2001-70-77-80001, Project No. 801 0039 70 77)	$964,000
Proposed Re-Appropriation from fund 2001 Measure A (Annual Pavement Resurfacing) (Acct. No. 2001-70-77-80001, Project No. 801 0003 70 77)	$150,000
Proposed Appropriation from fund 2512 CDBG (unencumbered)	$400,000
Total Budget	$1,514,000

ESTIMATED CONSTRUCTION RELATED COSTS:

Design Consultant Services (Construction Support Services)	**$22,000**
Contractor Construction Costs (includes Contingency)	$1,300,000
Construction Survey Services	$30,000
Construction Geotechnical Services	$30,000
Construction Management and Inspection Services*	$75,000
Total Estimated Project Costs	$1,457,000

**City staff will provide Construction Management, and Inspection Services.*

ANTICIPATED PROJECT SCHEDULE:

Start Construction	April 2014
Anticipated Completion of Construction	September 2014

CITY COUNCIL GOALS

PUBLIC SAFETY:

Provide a safe and secure environment for people and property in the community, control the number and severity of fire and hazardous material incidents, and provide protection for citizens who live, work and visit the City of Moreno Valley.

PUBLIC FACILITIES AND CAPITAL PROJECTS:

Ensure that needed public facilities, roadway improvements, and other infrastructure improvements are constructed and maintained.

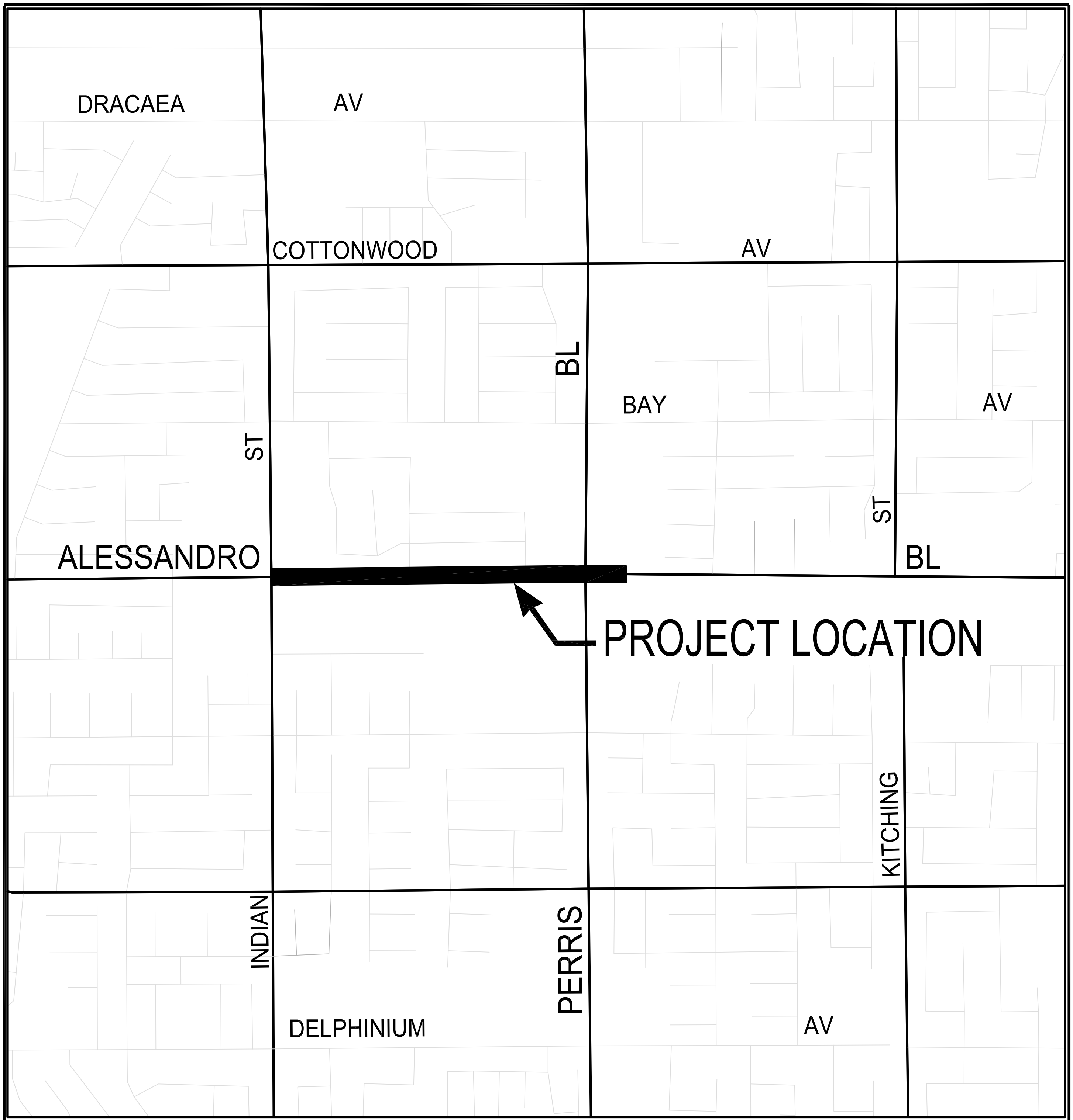
ATTACHMENTS

Attachment 1:	Location Map
Attachment 2:	Third Amendment to Agreement with RBF Consulting

Prepared By:
Lorenz R. Gonzales
Senior Engineer, P.E.

Department Head Approval
Ahmad R. Ansari, P.E.
Public Works Director/City Engineer

Concurred By:
Prem Kumar, P.E.
Deputy Public Works Director/Assistant City Engineer



ALESSANDRO BOULEVARD MEDIAN

LOCATION MAP
Public Works Department
Capital Projects Division

ATTACHMENT 1

ALESSANDRO BOULEVARD MEDIAN

FROM INDIAN STREET TO PERRIS BOULEVARD

PROJECT No. 801 0039 70 77

CITY OF MORENO VALLEY
DECEMBER 3, 1984

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THIRD AMENDMENT TO AGREEMENT
FOR PROFESSIONAL CONSULTANT SERVICES
PROJECT NO. 801 0039 70 77

This Third Amendment to Agreement is by and between the CITY of MORENO VALLEY, a municipal corporation, hereinafter referred to as "City," and RBF Consulting, a California corporation, hereinafter referred to as "Consultant." This Third Amendment to Agreement is made and entered into effective on the date the City signs this Amendment.

RECITALS:

Whereas, the City and Consultant entered into an Agreement entitled "AGREEMENT for PROFESSIONAL CONSULTANT SERVICES," hereinafter referred to as "Agreement," dated April 26, 2012.

Whereas, the Consultant is providing consultant design/construction support services for Alessandro Boulevard Median from Indian Street to Perris Boulevard, Project No. 801 0039 70 77.

Whereas, the Agreement was amended on June 25, 2013 to extend the professional consultant services in the First Amendment to Agreement for Professional Consultant Services.

Whereas, the Agreement was amended on November 12, 2013 to extend the professional consultant services in the Second Amendment to Agreement for Professional Consultant Services.

Whereas, it is desirable to amend the Agreement to expand the scope of the work to be performed by the Consultant as is more particularly described in Section 1 of this Third Amendment.

Whereas, the Consultant has submitted a Proposal dated February 5, 2014, for expansion of the scope of work to be performed. A copy of said Proposal is attached as “Exhibit A -- Third Amendment” and is incorporated herein by this reference.

SECTION 1 AMENDMENT TO ORIGINAL AGREEMENT:

1.1 The Agreement termination date of December 31, 2015 is not extended by this Amendment, unless the termination date is further extended by an Amendment to the Agreement.

1.2 Exhibit “B” to the Agreement is hereby amended by adding to the scope of work section described in “Exhibit A -- Third Amendment,” entitled "Scope Change Request."

1.3 Exhibit “D” to the Agreement is hereby further amended by adding to the cost proposal section thereof described in “Exhibit B -- Third Amendment,” entitled " Fee Estimate."

1.4 The City agrees to pay the Consultant and the Consultant agrees to receive a "Not-to-Exceed"fee of $21,525, as set forth in the above-referenced Cost Summary, in consideration of the Consultant's performance of the work set forth in “Exhibit A -- Third Amendment.”

1.5 The total “Not to Exceed” fee for this contract is $158,552 ($137,027.00 for the original Agreement, plus $0 for the First Amendment to Agreement, plus $0 for the Second Amendment to Agreement, plus $21,525 for the Third Amendment to Agreement).

SECTION 2

2.1 Except as otherwise specifically provided in this Amendment, all other terms and conditions of the Agreement shall remain in full force and effect.

SIGNATURE PAGE TO FOLLOW

AMENDMENT TO AGREEMENT FOR
PROFESSIONAL CONSULTANT SERVICES
PROJECT NO. 801 0039 70 77

IN WITNESS HEREOF, the parties have each caused their authorized representative to execute this Agreement.

City of Moreno Valley

BY: ______________________
City Manager

____
Date

INTERNAL USE ONLY

APPROVED AS TO LEGAL FORM:

____
City Attorney

____
Date

RECOMMENDED FOR APPROVAL:

____
Department Head

____
Date

RBF Consulting

BY: ______________________

TITLE: ______________________
(President or Vice President)

____
Date

BY: ______________________

TITLE: ______________________
(Corporate Secretary)

____
Date

Attachments: “Exhibit A – Third Amendment”
“Exhibit B – Third Amendment”

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MINUTES – REGULAR MEETING OF FEBRUARY 25, 2014
(Report of: City Clerk Department)

Recommendation: Approve as submitted.

SEE AGENDA ITEM A.2

Item No. B.2

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MINUTES – REGULAR MEETING OF FEBRUARY 25, 2014
(Report of: City Clerk Department)

Recommendation: Approve as submitted.

SEE AGENDA ITEM A.2

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MINUTES – REGULAR MEETING OF FEBRUARY 25, 2014
(Report of: City Clerk Department)

Recommendation: Approve as submitted.

SEE AGENDA ITEM A.2

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DECEMBER 3, 1984

APPROVALS	
BUDGET OFFICER	me
CITY ATTORNEY	SMB
CITY MANAGER	

Report to City Council

TO: Mayor and City Council

FROM: John Terell, Community & Economic Development Director

AGENDA DATE: March 11, 2014

TITLE: A PUBLIC HEARING FOR AN APPEAL OF THE PLANNING COMMISSION'S DECEMBER 12, 2013, APPROVAL OF THE FIRST INLAND LOGISTICS CENTER II PROJECT PA12-0023 AND RELATED ENVIRONMENTAL IMPACT REPORT. THE PROJECT PROPOSES A 400,130 SQUARE FOOT WAREHOUSE BUILDING LOCATED ON 17.3 ACRES AT THE SOUTHWEST CORNER OF PERRIS BOULEVARD AND SAN MICHELE ROAD. THE APPLICANT IS FIRST INDUSTRIAL. THE APPELLANT IS JOHNSON & SEDLACK ATTORNEYS AT LAW ON BEHALF OF RESIDENTS FOR A LIVABLE MORENO VALLEY AND SIERRA CLUB.

RECOMMENDED ACTION

Recommendations: That the City Council:

1. Conduct a public hearing for the Environmental Impact Report (P12-064) and Plot Plan PA12-0023, and subsequent to the public hearing:

2. APPROVE Resolution No. 2014-20. A Resolution of the City Council of the City of Moreno Valley, California, CERTIFYING that the Final Environmental Impact Report has been completed in compliance with the California Environmental Quality Act, ADOPTING Findings and Statement of Overriding Considerations, and APPROVING a Mitigation Monitoring Program for the First Inland Logistics Center II Project generally located in the Industrial Area Specific Plan 208 on the SWC of Perris Boulevard between San Michele Road and Nandina Avenue.

3. APPROVE Resolution No. 2014-21. A Resolution of the City Council of the City of Moreno Valley, California, APPROVING Plot Plan PA12-0023 for the development of a 400,130 square foot warehouse distribution facility on 17.69 acres located on

the SWC of Perris Boulevard and San Michele Road Assessor Parcel Numbers 316-200-001, 015, 019, 035 and 034.

SUMMARY

This report recommends approval of PA12-0023 a Plot Plan for a 400,130 square foot warehouse building on 17.3 acres located on the southeast corner of Perris Boulevard and San Michele Road in the Specific Plan 208 Industrial. The project was approved by the Planning Commission on December 12, 2013 and was appealed by Residents for a Livable Moreno Valley and Sierra Club represented by Johnson & Sedlack because they believe the Environmental Impact Report is inadequate related to air quality, biology, GHGs, noise, traffic/transportation, and cumulative and regional effects, and failing to adopt all feasible mitigation measures and ensure they are enforceable.

DISCUSSION

ADVISORY BOARD/COMMISSION RECOMMENDATION

The Planning Commission at its December 12, 2013, meeting approved Planning Commission Resolution 2013-30 by a 5-0-1 (one abstention) vote certifying that the Environmental Impact Report (EIR) for the First Inland Logistics Center II on file with the Community & Economic Development Department was completed in compliance with the California Environmental Quality Act, adopted the Findings and Statement of Overriding Considerations, approved the Mitigation Monitoring Program and approved the Plot Plan PA12-0023 for the 400,130 square foot warehouse building on 17.3 acres.

Appeal

An appeal of the Planning Commission's approval was submitted on December 19, 2013 by Johnson & Sedlack Attorneys at Law on behalf of Residents for a Livable Moreno Valley and Sierra Club. The appeal was received within the required 15-day appeal period.

BACKGROUND

The applicant, First Industrial submitted an application for a 400,130 square foot warehouse building in the Moreno Valley Industrial Area Specific Plan 208 on 17.3 acres. The south portion of the site is currently a truck storage lot in connection with the warehouse building to the west. The north portion of the site is vacant land with a truck storage lot approved for the site. Additionally, a 181,031 square foot building is approved for the southern portion of the site with access from Nandina Avenue.

PA12-0023 Plot Plan

The Plot Plan project includes a 400,130 tilt-up concrete warehouse building with 59 dock doors located on the west side of the building. Street improvements will be completed on the northern portion of the site along Perris Boulevard and the frontage along San Michele Road. Street improvements on the southern portion of Perris Boulevard and Nandina Avenue were completed with the prior project.

ENVIRONMENTAL

Initial Study/Notice of Preparation

Based on the information within the Initial Study, a Focused Environmental Impact Report (EIR) was recommended to be prepared. A Notice of Preparation for the EIR was prepared, with the public comment period beginning on December 3, 2012 and ending on January 12, 2013 with comments received.

Draft Environmental Impact Report

The Draft Environmental documents were prepared by the environmental consultant T&B Planning and submitted to the City for review.

City staff reviewed the draft environmental documents for compliance with the California Environmental Quality Act (CEQA) and required revisions and clarifications. The Draft EIR was circulated for a 45-day review period starting on June 12, 2013 and ending on July 29, 2013.

The draft EIR was sent to all required State and local agencies and interested parties. Ten comment letters were received during the review period.

Final Environmental Impact Report

Responses to the comments received during the review period are included in the Response to Comments which were mailed along with the notice of hearing to all interested parties and responsible agencies on November 27, 2013 for their review prior to the Planning Commission hearing.

The notice of preparation, Draft EIR and Final EIR were also provided for public review at City Hall and the City Library.

Significant and Unavoidable Impacts

The analysis presented in the EIR indicates that the proposed project will have a number of potentially significant impacts, either as direct result of the proposed project or cumulatively with other proposed projects on traffic, air quality, and noise. The EIR includes a number of proposed mitigation measures to reduce or eliminate potential significant impacts. Even with proposed mitigation, a number of potential impacts cannot be reduced to a less than significant level. As identified in the document, these noted impacts above are considered to be significant and unavoidable.

Although impacts to traffic, air quality, and noise cannot be reduced to less than significant levels, CEQA allows a decision making body to consider a statement of overriding considerations and findings. CEQA requires the decision making agency to balance the economic, legal, social, technological or other benefits of a proposed project against its unavoidable environmental impacts when determining whether to approve the proposed project. This would include project benefits such as the creation of jobs or other beneficial project features versus project impacts that cannot be mitigated to less than significant levels. If the decision making body determines that the benefits of a proposed project outweigh the unavoidable adverse environmental effects, it may approve a statement of overriding considerations and approve the project.

Mitigation Measures

The Final Environmental Impact Report recommends 22 project specific and cumulative mitigation measures to reduce impacts related to air quality, greenhouse gas emissions, noise, transportation/traffic and biological resources. All other environmental effects evaluated in the EIR are considered to be less than significant without mitigation.

Mitigation measures are included to reduce the environmental impacts where possible, even where the impacts could not be reduced to less than significant levels.

Approval and Certification

The City Council will take public testimony on the EIR and project. Before action on the proposed project, the City Council will review the final environmental document before making a decision to either certify or reject the EIR and project Mitigation Monitoring Program.

The proposed project is consistent with the Moreno Industrial Area Specific Plan 208 and with the surrounding uses. All of the surrounding properties are within the Specific Plan 208 with existing warehouse buildings and some buildings under construction.

Potential impacts have been examined through the preparation of the Final EIR. Subject to the approval of the Final Environmental Impact Report, the proposed project is consistent with and does not conflict with the goals, objectives, policies or programs of the City’s General Plan.

Planning Commission Public Hearing

The Planning Commission Hearing was held on December 12, 2013. Following the staff report presentation, the environmental consultant and the applicant provided answers to questions from the Commissioners relating to the project and those related to the environmental document.

There was one public speaker who had concerns with the traffic, Mitigation Measures and the building design. Additionally, a comment letter was received before the meeting from Johnson & Sedlack on December 11, 2013.

ALTERNATIVES

1. Approve proposed Resolution and Certify that the Environmental Impact Report (EIR P12-064) for the First Inland Logistics Center II Project has been completed in compliance with the California Environmental Quality Act, **and** approve proposed Resolution approving Plot Plan PA12-0023 subject to the attached conditions of approval included as Exhibit A. **Staff recommends this alternative.**

2. Do not approve proposed Resolution and Certify that the Environmental Impact Report (EIR P12-064) for the First Inland Logistics Center II Project has been completed in compliance with the California Environmental Quality Act, **and** do not approve proposed Resolution approving Plot Plan PA12-0023 subject to the attached conditions of approval included as Exhibit A. Staff recommends this alternative. **Staff does not recommend this alternative.**

FISCAL IMPACT

Not applicable.

CITY COUNCIL GOALS

Not applicable.

NOTIFICATION

A notice was published in the newspaper and a public notice was posted at required City locations and at the project site. The final EIR was also re-circulated 10 days in advance of the City Council public hearing to responsible agencies and interested parties that had commented on the Draft EIR.

As of the date of report preparation, staff has not received public inquiries in response to the noticing for the City Council public hearing for this project.

ATTACHMENTS

1. Public Hearing Notice
2. Proposed Resolution
3. Proposed Resolution
4. Final EIR
5. Draft EIR
6. Project Plans
7. Aerial Photograph
8. Zoning Map
9. Letter from Johnson & Sedlack to the Planning Commission
10. Letter from Sierra Club to the Planning Commission
11. Appeal Letter from Johnson & Sedlack

12. Planning Commission minutes from December 12, 2013 meeting
13. Response Letter RE Johnson & Sedlack EIR Case P12-064

Prepared By: Julia Descoteaux Associate Planner	Department Head Approval: John C. Terell, AICP Community & Economic Development Director

Concurred By:
Chris Ormbsy, AICP
Interim Planning Official

****REVISED****

Notice of
PUBLIC HEARING

This may affect your property. Please read.

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

CASE: PA12-0023 Plot Plan - Appeal of December 19, 2013 Planning Commission approval.

APPLICANT/OWNER: First Industrial LP

REPRESENTATIVE: Larry Cochrun, First Industrial
Robert Berndt, Albert Webb Associates
LOCATION: SWC Perris Boulevard and San Michele Road
316-200-001, -015, 035, and a portion of – 034

Appellant: Johnson & Sedlack Attorneys at Law

PROPOSAL: A Plot Plan for the construction of a 400,130 square foot warehouse building located on the southwest corner of Perris Boulevard and San Michele Road on 17.69 acres. The proposed project will eliminate the existing truck storage facility on the southern portion of the site, the approved (but not constructed) truck storage lot on the north portion of the site and the entitled 181,031 warehouse building (PA07-0167) on the southern portion of the site. The site is in the Specific Plan 208 I which allows warehouse facilities. Approval of this project will require certification of an EIR.

ENVIRONMENTAL DETERMINATION: An Environmental Impact Report (P12-064), Statement of Overriding Considerations and Mitigation Monitoring Program have been prepared for this project (SCH#2012121011). A draft document was circulated to the public (including interested parties/responsible agencies) for review from June 12, 2013 to July 29, 2013.

COUNCIL DISTRICT: 4

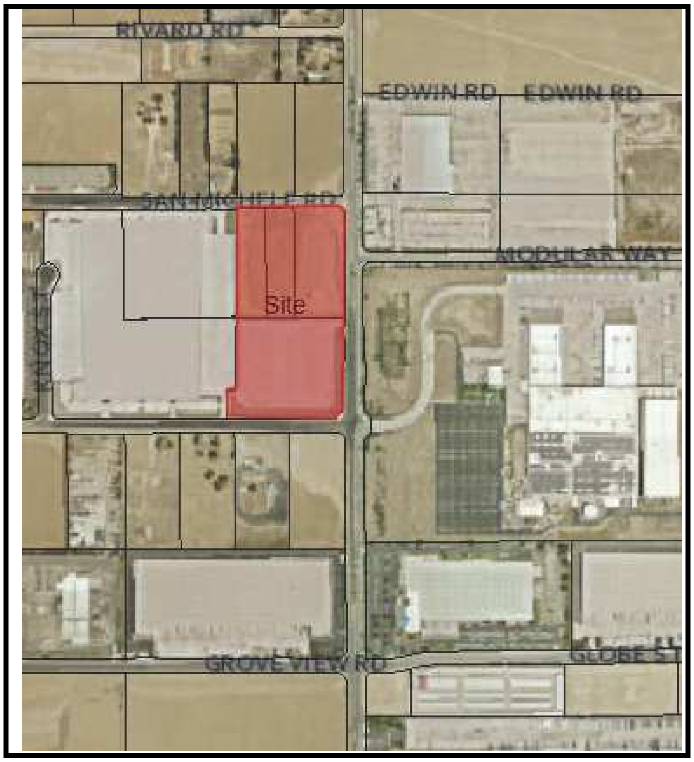
STAFF RECOMMENDATION: Approval

Any person interested in any listed proposal can contact the Community & Economic Development Department, Planning Division, at 14177 Frederick St., Moreno Valley, California, during normal business hours (7:30 a.m. to 5:30 p.m., Monday through Thursday and every 2nd and 4th Friday from 7:30 a.m. to 1:30 P.m.), or may telephone (951) 413-3206 for further information. The associated documents will be available for public inspection at the above address.

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

The City Council, at the Hearing or during deliberations, could approve changes or alternatives to the proposal.

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



LOCATION NØ

CITY COUNCIL HEARING

City Council Chamber, City Hall
14177 Frederick Street
Moreno Valley, Calif. 92553
DATE AND TIME: March 11, 2014 at 6:00 PM
CONTACT PLANNER: Julia Descoteaux
PHONE: (951) 413-3209

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RESOLUTION NO. 2014-20

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MORENO VALLEY, CALIFORNIA, CERTIFYING THAT THE FINAL ENVIRONMENTAL IMPACT REPORT (P12-064) HAS BEEN COMPLETED IN COMPLIANCE WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT, ADOPTING FINDINGS AND STATEMENT OF OVERRIDING CONSIDERATIONS, AND APPROVING A MITIGATION MONITORING PROGRAM FOR THE FIRST INLAND LOGISTICS CENTER II PROJECT, GENERALLY LOCATED IN THE INDUSTRIAL AREA SPECIFIC PLAN 208 ON THE SWC OF PERRIS BOULEVARD BETWEEN SAN MICHELE ROAD AND NANDINA AVENUE

WHEREAS, on March 11, 2014, the City Council of the City of Moreno Valley held a public hearing to consider the Environmental Impact Report and all related environmental documentation for the proposed project, which includes a Plot Plan for a 400,130 square foot distribution warehouse facility on approximately 17.69 acres. The warehouse building includes 59 doc doors and 6,000 square feet for offices and mezzanine areas. The project is located in the Specific Plan 208 Industrial area along Perris Boulevard between San Michele Road and Nandina Avenue; and

WHEREAS, the project includes an application for a plot plan (PA12-0023) which shall not be approved unless the Environmental Impact Report (P12-064) is certified and approved; and

WHEREAS, the Draft Environmental Impact Report (DEIR) was initially prepared for this project. Said DEIR was circulated for review on June 12, 2013 with the review period ending on July 29, 2013. A Final EIR (including the Draft EIR and responses to comments), has been completed and is being recommended for certification, prior to the approval of discretionary permits related to the project; and

WHEREAS, on December 1, 2013, the City published a notice in the local newspaper (Press Enterprise) and distributed (on November 25, 2013) copies of the draft Final EIR with complete responses to comments to the State Clearinghouse, local agencies and other interested parties; and

WHEREAS, on March 11, 2014, the City Council held a public hearing to consider a Final EIR for this project; and

WHEREAS, March 11, 2014, the City Council reviewed in full the Final EIR, Statement of Overriding Considerations and Mitigation Monitoring Program; and

WHEREAS, the draft EIR and final EIR concerning the proposed First Inland Logistics Center II project were prepared in sufficient detail and duly circulated in compliance with the California Environmental Quality Act (CEQA), the State CEQA guidelines and the City of Moreno Valley Rules and Procedures to Implement CEQA; and

WHEREAS, the Final EIR recommended to the City Council includes all responses to comments thereon; and

WHEREAS, Final EIR includes a review of potential impacts associated with the implementation of the First Inland Logistics Center II project, including, but not limited to traffic, air quality and noise; and

WHEREAS, a Mitigation Monitoring Program has been completed to ensure that all of the mitigation measures outlined in the final EIR are implemented; and

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

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

1. The City Council certifies that the final Environmental Impact Report (EIR) for the First Inland Logistics Center II project on file with the Community & Economic Development Department, incorporated herein by this reference, has been completed in compliance with the California Environmental Quality Act, that the City Council reviewed and considered the information contained in the final EIR and that the final EIR reflects the City’s independent judgment and analysis; and

2. The City Council herby adopts the Findings and Statement of Overriding Considerations regarding the final EIR for the First Inland Logistics Center II project attached hereto as Exhibit A; and

3. The City Council herby approves the Mitigation Monitoring Program for the final EIR for the proposed First Inland Logistics Center II project, attached hereto as Exhibit B.

APPROVED AND ADOPTED this 11th day of March, 2014.

Mayor of the City of Moreno Valley

ATTEST:

City Clerk

APPROVED AS TO FORM:

City Attorney

RESOLUTION JURAT

STATE OF CALIFORNIA)

COUNTY OF RIVERSIDE) ss.

CITY OF MORENO VALLEY)

I, Jane Halstead, City Clerk of the City of Moreno Valley, California, do hereby certify that Resolution No. 2014-20 was duly and regularly adopted by the City Council of the City of Moreno Valley at a regular meeting thereof held on the 11th day of March, 2014 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

(Council Members, Mayor Pro Tem and Mayor)

____
CITY CLERK

(SEAL)

Exhibit A

Facts, Findings and Statement of Overriding Considerations Regarding the Environmental Effects of the Approval of the First Inland Logistics Center II Project
(State Clearinghouse No. 2012121011)

I. INTRODUCTION

The Planning Commission of the City of Moreno Valley (the "Commission") in approving the First Inland Logistics Center II project (the "Project"), makes the Findings described below and adopts the Statement of Overriding Considerations presented at the end of the Findings. The Findings are based upon the entire record before the Commission, as described in Section III below, including the Environmental Impact Report ("EIR") prepared for the Project by the City, acting as lead agency under the California Environmental Quality Act ("CEQA").

II. PROJECT SUMMARY

A. PROJECT DESCRIPTION

The Project proposes to develop a 17.3-acre property with one logistics center warehouse building containing 400,130 square feet (s.f.) of interior building space and 59 loading bays. Associated improvements to the property would include, but are not limited to, surface parking areas, drive aisles, utility infrastructure, landscaping, exterior lighting, signage, and water quality/detention basins. Construction of the proposed Project involves the demolition and removal of an existing parking lot, grading of the 17.3-acre property, and construction of the proposed building. One discretionary action is requested of the City of Moreno Valley to implement the Project, PA12-0023, a Building Plot Plan. The proposed building is designed to contain 394,130 s.f. of warehouse space and 6,000 s.f. of office and mezzanine space. The front door and office would be positioned at the southeast corner of the building, facing the intersection of Perris Boulevard/Nandina Avenue. On the 17.3-acre property, 0.3 acres would be dedicated to the City of Moreno Valley for the widening of San Michele Road, so the total net parcel acreage is 17.0 acres. Over the 17.0 net-acre parcel, the proposed building would calculate to a floor area ratio (FAR) of 0.51.

B. PROJECT OBJECTIVES

The primary objective of the Project is to construct and operate one logistics center warehouse building in the City of Moreno Valley on a property designated for industrial development by the Moreno Valley Industrial Area Plan (MVIAP) (Specific Plan 208). The following is a list of specific objectives sought by the Project.

The specific objectives for the Project are to:

1. To construct and operate a logistics center warehouse building in the City of Moreno Valley on a property designated for industrial development by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208).
2. To develop a logistics center warehouse building that is feasible to construct and operate and that appeals to light industrial and warehouse distribution tenants seeking to locate in the Moreno Valley area.
3. To make efficient use of property designated for industrial development by developing a logistics center warehouse building on a property that is adjacent to existing warehouse development and that achieves a minimum floor area ratio (FAR) of 0.5.
4. To construct and operate a logistics center warehouse building within five miles of major regional transportation corridors.
5. To attract new businesses and jobs to the City of Moreno Valley, thereby providing a more equal jobs/housing balance both in the city and in Riverside County and reducing the need for members of the existing local workforce to commute outside the area for employment.

III. ENIRONMENTAL REVIEW AND PUBLIC PARTICIPATION

The City has conducted an extensive environmental review of the Project to ensure that both the City's decision makers and the public are fully informed about potential significant environmental effects of the Project; to identify ways that environmental damage can be avoided or significantly reduced; to prevent significant, avoidable damage to the environment by requiring changes in the Project through the use of mitigation measures which have been found to be feasible; and to disclose to the public the reasons why the City has approved the Project in the manner chosen in light of the significant environmental effects which have been identified in the EIR. In order to do this, the City, as the lead agency under CEQA, has done all of the following:

1. Prepared and distributed an Initial Study/Notice of Preparation, dated December 2, 2012, a copy of which was circulated on December 4, 2012, through the State Clearinghouse to various state agencies for their comments;

2. Sent the Initial Study/Notice of Preparation to each of the governmental agencies, organizations and individuals shown on the distribution list for the Notice of Preparation/Initial Study (see Appendix A to the Draft EIR), on December 2, 2012;

3. Lengthened the public review period for the Initial Study/Notice of Preparation from 30 days to 40 days, extending from December 4, 2012, to January 14, 2013, to allow for extra time on account of the review period falling over two federal holidays (December 25 and January 1).

4. Sent a Notice of Completion and a copy of the Draft EIR to the State Clearinghouse on June 6, 2013;

5. Mailed the Notice of Availability to all organizations and individuals who had previously requested the Notice on June 6, 2013;

6. Mailed the Notice of Availability to all residents and property owners within 300 feet of the Project Site on June 6, 2013;

7. Provided copies of the Draft EIR to 33 public agencies, organizations and individuals on June 6, 2013;

8. Placed copies of the Draft EIR on the City's website, at the City's Planning Division's public counter and at the public library located at 14177 Frederick Street on June 6, 2013;

9. Proposed responses to comments on the Draft EIR received during and after the 45-day comment period on the Draft EIR, which have been included in the Final EIR;

10. Published a Notice on December 1, 2013, in the Press Enterprise, a newspaper of general circulation which has the largest circulation in the areas affected by the Project, that the City's Planning Commission would hold a public hearing on December 12, 2013, to consider certification of the Final EIR as having been prepared in compliance with CEQA and the approval of the Project;

11. Sent copies of the Final EIR on November 27, 2013 to all public agencies, organizations, and individuals who had submitted comments;

12. Mailed notice of the Planning Commission's hearing to all residents and property owners within 300 feet of the Project Site on November 27, 2013;

13. Sent notice of the Planning Commission's hearing to all organizations and individuals who had submitted a written comment on the Draft EIR and/or previously requested notification of anything having to do with the Project on November 27, 2013; and

14. Held a public hearing of the City's Planning Commission to consider adequacy of the Final EIR on December 12, 2013, and, after full consideration of all comments, written and oral, certified that the Final EIR had been completed in compliance with CEQA and approved the Project.

All of the documents identified above and all of the documents which are required to be part of the record pursuant to Public Resources Code § 21167.6(e) are on file with the City's Community Development Department, Planning Division, located at 14177 Frederick Street, Moreno Valley, CA 92552-0805. Questions should be directed to Julia Descoteaux, AICP, Associate Planner, in the Division.

A. INDEPENDENT JUDGMENT FINDING

Finding: The Final EIR for the Project reflects the City's and the Planning Commission's independent judgment and analysis.

Factual Basis for the Finding: The Final EIR was prepared by T&B Planning, Inc., a professional consulting firm hired and funded by the Project Applicant, but working under the supervision and direction of the City's Community Development Department, Planning Division staff. The Planning Commission, as the City's final decision making body for the Project, received and reviewed the Final EIR and the comments, both written and oral, provided by public agencies and members of the public prior to certifying that the Final EIR complied with CEQA. The participation of City Staff in selection and approval of T&B Planning, Inc. included review of the professional qualifications and reputation of the EIR Consultant, the supervision and direction of the EIR Consultant by the City Staff, the thorough and independent review of the Draft and Final EIRs, including comments and responses to comments, and their supporting technical studies by City Staff and the review and careful consideration by the Planning Commission of the Final EIR, comments and responses to comments, which all conclusively show that the Final EIR is the product of and reflects the independent judgment and analysis of the City as the Lead Agency, and of the Planning Commission as its governing body.

B. FINDING OF THE ABSENCE OF ANY NEED TO RECIRCULATE THE FINAL EIR

Finding: The Planning Commission finds that the Final EIR does not add significant new information to the Draft EIR that would require recirculation of the Project EIR.

Factual Basis for the Finding: The Planning Commission recognizes that the Final EIR incorporates information obtained and produced after the Draft EIR was completed and that the Final EIR contains additions, clarifications and minor modifications to the Draft EIR. The Planning Commission has reviewed and considered the Final EIR and all of the information contained in it and has determined that the new information added to the Final

EIR does not involve a new significant environmental impact, a substantial increase in the severity of an environmental impact nor a feasible mitigation measure or an alternative considerably different from others previously analyzed that the Project Applicant declined to adopt and that would clearly lessen the significant environmental impacts of the Project. No information provided to the Planning Commission indicates that the Draft EIR was inadequate or conclusory or that the public was deprived of a meaningful opportunity to review and comment on the Draft EIR.

C. GENERAL TREATMENT OF MITIGATION MEASURES

It is the Planning Commission's intention to adopt all mitigation measures recommended by the Final EIR. If a measure has been omitted from the Conditions of Approval, from the Findings or from the Mitigation Monitoring Program (the "MMP"), a copy of which is attached as Exhibit A and which is hereby adopted, that mitigation measure shall be deemed to be adopted pursuant to this paragraph.

In addition, all Conditions of Approval and the MMP repeating or rewording mitigation measures recommended in the Final EIR are intended to be substantially similar to the mitigation measures as stated in the Final EIR and are found to be equally effective in avoiding or lessening the identified environmental impact.

IV. ENVIRONMENTAL IMPACTS AND FINDINGS

Based on the Initial Study, Appendix A to the Final EIR, and the responses to the Notice of Preparation, the EIR analyzed five (5) potential areas where significant environmental impacts could result from the development of the Project. The five (5) potential areas where significant environmental impacts could result from the development of the Project are air quality, greenhouse gas emissions, noise, transportation/traffic, and biological resources. Three of those, air quality (long-term), noise (near-term) and transportation/traffic (near-term), were found to have significant and unavoidable environmental impacts after the imposition of all feasible mitigation measures. Air quality (near-term), greenhouse gas emissions (near-term and long-term) and biological resources, were found to have either no significant and unavoidable environmental impacts or environmental impacts that could be mitigated to a level of insignificance. The description of each environmental area, the potential impacts and the feasible mitigation measures are set forth in Section 4.0 of the Final EIR together with the changes and additions set forth in Section F.2.3 of the Final EIR.

A. IMPACTS IDENTIFIED IN THE EIR AS POTENTIALLY SIGNIFICANT THAT HAVE BEEN MITIGATED TO LESS THAN SIGNIFICANT

1. AIR QUALITY

a. **Potential Direct and Cumulative Significant Impact (Near-term):** Violation of air quality standard, contribution to air quality violation, or cumulatively considerable net increase of a criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (Thresholds 2 and 3).

Finding: Emissions during Project construction (near-term) would violate the South Coast Air Quality Management District (SCAQMD) regional thresholds for volatile organic compounds (VOCs) and nitrogen oxides (NO_x). Near-term emissions of VOCs and NO_x also would contribute to an existing air quality violation in the South Coast Air Basin (SCAB) (i.e., non-attainment status for ozone (O_3)) because both VOCs and NO_x are precursors for O_3. As such, near-term construction activities would violate the air quality standard for VOCs and NO_x and would contribute to an existing regional air quality violation and would cumulatively contribute to the net increase of two criteria pollutants (O_3 and NO_x) for which the region is non-attainment. Accordingly, near term, construction-related emissions of VOCs and NOx are a significant direct and cumulative impact of the Project.

The Project will be required to implement Mitigation Measure MM 4.1-3 to address the Project's significant near-term impact associated with NO_x emissions and NO_x contributions to the SCAB's non-attainment status for O_3. The Project also will be required to implement Mitigation Measure MM 4.1-4 to address the Project's significant near-term impact associated with VOC emissions and VOC contributions to the SCAB's non-attainment status for O_3. Accordingly, Mitigation Measures MM 4.1-3 and MM 4.1-4, as set forth in the MMP attached as Exhibit A, have been imposed as conditions of approval for this Project.

Factual Basis for the Finding: Construction activities will result in the maximum daily emissions (before mitigation) of 81.55 pounds per day of VOC, which exceeds the SCAQMD's regional threshold of 75 pounds per day, and 111.99 pounds per day of NO_x which exceeds SCAQMD's regional threshold of 100 pounds per day. As discussed on Final EIR Page 4.1-19 through Page 4.1-24, and Page 4.1-26 through Page 4.1-30 and in the Project's Air Quality Impact Analysis (Final EIR Technical Appendix B), the sources of these emissions are primarily associated with exhaust from construction vehicles (NO_x) and the application of architectural coatings (VOC) to the building and wall surfaces. As stated on Final EIR Pages 3-5 and 3-6, the Project would be constructed over the course of approximately eight (8) months, with architectural coating occurring during the latter part of the construction process.

To address NO_x emissions, Mitigation Measure MM 4.1-3 requires that mass grading be limited to 4.0 acres per day, that diesel engines not idle in excess of three (3) minutes, that all construction equipment be CARB certified, and that temporary traffic controls be implemented for construction vehicles entering and existing the property. With the application of these measures, NOx emissions would be reduced to below the SCAQMD threshold of 75 pounds per day. Regardless, in consideration of public comments submitted on the Draft EIR, Mitigation Measure MM 4.1-3 was expanded to include 11 additional provisions to further reduce near-term NO_x emissions. Specifically, MM 4.1-3 is expanded to require that: the operating time of all pieces of off-road diesel-powered equipment will be limited to no more than 75 operating hours per day; construction-related haul trips entering and existing the site will be scheduled to occur during non-peak traffic hours; the construction contractor will incentivize carpooling by workers; high pressure injectors will be used on all diesel powered construction equipment over 100 horsepower; all construction-related on-road diesel-powered haul trucks will be 2007 or newer model year or 2010 engine compliant vehicles; all construction-related equipment with particulate traps will use Level 3 CARB certified traps; electric-powered construction equipment and tools will be used when technically feasible; biodiesel fuel or other alternatives to diesel fuel will be used to power construction equipment when technically feasible; construction vehicles will use the City's designated truck route; construction parking will be located and configured to minimize traffic interference on public streets; no more than 66 loads of earth material (about 2,000 cubic yards) will be brought to the site in any given day; and the import of earth materials and on-site grading activities will be prohibited from occurring on the same day. CEQA does not require the lead agency to analyze and adopt every imaginable mitigation measure, particularly measures that are not feasible to implement and monitor. Mitigation Measure MM 4.1-3, as set forth in the MMP attached as Exhibit A, has been imposed as a condition of approval and includes 15 provisions that will sufficiently reduce the Project's near-term NO_x impact to below a level of significance. As shown on Final EIR Table 4.1-13, the first four provisions of Mitigation Measure MM 4.1-4 will reduce the near-term NO_X impact to below a level of significance. To address VOC emissions, Mitigation Measure MM 4.1-4, as set forth in the MMP attached as Exhibit A, has been imposed as a condition of approval which requires that all surface coatings consist of Zero VOC paints. As shown on Final EIR Table 4.1-13, Mitigation Measure MM 4.1-4 will reduce the near-term VOC impact to below a level of significance.

2. BIOLOGICAL RESOURCES

a. **Potential Direct and Cumulative Significant Impact:** Substantial adverse effect on special-status species (Threshold 1) and conflict with the provisions of an adopted Habitat Conservation Plan (Threshold 6).

Finding: The Project site contains 9.0 acres of disturbed land and 8.3 acres covered by a parking lot. Neither portion of the property contains sensitive vegetation communities; nonetheless, there is suitable habitat for the western burrowing owl and migratory birds on the undeveloped portions of the site. The burrowing owl was not observed on the site during biological field surveys conducted on the property as documented in EIR Appendices G and GI, but because the burrowing owl is migratory and because suitable habitat is present on the property, owls could migrate onto the undeveloped portion of the property prior to ground-disturbing construction activities and be subject to impact. If present when construction activities commence, the Project could have a substantial adverse effect on the species. The Project will be required to implement Mitigation Measure MM 4.4-1, including compliance with Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Species-Specific Conservation Objective 5 to address the Project's potential impact to burrowing owl and reduce the potential impact to below a level of significance. The California horned lark was observed on the property as documented in EIR Appendix G, and is also migratory. Although impact to the California horned lark is less than significant because impacts to the species are covered by the Western Riverside County MSHCP, the Project will be required to implement Mitigation Measure MM 4.4-2 to address potential impacts to special-status nesting birds. Potentially significant cumulative impacts would be addressed and mitigated through compliance with the Western Riverside County MSHCP and associated establishment of the MSHCP Reserve System and mandatory compliance with the federal Migratory Bird Treaty Act.

Factual Basis for the Finding: As discussed on Pages 4.5-7, 4.5-10, and 4.5-12 through 4.5-15 of the Final EIR, and in the Project's Biological Technical Report (Final EIR Technical Appendix G) and the Project's Focused Burrowing Owl Survey (Final EIR Technical Appendix G1), the Project site contains suitable habitat for the burrowing owl. Although the western burrowing owl was not observed as being present on the Project site during the pedestrian-based field survey conducted on January 4, 2012 or during the burrowing owl focused surveys conducted on June 7, June 11, June 13, and June 20, 2012, burrowing owls, if present on the Project site just prior to the start of construction, have the potential to be directly impacted by Project construction activities. Pre-construction species surveys of the Project Site, avoidance of clearing and grading activities during the nesting season if the site is occupied, and requirements to follow Western Riverside County MSCHP requirements and California Department of Fish and Game protocol for occupied habitat will ensure that the potential direct and cumulative impacts will be mitigated to less than significant. Accordingly, Mitigation Measure 4.5-1 as set forth in the MMP attached as Exhibit A, has been imposed as a condition of approval.

As discussed on Pages 4.5-3, 4.5-7, and 4.5-10 through 4.5-12 of the Final EIR, and in the Project's Biological Technical Report (Final EIR Technical Appendix G), the California horned lark was observed on the property but impacts to the species are not significant because the species is a Covered Species under the Western Riverside County MSHCP. Nonetheless, Mitigation Measure 4.5-2, as set forth in the MMP attached as Exhibit A, has been and imposed as a condition of approval to mitigate potential direct and cumulative impacts to nesting birds to below a level of significance.

B. IMPACTS IDENTIFIED IN THE EIR AS BEING SIGNIFICANT AND UNAVOIDABLE EVEN AFTER THE IMPOSITION OF ALL FEASIBLE MITIGATION MEASURES

1. AIR QUALITY

a. **Significant and Unavoidable Direct and Cumulative Impact (Long-term):** Violation of air quality standard, contribution to air quality violation, or cumulatively considerable net increase of a criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (Thresholds 2 and 3).

Finding: The Project's long-term operational emissions would exceed the SCAQMD threshold of significance for NO_X, primarily associated with mobile source emissions. The SCAB does not attain state criteria for NO_X concentrations. Furthermore, NO_X is a precursor for O_3, and the SCAB is identified as a federal and state non-attainment area for O_3. As such, the Project's long-term operational activities, primarily associated with mobile source emissions, would violate the air quality standard for NO_x, which would contribute to an existing regional air quality violation and would cumulatively contribute to the net increase of criteria pollutants for which the region is non-attainment (NO_X and O_3). The Project's impact is thus significant on a direct and cumulative basis.

The Project will be required to implement Mitigation Measures MM 4.1-5, 4.1-6, 4.1-7, and 4.1-8 to reduce the Project's significant long-term operational-related impact associated with the emission of NO_X and NO_X contributions to the SCAB's non-attainment status for NO_X and O_3. Mitigation Measure MM 4.1-5 requires that legible, weather-proof signs be placed at truck access gates, loading docks, and truck parking areas that identify applicable California Air Resources Board (CARB) anti-idling regulations. Mitigation Measure MM 4.1-6 requires, prior to the issuance of building permits, that the City verify that the parking lot striping and security plan allows for adequate truck stacking at gates to prevent queuing of trucks outside the property. Mitigation Measure MM 4.1-7 requires, prior to the issuance of occupancy permits, that the Project's property owner provide documentation to the Planning Division verifying that provisions are included in the building's lease agreement that inform tenants about the availability of: 1) alternatively fueled cargo handling equipment; 2) grant programs for diesel fueled vehicle engine retrofit and/or replacement; 3) designated truck parking locations in the City of Moreno Valley; 4) access to alternative fueling stations in the City of Moreno Valley that supply compressed natural gas (closest station is located on Indian Street, south of Nanina Avenue); and 5) the United States Environmental Protection Agency's SmartWay program. Mitigation Measure MM 4.1-8 requires that in an event that the building design is modified to accommodate refrigeration, al loading docks shall be equipped with an electrical hookup to power refrigerated tractor trailers.

In addition to Mitigation Measures MM 4.1-5, 4.1-6, 4.1-7, and 4.1-8, on-road vehicles accessing the Project are required to comply with many state and federal regulatory requirements that address fuel usage and mobile emissions control, including but not limited to the California Code of Regulations Title 13, Title 17, and the CARB "Pavley" fuel standards. Furthermore, all new developments in the State of California are required to comply with the California Building Standards Code (also known as CalGreen), which addresses operational energy use efficiency. For example, CalGreen Section 5.106, Site Development, requires that a certain number of parking spaces be designated for any combination of low-emitting, fuel-efficient and carpool/vanpool vehicles.

The Project's long-term emissions of NO_X would directly and cumulatively contribute to an existing air quality violation in the SCAB (NO_X), as well as cumulatively contribute to the net increase of a criteria pollutant for which the SCAB is non-attainment (i.e., NO_X and O_3). The City of Moreno Valley finds this impact to be a significant unavoidable direct and cumulative impact (long-term). There are no additional feasible mitigation measures that will avoid or substantially lessen emissions of NOx during long-term operation to a level below significant while still attaining most of the basic objectives of the Project. Several comments to the Draft EIR suggest that the City prohibit vehicles from accessing the Project site unless they meet engine requirements above what state and federal laws require; however, the City finds that such a measure would not be feasible to enforce, would displace rather than reduce the impact, and thus would not result in a benefit to air quality in the SCAB. Mitigation Measures MM 4.1-5, 4.1-6, 4.1-7, and 4.1-8 have been adopted and will reduce this impact, but not to a less than significant level. This impact is overridden by Project benefits as set forth in the statement of overriding considerations.

Factual Basis for the Finding: As discussed on Page 4.1-19 through Page 4.1-23, Page 4.1-24 through Page 4.1-30 and the Project's Air Quality Impact Analysis (Final EIR Technical Appendix B), air pollutant emissions during Project operation (long term) are projected to exceed the SCAQMD regional threshold for NO_X. Long-term emissions of NO_X also would contribute to an existing air quality violation in the SCAB (i.e., non-attainment status for NO_X and O_3) because NO_X is a precursor for O_3. As such, Project-related air emissions would violate SCAQMD air quality standards and contribute to the non-attainment status of a criteria pollutant (NO_X

and O_3). These Project-related air pollutant emissions are concluded to be a significant impact on a direct and cumulative basis.

Project-related operational emissions (before mitigation) in the summer months will result in maximum daily emissions of 221.32 pounds per day of NO_X, which exceeds the SCAQMD's regional threshold of 55 pounds per day. Project-related operational emissions (before mitigation) in the winter months will result in maximum daily emissions of 236.13 pounds per day of NO_X, which exceeds SCAQMD's regional threshold of 55 pounds per day. Operational emissions for all other criteria pollutants (VOC, CO, SO_X, PM_{10}, $PM_{2.5)}$ will not exceed the SCAQMD thresholds.

The Project will be required to implement Mitigation Measures MM 4.1-5, 4.1-6, 4.1-7, and 4.1-8 to reduce the Project's significant long-term operational-related impact associated with the emission of NO_X and NO_X contributions to the SCAB's non-attainment status for NO_X and $O_{3.}$ In addition, on-road vehicles accessing the Project are required to comply with many state and federal regulatory requirements that address fuel usage and emissions control, including but not limited to the California Code of Regulations Title 13, Title 17, Title 24, and the California Air Resources Board (CARB) "Pavley" fuel standards. A listing of these regulatory requirements is contained in Final EIR Appendices B and D. Complying with all applicable regulatory requirements and Mitigation Measures MM 4.1-5, 4.1-6, 4.1-7, and 4.1-8 by placing legible, weather-proof signs at truck access gates, loading docks, and truck parking areas that identify applicable CARB anti-idling regulations, verifying that the parking lot striping and security plan allows for adequate truck stacking at gates to prevent queuing of trucks outside the property, informing tenants of ways to reduce energy usage in lease agreements, and equipping loading bays with an electrical hookup if refrigerated tractor trailers access the building will reduce NOx emissions, but not to a level below the SCAQMD thresholds of significance, which the EIR relies upon to form a significance conclusion.

There are no other feasible ways to reduce this impact and meet the Project's objectives. It is not feasible to impose nor would there be any environmental benefit to the SCAB from requiring trucks accessing this Project to meet stricter engine requirements that state and federal laws require. Imposing engine restrictions on this one Project or even on all new warehouse projects in the City of Moreno Valley is not feasible given the realities of the southern California economy and the nature of local control. High cube logistics and warehousing is one of the largest sectors of the California economy and is subject to fierce competition. The imposition engine requirements on the vehicle fleet accessing the Project site would have no realized environmental benefit because companies seeking to rent or buy such warehousing space have a wide range of location options throughout Southern California (particularly in the Inland Empire) and if the City were to unilaterally impose fleet restrictions on warehouse buildings within its borders, its share of the developable market for warehouse uses would evaporate as users and tenants not meeting the restriction would simply relocate to other cities within the SCAB (such as Ontario, Perris, Riverside, Corona, Beaumont, etc.) where fleet controls are not in place. Thus the NO_X emissions would simply be shifted to another portion of the Air Basin and the Air Basin's overall air quality would not be benefited. Additionally, the overall air quality in the Air Basin could arguably be worsened if the alternative locations resulted in increased vehicle miles traveled and hence more emissions. The same rational holds true for emissions from on-site operating equipment such as yard trucks. As state and federal emission regulations and restrictions at the San Pedro Bay Ports become more stringent, it is expected that older trucks will diminish from warehousing truck fleets without additional restrictions imposed by local governments. CARB reports indicate that NO_X and other air pollutant emissions are trending downward, showing an overall improvement in air quality over the past several decades even as population and new development is increasing (CARB, Almanac of Emissions and Air Quality, 2009 Chapter 3). SCAQMD's Fiscal Year 2012-2103 Budget & Work Program states that although the SCAB suffers from poor air quality, peak O_3 levels have been cut by almost three-fourths since air monitoring began in the 1950s (SCAQMD, 2013, page 2) Thus, overall air quality within the Air Basin is dramatically improving as the result of regulatory programs and is expected to continue to improve in the future as regulations become more stringent.

In conclusion, although implementation of mandatory and applicable state and federal regulatory requirements and Mitigation Measures MM 4.1-5 through 4.1-8, as set forth in the MMP attached as Exhibit A, will reduce long-term operational emissions of NOx and contributions to the SCAB's nonattainment status for NO_X and O_3, Project-related operational emissions of NOx, primarily from mobile source emissions, would remain above the SCAQMD significance threshold and there are no other ways to measurably reduce this impact that are feasible to implement and enforce and that would result in an environmental benefit to the Air Basin.

2. NOISE

a. Significant and Unavoidable Direct and Cumulative Impact (Near-term): Short-term generation of construction-related noise levels in excess of the City Noise Ordinance standard for non-transportation and stationary noise sources and short-term substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project (Thresholds 1, 3 and 4).

Finding: The City of Moreno Valley Noise Ordinance (Municipal Code Section 11.80.030.D.7) states that construction noise cannot occur between the hours of 8PM and 7AM. The Project's construction activities are required to comply with the Ordinance. Because the Noise Ordinance does not specify a maximum decibel limit on noise levels during permitted construction hours (and as such, any noise level is permitted to occur), the City conservatively applied the Noise Ordinance's decibel limit for non-transportation and stationary noise sources as the significance threshold for construction activities (65 dBA at 200 feet from the property line of industrial properties during daytime hours). During Project construction, noise levels from the Project site would exceed 65 dBA leq for a distance up to 2,774 feet assuming a clear line of site. Sensitive receptors located within 2,774 feet of the property boundary thus would be exposed to significant noise levels. Additionally, in the event that Project construction activities occur simultaneously with other construction activities that affect the same sensitive receptors, cumulative construction-related noise would also be significant.

The Project will be required to implement Mitigation Measures MM 4.3-1 and 4.3-2 which require construction practices that would minimize noise levels to sensitive receptors, but not to below a level of significance on either a direct or cumulative basis. Mitigation Measure MM 4.3-1 requires the Project to comply with and provide written records of notes on future grading plans that limits the hours of construction activities to hours permitted by the Noise Ordinance; requires construction equipment, fixed or mobile, to be equipped with properly operating and maintained mufflers; requires that all construction activity and equipment staging areas be placed as close as possible to the center of the western property line; and requires that all haul truck deliveries use City-approved haul routes and maintain written records of such compliance. Mitigation Measure MM 4.3-2 requires the Project, as a condition of the Project's building permit, to install the perimeter wall planned along San Michelle Road and at the corner of San Michelle Road and Perris Boulevard early in the construction process. Additional feasible mitigation measures are not available to further reduce Project-related construction noise levels, resulting in a significant and unavoidable short-term impact. The City of Moreno Valley finds this impact to be a significant unavoidable direct and cumulative near-term impact, which will in part provide attenuation of construction noise to the north. The mitigation measures listed have been adopted and will reduce this impact, but not to a less than significant level. This impact is overridden by Project benefits as set forth in the statement of overriding considerations.

Factual Basis for the Finding: As discussed on Pages 4.3-8, 4.3-9, 4.3-12, 4.3-13, and in the Project's Noise Impact Analysis (Final EIR Technical Appendix E), during the Project's various phases of construction, temporary noise impacts will occur to sensitive receptors located within 2,774 feet of the Project boundary by exposing these receptors to intermittent construction-related noise levels over 65 dBA. During the short-term demolition stage of construction (approximately two weeks in duration), a noise level of 65 dBA will be exceeded at a distance within 593 feet of the Project boundary (EIR Table 4.3-5). During the site preparation and grading stages of construction (approximately three weeks in duration), a noise level of 65 dBA will be exceeded at a distance within 2,774 feet of the Project boundary (EIR Tables 4.3-6 and 4.3-7). During the building construction and paving stages of construction (approximately six months in duration), a noise level of 65 dBA will be exceeded at a distance within 1,622 feet of the Project boundary (EIR Tables 4.3-8 and 4.3-9). During architectural coating and final site preparation phases of construction (approximately one month in duration), a noise level of

65 dBA will be exceeded at a distance within 565 feet of the Project boundary (EIR Table 4.3-10). Additionally, in the event that Project construction activities occur simultaneously with other construction activities that affect the same sensitive receptors, cumulative construction-related noise impacts would also be significant. The Project will be required to implement Mitigation Measures MM 4.3-1 and 4.3-2, as set forth in the MMP attached as Exhibit A, which require construction practices that would minimize noise levels to sensitive receptors, but not to below a level of significance on either a direct or cumulative basis. Additional feasible noise-reduction measures are not available to further reduce the off-site noise level during construction, with the loudest noise occurring for only approximately three weeks during the site preparation and grading phase of the construction process. Construction is required to occur in compliance with the City's Noise Ordinance, which does not specify a maximum decibel level for construction activities.

3. TRANSPORTATION/TRAFFIC

a. **Significant and Unavoidable Cumulative Impact (Near-term):** Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system (Threshold 1).

Finding: The Project's cumulative impacts at two (2) intersections in the City of Perris (Western Way/Harley Knox Boulevard and Indian Street/Harley Knox Boulevard) would be significant and unavoidable because these intersections fall outside of the City of Moreno Valley's jurisdiction and there is no fee program in place to which the Project can contribute mitigation funds. Additionally, the City of Moreno Valley has no authority to assure that the needed improvements will be in place prior to the Project's Opening Year Cumulative (2017) condition. Although needed improvements at these intersections are programmed as part of the North Perris Road and Bridge Benefit District (NPRBBD), the proposed Project is not in the NPRBBD fee area. As such, there is no feasible and legal means for the Project to monetarily contribute to the improvements. If a funding program is established to which the Project Applicant can participate as specified in Mitigation Measure MM 4.4-1, the Project's impacts would be mitigated. However, because such a funding program is not currently in place, the City of Moreno Valley finds this impact to be a significant and unavoidable near-term cumulative impact. This impact is overridden by Project benefits as set forth in the statement of overriding considerations.

Factual Basis for the Finding: As discussed on Pages 4.4-11 through 4.4-18 and Page 4.4-22 of the Final EIR, and in the Project's Traffic Impact Analysis (Final EIR Technical Appendix F), the addition of Project traffic to the circulation network would impact two (2) intersections in the City of Perris that are programmed for improvement, but for which there is no mechanism for the Project to contribute fees to mitigate its impact. These intersections are Western Way at Harley Knox Boulevard (Project's traffic contribution is 3.3%) and Indian Street at Harley Knox Boulevard (Project's traffic contribution is 3.5%). At Opening Year Cumulative (2017) Conditions the intersection of Western Way/Harley Knox Boulevard and the intersection of Indian Street/Harley Knox Boulevard are projected to operate at a LOS F under AM and PM peak hour conditions. Although improvements are anticipated to relieve these deficiencies in the long-term along Harley Knox Boulevard, funded by the NPRBBD, there is no assurance that the improvements will be in place at the time of the proposed Project's Opening Year Cumulative (2017) Conditions, and the Project cannot pay NPRBBD fees because the property is not located in the NPRBBD fee area. Mitigation measures beyond contribution to a fee program, such as full improvement of the intersections by the Project, are not feasible because there lacks proportionality to the impacts. Additionally, City of Moreno Valley is not authorized to require physical improvements to intersections in the City of Perris. Mitigation Measure MM 4.4-1, as set forth in the MMP attached as Exhibit A, will require fee payment to the City of Perris, if the City of Perris establishes a fair-share funding program to which projects in the City of Moreno Valley can contribute. There are no other feasible mitigation measures that will reduce the Project's cumulative impacts to the two (2) intersections below a level of significance.

V. PROJECT ALTERNATIVES

A. ALTERNATIVE SITES

Finding: There exists no feasible and available alternative site for the Project which would avoid or substantially lessen the significant impacts of the Project while allowing for the feasible attainment of most of the Project's basic objectives.

Factual Basis for the Finding: As discussed on Pages 6-3 through Page 6-5 of the Final EIR, the Project is consistent with the Business Park/Light Industrial and Commercial land use designations applied to the property by the City of Moreno Valley General Plan and as further detailed by the Industrial and Industrial Support Areas designations applied to the property by the Moreno Valley Industrial Area Plan (MVIAP) (Specific Plan 208). Thus, it can be reasonably assumed that development would ultimately occur in conformance with the property's applicable land use designation, whether by the Project Applicant or by others in the future. An examination of alternative sites is typically not necessary when a proposed development project is consistent with the applicable land use plan, because it can reasonably be assumed that development would ultimately occur in conformance with the applicable land use designation, whether by the Project Applicant or by others in the future. In cases where a proposed project is consistent with the applicable General Plan, the alternatives analysis should typically focus on options for developing the site consistent with adopted plan policies and the discussion of alternatives should search for an environmentally superior version of the project on the site instead of an alternative site.

The Project site is flat and is highly disturbed due to prior development of a parking site in the southern portion of the site and regular discing that occurs for fire fuel management in the northern portion of the site. The property is entitled to be developed pursuant to previously approved Amended Plot Plan P12-061 and previously approved Plot Plan PA07-0167. CEQA analysis for site disturbance associated with those approvals was completed, consisting of a Mitigated Negative Declaration (MND) and two MND Addenda (SCH No. 2008101041). Locating the proposed Project on an alternative site, therefore, would not avoid physical disturbance of the property. The only potential advantage, then, to selecting an alternative site for the proposed Project would be to displace the Project's operational effects to a different location.

The Project site is surrounded by properties developed with or planned for the future construction of industrial land uses. Few other properties in the City of Moreno

Valley and western Riverside County would offer less developmental and environmental constraints, or fewer physical environmental impacts than the proposed Project site. Development of the Project in an alternate location would have similar impacts as would occur with implementation of the Project at its proposed location, and may even increase environmental effects because the Project built in another location would be compounded with the effects of either the No Project/Trailer Yard Alternative (Alternative 1) or the No Project/Industrial Building Alternative (Alternative 2) because existing entitlements are already in place to construct those alternatives on the property. For these reasons, an alternative sites analysis is not required for the proposed Project.

B. NO PROJECT/TRAILER YARD ALTERNATIVE

Finding: Based on prior approval of Amended Plot Plan P12-061, the property could be developed as a trailer yard containing 722 spaces. The No Project/Trailer Yard Alternative would fail to meet all of the Project's specific objectives as listed in Subsection II.B above. This Alternative would not achieve the objectives to construct and operate a logistics center warehouse, and would not achieve a minimum FAR of 0.5. This Alternative also would not attract new businesses or jobs to the City of Moreno Valley because the parking yard would merely service the existing warehouse building to the west. Moreover, selection of the No Project/Trailer Yard Alternative, while preventing development of the property with a logistics center warehouse building, would not result in a reduction in demand for industrial business park development in western Riverside County; thus, it is likely for the Project's environmental impacts to occur elsewhere in the City or Inland Empire region rather than be avoided. The No Project/Trailer Yard Alternative would not avoid physical impacts to the property. Operational impacts associated with traffic, air quality, greenhouse gas, and noise would be reduced but likely displaced to another property.

Factual Basis for the Finding: The No Project/Trailer Yard Alternative was selected by the Lead Agency to compare the environmental effects of the proposed Project against what could reasonably occur on the Project site based on existing entitlements. The No Project/Trailer Yard Alternative assumes that the proposed Project is not approved, and that the site would be developed in accordance with its existing entitlements pursuant to previously approved Amended Plot Plan P12-061. Under this scenario, the property's existing truck trailer parking lot would be expanded from 213 stalls to 722 stalls, and would increase the size of the parking lot to cover the northern portion of the Project site.

As discussed on Page 6-2, 6-5 through 6-11, and in Table 6-1 on Page 6-30 of the Final EIR, implementation environmental effects would not be avoided or reduced by the selection of this Alternative. Moreover, this Alternative would not absorb demand for logistics center space in western Riverside County; thus, it is likely that any reduced level of environmental impact achieved through this Alternative would be displaced to another property rather than avoided. The establishment of a parking lot instead of a logistics center would reduce the tax revenue and employment generation potential of the property. Additionally, a parking lot would not meet the Project's basic objectives and would not fully implement the Business Park/Light Industrial land use designation applied to the property by the City's General Plan. A parking lot would also fail make efficient use of the property as compared to the objective to provide a 0.5 FAR or greater. A parking lot represents an inefficient use of land that is not justified by the environmental benefit of avoiding, but more likely displacing, the significant and unavoidable impacts associated with constructing and operating a logistics center warehouse on the property. Complete physical disturbance of the site and construction-related impacts would still occur to implement the parking lot.

C. NO PROJECT/INDUSTRIAL BUILDING

Finding: Based on prior approval of Plot Plan 07-0167 and Amended Plot Plan P12-061, the property could be developed with 181,031 s.f. of building space with 26 dock doors and a trailer yard containing 384 spaces. The No Project/Trailer Yard Alternative would meet four of the five of the Project's objectives, but to a lesser degree. Selection of the No Project/Industrial Building Alternative would reduce the amount of industrial warehouse building square footage on-site from 400,130 s.f. to 181,031 s.f., but would not necessarily prevent the additional square footage from being located in another location in the City or Inland Empire region in response to the demand for industrial building space in western Riverside County. The No Project/Industrial Building Alternative would achieve the goal to construct and operate a logistics center warehouse, but the development would not meet the goal to achieve a minimum FAR of 0.5. This Alternative also would not reach the property's full potential to reduce demand for industrial business park development in western Riverside County; thus, it is likely for some of the environmental effects of logistics center operations to occur elsewhere in the City or Inland Empire region rather than be avoided. The No Project/Industrial Building Alternative would not avoid physical impacts to the property. Operational impacts associated with traffic, air quality, greenhouse gas, and noise would be reduced, but the reduction would likely be displaced to another property thus achieving no real environmental benefit.

Factual Basis for the Finding: The No Project/Industrial Building Alternative was chosen by the Lead Agency to compare the impacts of approving the proposed Project against the impacts that would occur if the property were developed pursuant to existing entitlements. Under existing entitlements (specifically, Plot Plan 07-0167 and Amended Plot Plan P12-061), the northern portion of the site would be developed with a truck trailer yard consisting of approximately 384 trailer spaces, as approved by Amended Plot Plan P12-061, while the southern portion of the site would be developed with a 181,031 s.f. industrial building (inclusive of 5,000 s.f. of office, 2,000 s.f. of mezzanine, and 173,031 s.f. of industrial warehouse) pursuant to previously approved Plot Plan PA07-0167.

As discussed on Pages 6-11 though Page 6-18 and in Table 6-1 on Page 6-30 of the Final EIR, Selection of this Alternative would avoid the Project's significant and unavoidable cumulative impact to transportation/ traffic by reducing the number of trips contributed to the Western Way/Harley Knox and Indian Street/Harley Knox intersections to less than 50 peak hour trips and would generally reduce many of the other Project-related impacts that are related to building intensity. However, this Alternative would reduce, but would not fully avoid, the proposed Project's impacts due to long-term operational-related emissions of NO_x, and would reduce but not fully avoid the proposed Project's significant unavoidable impact due to construction-related noise. Although this Alternative would meet most of the Project's basic objectives, it would meet them to a lesser degree than the proposed Project due to the reduction in building area. Specifically, this Alternative would attract a fewer number of jobs to the City of Moreno Valley, would not fully implement the

Business Park/Light Industrial land use designation applied to the property by the City's General Plan, and would fail to make efficient use of the property by providing a floor area ratio (FAR) less than the objective to provide a 0.5 FAR or greater. Furthermore, the reduction in building space that would result from implementation of this Alternative represents an inefficient use of land that is not justified by the environmental benefit of reducing, but more likely displacing, operational impacts. Complete physical disturbance of the site and construction-related impacts would still occur.

D. REDUCED PROJECT/SMALL BUILDINGS ALTERNATIVE

Finding: The Reduced Project/Small Buildings Alternative would meet all of the Project's objectives, except may have more difficulty meeting the objective to construct a logistics center that appeals to tenants seeking to locate in the Moreno Valley area due to the smaller sized buildings as compared to the larger building proposed by the Project. Implementation of the Reduced Project/Small Buildings Alternative would result in the construction of 375,556 s.f. of industrial warehouse building area, or 24,574 s.f. less building area than the proposed Project (a reduction in building area by approximately 6%). Implementation of this Alternative would not avoid physical impacts to the property and would increase the proposed Project's significant unavoidable impacts to air quality, noise, and transportation/traffic, and would generally increase Project-related operational impacts that are related to average daily traffic.

Factual Basis for the Finding: This Alternative was selected by the Lead Agency to compare the environmental effects of the proposed Project (one larger building that is likely to attract one tenant) against the environmental effects of constructing two smaller buildings that is likely to attract two different tenants. Under this Alternative, two buildings would be constructed, and combined would include 375,556 s.f. of building area, or 24,574 s.f. less building area than the proposed Project (a reduction in building area by approximately 6%).

As discussed on Pages 6-2, and 6-11 through 6-18 and in Table 6-1 on Page 6-30 of the Final EIR, implementation of the Reduced Project/Small Buildings Alternative would increase the proposed Project's significant unavoidable impacts to air quality, noise, and transportation/traffic, and would generally increase Project-related operational impacts that are related to average daily traffic. Although this Alternative would result in a reduction in building area, this Alternative would require the construction of more walls for the individual buildings and would require more area requiring paint, thereby increasing the emission of VOCs under near-term conditions. The buildings would generate approximately 1,336 traffic trips per day (utilizing the ITE rates for industrial warehousing), which would result in greater operational impacts associated with traffic, air quality, greenhouse gas, and noise as compared to the proposed Project. Cumulative impacts at the intersections of Western Way/ Harley Knox Boulevard and Indian Street/ Harley Knox Boulevard would remain significant and unavoidable under both this Alternative and the proposed Project, although this Alternative would produce more traffic and would therefore have a greater impact on these intersections. There would be no environmental benefit to the selection of this Alternative.

E. REDUCED PROJECT/NORTH BUILDING ALTERNATIVE

Finding: This Alternative is the Environmentally Superior Alternative. Selection of the Reduced Project/North Building Alternative would retain the existing truck trailer parking yard in the southern portion of the property and result in the construction of 194,525 s.f. of industrial warehouse building area in the northern portion of the property. This would result in 205,605 s.f. less building area than the proposed Project (a reduction in building area by approximately 51%) and no additional physical impact to the southern portion of the site, which is already developed as a parking lot. The Reduced Project/North Building Alternative would meet most of the Project's objectives, but generally to a lesser degree. This Alternative would not achieve the Project's objective to achieve a minimum FAR of 0.5, and would be less effective in providing logistics center warehouse building space in comparison to the proposed Project. This Alternative, while providing logistics center warehouse building space within five miles of major regional transportation corridors, would provide less building space than the proposed Project. Additionally, this Alternative would attract fewer businesses and jobs to the City of Moreno Valley as compared to the proposed Project. Moreover, selection of the Reduced Project/North Building Alternative would not result in a reduction in demand for industrial business park development in western Riverside County; thus, it is likely for a portion of the Project's environmental impacts to be displaced and occur elsewhere rather than be avoided.

Factual Basis for the Finding: The No Project/Industrial Building Alternative was chosen by the Lead Agency to compare the potential benefits of constructing one smaller warehouse building on the northern portion of the property while retaining the existing parking lot on the southern portion of the property. Implementation of the Reduced Project/North Building Alternative would retain the existing truck trailer parking yard in the southern portion of the property and result in the construction of 194,525 s.f. of industrial warehouse building area in the northern portion of the property. This would result in 205,605 s.f. less building area than the proposed Project (a reduction in building area by approximately 51%).

As discussed on Pages 6-3 and 6-23 through 6-29 and in Table 6-1 on Page 6-30 of the Final EIR, implementation of this Alternative would reduce the proposed Project's significant unavoidable impacts to air quality, noise, and transportation/traffic, although such impacts would not be fully avoided under this Alternative. Other Project-related operational impacts that are related to average daily traffic and the secondary effects of mobile emissions (air quality, greenhouse gas, health risk, noise) also would be reduced under this Alternative. As such, this Alternative is identified as the Environmentally Superior Alternative as specified on Pages 6-1 and 6-3 of the Final EIR.

The 194,525 s.f. building would generate approximately 693 trips per day (utilizing the ITE rates for industrial warehousing). The projected increase in traffic from the site would require the implementation of mitigation measures and adherence to conditions of approval similar to those imposed for the proposed Project. However, even with the incorporation of mitigation measures, the 693 trips associated with this Alternative would result in significant and unavoidable impacts due to the emissions of NO_X, which would violate the SCAQMD regional air quality standard and would contribute to an existing air quality violation (i.e., smog). Since the proposed Project would generate 373 more daily trips than would occur under this Alternative, impacts due to a conflict with the SCAQMD regional air quality standard and the level of contribution to an existing air quality violation (i.e., ozone) would be reduced under this Alternative. Accordingly, this Alternative would reduce but not avoid the proposed Project's significant and unavoidable impact due to operational NO_X emissions and its contribution to the Air Basin's non-attainment status for NO_X and O_3.

Similar to the proposed Project, near-term construction activities in the northern portion of the property would result in significant and unavoidable short-term noise impacts. However, because this Alternative would result in the construction of a smaller building, the Final EIR anticipates that the duration of noise impacts during the building construction and architectural coating phase would be reduced under this Alternative as compared to the proposed Project. Implementation of this Alternative would not, however, fully avoid the proposed Project's near-term significant and unavoidable impact to noise.

Implementation of this Alternative would result in cumulatively significant impacts at the same seven roadway segments and five intersections that would be impacted by the proposed Project under Horizon Year Cumulative (2017) conditions, although such impacts would be reduced in comparison to the proposed Project. Cumulative impacts at the intersections of Western Way/ Harley Knox Boulevard and Indian Street/ Harley Knox Boulevard would remain significant and unavoidable under both this Alternative and the proposed Project, although this Alternative would produce less traffic and would therefore have a lesser degree of cumulative impact at these intersections.

This Alternative would not absorb demand for logistics center space in western Riverside County to the same extent as the proposed Project; thus, it is likely that any reduced level of environmental impact achieved through this Alternative would be displaced to another property rather than avoided. Although this Alternative would meet most of the Project's basic objectives, it would meet them to a lesser degree than the proposed Project due to the reduction in building area. Specifically, this Alternative would attract a fewer number of jobs to the City of Moreno Valley, would not fully implement the Business Park/Light Industrial land use designation applied to the property by the City's General Plan, and would fail to make efficient use of the property by providing a floor area ratio (FAR) less than the objective to provide a 0.5 FAR or greater. The construction of a smaller building would reduce the tax revenue and employment generation potential of the property. Furthermore, the reduction in building space that would result from implementation of this Alternative represents an inefficient use of land that is not justified by the environmental benefit of reducing, but more likely displacing, operational impacts.

VI. STATEMENT OF OVERRIDING CONSIDERATIONS

As set forth in Section IV above, most of the Project's impacts on the environment will either be less than significant or, through the imposition of mitigation measures as conditions of approval of the Project, can be reduced to less than significant. However, as set forth in subsection IV.B. above, impacts to air quality, noise, and transportation/traffic will remain significant and unavoidable even after the imposition of all feasible mitigation measures. Further, as set forth in Section V. above, there are no feasible alternatives to the Project which would mitigate or avoid those environmental impacts while still attaining all of the Project's basic objectives. Nevertheless, as set forth below, the Planning Commission has determined that the benefits which will accrue from the development of the Project outweigh the significant and unavoidable impacts which the Project will produce.

A. AIR QUALITY

Finding: Notwithstanding the significant unavoidable impacts to air quality discussed in subsection IV.B.1, above, implementation of the City of Moreno Valley's General Plan and Specific Plan No. 208, the development of otherwise underutilized land, the creation of jobs and a multiplier effect that will create secondary jobs to support the Project and those who work in it, the demonstration that the City is eager to attract new business opportunities, and the fact that the Project will include energy efficiency features, constitutes benefits which outweigh the unavoidable adverse environmental impacts to air quality. Each of the benefits, individually, constitutes a sufficient basis for approving the Project notwithstanding the significant and unavoidable impact on air quality that will result.

Factual Basis for the Finding: As set forth in the Project Objectives on Pages 3-1 and 3-2 of the Final EIR and in the description of the Project provided on Pages 3-2 through 3-14 of the Final

EIR, approval of the Project will allow the conversion of an underutilized site into a job and revenue producing facility. Applying average employment density factors reported by the Southern California Association of Governments in their publication *"Employment Density Study Report,"* (SCAG 2001), implementation of the Project is anticipated to result in the creation of up to 191 new, recurring jobs, which also will improve the regional jobs-housing balance, thereby reducing the need for Western Riverside County residents to commute longer distances to work. It will allow for the implementation of Business Park/Light Industrial land uses in conformance with the City of Moreno Valley General Plan and Moreno Valley Industrial Area Plan, and will assist the City in achieving numerous General Plan Goals, including, but not limited to, Ultimate Goal No. IV. (to achieve a community which "Enjoys a healthy economic climate that benefits both residents and businesses"), and Community Development Objective 2.5 ("Promote a mix of industrial uses which provide a sound and diversified economic base and ample employment opportunities for the citizens of Moreno Valley with the establishment of industrial activities that have good access to the regional transportation system, accommodate the personal needs of workers and business visitors, and which meets the service needs of local businesses."). Approving the Project also will result in the Project's monetary contributions to established fee programs such as the City's Development Impact Fee and the western Riverside County Transportation Uniform Mitigation Fee that will be directed to needed local and regional road improvements. A monetary contribution also will be provided in accordance with the western Riverside County MSHCP to assist in establishing a regional conservation and open space system, whereas the Project site itself has very little biological value.

B. NOISE

Finding: Notwithstanding the significant unavoidable impacts to noise discussed in subsection IV.B.1, above, implementation of the City of Moreno Valley's General Plan and Specific Plan No. 208, the development of otherwise underutilized land, the creation of jobs and a multiplier effect that will create secondary jobs to support the Project and those who work in it, the demonstration that the City is eager to attract new business opportunities, and the fact that the Project will include energy efficiency features, constitutes benefits which outweigh the unavoidable adverse environmental impacts to air quality. Each of the benefits, individually, constitutes a sufficient basis for approving the Project notwithstanding the significant and unavoidable impact on air quality that will result.

Factual Basis for the Finding: As set forth in the Project Objectives on Pages 3-1 and 3-2 of the Final EIR and in the description of the Project provided on Pages 3-2 through 3-14 of the Final EIR, approval of the Project will allow the conversion of an underutilized site into a job and revenue producing facility. Applying average employment density factors reported by the Southern California Association of Governments in their publication *"Employment Density Study Report,"* (SCAG 2001), implementation of the Project is anticipated to result in the creation of up to 191 new, recurring jobs, which also will improve the regional jobs-housing balance, thereby reducing the need for Western Riverside County residents to commute longer distances to work. It will allow for the implementation of Business Park/Light Industrial land uses in conformance with the City of Moreno Valley General Plan and Moreno Valley Industrial Area Plan, and will assist the City in achieving numerous General Plan Goals, including, but not limited to, Ultimate Goal No. IV. (to achieve a community which "Enjoys a healthy economic climate that benefits both residents and businesses"), and Community Development Objective 2.5 ("Promote a mix of industrial uses which provide a sound and diversified economic base and ample employment opportunities for the citizens of Moreno Valley with the establishment of industrial activities that have good access to the regional transportation system, accommodate the personal needs of workers and business visitors, and which meets the service needs of local businesses."). Approving the Project also will result in the Project's monetary contributions to established fee programs such as the City's Development Impact Fee and the western Riverside County Transportation Uniform Mitigation Fee that will be directed to needed local and regional road improvements. A monetary contribution also will be provided in accordance with the western Riverside County MSHCP to assist in establishing a regional conservation and open space system, whereas the Project site itself has very little biological value.

C. TRANSPORTATION/TRAFFIC

Finding: Notwithstanding the significant unavoidable impacts to transportation/ traffic discussed in subsection IV.B.1, above, implementation of the City of Moreno Valley's General Plan and Specific Plan No. 208, the development of otherwise underutilized land, the creation of jobs and a multiplier effect that will create secondary jobs to support the Project and those who work in it, the demonstration that the City is eager to attract new business opportunities, and the fact that the Project will include energy efficiency features, constitutes benefits which outweigh the unavoidable adverse environmental impacts to air quality. Each of the benefits, individually, constitutes a sufficient basis for approving the Project notwithstanding the significant and unavoidable impact on air quality that will result.

Factual Basis for the Finding: As set forth in the Project Objectives on Pages 3-1 and 3-2 of the Final EIR and in the description of the Project provided on Pages 3-2 through 3-14 of the Final EIR, approval of the Project will allow the conversion of an underutilized site into a job and revenue producing facility. Applying average employment density factors reported by the Southern California Association of Governments in their publication *"Employment Density Study Report,"* (SCAG 2001), implementation of the Project is anticipated to result in the creation of up to 191 new, recurring jobs, which also will improve the regional jobs-housing balance, thereby reducing the need for Western Riverside County residents to commute longer distances to work. It will allow for the implementation of Business Park/Light Industrial land uses in conformance with the City of Moreno Valley General Plan and Moreno Valley Industrial Area Plan, and will assist the City in achieving numerous General Plan Goals, including, but not limited to, Ultimate Goal No. IV. (to achieve a community which "Enjoys a healthy economic climate that benefits both residents and businesses"), and Community Development Objective 2.5 ("Promote a mix of industrial uses which provide a sound and diversified economic base and ample employment opportunities for the citizens of Moreno Valley with the establishment of industrial activities that have good access to the regional transportation system, accommodate the personal needs of workers and business visitors, and which meets the service needs of local businesses.”). Approving the Project also will result in the Project’s monetary contributions to established fee programs such as the City’s Development Impact Fee and the western Riverside County Transportation Uniform Mitigation Fee that will be directed to needed local and regional road improvements. A monetary contribution also will be provided in accordance with the western Riverside County MSHCP to assist in establishing a regional conservation and open space system, whereas the Project site itself has very little biological value.

VII. CERTIFICATION OF THE FINAL ENVIRONMENTAL IMPACT REPORT

The Moreno Valley Planning Commission finds that it has reviewed and considered the Final EIR in evaluating the Project, that the Final EIR is an accurate and objective statement that fully complies with CEQA and the CEQA Guidelines, and that the Final EIR reflects the independent judgment of the Planning Commission.

The Planning Commission declares that no new significant information as defined by CEQA Guidelines Section 15088.5 has been received by the Commission after the circulation of the Draft EIR that would require recirculation. All of the information added to the Final EIR merely clarifies, amplifies or makes insignificant modifications to an already adequate Draft EIR pursuant to CEQA Guidelines Section 15088.5(b).

The Planning Commission hereby certifies the EIR based on the following findings and conclusions:

A. FINDINGS

1. WESTERN RIVERSIDE COUNTY MULTIPLE SPECIES HABITAT CONSERVATION PLAN COMPLIANCE

The Project is in conformance with the conservation requirements of the Western Riverside County Multiple Species Conservation Plan (MSHCP) in that:

1. The Project site is located within the MSHCP Criteria Area, but is not located within any Cell Groups; therefore, a Habitat Acquisition and Negotiation Strategy (HANS) application is not required to be submitted to the Riverside Conservation Authority (RCA).

2. Pursuant to Section 6.1.2 of the MSHCP, an assessment of potentially significant effects on Riparian/Riverine Areas and Vernal Pools is required if such resources are identified on the Project site or will impacted by the Project. The Project site does not contain and the Project will not impact these resources. As such, the Project will not impact biological functions and values as it pertains to riparian habitat and a Determination of Biologically Equivalent or Superior Preservation (DBESP) is not required

3. Pursuant to Section 6.1.3 of the MSHCP, habitat assessments and/or focused surveys for certain Narrow Endemic plant species are required for properties within mapped survey areas. The Project site is not located in a mapped survey area.

4. Pursuant to Section 6.1.4 of the MSHCP, projects in close proximity to the MSHCP Conservation Area are required to incorporate mechanisms to address indirect effects to the MSHCP Conservation Area. The Project site is not located in close proximity to the MSHCP Criteria Area or any MSHCP Preserve.

5. Pursuant to Section 6.3.2 of the MSHCP, habitat assessments and/or focused surveys for certain additional plant and animal species are required for properties within mapped survey areas. The Project site is located in a survey area for western burrowing owl and required surveys were conducted. Pre-construction surveys of the Project site and avoidance of clearing and grading activities during the nesting season are required. If the site is occupied, Mitigation Measure MM 4.5-1, as set forth in the MMP attached as Exhibit A, has been imposed as a condition of approval of the Project in accordance with the MSHCP.

2. CEQA COMPLIANCE

As the decision-making body for the Project, the Planning Commission has reviewed and considered the information contained in the Findings and supporting documentation. The Planning Commission determines that the Findings contain a complete and accurate reporting of the environmental impacts and mitigation measures associated with the Project, as well as complete and accurate reporting of the unavoidable impacts and benefits of the proposed Project as detailed in the Statement of Overriding Considerations. The Commission finds that the EIR was prepared in compliance with CEQA and that the Commission complied with CEQA's procedural and substantive requirements.

3. SIGNIFICANT UNAVOIDABLE IMPACTS/STATEMENT OF OVERRIDING CONSIDERATIONS

The Project will have significant adverse impacts even following adoption of all feasible mitigation measures which are required by the Planning Commission. The following significant environmental impacts have been identified in the Final EIR and will require mitigation but cannot be mitigated to a level of insignificance as set forth in subsection IV.B of these Findings: Air Quality - Violation of air quality standard, contribution to air quality violation, or cumulatively considerable net increase of a criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (Thresholds 2 and 3); Noise - Short-term generation of construction-related noise levels in excess of the City Noise Ordinance Standard for non-transportation and stationary noise sources and short-term substantial temporary or periodic increase in ambient noise levels in the Project vicinity without the Project (Thresholds 2 and 3); Transportation/Traffic - Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system (Threshold 1).

The Planning Commission has eliminated or substantially reduced environmental impacts where feasible and the Commission determines that the remaining unavoidable significant adverse impacts are acceptable due to the reasons set forth in the preceding Statement of Overriding Considerations.

4. CONCLUSIONS

1. All potentially significant environmental impacts from implementation of the proposed Project have been identified in the EIR and, with the implementation of the mitigation measures defined herein and set forth in the MMP, will be mitigated to a less-than-significant level, except for the impacts identified in subsection IV.B herein.

2. Other reasonable alternatives to the proposed Project that could feasibly achieve the basic objectives of the proposed Project have been considered and rejected in favor of the proposed Project.

3. Environmental, economic, social and other considerations and benefits derived from the development of the proposed Project override and make infeasible any alternatives to the proposed Project or further mitigation measures beyond those incorporated into the proposed Project.

Exhibit B

Mitigation Monitoring Program
First Inland Logistics Center II Project

State Clearinghouse No. 2012121011

Prepared for:

City of Moreno Valley
Community Development Department
14177 Frederick Street
Moreno Valley, CA 92552

Prepared by:

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November 7, 2013

INTRODUCTION

CEQA Requirements

The California Environmental Quality Act (CEQA) requires that when a public agency completes an environmental document that includes measures to mitigate or avoid significant environmental effects, the public agency must adopt a Mitigation Monitoring Program (MMP) for the changes to the project that it has adopted or made a condition of project approval in order to mitigate or avoid significant environmental impacts. The appropriate reporting or monitoring plan must be designed to ensure compliance during project implementation (Public Resources Code §21081.6).

The Planning Division would coordinate the project monitoring of the mitigation measures with each applicable department or division, while various City departments/divisions would be responsible for monitoring and verifying compliance of specific mitigation measures (see the Mitigation Monitoring and Reporting Summary Table beginning on page 6). The City of Moreno Valley Public Works Department (City) would coordinate monitoring of the implementation of all mitigation measures for the project. Monitoring will include: 1) verification that each mitigation measure has been implemented; 2) recordation of the actions taken to implement each mitigation measure; and 3) retention of records in the project file.

Program Objectives

The objectives of the MMP for the proposed First Inland Logistics Center II Project (the "Project") include the following:

- To provide assurance and documentation that mitigation measures are implemented as planned;
- To collect analytical data to assist City administration in its determination of the effectiveness of the adopted mitigation measures;
- To report periodically regarding project compliance with mitigation measures, performance standards and/or other conditions; and
- To make available to the public, upon request, the City record of compliance with project mitigation measures.

Overview of the Project

The Project site consists of 17.3 acres in the southern portion of the City of Moreno Valley, Riverside County, California. From a regional perspective, the Project site is located north of the City of Perris, southeast of the City of Riverside, and south, east, and west of unincorporated areas in Riverside County. Interstate 215 (I-215) is located approximately 1.85 miles to the west of the site and State Route 60 (SR-60) is located approximately 4.85 miles to the north of the site. At the local scale, the Project site is situated south of San Michele Road, north of Nandina Avenue, west of Perris Boulevard, and about 1,150 feet east of Knox Street.

The Project consists of development of a 17.3-acre property with one logistics center warehouse building containing 400,130 square feet (s.f.) of interior building space. Associated improvements to the property will include, but are not limited to 59 loading bays, surface parking areas, drive aisles, utility infrastructure, landscaping, exterior lighting, signage, and water quality/detention basins. Construction of the Project involves demolition and removal of the existing parking lot, grading of the 17.3-acre property, and construction of the warehouse building.

One discretionary action is requested of the City of Moreno Valley to implement the Project, PA12-0023. Other discretionary and administrative actions that would or could be necessary to implement the proposed Project are listed below.

Matrix of Project Approvals/Permits

PUBLIC AGENCY	APPROVALS AND DECISIONS
City of Moreno Valley	
Proposed Project – City of Moreno Valley Discretionary Approvals	
City of Moreno Valley Planning Commission	• Approve, conditionally approve, or deny PA12-0023. • Reject or certify this EIR along with appropriate CEQA Findings (P12-064).
Subsequent City of Moreno Valley Discretionary and Ministerial Approvals	
City of Moreno Valley Subsequent Implementing Approvals	• Approve Final Maps, parcel mergers, lot line adjustments, or parcel consolidations, as may be appropriate. • Approve Conditional or Temporary Use Permits, if required. • Issue Grading Permits. • Issue Building Permits. • Approve Road Improvement Plans. • Issue Encroachment Permits. • Accept public right-of-way dedications.
Other Agencies – Subsequent Approvals and Permits	
Riverside County Flood Control and Water Conservation District	• Approvals for drainage infrastructure.
Eastern Municipal Water District	• Approvals for water and sewer infrastructure.
Santa Ana Regional Water Quality Control Board	• Issuance of a Construction Activity General Construction Permit. • Issuance of a National Pollution Discharge Elimination System (NPDES) Permit.

The proposed building is designed to contain 394,130 s.f. of warehouse space and 6,000 s.f. of office and mezzanine space. The front door and office would be positioned at the southeast corner of the building, facing the intersection of Perris Boulevard/Nandina Avenue. On the 17.3 acre property, 0.3 acres would be dedicated to the City of Moreno Valley for the widening of San

Michele Road, so the total net parcel acreage is 17.0 acres. Over the 17.0 net acre parcel, the proposed building would calculate to a floor area ratio (FAR) of 0.51.

Organization of the Mitigation Monitoring Program

The following describes the sections of this MMP:

- **Introduction** - Provides an overview of CEQA's monitoring and reporting requirements, program objectives, the project for which the program has been prepared, and the manner in which the mitigation monitoring program has been organized.

- **MMP** - Describes the City entities responsible for implementation of the mitigation monitoring plan, the plan scope, procedures for monitoring and reporting, public availability of documents, the process for making changes to the program, types of mitigation measures, and the manner in which monitoring will be coordinated to ensure implementation of mitigation measures.

- **Mitigation Monitoring and Reporting Summary** - Outlines the impacts and mitigation measures, responsible entities, and the timing for monitoring and reporting for each mitigation measure included in this MMP.

DESCRIPTION OF PLAN

Mitigation Monitoring Procedures

This MMP delegates responsibilities for monitoring the project, and allows responsible City entities flexibility and discretion in determining how best to monitor implementation. Monitoring procedures will vary according to the type of mitigation measure. The timing for monitoring and reporting is described in the monitoring and reporting summary table, below. Adequate monitoring requires demonstration of monitoring procedures and implementation of mitigation measures.

In order to enhance the effectiveness of the monitoring program, the City will utilize existing systems where appropriate. For instance, with any major construction project, the administration generally has at least one inspector assigned to monitor project construction. These inspectors are familiar with a broad range of regulatory issues and will provide first line oversight for much of the monitoring program.

Responsibilities of the City include identification of typical mitigation measure-related issues such as noisy equipment, dust, safety problems, etc. Any problems are generally corrected through directions to the contractors or through other appropriate, established mechanisms. Internal reporting procedures are already in place to document any problems and to address broader implementation issues.

Reporting Procedures

The City would be responsible for monitoring and implementing the mitigation measures included in this monitoring plan. Reporting establishes a record that a mitigation measure is being implemented and generally involves the following steps:

- The City distributes reporting forms to the appropriate City Department (as indicated on the Mitigation Monitoring and Reporting forms) or employs the office's existing reporting process for verification of compliance.
- Responsible entities verify compliance by signing the monitoring and reporting form and/or documenting compliance using their own internal procedures when monitoring is triggered.
- Responsible entities provide the City with verification that monitoring has been conducted and ensure, as applicable, that mitigation measures have been implemented.

The reporting forms prepared by the City would document the implementation status of mitigation measures of the project. Progress reports describe the monitoring status of all project mitigation measures. The City will keep records of Project reporting forms and periodic status reports.

The City would also be responsible for assisting their contractor with reporting responsibilities to ensure that they understand their charge and complete their reporting procedures accurately and on schedule.

Public Availability

All monitoring reporting forms, summaries, data sheets, and correction instructions related to the Mitigation Monitoring Program for First Inland Logistics Center II would be available for public review upon request at the City of Moreno Valley Department of Public Works offices during normal business hours.

Program Changes

If minor changes are required to the MMP, they would be made in accordance with CEQA and would be permitted after further review by the City. Such changes could include reassignment of monitoring and reporting responsibilities and/or redesign to make any appropriate improvements. No change would be permitted unless the Mitigation Monitoring Program continues to satisfy the requirements of Public Resources Code §21081.6.

Types of Mitigation Measures Being Monitored

The Final Environmental Impact Report for the First Inland Logistics Center II Project is a "project specific" and "cumulative" evaluation as defined in the CEQA Guidelines.

The Final Environmental Impact Report recommends 22 project specific and cumulative mitigation measures to reduce impacts related to air quality, greenhouse gas emissions, noise, transportation/traffic and biological resources. Compliance with these mitigation measures will be accomplished through administrative controls over project planning and implementation. Monitoring would be accomplished as described previously under "Reporting Procedures" through verification and certification by personnel.

In general, implementation of the MMP will require the following actions:

- Appropriate mitigation measures would be included in construction documents.
- Departments with reporting responsibilities would review the Final Environmental Impact Report, which provides general background information on the reasons for including specified mitigation measures.
- Problems with or exceptions to compliance would be addressed by the City as appropriate.
- Periodic meetings may be held during project implementation to report on compliance with mitigation measures.

Mitigation Monitoring and Reporting Summary

Mitigation Measure	Responsible Party	Verification of Compliance	Timing	Start Date	Finish Date	Monitoring	
						Date	Monitor
Air Quality							
PM10 Emissions – Near Term **MM 4.1-1** Prior to grading permit issuance, the City shall verify that the following notes are specified on the grading plan to ensure implementation of SCAQMD Rule 403. It should be noted that the following list is non-exclusive, and identifies only key provisions of the SCAQMD Rule 403 requirements; regardless the Project shall be required to comply with all applicable provisions of SCAQMD Rule 403, whether listed below or not. Specifically, Project contractors shall be required to comply with the following notes and all other applicable SCAQMD Rule 403 requirements, and shall maintain written records of such compliance that can be inspected by the City of Moreno Valley upon request. All clearing, grading, earth-moving, and excavation activities shall cease when winds exceed 25 miles per hour. All unpaved roads and disturbed areas shall be watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day. The contractor shall ensure that traffic speeds on unpaved roads and areas where soil is exposed are reduced to 15 miles per hour or less. Public streets shall be swept at the end of each workday using a street sweeper meeting SCAQMD Rule 1186.1 if visible soil is carried onto paved public roads. The cargo area of all vehicles hauling soil, sand, or	Project Engineer/ Project Construction Manager	City of Moreno Valley Planning Division and Land Development Division	Prior to the issuance of grading permit(s) and during construction activities				

Mitigation Measure	Responsible Party	Verification of Compliance	Timing	Start Date	Finish Date	Monitoring	
						Date	Monitor
other loose earth materials shall be covered.							
PM10 Emissions – Near Term **MM 4.1-2** Prior to the start of grading, the construction contractor shall post legible, durable, weather-proof signs at the property's frontage with Perris Boulevard, San Michelle Road, and Nandina Avenue stating the name and phone number of an authorized individual to be contacted to resolve dust complaints. Proof of sign posting in the form of photographs shall be placed on file with the City of Moreno Valley. These signs shall remain posted on the property until grading is complete. All legitimate dust complaints shall be resolved in 24 hours.	Project Construction Manager	City of Moreno Valley Planning Division and Land Development Division	Prior to the issuance of grading permit(s) and during construction activities				
NOx Emissions – Near-Term **MM 4.1-3** Prior to grading permit and building permit issuance, the City shall verify that the following notes are specified on all grading and building plans. Project contractors shall be required to comply with these notes and permit periodic inspection of the construction site by City of Moreno Valley staff to confirm compliance. Mass grading shall be limited to no more than 4.0 acres per day. During construction activity, diesel engines shall not idle in excess of three (3) minutes. All construction-related equipment shall be CARB Certified. Temporary traffic control for construction vehicles entering and exiting the site shall be implemented pursuant to the requirements of the California Manual on Uniform Traffic Control Devices. During construction activity, the operating time of all pieces of off-road diesel-powered equipment shall not exceed a combined total of 75 operating hours per day. Construction-related haul trips entering and existing	Project Applicant/ Developer	SCAQMD, City of Moreno Valley Planning Division, Building and Safety Division, and Land Development Division	Prior to the issuance of grading permit(s) and building permit(s) and during construction activities				

Mitigation Measure	Responsible Party	Verification of Compliance	Timing	Start Date	Finish Date	Monitoring	
						Date	Monitor
the site shall occur during non-peak traffic hours. The construction contractor shall encourage construction site employees to rideshare by offering incentives or other inducements. High pressure injectors shall be used on all diesel powered construction equipment over 100 horsepower. All construction-related on-road diesel-powered haul trucks shall be 2007 or newer model year or 2010 engine compliant vehicles. On all construction-related equipment that has a particulate trap, the trap shall be Level 3 CARB certified. Electric-powered construction equipment and tools shall be used when technically feasible. Biodiesel fuel or other alternatives to diesel fuel shall be used to power construction equipment when technically feasible. Construction vehicles shall use the City's designated truck route. Construction parking shall be located and configured to minimize traffic interference on public streets. Import of earth materials and on-site grading activities shall not occur on the same day. No more than 66 total (inbound + outbound) loads of earth material (about 2,000 cubic yards) shall be imported/exported on any given day.							

Mitigation Measure	Responsible Party	Verification of Compliance	Timing	Start Date	Finish Date	Monitoring	
						Date	Monitor
VOC Emissions-Near Term **MM 4.1-4** Prior to building permit issuance, the City shall verify that the following note is specified on all building plans. Project contractors shall be required to comply with these notes and maintain written records of such compliance that can be inspected by the City of Moreno Valley upon request. All surface coatings shall consist of Zero-Volatile Organic Compound paints (no more than 150 gram/liter of VOC) and/or be applied with High Pressure Low Volume (HPLV) applications consistent with SCAQMD Rule 1113. Alternatively, building materials may be used that do not require painting or are delivered to the construction site pre-painted.	Project Construction Supervisor	City of Moreno Valley Planning Division, Building and Safety Division, and Land Development Division	Prior to the issuance of building permit(s) and during construction activities				
NOx Emissions – Long-Term **MM 4.1-5** Legible, durable, weather-proof signs shall be placed at truck access gates, loading docks, and truck parking areas that identify applicable California Air Resources Board (CARB) anti-idling regulations. At a minimum each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) instructions for drivers of diesel trucks to restrict idling to no more than three (3) minutes; and 3) telephone numbers of the building facilities manager and the CARB to report violations. Prior to occupancy permit issuance, the City shall conduct a site inspection to ensure that the signs are in place.	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division and Planning Division	Prior to the issuance of occupancy permit(s)				
NOx Emissions – Long-Term **MM 4.1-6** Prior to the issuance of building permits, the City shall verify that the parking lot striping and security gating plan allows for adequate truck stacking at gates to prevent queuing of trucks outside the property.	Project Applicant/ Developer	City of Moreno Valley Planning Division	Prior to the issuance of building permit(s)				
NOx Emissions – Long-Term **MM 4.1-7** Prior to the issuance of occupancy permits, the Project's property owner shall provide documentation to the Planning Division verifying that provisions are included in the building's lease agreement that inform tenants about the availability of: 1) alternatively fueled cargo handling equipment; 2) grant programs for diesel fueled vehicle engine retrofit	Project Applicant/ Developer	City of Moreno Valley Planning Division	Prior to the issuance of occupancy permit(s)				

Mitigation Measure	Responsible Party	Verification of Compliance	Timing	Start Date	Finish Date	Monitoring	
						Date	Monitor
and/or replacement; 3) designated truck parking locations in the City of Moreno Valley; and 4) access to alternative fueling stations in the City of Moreno Valley that supply compressed natural gas (closest station is located on Indian Street, south of Nanina Avenue); and 5) the United States Environmental Protection Agency's SmartWay program.							
NOx Emissions – Long-Term **MM 4.1-8** In the event that the building design is modified to accommodate refrigeration, all loading docks shall be equipped with an electrical hookup to power refrigerated tractor trailers.	Project Applicant/ Developer	City of Moreno Valley Planning Division	Prior to the issuance of building permits for any building design that accommodates refrigeration				
Greenhouse Gas Emissions							
MM 4.2-1 Prior to the approval of building permits, the City shall review the building plans to ensure that the building's mechanical/electrical /plumbing (MEP) plans specify the installation of U.S. EPA Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and water-conserving shower heads (if showers are proposed).	Project Applicant/ Developer	City of Moreno Valley Planning Division and Building and Safety Division	Prior to the issuance of building permit(s) and as part of final building inspection				
MM 4.2-2 Prior to the approval of building permits, the City shall review the building plans to ensure that the building's roof is structurally designed to accommodate the future addition of photovoltaic solar panels.	Project Applicant/ Developer	City of Moreno Valley Planning Division and Building and Safety Division	Prior to the issuance of building permit(s) and as part of final building inspection				
Noise							
MM 4.3-1 Prior to grading or building permit issuance, the City shall review grading and building plans to ensure that the following notes are included. Project contractors shall be required to comply with these notes and maintain written records of such compliance that can be inspected by the City of Moreno Valley upon request. a) All construction activities, including but not limited to haul truck deliveries, shall be limited to between the hours of 7:00 a.m. and 8:00 p.m. b) Construction contractors shall equip all construction equipment, fixed or mobile, with properly	Project Construction Manager	City of Moreno Valley Land Development Division and Building and Safety Division	Prior to the issuance of grading permit(s) and building permit(s)				

Mitigation Measure	Responsible Party	Verification of Compliance	Timing	Start Date	Finish Date	Monitoring	
						Date	Monitor
operating and maintained mufflers, consistent with manufacturers' standards. c) All stationary construction equipment and equipment staging areas shall be placed as close as possible to the center of the western property line. d) All haul truck deliveries shall use City-approved haul routes. Should alternate routes be necessary, haul trucks shall not use roadways that pass noise-sensitive land uses or residential dwellings unless approved by the City of Moreno Valley.							
MM 4.3-2 As a condition of the Project's building permit, the perimeter wall planned along San Michelle Road and at the corner of San Michelle Road and Perris Boulevard shall be installed early in the construction process.	Project Applicant/ Developer	City of Moreno Valley Planning Division	During Project construction				
Transportation/Traffic							
MM 4.4-1 In the event that the City of Perris establishes a fair-share funding program for improvements to the following intersections (or immediately adjacent roadways segments that contribute to the intersection's level of service), that applies to projects in the City of Moreno Valley, then prior to the issuance of a building permit for the project, the Project Applicant shall contribute a fair-share payment to the established funding program to address the Project's cumulative impacts to the following facilities: a) Intersection of Western Way/ Harley Knox Boulevard (Project's fair-share contribution is 3.3%); b) Intersection of Indian Street/ Harley Knox Boulevard (Project's fair-share contribution is 3.5%)	Project Applicant/ Developer	City of Moreno Valley Public Works Department (Transportation Engineering Division)	Prior to the issuance of the first (1st) building permit				
MM 4.4-2 Prior to the issuance of occupancy permits, the Project shall construct roadway improvements (including but not limited to parkway, landscaping, and sidewalk improvements) along its frontage with Perris Boulevard and San Michele Road as specified in the City of Moreno Valley's Conditions	Project Applicant/ Project Construction Supervisor	City of Moreno Valley Land Development Division	Prior to the issuance of the first (1st) occupancy permit				

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Item No. E.1

Mitigation Measure	Responsible Party	Verification of Compliance	Timing	Start Date	Finish Date	Monitoring	
						Date	Monitor
of Approval for Plot Plan PA12-0023.							
MM 4.4-3 Prior to the issuance of occupancy permits, the Project shall construct intersection improvements at each Project Driveway as specified in the City of Moreno Valley's Conditions of Approval for Plot Plan PA12-0023.	Project Applicant/ Project Construction Supervisor	City of Moreno Valley Land Development Division	Prior to the issuance of the first (1st) occupancy permit				
MM 4.4-4 Prior to the issuance of building or occupancy permits, the Project shall comply with the City of Moreno Valley Development Impact Fee (DIF) program, which requires the payment of a fee to the City to reduce traffic congestion by participating in funding the installation of intersection improvements. Prior to the issuance of occupancy permits, the project also shall comply with the Transportation Uniform Mitigation Fee (TUMF) program, which funds off-site regional transportation improvements. The following study area intersection improvements are currently covered under DIF-funding and/or TUMF-funding: a) I-215 Southbound Ramps/ Harley Knox Boulevard (ID #1): One (1) southbound lane; one (1) westbound lane; and re-striping for one southbound lane and one southbound right turn. b) I-215 Northbound Ramps/ Harley Knox Boulevard (ID #2): One westbound free right lane, and re-striping for one (1) northbound right turn lane. c) Patterson Avenue/ Harley Knox Boulevard (ID #4): One (1) eastbound turn lane, and one (1) westbound turn lane. d) Indian Street/ Nandina Avenue (ID #5): One (1) northbound turn lane; one (1) southbound turn lane; one (1) southbound right turn lane; one (1) eastbound lane; and protected left-turn on eastbound and westbound approaches.	Project Applicant/ Project Construction Supervisor	City of Moreno Valley Land Development Division and Planning Division	Prior to the issuance of the first (1st) occupancy permit				

Mitigation Measure	Responsible Party	Verification of Compliance	Timing	Start Date	Finish Date	Monitoring	
						Date	Monitor
e) Indian Street/ Harley Knox Boulevard (ID #6): Two (2) southbound right turn lanes with overlapping phasing; one (1) eastbound lane; one (1) eastbound turn lane; and remove cross-walk on north leg (westbound approach). f) Perris Boulevard/ San Michele Road (ID #12): One southbound turn lane.							
MM 4.4-5 On-site direction signing and striping shall be installed in conjunction with detailed construction plans for the Project and as approved by the City of Moreno Valley. The on-site signing and striping plans shall be subject to review and approval by the Planning Division, and shall clearly indicate the location of service area docks and public parking areas.	Project Applicant/ Project Construction Supervisor	City of Moreno Valley Planning Division	Prior to the issuance of occupancy permit(s)				
MM 4.4-6 All final grading, landscaping, and street improvement plans shall provide sight distance standards in accordance with City of Moreno Valley and California Department of Transportation (Caltrans) standards, as appropriate.	Project Applicant/ Project Construction Supervisor	City of Moreno Valley Department of Public Works (Transportation Engineering Division), City of Moreno Valley Land Development Division and Planning Division	Prior to the issuance of building permit(s)				
MM 4.4-7 he minimum number of vehicle and bicycle parking spaces specified by the City of Moreno Valley Municipal Code shall be provided**.**	Project Applicant/ Project Construction Supervisor	City of Moreno Valley Planning Division	Prior to the issuance of occupancy permit(s)				
MM 4.4-8 A future transit stop will be provided by the Project on the southbound side of Perris Boulevard as specified in the City of Moreno Valley's Conditions of Approval for Plot Plan PA12-0023.	Project Applicant/ Project Construction Supervisor	City of Moreno Valley Department of Public Works (Transportation Engineering Division)	Prior to the issuance of the first (1st) occupancy permit				
Biological Resources							
MM 4.5-1 Within 30 days prior to grading, a qualified biologist shall conduct a survey of the undeveloped portions of the property and make a determination regarding the presence or absence of the	Project Applicant/ Developer/Project Biologist	City of Moreno Valley Planning Division	Prior to the issuance of grading permit(s)				

Mitigation Measure	Responsible Party	Verification of Compliance	Timing	Start Date	Finish Date	Monitoring	
						Date	Monitor
burrowing owl. The determination shall be documented in a report and shall be submitted, reviewed, and accepted by the Planning Division prior to the issuance of a grading permit and subject to the following provisions: a) In the event that the pre-construction survey identifies no burrowing owls on the property, a grading permit may be issued without restriction. b) In the event that the pre-construction survey identifies the presence of at least one individual but less than three (3) mating pairs of burrowing owl, then prior to the issuance of a grading permit and prior to the commencement of ground-disturbing activities on the property, the qualified biologist shall passively or actively relocate any burrowing owls. Passive relocation, including the required use of one-way doors to exclude owls from the site and the collapsing of burrows, will occur if the biologist determines that the proximity and availability of alternate habitat is suitable for successful passive relocation. Passive relocation shall follow CDFW relocation protocol and shall only occur between September 15 and February 1. If proximate alternate habitat is not present as determined by the biologist, active relocation shall follow CDFW relocation protocol. The biologist shall confirm in writing that the species has fledged the site or been relocated prior to the issuance of a grading permit. c) In the event that the pre-construction survey identifies the presence of three (3) or more mating pairs of burrowing owl, the requirements of MSCHP Species-Specific Conservation Objectives 5 for the burrowing owl shall be followed. Objective 5 states that if the site (including adjacent areas) supports three (3) or more pairs of burrowing owls and supports greater than 35 acres of suitable Habitat, at least 90 percent of the area with long-term							

Mitigation Measure	Responsible Party	Verification of Compliance	Timing	Start Date	Finish Date	Monitoring	
						Date	Monitor
conservation value and burrowing owl pairs will be conserved onsite until it is demonstrated that Objectives 1-4 have been met. A grading permit shall only be issued, either: • upon approval and implementation of a property-specific Determination of Biologically Superior Preservation (DBESP) report for the western burrowing owl by the CDFW. • a determination by the biologist that the site is part of an area supporting less than 35 acres of suitable Habitat, and upon passive or active relocation of the species following accepted CDFW protocols. Passive relocation, including the required use of one-way doors to exclude owls from the site and the collapsing of burrows, will occur if the biologist determines that the proximity and availability of alternate habitat is suitable for successful passive relocation. Passive relocation shall follow CDFW relocation protocol and shall only occur between September 15 and February 1. If proximate alternate habitat is not present as determined by the biologist, active relocation shall follow CDFW relocation protocol. The biologist shall confirm in writing that the species has fledged the site or been relocated prior to the issuance of a grading permit.							
4.5-2: If clearing activities are proposed between February 1 and August 31, then within 30 days prior to vegetation clearing activities a qualified biologist shall conduct nesting bird surveys. If any nesting bird species are identified, then a construction buffer distance of 300 feet for non-listed, non-raptor species or 500 feet for listed and raptor species shall be maintained until the Project biologist certifies that the nests are no longer occupied.	Project Applicant/ Developer/Project Biologist	City of Moreno Valley Planning Division	Prior to the issuance of clearing and grading permit(s)				

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RESOLUTION NO. 2014-21

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MORENO VALLEY, CALIFORNIA APPROVING PLOT PLAN PA12-0023, FOR THE DEVELOPMENT OF A 400,130 SQUARE FOOT WAREHOUSE DISTRIBUTION FACILITY ON 17.69 ACRES LOCATED ON THE SWC OF PERRIS BOULEVARD AND SAN MICHELE ROAD ASSESSOR PARCEL NUMBERS 316-200-001, 015, 019, 035 AND 034

WHEREAS, First Industrial, LP, has filed an application for the approval of PA12-0023, a Plot Plan for a warehouse building, as described in the title of this Resolution; and

WHEREAS, on March 11, 2014, the City Council held a public hearing to consider the project; and

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

WHEREAS, there is hereby imposed on the subject development certain fees, dedications, reservations and other exactions pursuant to state law and City ordinances; and

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

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

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

B. Based upon substantial evidence presented to this City Council during the above referenced meeting on March 11, 2014, including written and oral staff reports, and the record from the public hearing, this City Council herby specifically finds as follows:

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

FACT: The General Plan encourages a mix of industrial uses to provide a diversified economic base and ample employment opportunities. Stated policies require the avoidance of adverse impacts on surrounding properties and the screening of industrial uses to reduce glare, noise, dust, vibrations and unsightly views. The project as designed and conditioned would achieve the objectives of the City of Moreno Valley's General Plan. The proposed project is consistent with the General Plan and does not conflict with the goals, objectives, policies, and programs established within the Plan. The project will facilitate the orderly and proximate expansion of the Industrial area providing employment and other benefits to the community.

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

   FACT: The project site is within the Specific Plan 208 Industrial (SP208I). The plot plan as designed and conditioned will comply with all applicable specific plan regulations. The project is designed in accordance with the provisions of the Specific Plan 208I.

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

   FACT: The proposed warehouse building as designed and conditioned will not adversely affect the public health, safety or general welfare. A Final EIR has been prepared to address the potential environmental impacts of the project in accordance with the provisions of the California Environmental Quality Act (CEQA).

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

   FACT: The project is located on the southwest corner of Perris Boulevard and San Michele Road, easterly of the March Air Reserve Base (MARB), and approximately two miles easterly of Interstate 215 (I-215). Land uses to the north include vacant land with an approved vehicle tow storage lot. Land uses to the east and west include existing industrial warehouse buildings. The project as designed and conditioned is compatible with existing and proposed land uses in the vicinity. The industrial use is a permitted use in Specific Plan 208 Use zone. The proposed building will be a compatible in use, architecture, and stature with other developments in the general vicinity.

C. FEES, DEDICATIONS, RESERVATIONS, AND OTHER EXACTIONS

1. FEES

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

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

2. DEDICATIONS, RESERVATIONS, AND OTHER EXACTIONS

The adopted Conditions of Approval for PA12-0023 incorporated herein by reference, may include dedications, reservations, and exactions pursuant to Government Code Section 66020 (d) (1).

3. CITY RIGHT TO MODIFY/ADJUST; PROTEST LIMITATIONS

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

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

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

BE IT FURTHER RESOLVED that the City Council HEREBY APPROVES Resolution No. 2014-XX APPROVING PA12-0023 (Plot Plan), subject to the attached conditions of approval included as Exhibit A.

APPROVED AND ADOPTED this 11th day of March, 2014.

____
Mayor of the City of Moreno Valley

ATTEST:

____
City Clerk

APPROVED AS TO FORM:

____
City Attorney

RESOLUTION JURAT

STATE OF CALIFORNIA)

COUNTY OF RIVERSIDE) ss.

CITY OF MORENO VALLEY)

I, Jane Halstead, City Clerk of the City of Moreno Valley, California, do hereby certify that Resolution No. 2014-21 was duly and regularly adopted by the City Council of the City of Moreno Valley at a regular meeting thereof held on the 11th day of March, 2014 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

(Council Members, Mayor Pro Tem and Mayor)

____

CITY CLERK

(SEAL)

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Exhibit A

CITY OF MORENO VALLEY
CONDITIONS OF APPROVAL
PLOT PLAN PA12-0023
APN: 316-200-001, 015, 019, 035 & portion of 034

APPROVAL DATE: December 12, 2013
EXPIRATION DATE: December 12, 2016

_X_ Planning (P), including School District (S), Post Office (PO), Building (B)
_X_ Fire Prevention Bureau (F)
_X_ Land Development (LD)
_X_ Public Works, Special Districts (SD)
_X_ Public Works – Transportation Engineering (TE)
_X_ Moreno Valley Utilitas (MVU)

Note: All Special conditions are in bold lettering. All other conditions are standard to all or most development projects.

COMMUNITY & ECONOMIC DEVELOPMENT DEPARTMENT

Planning Division

For questions regarding any Planning condition of approval, please contact the Planning Division at (951) 413-3206.

GENERAL CONDITIONS

P1. This approval shall expire three years after the approval date of this project unless used or extended as provided for by the City of Moreno Valley Municipal Code; otherwise it shall become null and void and of no effect whatsoever. Use means the beginning of substantial construction contemplated by this approval within the three-year period, which is thereafter pursued to completion, or the beginning of substantial utilization contemplated by this approval. (MC 9.02.230)

P2. This project is located within Specific Plan 208 Industrial. The provisions of the specific plan, the design manual, their subsequent amendments, and the Conditions of Approval shall prevail unless modified herein. (MC 9.13)

P3. The site shall be developed in accordance with the approved plans on file in the Community & Economic Development Department - Planning Division, the Municipal

Timing Mechanisms for Conditions (see abbreviation at beginning of affected condition):

R - Map Recordation
WP - Water Improvement Plans
GP - Grading Permits
BP - Building Permits
CO - Certificate of Occupancy or building final
P - Any permit

Governing Document (see abbreviation at the end of the affected condition):

GP - General Plan
Ord - Ordinance
Res - Resolution
MC - Municipal Code
DG - Design Guidelines
UFC - Uniform Fire Code
SBM - Subdivision Map Act
CEQA - California Environmental Quality Act
Ldscp - Landscape Development Guidelines and Specs
UBC - Uniform Building Code

Code regulations, General Plan, and the conditions contained herein. Prior to any use of the project site or business activity being commenced thereon, all Conditions of Approval shall be completed to the satisfaction of the Planning Official. (MC 9.14.020)

P4. The developer, or the developer's successor-in-interest, shall be responsible for maintaining any undeveloped portion of the site in a manner that provides for the control of weeds, erosion and dust. (MC 9.02.030)

P5. All landscaped areas shall be maintained in a healthy and thriving condition, free from weeds, trash and debris. (MC 9.02.030)

P6. Any signs indicated on the submitted plans are not included with this approval. Any signs**, whether permanent (e.g. wall, monument) or temporary (e.g. banner, flag),** proposed for this development shall be designed in conformance with the sign provisions of the Development Code or approved sign program, if applicable, and shall require separate application and approval by the Planning Division. **No signs are permitted in the public right of way.** (MC 9.12)

P7. (GP) All site plans, grading plans, landscape and irrigation plans, fence/wall plans, lighting plans and street improvement plans shall be coordinated for consistency with this approval.

Special Conditions

P8. **A Plot Plan approval for an approximately 400,130 square foot industrial warehouse building to be located on approximately 17.69 acres in the Specific Plan 208 Industrial zone to include 59 dock doors and required parking for autos and truck trailers. A change or modification shall require separate approval.**

P9. **Conditions of Approval for PA07-0167 (181,031 sq.ft. warehouse building) and P12-061 (truck storage lot SWC Perris/San Michele) apply should the property owner wish to construct PA07-0167 AND P12-061 as approved. Once Precise Grading plans have been submitted and approved for the Plot Plan PA12-0023, PA07-0167 and P12-061 shall be closed.**

P10. **Prior to issuance of precise grading permits, the developer shall submit wall/fence/security gate system plans to the Community and Economic Development Department – Planning Division for review and approval.**

P11. **This project is subject to Water Supply Assessment issued by Eastern Municipal Water District (EMWD). Contact EMWD for current requirements.**

P12. **The screen wall along Perris Boulevard and San Michele Road shall be constructed in the early stages of the project.**

P13. **Mitigation measures contained in the Mitigation Monitoring Program approved with this project shall be implemented as provided therein. A mitigation monitoring fee, as provided by City ordinance, shall be paid by the applicant within 30-days of the project approval. No City permit or approval shall be issued until such fee is paid. (CEQA)**

Prior to Issuance of Grading Permits

P14. (GP) If potential historic, archaeological, or paleontological resources are uncovered during excavation or construction activities at the project site, work in the affected area will cease immediately and a qualified person (meeting the Secretary of the Interior's standards (36CFR61)) shall be consulted by the applicant to evaluate the find, and as appropriate recommend alternative measures to avoid, minimize or mitigate negative effects on the historic, prehistoric, or paleontological resource. Determinations and recommendations by the consultant shall be implemented as deemed appropriate by the Community & Economic Development Director, in consultation with the State Historic Preservation Officer (SHPO) and any and all affected Native American Tribes before any further work commences in the affected area.

If human remains are discovered**, no further disturbance shall occur until** the County Coroner **has made necessary findings as to origin**. If **the County Coroner** determine**s** that the remains are potentially Native American, the California Native American Heritage Commission **shall be contacted within a reasonable timeframe to identify the "most likely descendant." The "most likely descendant" shall then make recommendations, and engage in consultations concerning the treatment of the remains (California Public Resources Code 5097.98).** (GP Objective 23.3, CEQA).

P15. (GP) Prior to issuance of grading permits, the developer shall pay the applicable Stephens' Kangaroo Rat (SKR) Habitat Conservation Plan mitigation fee. (Ord)

P16. (GP) Prior to the issuance of grading permits, the final erosion control landscape and irrigation plans for all cut or fill slopes over 3 feet in height shall be submitted to the Planning Division for review and approval for the phase in process. The plans shall be designed in accordance with the slope erosion plan as required by the City Engineer for that phase. Man-made slopes greater than 10 feet in height shall be "land formed" to conform to the natural terrain and shall be landscaped and stabilized to minimize visual scarring. (GP Objective 1.5, MC 9.08.080, DG)

P17. **(GP) Prior to approval of any grading permits, final median enhancement/landscape/irrigation plans shall be submitted to the Planning Division, and Public Works Department – Special Districts for review and approval by each division. (GP - Circulation Master Plan) Timing of installation shall be determined by PW- Special Districts.**

P18. **(GP) Prior to approval of any grading permit~~s~~, plans for any security gate system shall be submitted to the Planning Division for review and approval.**

P19. **(GP) Within thirty (30) days prior to any grading or other land disturbance, a focused pre-construction survey for Burrowing Owls shall be conducted pursuant to the established guidelines of Multiple Species Habitat Conservation Plan. If a Burrowing Owl is found present on the project site, the protocol of the Multi-Species Habitat Conservation Program shall be followed.**

P20. **(GP) Decorative pedestrian pathways across circulation aisles/paths shall be provided throughout the development to connect dwellings with open spaces and/or recreational uses or commercial/industrial buildings with open space and/or parking and/or the public right-of-way. The pathways shall be shown on the precise grading plan. The decorative treatment shall provide a contrast in color and texture from the adjoining pavement surface. (No painted hatched lines will be allowed) (GP Objective 46.8, DG)**

P21. **(GP) Bicycle parking shall be provided (i.e. racks) at a minimum of five (5) percent of the required vehicular parking, to be located near the designated office area.**

P22. **(GP) Prior to the issuance of building permits, the site plan shall show decorative concrete pavers for all driveway ingress/egress locations of the project. The decorative treatment shall extend the full width of the driveway, project at least 20 feet into the site and shall provide a contrast in color and texture from the adjoining pavement surface.**

P23. **(GP) Prior to issuance of grading permits, the developer shall submit wall/fence plans to the Planning Division for review and approval as follows:**

- **A. A 3 foot high decorative wall, solid hedge or berm shall be placed in any setback areas between a public right of way and a parking lot for screening.**
- **B. Any proposed retaining walls shall also be decorative in nature, while the combination of retaining and other walls on top shall not exceed the height requirement.**
- **C. Proposed screening walls for truck loading areas and required**

loading docks shall also include decorative walls with pilasters with a height up to fourteen (14) feet to fully screen trucks. Design, colors and materials shall be consistent with those indicated for the building as approved by the Planning Official.

D. Any open fencing around water quality features shall take into consideration safety and aesthetics.

E. Walls and fences for visual screening are required when there are adjacent residential uses or residentially zone property. The height, placement and design will be based on a site specific review of the project. All walls are subject to the approval of the Planning Official. (DC 9.08.070)

PRIOR TO BUILDING PERMITS

P24. (BP) Prior to issuance of building permits, the Planning Division shall review and approve the location and method of enclosure or screening of transformer cabinets, commercial gas meters and back flow preventers as shown on the final working drawings. Location and screening shall comply with the following criteria: transformer cabinets and commercial gas meters shall not be located within required setbacks and shall be screened from public view either by architectural treatment or landscaping; multiple electrical meters shall be fully enclosed and incorporated into the overall architectural design of the building(s); back-flow preventers shall be screened by landscaping. (GP Objective 43.30, DG)

P25. Building plans shall reflect the following features:
   a. Colors shall be per the approved colors.
   b. Downspouts shall be integrated into the building design along the north, east and south elevations.
   c. Ventilation louvers if necessary, on the west elevation only.
   d. Integrated treatment for the man doors on the north, south and east elevations.

P26. Building plans shall include electrical outlets in the truck loading area for refrigerated trucks to eliminate idling.

P27. (BP) Prior to issuance of building permits, screening details shall be addressed on plans for roof top equipment and trash enclosures submitted for Planning Division review and approval. All equipment shall be completely screened so as not to be visible from public view, and the screening shall be an integral part of the building. For trash enclosures, landscaping shall be included on at least three sides. The trash enclosure, including any roofing, shall be compatible with the architecture for the building(s). (GP Objective 43.6, DG)

P28. (BP) Prior to issuance of building permits, two copies of a detailed, on-site, computer generated, point-by-point comparison lighting plan, including exterior building, parking lot, and landscaping lighting, shall be submitted to the Planning Division for review and approval. The lighting plan shall be generated on the plot plan and shall be integrated with the final landscape plan. The plan shall indicate the manufacturer's specifications for light fixtures used and shall include style, illumination, location, height and method of shielding. The lighting shall be designed in such a manner so that it does not exceed 0.5 foot candles illumination beyond at the property line. The lighting level for all parking lots or structures shall be a minimum coverage of one foot-candle of light with a maximum of eight foot-candles. After the third plan check review for lighting plans, an additional plan check fee will apply. (MC 9.08.100, DG)

P29. (BP) Prior to issuance of building permits, the developer or developer's successor-in-interest shall pay all applicable impact fees, including but not limited to Transportation Uniform Mitigation fees (TUMF), Multi-species Habitat Conservation Plan (MSHCP) mitigation fees, and the City’s adopted Development Impact Fees. (Ord)

P30. (BP) Prior to issuance of building permits, the applicant shall obtain a Land Use Clearance stamp from the Community & Economic Development Department – Planning Division on the final check set.

P31. **(BP) Prior to issuance of any building permits, final landscaping and irrigation plans shall be submitted for review and approved by the Planning Division. After the third plan check review for landscape plans, an additional plan check fee shall apply. The plans shall be prepared in accordance with the City's Landscape Standards and shall include:**

A. A 3 foot high decorative wall, solid hedge or berm shall be placed in any setback areas between a public right of way and a parking lot for screening of vehicle lights.
B. Finger and end planters with required step outs and curbing shall be provided every 12 parking stalls as well as at the terminus of each aisle.
C. Drought tolerant landscape shall be used. Sod shall not be included in the design.
D. Street trees shall be provided every 40 feet on center in the right of way.
E. On-site trees shall be planted at an equivalent of one (1) tree per thirty (30) linear feet of the perimeter of a parking lot and per thirty linear feet of a building dimension for the portions of the building visible from a parking lot or right of way. Trees may be massed for pleasing aesthetic effects.
F. Enhanced landscaping shall be provided at all driveway entries and along Perris Boulevard.

G. The review of all utility boxes, transformers etc. shall be coordinated to provide adequate screening from public view.

H. All site perimeter and parking lot landscape and irrigation shall be installed prior to the release of certificate of any occupancy permits for the site or pad in question.

PRIOR TO CERTIFICATE OF OCCUPANCY

P32. (CO) Prior to issuance of Certificates of Occupancy or building final, the required landscaping and irrigation shall be installed. (DC 9.03.040)

P33. Prior to the issuance of Certificate of Occupancy or building final, signs shall be installed in the truck loading areas limiting idling to less than 5 minutes.

P34. (CO) Prior to the issuance of Certificates of Occupancy or building final, all required and proposed fences and walls shall be constructed according to the approved plans on file in the Planning Division. (MC 9.080.070).

P35. **(BP/CO) Prior to issuance of Certificate of Occupancy or building final, installed landscaping and irrigation shall be inspected by the Planning Division. All on-site and common area landscaping shall be installed in accordance with the City's Landscape Standards and the approved project landscape plans and all site clean-up shall be completed.**

Building and Safety Division

B1. The above project shall comply with the current California Codes (CBC, CEC, CMC and the CPC) as well as city ordinances. All new projects shall provide a soils report as well. Plans shall be submitted to the Building and Safety Division as a separate submittal. The 2010 edition of the California Codes became effective for all permits issued after January 1, 2011.

COMMERCIAL, INDUSTRIAL, MULTI-FAMILY PROJECTS INCLUDING CONDOMINIUMS, TOWNHOMES, DUPLEXES AND TRIPLEX BUILDINGS REQUIRE THE FOLLOWING.

B2. Prior to final inspection, all plans will be placed on a CD Rom for reference and verification. Plans will include “as built” plans, revisions and changes. The CD will also include Title 24 energy calculations, structural calculations and all other pertinent information. It will be the responsibility of the developer and or the building or property owner(s) to bear all costs required for this process. The CD will be presented to the Building and Safety Division for review prior to final inspection and building occupancy. The CD will become the property of the Moreno Valley Building and Safety Division at that time. In addition, a site plan showing the path of travel from public right of way and building to building access with elevations will be required.

B3. (BP) Prior to the issuance of a building permit, the applicant shall submit a properly completed "Waste Management Plan" (WMP), as required, to the Compliance Official (Building Official) as a portion of the building or demolition permit process.

SCHOOL DISTRICT

S1. (BP) Prior to issuance of building permits, the developer shall provide to the Community & Economic Development Director a written certification by the affected school district that either: (1) the project has complied with the fee or other exaction levied on the project by the governing board of the district, pursuant to Government Code Section 65996; or (2) the fee or other requirement does not apply to the project.

UNITED STATES POSTAL SERVICE

PO1. (BP) Prior to the issuance of building permits, the developer shall contact the U.S. Postal Service to determine the appropriate type and location of mailboxes.

POLICE DEPARTMENT

Note: All Special conditions are in bold lettering. All other conditions are standard to all or most development projects

Standard Conditions

PD1. Prior to the start of any construction, temporary security fencing shall be erected. The fencing shall be a minimum of six (6) feet high with locking, gated access and shall remain through the duration of construction. Security fencing is required if there is: construction, unsecured structures, unenclosed storage of materials and/or equipment, and/or the condition of the site constitutes a public hazard as determined by the Public Works Department. If security fencing is required, it shall remain in place until the project is completed or the above conditions no longer exist. (DC 9.08.080)

PD2. (GP) Prior to the issuance of grading permits, a temporary project identification sign shall be erected on the site in a secure and visible manner. The sign shall be conspicuously posted at the site and remain in place until occupancy of the project. The sign shall include the following:

a. The name (if applicable) and address of the development.

b. The developer’s name, address, and a 24-hour emergency telephone number. (DC 9.08.080)

PD3.(CO) Prior to the issuance of a Certificate of Occupancy, an Emergency Contact information Form for the project shall be completed at the permit counter of the Community and Economic Development Department - Building Division for routing to the Police Department. (DC 9.08.080)

PD4.Addresses needs to be in plain view visible from the street and visible at night. It needs to have a backlight, so the address will reflect at night or a lighted address will be sufficient.

PD5.All exterior doors in the rear and the front of the buildings need an address or suite number on them.

PD6.All rear exterior doors should have an overhead low sodium light or a light comparable to the same.

PD7.The exterior of the building should have high-pressure sodium lights and or Metal halide lights installed and strategically placed throughout the exterior of the building. The parking lots should have adequate lighting to insure a safe environment for customers and or employees.

PD8.All landscape cover should not exceed over 3' from the ground in the parking lot.

PD9.Bushes that are near the exterior of the building should not exceed 4' and should not be planted directly in front of the buildings or walkways.

PD10.Trees, which exceed 20’, should have a 7' visibility from the ground to the bottom half of the tree. This is so that patrons or employees can view the whole parking lot while parking their vehicles in the parking lot.

PD11.Window coverings shall comply with the city ordinance.

PD12.A monument address is to be located in front of the main entrance.

CITY OF MORENO VALLEY
CONDITIONS OF APPROVAL
Case No: PA12-0023
APN: 316-200-001, 015, 019, 035, 034
DATE: 11/25/13

FIRE PREVENTION BUREAU

1. **Additional hydrants shall be required on and off site.**
2. **The following Standard Conditions shall apply.**

With respect to the conditions of approval, the following fire protection measures shall be provided in accordance with Moreno Valley City Ordinances and/or recognized fire protection standards:

F1. Final fire and life safety conditions will be addressed when the Fire Prevention Bureau reviews building plans. These conditions will be based on occupancy, use, California Building Code (CBC), California Fire Code (CFC), and related codes, which are in force at the time of building plan submittal.

F2. The Fire Prevention Bureau is required to set a minimum fire flow for the remodel or construction of all commercial buildings per CFC Appendix B and Table B105.1. The applicant/developer shall provide documentation to show there exists a water system capable of delivering _4000__ GPM for _4__ hour(s) duration at 20-PSI residual operating pressure. The required fire flow may be adjusted during the approval process to reflect changes in design, construction type, or automatic fire protection measures as approved by the Fire Prevention Bureau. Specific requirements for the project will be determined at time of submittal. (CFC 507.3, Appendix B) . **The 50% reduction in fire flow was granted for the use of fire sprinklers throughout the facility. The reduction shall only apply to fire flow, hydrant spacing shall be per the fire flow requirements listed in CFC Appendix B and C.**

F3. Industrial, Commercial, Multi-family, Apartment, Condominium, Townhouse or Mobile Home Parks. A combination of on-site and off-site super fire hydrants (6" x 4" x 2 ½" x 2 ½") and super enhanced fire hydrants (6" x 4" x 4" x 2 ½") shall not be closer than 40 feet and more than 150 feet from any portion of the building as measured along approved emergency vehicular travel ways. The required fire flow shall be available from any adjacent fire hydrant(s) in the system. Where new water mains are extended along streets where hydrants are not needed for protection of structures or similar fire problems, super or enhanced fire hydrants as determined by the fire code official shall be provided at spacing not to exceed 500 feet of frontage for transportation hazards. (CFC 507.5.7 & MVMC 8.36.060 Section K)

F4. Prior to issuance of Building Permits, the applicant/developer shall provide the Fire Prevention Bureau with an approved site plan for Fire Lanes and signage. (MVMC 8.36.050 and CFC 501.3)

F5. Prior to construction and issuance of building permits, all locations where structures are to be built shall have an approved Fire Department emergency vehicular access road (all weather surface) capable of sustaining an imposed load of 80,000 lbs. GVW, based on street standards approved by the Public Works Director and the Fire Prevention Bureau. (CFC 501.4 and MVMC 8.36.050 Section A)

F6. Prior to construction and issuance of Building Permits, fire lanes and fire apparatus access roads shall have an unobstructed width of not less than twenty–four (24) or thirty (30) feet as approved by the Fire Prevention Bureau and an unobstructed vertical clearance of not less the thirteen (13) feet six (6) inches. (CFC 503.2.1 and MVMC 8.36.060[E])

F7. Prior to construction, all roads, driveways and private roads shall not exceed 12 percent grade. (CFC 503.2.7 and MVMC 8.36.060[G])

F8. If construction is phased, each phase shall provide an approved emergency vehicular access way for fire protection prior to any building construction. (CFC 501.4)

F9. Prior to construction, all locations where structures are to be built shall have an approved Fire Department access based on street standards approved by the Public Works Director and the Fire Prevention Bureau. (CFC 501.3)

F10. Prior to building construction, dead end roadways and streets which have not been completed shall have a turnaround capable of accommodating fire apparatus. (CFC 503.2.5)

F11. Prior to issuance of Building Permits, the applicant/developer shall participate in the Fire Impact Mitigation Program. (Fee Resolution as adopted by City Council)

F12. Prior to issuance of Building Permits, the applicant/developer shall furnish one copy of the water system plans to the Fire Prevention Bureau for review. Plans shall:

a) Be signed by a registered civil engineer or a certified fire protection engineer;
b) Contain a Fire Prevention Bureau approval signature block; and
c) Conform to hydrant type, location, spacing of new and existing hydrants and minimum fire flow required as determined by the Fire Prevention Bureau.

After the local water company signs the plans, the originals shall be presented to the Fire Prevention Bureau for signatures. The required water system, including fire hydrants, shall be installed, made serviceable, and be accepted by the Moreno Valley Fire Department prior to beginning construction. They shall be maintained accessible.

Existing fire hydrants on public streets are allowed to be considered available. Existing fire hydrants on adjacent properties shall not be considered available

Item No. E.1

unless fire apparatus access roads extend between properties and easements are established to prevent obstruction of such roads. (CFC 507.5)

F13. Prior to issuance of Certificate of Occupancy or Building Final, "Blue Reflective Markers" shall be installed to identify fire hydrant locations in accordance with City specifications. (CFC 509.1)

F14. Prior to issuance of Certificate of Occupancy or Building Final, all <u>commercial buildings</u> shall display street numbers in a prominent location on the street side and rear access locations. The numerals shall be a minimum of twelve (12) inches in height for buildings and six (6) inches in height for suite identification on a contrasting background. Unobstructed lighting of the address(s) shall be by means approved by the Fire Prevention Bureau and Police Department. In multiple suite centers (strip malls), businesses shall post the name of the business on the rear door(s). (CFC 505.1)

F15. Prior to issuance of Certificate of Occupancy or Building Final, the applicant/developer shall install a fire sprinkler system based on square footage and type of construction, occupancy or use. Fire sprinkler plans shall be submitted to the Fire Prevention Bureau for approval prior to installation. (CFC Chapter 9)

F16. Prior to issuance of Certificate of Occupancy or Building Final, the applicant/developer shall install a fire alarm system monitored by an approved Underwriters Laboratory listed central station based on a requirement for monitoring the sprinkler system, occupancy or use. Fire alarm panel shall be accessible from exterior of building in an approved location. Plans shall be submitted to the Fire Prevention Bureau for approval prior to installation. (CFC Chapter 9 and MVMC 8.36.100)

F17. Prior to issuance of a Certificate of Occupancy or Building Final, a "Knox Box Rapid Entry System" shall be provided. The Knox-Box shall be installed in an accessible location approved by the Fire Chief. All exterior security emergency access gates shall be electronically operated and be provided with Knox key switches for access by emergency personnel. (CFC 506.1)

F18. Prior to issuance of Certificate of Occupancy or Building Final, the applicant/developer shall be responsible for obtaining underground and/or above ground tank permits for the storage of combustible liquids, flammable liquids, or any other hazardous materials from both the County of Riverside Community Health Agency Department of Environmental Health and the Fire Prevention Bureau. (CFC 105)

F19. Prior to issuance of Certificate of Occupancy, approval shall be required from the County of Riverside Community Health Agency (Department of Environmental Health) and Moreno Valley Fire Prevention Bureau to maintain, store, use, handle materials, or conduct processes which produce conditions hazardous to life or property, and to install equipment used in connection with such activities. (CFC 105)

F20. Prior to issuance of Certificate of Occupancy or Building Final, the applicant/developer must submit a simple plot plan, a simple floor plan, and other plans as requested, each as an electronic file in .dwg format, to the Fire Prevention Bureau. Alternate file formats may be acceptable with approval by the Fire Chief.

F21. The angle of approach and departure for any means of Fire Department access shall not exceed 1 ft drop in 20 ft (0.3 m drop in 6 m), and the design limitations of the fire apparatus of the Fire Department shall be subject to approval by the AHJ. (CFC 503 and MVMC 8.36.060)

F22. Prior to issuance of the building permit for development, independent paved access to the nearest paved road, maintained by the City shall be designed and constructed by the developer within the public right of way in accordance with City Standards. (MVMC 8.36.060)

F23. Prior to construction, “private” driveways over 150 feet in length shall have a turn-around as determined by the Fire Prevention Bureau capable of accommodating fire apparatus. Driveway grades shall not exceed 12 percent. (CFC 503 and MVMC 8.36.060)

F24. Complete plans and specifications for fire alarm systems, fire-extinguishing systems (including automatic sprinklers or standpipe systems), clean agent systems (or other special types of automatic fire-extinguishing systems), as well as other fire-protection systems and appurtenances thereto shall be submitted to the Moreno Valley Fire Prevention Bureau for review and approval prior to system installation. Submittals shall be in accordance with CFC Chapter 9 and associated accepted national standards.

F25. A permit is required to maintain, store, use or handle materials, or to conduct processes which produce conditions hazardous to life or property, or to install equipment used in connection with such activities. Such permits shall not be construed as authority to violate, cancel or set aside any of the provisions of this code. Such permit shall not take the place of any license required by law. Applications for permits shall be made to the Fire Prevention Bureau in such form and detail as prescribed by the Bureau. Applications for permits shall be accompanied by such plans as required by the Bureau. Permits shall be kept on the premises designated therein at all times and shall be posted in a conspicuous location on the premises or shall be kept on the premises in a location designated by the Fire Chief. Permits shall be subject to inspection at all times by an officer of the fire department or other persons authorized by the Fire Chief in accordance with CFC 105 and MVMC 8.36.100.

F26. Approval of the safety precautions required for buildings being constructed, altered or demolished shall be required by the Fire Chief in addition to other approvals required for specific operations or processes associated with such construction, alteration or demolition. (CFC Chapter 14 & CBC Chapter 33)

F27. Prior to issuance of Certificate of Occupancy, permits are required to store, dispense, use or handle hazardous material. Each application for a permit shall include a hazardous materials management plan (HMMP). The location of the

HMMP shall be posted adjacent to (other) permits when an HMMP is provided. The HMMP shall include a facility site plan designating the following:

a) Storage and use areas;
b) Maximum amount of each material stored or used in each area;
c) Range of container sizes;
d) Locations of emergency isolation and mitigation valves and devises;
e) Product conveying piping containing liquids or gases, other than utility-owned fuel gas lines and low-pressure fuel gas lines;
f) On and off positions of valves for valves which are of the self-indicating type;
g) Storage plan showing the intended storage arrangement, including the location and dimensions of aisles. The plans shall be legible and approximately to scale. Separate distribution systems are allowed to be shown on separate pages; and
h) Site plan showing all adjacent/neighboring structures and use.

NOTE: Each application for a permit shall include a hazardous materials inventory statement (HMIS).

F28. Before a Hazardous Materials permit is issued, the Fire Chief shall inspect and approve the receptacles, vehicles, buildings, devices, premises, storage spaces or areas to be used. In instances where laws or regulations are enforceable by departments other than the Fire Prevention Bureau, joint approval shall be obtained from all departments concerned. (CFC Chapter 27)

F29. Construction or work for which the Fire Prevention Bureau's approval is required shall be subject to inspection by the Fire Chief and such construction or work shall remain accessible and exposed for inspection purposes until approved. (CFC Section 105)

F30. The Fire Prevention Bureau shall maintain the authority to inspect, as often as necessary, buildings and premises, including such other hazards or appliances designated by the Fire Chief for the purpose of ascertaining and causing to be corrected any conditions which would reasonably tend to cause fire or contribute to its spread, or any violation of the purpose or provisions of this code and of any other law or standard affecting fire safety. (CFC Section 105)

F31. Permit requirements issued, which designate specific occupancy requirements for a particular dwelling, occupancy, or use, shall remain in effect until such time as amended by the Fire Chief. (CFC Section 105)

F32. In accordance with the California Fire Code Appendix Chapter 1, where no applicable standards or requirements are set forth in this code, or contained within other laws, codes, regulations, ordinances or bylaws adopted by the jurisdiction, compliance with applicable standards of the National Fire Protection Association or other nationally recognized fire safety standards as are approved shall be deemed as prima facie evidence of compliance with the intent of this code as approved by the Fire Chief. (CFC Section 102.8)

F33. Any alterations, demolitions, or change in design, occupancy and use of buildings or site will require plan submittal to the Fire Prevention Bureau with review and approval prior to installation. (CFC Chapter 1)

F34. Emergency and Fire Protection Plans shall be provided when required by the Fire Prevention Bureau. (CFC Section 105)

F35. Prior to Certificate of Occupancy all locations where medians are constructed and prohibit vehicular ingress/egress into or away from the site, provisions must be made to construct a median-crossover at all locations determined by the Fire Marshal and the City Engineer. Prior to the construction, design plans will be submitted for review and approval by the City Engineer and all applicable inspections conducted by Land Development Division.

F36. Prior to construction, all traffic calming designs/devices must be approved by the Fire Marshal and City Engineer.

CITY OF MORENO VALLEY
PUBLIC WORKS DEPARTMENT - LAND DEVELOPMENT DIVISION
CONDITIONS OF APPROVAL
PA12-0023 – Plot Plan for 400,130 SF Industrial Warehouse Building
APN 316-200-001, 316-200-015, 316-200-019, 316-200-035, Portion of 316-200-034

Note: All Special Conditions are in **Bold** lettering and follow the standard conditions.

PUBLIC WORKS DEPARTMENT – LAND DEVELOPMENT DIVISION

The following are the Public Works Department – Land Development Division Conditions of Approval for this project and shall be completed at no cost to any government agency. All questions regarding the intent of the following conditions shall be referred to the Public Works Department – Land Development Division.

General Conditions

LD1. (G) The developer shall comply with all applicable City ordinances and resolutions including the City's Municipal Code (MC)

LD2. (G) If the project does not involve the subdivision of land and it is necessary to dedicate right-of-way/easements, the developer shall make the appropriate offer of dedication by separate instrument. The City Engineer may require the construction of necessary utilities, streets or other improvements beyond the project boundary, if the improvements are needed for circulation, parking, access, or for the welfare or safety of the public.

LD3. (G) It is understood that the plot plan correctly shows all existing easements, traveled ways, and drainage courses, and that their omission may require the plans associated with this application to be resubmitted for further consideration. (MC 9.14.040)

LD4. (G) If improvements associated with this project are not initiated within two years of the date of approval of the Public Improvement Agreement, the City Engineer may require that the improvement cost estimate associated with the project be modified to reflect current City construction costs in effect at the time of request for an extension of time for the Public Improvement Agreement or issuance of a permit.

LD5. (G) The developer shall monitor, supervise and control all construction and construction supportive activities, so as to prevent these activities from causing a public nuisance, including but not limited to, insuring strict adherence to the following:

(a) Removal of dirt, debris, or other construction material deposited on any public street no later than the end of each working day.

(b) Observance of working hours as stipulated on permits issued by the Public Works Department.

(c) The construction site shall accommodate the parking of all motor vehicles used by persons working at or providing deliveries to the site.

(d) All dust control measures per South Coast Air Quality Management District (SCAQMD) requirements shall be adhered to during the grading operations.

Violation of any condition or restriction or prohibition set forth in these conditions shall subject the owner, applicant, developer or contractor(s) to remedies as noted in the City Municipal Code 8.14.090. In addition, the City Engineer or Building Official may suspend all construction related activities for violation of any condition, restriction or prohibition set forth in these conditions until such time as it has been determined that all operations and activities are in conformance with these conditions.

LD6. (G) A detailed drainage study shall be submitted to the City Engineer for review and approval at the time of any improvement or grading plan submittal. The study shall be prepared by a registered civil engineer and shall include existing and proposed hydrologic conditions. Hydraulic calculations are required for all drainage control devices and storm drain lines. (MC 9.14.110). Prior to approval of the related improvement or grading plans, the developer shall submit the approved drainage study, on compact disk, in (.pdf) digital format to the Land Development Division of the Public Works Department.

LD7. (G) Prior to final map approval, commencing applicable street improvements, or obtaining the first building permit, the developer shall enter into a Development Impact Fee (DIF) Improvement Credit Agreement to secure credit and reimbursement for the construction of applicable arterial street, traffic signal, and/or interchange improvements. If the developer fails to complete this agreement prior to the timing as specified above, no credits or reimbursements will be given. The applicant shall pay Arterial Streets, Traffic Signals, and Interchange Improvements development impact fees adopted by the City Council by resolution. (Ord. 695 § 1.1 (part), 2005) (MC 3.38.030, .040, .050)

LD8. (G) The final conditions of approval issued by the Planning Division subsequent to Planning Commission approval shall be photographically or electronically placed on mylar sheets and included in the Grading and Street Improvement plan sets on twenty-four (24) inch by thirty-six (36) inch mylar and submitted with the plans for plan check. These conditions of approval shall become part of these plan sets and the approved plans shall be available in the field during grading and construction.

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

LD9. (GPA) Prior to approval of the grading plans, plans shall be drawn on twenty-four (24) inch by thirty-six (36) inch mylar and signed by a registered civil engineer and other registered/licensed professional as required.

LD10. (GPA) Prior to approval of grading plans, the developer shall ensure compliance with the City Grading ordinance, these Conditions of Approval and the following criteria:

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

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

c. A grading permit shall be obtained from the Public Works Department Land Development Division prior to commencement of any grading outside of the City maintained road right-of-way.

d. All improvement plans are substantially complete and appropriate clearance and at-risk letters are provided to the City. (MC 9.14.030)

e. The developer shall submit a soils and geologic report to the Public Works Department – Land Development Division. The report shall address the soil's stability and geological conditions of the site.

LD11. (GPA) Prior to grading plan approval, the developer shall select and implement treatment control best management practices (BMPs) that are medium to highly effective for treating Pollutants of Concern (POC) for the project. Projects where National Pollution Discharge Elimination System (NPDES) mandates water quality treatment control best management practices (BMPs) shall be designed per the City of Moreno Valley guidelines or as approved by the City Engineer.

LD12. (GPA) Prior to approval of the grading plans for projects that will result in discharges of storm water associated with construction with a soil disturbance of one or more acres of land, the developer shall submit a Notice of Intent (NOI) and obtain a Waste Discharger's Identification number (WDID#) from the State Water Quality Control Board (SWQCB). The WDID# shall be noted on the grading plans prior to issuance of the first grading permit.

LD13. (GPA) Prior to the grading plan approval, or issuance of a building permit, if a grading permit is not required, the Developer shall submit two (2) copies of the final project-specific Water Quality Management Plan (WQMP) for review by the City Engineer that :

a. Addresses Site Design Best Management Practices (BMPs) such as minimizing impervious areas, maximizing permeability, minimizes directly connected impervious areas to the City's street and storm drain systems, and conserves natural areas;
b. Incorporates Source Control BMPs and provides a detailed description of their implementation;
c. Incorporates Treatment Control BMPs and provides information regarding design considerations;

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

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

A copy of the final WQMP template can be obtained on the City's Website or by contacting the Land Development Division of the Public Works Department.

LD14. (GPA) Prior to the grading plan approval, or issuance of a building permit, if a grading permit is not required, the Developer shall record a "Stormwater Treatment Device and Control Measure Access and Maintenance Covenant," to provide public notice of the requirement to implement the approved final project-specific WQMP and the maintenance requirements associated with the WQMP.

A boilerplate copy of the "Stormwater Treatment Device and Control Measure Access and Maintenance Covenant," can be obtained by contacting the Land Development Division of the Public Works Department.

LD15. (GPA) Prior to the grading plan approval, or issuance of a building permit, if a grading permit is not required, the Developer shall secure approval of the final project-specific WQMP from the City Engineer. The final project-specific WQMP shall be submitted at the same time of grading plan submittal. The approved final WQMP shall be submitted to the Storm Water Program Manager on compact disk(s) in Microsoft Word format prior to grading plan approval.

LD16. (GPA) Prior to the grading plan approval, or issuance of a building permit as determined by the City Engineer, the approved final project-specific WQMP shall be incorporated by reference or attached to the project's Storm Water Pollution Prevention Plan as the Post-Construction Management Plan.

LD17. (GPA) Prior to grading plan approval, the developer shall prepare a Storm Water Pollution Prevention Plan (SWPPP) in conformance with the state's Construction Activities Storm Water General Permit. A copy of the current SWPPP shall be kept at the project site and be available for review upon request. The SWPPP shall be submitted to the Storm Water Program Manager on compact disk(s) in Microsoft Word format.

LD18. (GPA) Prior to the approval of the grading plans, the developer shall pay applicable remaining grading plan check fees.

LD19. (GP) Prior to issuance of a grading permit, or building permit when a grading permit is not required, for projects that require a project-specific Water Quality Management Plan (WQMP), a project-specific final WQMP (F-WQMP) shall be approved. Upon approval, a WQMP Identification Number is issued by the Storm Water Management Section and shall be noted on the rough grading plans as confirmation that a project-specific F-WQMP approval has been obtained.

LD20. (GP) Prior to issuance of a grading permit, if the fee has not already been paid prior to map approval or prior to issuance of a building permit if a grading permit is not required, the developer shall pay Area Drainage Plan (ADP) fees. The developer shall provide a receipt to the City showing that ADP fees have been paid to Riverside County Flood Control and Water Conservation District. (MC 9.14.100)

LD21. (GP) Prior to issuance of a grading permit, security, in the form of a cash deposit (preferable), letter of credit, or performance bond shall be required to be submitted as a guarantee of the completion of the grading required as a condition of approval of the project.

LD22. (GP) Prior to issuance of a grading permit, the developer shall pay the applicable grading inspection fees.

Prior to Improvement Plan Approval or Construction Permit

LD23. (IPA) Prior to approval of the improvement plans, the improvement plans shall be drawn on twenty-four (24) inch by thirty-six (36) inch mylar and signed by a registered civil engineer and other registered/licensed professional as required.

LD24. (IPA) Prior to approval of the improvement plans, the developer shall submit clearances from all applicable agencies, and pay all outstanding plan check fees. (MC 9.14.210)

LD25. (IPA) All public improvement plans prepared and signed by a registered civil engineer in accordance with City standards, policies and requirements shall be approved by the City Engineer in order for the Public Improvement Agreement and accompanying security to be executed.

LD26. (IPA) Prior to approval of the improvement plans, securities and a public improvement agreement shall be required to be submitted and executed as a guarantee of the completion of the improvements required as a condition of approval of the project.

LD27. (IPA) The street improvement plans shall comply with all applicable City standards and the following design standards throughout this project:

a. Corner cutbacks in conformance with City Standard 208 shall be shown on the final map or, if no map is to be recorded, offered for dedication by separate instrument.

b. The minimum centerline and flow line grades shall be one percent unless otherwise approved by the City Engineer. (MC 9.14.020)

LD28. (IPA) Prior to approval of the improvement plans, the plans shall indicate any restrictions on trench repair pavement cuts to reflect the City's moratorium on disturbing newly-constructed pavement less than three years old and recently slurry sealed streets less than one year old. Pavement cuts for trench repairs may be allowed for emergency repairs or as specifically approved in writing by the City Engineer.

LD29. (IPA) Prior to street improvement plan approval, all dry and wet utilities shall be shown on the plans and any crossings shall be potholed to determine actual location and elevation. Any conflicts shall be identified and addressed on the plans. The pothole survey data shall be submitted to Land Development with the public improvement plans for reference purposes only. The developer is responsible to coordinate with all affected utility companies and bear all costs of any utility relocation.

LD30. (IPA) Prior to the issuance of the Building permit, if there are any conflicts with dry and/or wet utilities identified on the public improvement plans, the developer shall provide the City with a copy of the utility relocation plan approved by the utility purveyor.

LD31. (IPA) Prior to approval of the improvement plans, the developer is required to bring any existing access ramps adjacent to and fronting the project to current ADA (Americans with Disabilities Act) requirements. However, when work is required in an intersection that involves or impacts existing access ramps, those access ramps in that intersection shall be retrofitted to comply with current ADA requirements, unless approved otherwise by the City Engineer.

LD32. (IPA) Prior to approval of the improvement plans, drainage facilities with sump conditions shall be designed to convey the tributary 100-year storm flows. Secondary emergency escape shall also be provided. (MC 9.14.110)

LD33. (IPA) Prior to the approval of the improvement plans, the hydrology study shall show that the 10-year storm flow will be contained within the curb and the 100-year storm flow shall be contained within the street right-of-way. In addition, one lane in each direction shall not be used to carry surface flows during any storm event for street sections equal to or larger than a minor arterial. When any of these criteria is exceeded, additional drainage facilities shall be installed. (MC 9.14.110 A.2)

LD34. (IPA) The project shall be designed to accept and properly convey all off-site drainage flowing onto or through the site. All storm drain design and improvements shall be subject to review and approval of the City Engineer. In the event that the City Engineer permits the use of streets for drainage purposes, the provisions of the Development Code will apply. Should the quantities exceed the street capacity or the use of streets be prohibited for drainage purposes, as in the case where one travel lane in each direction shall not be used for drainage conveyance for emergency vehicle access on streets classified as minor arterials and greater, the developer shall provide adequate facilities as approved by the Public Works Department – Land Development Division. (MC 9.14.110)

LD35. (CP) All work performed within the City right-of-way requires a construction permit. As determined by the City Engineer, security may be required for work within the right-of-way. Security shall be in the form of a cash deposit or other approved means. The City Engineer may require the execution of a public improvement agreement as a condition of the issuance of the construction permit. All inspection fees shall be paid prior to issuance of construction permit. (MC 9.14.100)

LD36. (CP) Prior to issuance of a construction permit, all public improvement plans prepared and signed by a registered civil engineer in accordance with City standards, policies and requirements shall be approved by the City Engineer.

LD37. (CP) Prior to issuance of construction permits, the developer shall submit all improvement plans on compact disks, in (.dxf) digital format to the Land Development Division of the Public Works Department.

LD38. (CP) Prior to issuance of construction permits, the developer shall pay all applicable inspection fees.

Prior to Building Permit

LD39. (BP) Prior to issuance of building permits for non-subdivision projects, all street dedications shall be irrevocably offered to the public and shall continue in force until the City accepts or abandons such offers, unless otherwise approved by the City Engineer. All dedications shall be free of all encumbrances as approved by the City Engineer.

LD40. (BP) Prior to issuance of building permits for non-subdivisions, security shall be required to be submitted as a guarantee of the completion of the improvements required as a condition of approval of the project. A public improvement agreement will be required to be executed.

LD41. (BP) Prior to issuance of building permit for a non-subdivision project, the developer shall comply with the requirements of the City Engineer based on recommendations of the Riverside County Flood Control District regarding the construction of County Master Plan Facilities. (MC 9.14.110)

LD42. (BP) Prior to issuance of a building permit for non-subdivision projects, the developer shall enter into an agreement with the City and Riverside County Flood Control and Water Conservation District establishing the terms and conditions covering the inspection, operation and maintenance of Master Drainage Plan facilities. (MC 9.14.110)

LD43. (BP) Prior to issuance of a building permit, all pads shall meet pad elevations per approved plans as noted by the setting of “Blue-top” markers installed by a registered land surveyor or licensed engineer.

Prior to Certificate of Occupancy

LD44. (CO) Prior to issuance of the last certificate of occupancy or building final, the developer shall pay all outstanding fees.

LD45. (CO) Prior to issuance of a certificate of occupancy, this project is subject to requirements under the current permit for storm water activities required as part of the National Pollutant Discharge Elimination System **(NPDES)** as mandated by the Federal Clean Water Act. In compliance with Proposition 218, the developer shall agree to approve the City of Moreno Valley NPDES Regulatory Rate

Schedule that is in place at the time of certificate of occupancy issuance. Following are the requirements:

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

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

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

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

LD46. (CO) The City of Moreno Valley has an adopted Development Impact Fee (DIF) nexus study. All projects unless otherwise exempted shall be subject to the payment of the DIF prior to issuance of occupancy. The fees are subject to the provisions of the enabling ordinance and the fee schedule in effect at the time of occupancy.

LD47. (CO) The City of Moreno Valley has an adopted area wide Transportation Uniform Mitigation Fee (TUMF). All projects unless otherwise exempted shall be subject to the payment of the TUMF prior to issuance of occupancy. The fees are subject to the provisions of the enabling ordinance and the fee schedule in effect at the time of occupancy.

LD48. (CO) Prior to issuance of a certificate of occupancy or building final, the developer shall construct all public improvements in conformance with applicable City standards, except as noted in the Special Conditions, including but not limited to the following applicable improvements:

a. Street improvements including, but not limited to: pavement, base, curb and/or gutter, sidewalks, drive approaches, pedestrian ramps, street lights, signing, striping, landscaping and irrigation, median, traffic control devices as appropriate.

b. Storm drain facilities including, but not limited to: storm drain pipe, storm drain laterals, catch basins and local depressions.

c. Sewer and water systems including, but not limited to: sanitary sewer, potable water and recycled water.

d. Under grounding of existing and proposed utility lines less than 115,000 volts.

LD49. (CO) Prior to issuance of a certificate of occupancy or building final, all existing and new utilities adjacent to and on-site shall be placed underground in accordance with City of Moreno Valley ordinances. (MC 9.14.130)

LD50. (CO) Prior to issuance of a certificate of occupancy or building final for any Commercial/Industrial facility, whichever occurs first, the owner may have to secure coverage under the State's General Industrial Activities Storm Water Permit as issued by the State Water Resources Control Board.

LD51. (CO) Prior to issuance of a certificate of occupancy or building final, the applicant shall ensure the following, pursuant to Section XII. I. of the 2010 NPDES Permit:

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

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

Prior to Acceptance of Streets into the City Maintained Road System

LD52. (AOS) Aggregate slurry, as defined in Section 203-5 of Standard Specifications for Public Works Construction, may be required just prior to the end of the one-year warranty period of the public streets at the discretion of the City Engineer. If slurry is required, the developer/contractor must provide a slurry mix design submittal for City Engineer approval. The latex additive shall be Ultra Pave 70 (for anionic – per project geotechnical report) or Ultra Pave 65 K (for cationic – per project geotechnical report) or an approved equal. The latex shall be added at the emulsion plant after weighing the asphalt and before the addition of mixing water. The latex shall be added at a rate of two to two-and-one-half (2 to 2½) parts to one-hundred (100) parts of emulsion by volume. Any existing striping shall be removed prior to slurry application and replaced per City standards.

SPECIAL CONDITIONS

LD53. After obtaining entitlements , this project will be required to submit design plans for plan review (Rough Grading Plans, Precise Grading Plans, Street Improvement Plans, Signing & Striping Plans, Traffic Signal Plans, Traffic Control Plans) (24"x36" sheet size). As-Built plans of these plans will be required. A final drainage study will be required during design plan review.

LD54. Prior to rough grading plan approval, this project shall submit for review and approval lot line adjustments for the intention of combining existing

parcels. The lot line adjustments shall record prior to issuance of a building permit.

LD55. Prior to precise grading plan approval, the grading plans shall clearly show that the parking lot conforms to City standards. The parking lot shall be 5% maximum, 1% minimum, 2% maximum at or near any disabled parking stall and travel way. Ramps, curb openings and travel paths shall all conform to current ADA standards as outlined in Department of Justice's "ADA Standards for Accessible Design", Excerpt from 28 CFR Part 36. (www.usdoj.gov) and as approved by the City's Building and Safety Division.

LD56. Prior to precise grading plan approval, the grading plans shall show any proposed trash enclosure as dual bin; one bin for trash and one bin for recyclables. The trash enclosure shall be per City Standard Plan 627.

LD57. Prior to precise grading plan approval, the developer shall submit for review and approval legal descriptions and plats for additional right-of-way dedications.

a. At driveway entrance locations per City Standard 118C

b. Corner cutback area at the southwest corner of San Michele Road and Perris Boulevard per City Standard 208

c. 20-foot wide dedication on the south side of San Michele Road along project frontage

d. A 2-foot public access easement for the portions of sidewalk which are outside of the public right-of-way, along Perris Boulevard and San Michele Road.

e. The appropriate additional right-of-way/easement required for a bus turn-out on Perris Boulevard, as conditioned by the City's Transportation Department.

LD58. Prior to building permit issuance, the Developer shall guarantee the construction of the following improvements by entering into a public improvement agreement and posting security. The improvements shall be completed prior to occupancy.

a. San Michelle Road, Arterial, City Standard 104A (100-foot RW / 76-foot CC) shall be constructed to half-width plus an additional 18 feet north of the centerline, along the entire project's north frontage. A 20-foot right-of-way dedication on the south side of the street, along the project's north property line, shall be shown on the parcel map. Improvements shall consist of, but not be limited to, pavement, base, curb, gutter, sidewalk, driveway approaches, drainage structures, streetlights, pedestrian ramps, removal/relocation and/or undergrounding of any power poles with overhead utility lines less than 115,000 volts, and dry and wet utilities.

b. Perris Boulevard, Divided Arterial, City Standard 103C (110-foot RW / 86-foot CC) remaining improvements shall be constructed consisting of pavement, base, curb, gutter, sidewalk, drainage structures, raised landscaped median, removal/relocation and/or undergrounding of any power poles with overhead utility lines less than 115,000 volts, and dry and wet utilities. This project will be conditioned to repair, replace or install any damaged, substandard or missing improvements on Perris Boulevard between Nandina Avenue and San Michele Road.

c. Nandina Avenue, Minor Arterial, City Standard 105A (88-foot RW / 64-foot CC). This project will be conditioned to repair, replace or install any damaged, substandard or missing improvements on Nandina Avenue along project frontage.

d. Perris Valley Master Area Drainage Plan Storm Drain Line B-1 extension within Perris Boulevard from its existing terminus to San Michele Road and within San Michele Road from Perris Boulevard to within project frontage.

e. Pavement core samples of existing pavement may be taken and findings submitted to the City for review and consideration of pavement improvements. The City will determine the adequacy of the existing pavement structural section. If the existing pavement structural section is found to be adequate, the developer may still be required to perform a one-tenth inch grind and overlay or slurry seal depending on the severity of existing pavement cracking, as required by the City Engineer. If the existing pavement section is found to be inadequate, the Developer shall replace the pavement to meet or exceed the City's pavement structural section standard.

LD59. Prior to occupancy permit issuance, all overhead utility lines less than 115,000 volts fronting or within the entire project site boundary shall be placed underground per Section 9.14.130C of the City Municipal Code.

LD60. The Applicant shall prepare and submit for approval a Project Specific Final Water Quality Management Plan (F-WQMP) for PA12-0023 – First Inland Logistics Center II. The F-WQMP shall be consistent with the approved Amended P-WQMP and in full conformance with the document; "Riverside County Water Quality Management Plan for Urban Runoff" dated July 24, 2006.

LD61. The F-WQMP shall be submitted and approved prior to application for and issuance of grading or building permits. At a minimum, the F-WQMP shall include the following: Site Design BMPs; Source Control BMPs; Treatment Control BMPs; Operation and Maintenance requirements for BMPs; and sources of funding for BMP implementation.

LD62. The Applicant shall select and implement treatment control BMPs that are medium to highly effective for treating Pollutants of Concern (POC) for the project. POC include project pollutants associated with a 303(d) listing or a

Total Maximum Daily Load (TMDL) for receiving waters. Project POC include: Nutrients, Organic Compounds, and Pathogens (Bacteria and Viruses). Exhibit C of the document, "Riverside County Water Quality Management Plan for Urban Runoff" dated July 24, 2006 shall be consulted for determining the effectiveness of proposed treatment BMPs.

LD63. Overall, the proposed treatment control concept is accepted as the conceptual treatment control BMP for the proposed site. The Applicant has proposed to incorporate the use of three altered existing filtration trenches along Nandina Avenue and a newly designed filtration trench along Perris Boulevard. Final design details of the treatment control BMPs must be provided in the first submittal of the F-WQMP. The size of the treatment control BMPs is to be determined using the procedures set forth in Exhibit C of the Riverside County Guidance Document.

LD64. The Applicant shall substantiate the applicable Hydrologic Condition of Concern (HCOC) (WQMP Section IV) in the F-WQMP. The HCOC designates that the project will comply with Condition A; therefore, the condition must be addressed in the F-WQMP.

LD65. The Applicant shall, prior to building or grading permit closeout or the issuance of a certificate of occupancy, demonstrate:

a. That all structural BMPs have been constructed and installed in conformance with the approved plans and specifications;

b. That all structural BMPs described in the F-WQMP have been implemented in accordance with approved plans and specifications;

c. That the Applicant is prepared to implement all non-structural BMPs included in the F-WQMP, conditions of approval, and building/grading permit conditions; and

d. That an adequate number of copies of the approved F-WQMP are available for the future owners/occupants of the project.

CITY OF MORENO VALLEY
CONDITIONS OF APPROVAL
Case No: PA12-0023 (PP for a 397,080 sq ft warehouse building)
APNs: 316-200-001, -015, -019, -035, and a portion of -034
05.31.12

PUBLIC WORKS DEPARTMENT

Special Districts Division

Note: All Special Conditions, Modified Conditions, or Clarification of Conditions are in bold lettering. All other conditions are standard to all or most development projects.

Acknowledgement of Conditions

The following items are Special Districts' Conditions of Approval for project **PA12-0023**; this project shall be completed at no cost to any Government Agency. All questions regarding Special Districts' Conditions including but not limited to, intent, requests for change/modification, variance and/or request for extension of time shall be sought from the Special Districts Division of the Public Works Department 951.413.3480.

General Conditions

SD-1 The parcel(s) associated with this project have been incorporated into the Moreno Valley Community Services Districts Zones A (Parks & Community Services) and C (Arterial Street Lighting). All assessable parcels therein shall be subject to annual Zone A and Zone C charges for operations and capital improvements.

SD-2 Any damage to existing landscape areas maintained by the Moreno Valley Community Services District due to project construction shall be repaired/replaced by the developer, or developer's successors in interest, at no cost to the Moreno Valley Community Services District.

SD-3 Streetlight Authorization forms, for all streetlights that are conditioned to be installed as part of this project, must be submitted to the Special Districts Division for approval, prior to streetlight installation. The Streetlight Authorization form can be obtained from the utility company providing electric service to the project, either Moreno Valley Utility or Southern California Edison.

Prior to Grading Permit

SD-4 This project is included within the future annexation boundaries for Community Facilities District No. 7. The Local Component portion of the Area Drainage Plan (ADP) fee for Riverside County Flood Control District

(RCFCD) has been allocated toward the debt service payments on CFD No. 7 bonds and/or paying directly for the acquisition of RCFCD facilities. In order for the developer to meet their financial obligation, one of the options as outlined below shall be selected. The Developer must notify Special Districts of Developer's intent to request (a) grading permit or (b) building permit, if a grading permit is not required, a minimum of 90 days prior to their issuance and the financial option selected to fund their obligation.

a. Participate in a special election to annex into **CFD No. 7** and pay the equivalent to the Local Component portion of the ADP fee including interest as a special tax levied annually on the Riverside County property tax bill; or
b. Pay the Local Component portion of the ADP fee directly to the City of Moreno Valley, Special Districts Division which shall be used for any authorized purpose for CFD No. 7.

Annexation to CFD No. 7 shall be completed <u>or</u> proof of payment of the Local Component portion of the ADP fee shall be provided to Special Districts prior to the issuance of the first building permit for this project.

Prior to Building Permit Issuance

SD-5 (BP) This project has been identified to be included in the formation of a Community Facilities District (Mello-Roos) for **Public Safety** services, including but not limited to Police, Fire Protection, Paramedic Services, Park Rangers, and Animal Control services. The property owner(s) shall not protest the formation; however, they retain the right to object to the rate and method of maximum special tax. In compliance with Proposition 218, the developer shall agree to approve the mail ballot proceeding (special election) for either formation of the CFD or annexation into an existing district that may already be established. The Developer must notify Special Districts of intent to request building permits 90 days prior to their issuance. (California Government Code)

SD-6 (BP) This project is conditioned to provide a funding source for the capital improvements and/or maintenance for the **Perris Blvd.** median landscape. In order for the Developer to meet the financial responsibility to maintain the defined service, one of the options as outlined below shall be selected. The Developer must notify Special Districts of intent to request building permits 90 days prior to their issuance and the financial option selected to fund the continued maintenance.

a. Participate in the mail ballot proceeding in compliance with Proposition 218, for Moreno Valley Community Services District **Zone M** (Commercial, Industrial and Multifamily Improved Median Maintenance), and pay all associated costs with the ballot process; or
b. Establish an endowment to cover the future maintenance costs of the landscaped area.

The financial option selected shall be in place prior to the issuance of certificate of occupancy.

SD-7 *Commercial* (BP) If Land Development, a Division of the Community and Economic Development Department, requires this project to supply a funding source necessary to provide, but not limited to, stormwater utilities services for the monitoring of on site facilities and performing annual inspections of the affected areas to ensure compliance with state mandated stormwater regulations, the developer must notify Special Districts 90 days prior to the City's issuance of a building permit and the financial option selected to fund the continued maintenance. (California Government Code)

SD-8 (BP) Prior to the issuance of the first building for this project, the developer shall pay Advanced Energy fees for all applicable Zone B (Residential Street Lighting) and/or Zone C (Arterial Street Lighting and Intersection Lighting) streetlights required for this development. The developer shall provide a receipt to the Special Districts Division showing that the Advanced Energy fees have been paid in full for the number of streetlights to be accepted into the CSD Zone B and/or Zone C programs. Payment shall be made to the City of Moreno Valley, as collected by the Land Development Division, based upon the Advanced Energy fee rate at the time of payment and as set forth in the current Listing of City Fees, Charges and Rates, as adopted by City Council. Any change in the project which may increase the number of streetlights to be installed will require payment of additional Advanced Energy fees at the then current fee.

SD-9 (BP) Prior to release of building permit, the developer, or the developer's successors or assignees, shall record with the County Recorder's Office a **Covenant of Assessments** for each assessable parcel therein, whereby the developer covenants the existence of the Moreno Valley Community Services District, its established benefit zones, and that said parcel(s) is (are) liable for payment of annual benefit zone charges and the appropriate National Pollutant Discharge Elimination System (NPDES) maximum regulatory rate schedule when due. A copy of the recorded Covenant of Assessments shall be submitted to the Special Districts

Division. For a copy of the Covenant of Assessments form, please contact Special Districts, phone 951.413.3480.

MORENO VALLEY
WHERE DREAMS SOAR

Public Works
Transportation Engineering Division

MEMORANDUM

To: Julia Descoteaux, Associate Planner

From: Michael Lloyd, Senior Engineer

Date: February 13, 2013

Subject: **Conditions of Approval for PA12-0023** – Plot Plan for warehouse located from the northwest corner of Perris Boulevard at Nandina Avenue.

Attached are the Transportation Engineering Conditions of approval for the subject project.

CITY OF MORENO VALLEY

CONDITIONS OF APPROVAL
PA12-0023
Plot Plan for warehouse located from the northwest corner of Perris Boulevard at Nandina Avenue.

Note: All Special conditions are in bold lettering. All other conditions are standard to all or most development projects.

Transportation Engineering Division – Conditions of Approval

Based on the information contained in our standard review process we recommend the following conditions of approval be placed on this project:

GENERAL CONDITIONS

TE1. Conditions of approval may be modified if project is phased or altered from any approved plans.

TE2. San Michele Road is classified as an Arterial (100'RW/76'CC) per City Standard Plan No. 104A. Any modifications or improvements undertaken by this project shall be consistent with the City's standards for this facility.

TE3. Nandina Avenue is classified as a Minor Arterial (88' RW/64'CC) per City Standard Plan No. 105A. Any modifications or improvements undertaken by this project shall be consistent with the City's standards for this facility.

TE4. Perris Boulevard is classified as Divided Arterial – 6 Lanes (110'RW/86'CC) per City Standard Plan No. 103C. Any modifications or improvements undertaken by this project shall be consistent with the City's standards for this facility.

PRIOR TO IMPROVEMENT PLAN APPROVAL OR CONSTRUCTION PERMIT

TE5. A bus bay shall be included along southbound Perris Boulevard, south of San Michele Road per City Standard plan No. 121.

TE6. The driveways shall conform to Section 9.11.080, and Table 9.11.080-14 of the City's Development Code - Design Guidelines, and City Standard Plan No. 118C.

TE7. Sight distance at driveways shall conform to City of Moreno Valley Standard No. 125A, B, C at the time of preparation of final grading, landscape, and street improvements.

TE8. Prior to the final approval of the street improvement plans, a signing and striping plan shall be prepared per City of Moreno Valley Standard Plans - Section 4 for all streets with a cross section of 66'/44' and wider.

TE9. Prior to issuance of a construction permit, construction traffic control plans prepared by a qualified, Registered Civil or Traffic engineer may be required.

TE10. Prior to the final approval of the street improvement plans, the project applicant shall prepare a traffic signal modification plan as necessary for the intersection of Perris Boulevard at San Michele Road, or as approved by the City Traffic Engineer. Modifications may include but not be limited to signal pole relocation, traffic signal detector loop replacement, pedestrian push button/signal head replacement, etc.

PRIOR TO CERTIFICATE OF OCCUPANCY OR BUILDING FINAL

TE11. (CO) Prior to issuance of a certificate of occupancy, all approved signing and striping shall be installed per current City Standards and the approved plans.

TE12. (CO) Gated entrances will be provided with the following, or as approved by the City Engineer:

A. A storage lane with a minimum length of 75 feet.
B. Signing and striping at the gate, including no parking signs.
C. Presence loop detectors (or another device) within 1 or 2 feet of the gates that ensures that the gates remain open while any vehicle is in the queue.

All of these features must be kept in working order.

TE13. (CO) Prior to the issuance of a certificate of occupancy, the project applicant shall construct the traffic signal improvements identified in TE10, if necessary. Construction shall be completed per the approved plans and coordinated with the street improvements.

TE14. (CO) Prior to the issuance of a certificate of occupancy, the project applicant shall pay all fair-share contributions as required per the findings of the Traffic Study (dated January 3, 2013), Table 9-1.

PRIOR TO ACCEPTANCE OF STREETS INTO THE CITY-MAINTAINED ROAD SYSTEM

TE15. Prior to the acceptance of streets into the City-maintained road system, all approved traffic control and signing and striping shall be installed per current City Standards and the approved plans.

CITY OF MORENO VALLEY
CONDITIONS OF APPROVAL
Case No: PA12-0023
APNs: 316-200-001, 015, 019, 035, portion of 034
June 5, 2012

PUBLIC WORKS DEPARTMENT

Moreno Valley Utility

Note: All Special Conditions, Modified Conditions, or Clarification of Conditions are in bold lettering. All other conditions are standard to all or most development projects.

Acknowledgement of Conditions

The following items are Moreno Valley Utility's Conditions of Approval for project(s) PA12-0023; this project shall be completed at no cost to any Government Agency. All questions regarding Moreno Valley Utility's Conditions including but not limited to, intent, requests for change/modification, variance and/or request for extension of time shall be sought from Moreno Valley Utility (the Electric Utility Division) of the Public Works Department 951.413.3500. The applicant is fully responsible for communicating with Moreno Valley Utility staff regarding their conditions.

PRIOR TO ENERGIZING MVU ELECTRIC UTILITY SYSTEM AND CERTIFICATE OF OCCUPANCY

MVU-1 (R) For single family subdivisions, a three foot easement along each side yard property line shall be shown on the final map and offered for dedication to the City of Moreno Valley for public utility purposes, unless otherwise approved by the City Engineer. If the project is a multi-family development, townhome, condominium, apartment, commercial or industrial project, and it requires the installation of electric distribution facilities within common areas, a non-exclusive easement shall be provided to Moreno Valley Utility to include all such common areas. All easements shall include the rights of ingress and egress for the purpose of operation, maintenance, facility repair, and meter reading.

MVU-2 (BP) **City of Moreno Valley Municipal Utility Service – Electrical Distribution**: Prior to constructing the MVU Electric Utility System, the developer shall submit a detailed engineering plan showing design, location and schematics for the utility system to be approved by the City Engineer. In accordance with Government Code Section 66462, the Developer **shall** execute an agreement with the City providing for the installation, construction, improvement and dedication of the utility system following recordation of final map and concurrent with trenching operations and other subdivision improvements so long as said agreement incorporates the approved engineering plan and provides financial security to guarantee completion and dedication of the utility system.

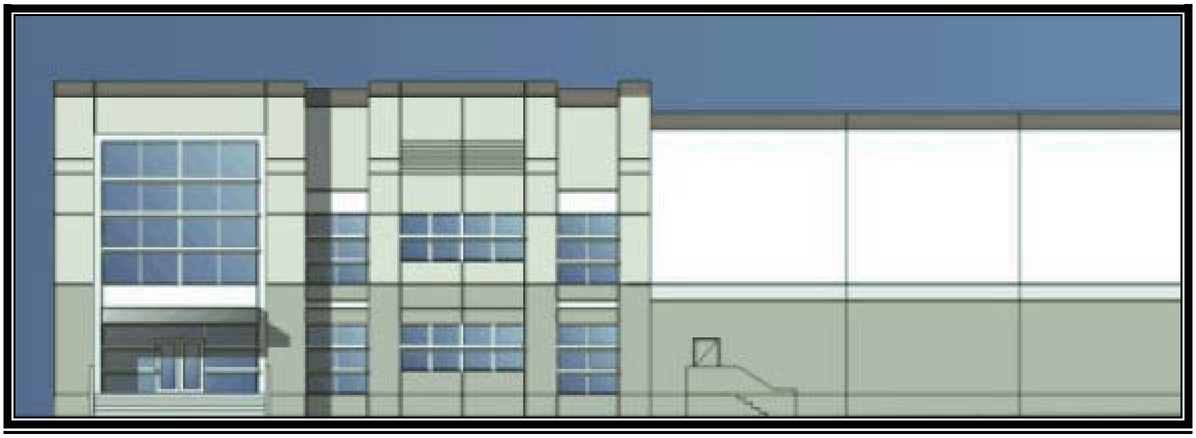
The Developer **shall** coordinate and receive approval from the City Engineer to install, construct, improve, and dedicate to the City, or the City's designee, all utility infrastructure (including but not limited to conduit, equipment, vaults, ducts, wires, switches, conductors, transformers, resistors, amplifiers, and "bring-up" facilities including electrical capacity to serve the identified development and other adjoining/abutting/ or benefiting projects as determined by Moreno Valley Utility) – collectively referred to as "utility system" (to and through the development), along with any appurtenant real property easements, as determined by the City Engineer to be necessary for the distribution and /or delivery of any and all "utility services" to each lot and unit within the Tentative Map. For purposes of this condition, "utility services" shall mean electric, cable television, telecommunication (including video, voice, and data) and other similar services designated by the City Engineer. "Utility services" shall not include sewer, water, and natural gas services, which are addressed by other conditions of approval. Properties within development may be subject to an electrical system capacity charge and that contribution will be collected prior to issuance of building permits.

The City, or the City's designee, shall utilize dedicated utility facilities to ensure safe, reliable, sustainable and cost effective delivery of utility services and maintain the integrity of streets and other public infrastructure. Developer shall, at developer's sole expense, install or cause the installation of such interconnection facilities as may be necessary to connect the electrical distribution infrastructure within the project to the Moreno Valley Utility owned and controlled electric distribution system. Alternatively, developer may cause the project to be included in or annexed to a community facilities district established or to be established by the City for the purpose of financing the installation of such interconnection and distribution facilities. The project shall be deemed to have been included in or annexed to such a community facilities district upon the expiration of the statute of limitations to any legal challenges to the levy of special taxes by such community facilities district within the property. The statute of limitations referred to above will expire 30 days after the date of the election by the qualified electors within the project to authorize the levy of special taxes and the issuance of bonds.

MVU-3 This project may be subject to a Reimbursement Agreement. The project is responsible for a proportionate share of costs associated with electrical distribution infrastructure previously installed that directly benefits the project. The project may be subject to a system wide capacity charge in addition to the referenced reimbursement agreement. Payment(s) shall be required prior to issuance of building permit(s).

Final Environmental Impact Report
SCH No. 2012121011

FIRST INLAND LOGISTICS CENTER II
Moreno Valley, California
EIR Case P12-064



Lead Agency
The City of Moreno Valley
14177 Frederick Street
PO Box 88005
Moreno Valley, CA 92552

Date: November 26, 2013

Final Environmental Impact Report
SCH No. 2012121011

First Inland Logistics Center II
Moreno Valley, California
EIR Case P12-064

Lead Agency
The City of Moreno Valley
14177 Frederick Street
PO Box 88005
Moreno Valley, CA 92552

CEQA Consultant
T&B Planning, Inc.
17542 East 17th Street, Suite 100
Tustin, CA 92780

Lead Agency Discretionary Permit
Building Plot Plan (PA12-0023)

Date: November 26, 2013

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D: Greenhouse Gas Analysis
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F: Traffic Report
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ACRONYMS

Acronym	Definition
§	Section
1992 CO Plan	1992 Federal attainment Plan for Carbon Monoxide
2003 AQMP	SCAQMD's 2003 Air Quality Management Plan
AB	Assembly Bill
ADT	Average Daily Traffic
a.m.	Ante Meridiem (between the hours of midnight and noon)
AMSL	above mean sea level
APN	Assessor Parcel Number
APS	alternative planning strategy
AQMP	Air Quality Management Plan
ARB	Air Reserve Base
AST	above-ground storage tank
BMPs	best management practices
BP	Business Park/Light Industrial land use designation
C	Capacity -or- Commercial land use designation
C_2F_6	hexafluoroethane
C_2H_6	ethane
CA	California
CAA	Federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CA H_2 Net	California Hydrogen Highway Network
CalEEMod™	California Emissions Estimator Model™
CalEPA	California Environmental Protection Agency
CalGreen Code	California Green Building Standards Code
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CAPSSA	Criteria Area Plant Species Survey Area
CARB	California Air Resources Board
CAT	Climate Action Team
CBSC	California Building Standards Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CETAP	Community & Environmental Transportation Acceptability Process
CFC	chlorofluorocarbon
CF_4	tetrafluoromethane
CH_4	methane
CHP	combined heat and power

Acronym	Definition
CIWMB	California Integrated Waste Management Board
CMP	Congestion Management Plan
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
COG	council of governments
COHb	carboxyhemoglobin
CO_2e	carbon dioxide equivalent
CPUC	California Public Utilities Commission
dB	decibel
dBA	A-weighted decibel
DIF	Development Impact Fee
DPM	Diesel Particulate Matter
E+A	Existing Plus Ambient Growth Conditions
E+A+C	Existing Plus Ambient Growth Plus Cumulative Conditions
E+A+C+P	Existing Plus Ambient Growth Plus Cumulative Plus Project Conditions
E+A+P	Existing Plus Ambient Growth Plus Project Conditions
E+P	Existing Plus Project Conditions
EAP II	Energy Action Plan II
EIR	Environmental Impact Report
EMFAC	Emission FACtor model
EMWD	Eastern Municipal Water District
et seq.	*et sequentia*, meaning "and the following”
EPA	Environmental Protection Agency
EPS	emission performance standard
FAR	floor area ratio
FEIR	Final Environmental Impact Report
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
GCC	Global Climate Change
GHG	greenhouse gas
GWP	Global Warming Potential
H_2O	water vapor
HANS	Habitat Evaluation and Acquisition Negotiation Strategy
HCM	Highway Capacity Manual
HCP	Habitat Conservation Plan
HETs	high-efficiency toilets
HFC	hydrofluorocarbon
HPLV	High Pressure Low Volume

Acronym	Definition
HVAC	heating, ventilation, and air conditioning
HVWAP	Harvest Valley/Winchester Area Plan
I	Industrial zoning designation
I-15	Interstate 15
I-215	Interstate 215
IA	Implementing Agreement
ID	Identification
IPA	Inland Port Airport
IPCC	Intergovernmental Panel on Climate Change
ITE	Institute of Transportation Engineers
ITS	intelligent transportation systems
JPA	Joint Powers Authority
JPR	Joint Project Review
LCFS	low carbon fuel standard
Leq	equivalent level
LOS	Level of Service
LNAP	Lakeview/Nuevo Area Plan
LSTs	localized significance thresholds
MARB	March Air Reserve Base
MEISC	maximally exposed individual school child
MEIR	maximally exposed individual receptor
MEIW	maximally exposed individual worker
$MMTCO_2e$	million metric tons of carbon dioxide equivalent
MMTs	million metric tons
MND	Mitigated Negative Declaration
MPO	metropolitan planning organization
MSHCP	Multiple Species Habitat Conservation Plan
MT	metric ton
MUTCD	Manual on Uniform Traffic Control Devices
MVAP	Mead Valley Area Plan
MVIAP	Moreno Valley Industrial Area Plan
MWD	Metropolitan Water District
NAAQS	National Ambient Air Quality Standards
NEPSSA	Narrow Endemic Plant Species Survey Area
No.	number
N_2	nitrogen
NO	nitric oxide
NOP	Notice of Preparation
NO_2	nitrogen dioxide
NO_X	nitrogen oxides

Acronym	**Definition**
N_2O	nitrous oxide
NPDES	National Pollution Discharge Elimination System
O_2	oxygen
O_3	ozone
Ord.	Ordinance
P12-064	City of Moreno Valley EIR for the First Inland Logistics Center II
PA12-0023	proposed Building Plot Plan
Pb	lead
PCBs	polychlorinated biphenyls
PCEs	Passenger Car Equivalents
PFC	perfluorocarbon
p.m.	Post Meridiem (between the hours of noon and midnight)
$PM_{2.5}$	fine particulate matter (2.5 microns or smaller)
PM_{10}	fine particulate matter (10 microns or smaller)
POLA	Port of Los Angeles
POLB	Port of Long Beach
ppb	parts per billion
ppm	parts per million
Project	First Inland Logistics Center II Project
RBBD	Road and Bridge Benefit District
RCALUC	Riverside County Airport Land Use Commission
RCCDR	Riverside County Center for Demographic Research
RCIP	Riverside County Integrated Project
RCTC	Riverside County Transportation Commission
ROG	Reactive Organic Gas
RTA	Riverside Transit Agency
RTP	Regional Transportation Plan
RTPA	Regional Transportation Planning Agency
RWQCB	Regional Water Quality Control Board
s.f.	square feet
SB	Southbound -or- Senate Bill
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCG	Southern California Geotechnical
SCH	California State Clearinghouse (Office of Planning and Research)
SCS	Sustainable Communities Strategy
SF_6	sulfur hexafluoride
SIP	State Implementation Plan
SO_2	sulfur dioxide
SO_4	sulfates

Acronym	**Definition**
SO_X	sulfur oxides
SP	Specific Plan
SR-60	State Route 60
SR-91	State Route 91
SRA	source receptor area
SRRE	Source Reduction and Recycling Element
SWH	solar water heaters
SWPPP	Stormwater Pollution Prevention Plan
TIA	Traffic Impact Analysis
TRUs	Transportation Refrigeration Units
TUMF	Transportation Uniform Mitigation Fee
UNFCCC	United Nations’ Framework Convention on Climate Change
USFWS	United States Fish and Wildlife Service
U.S.	United States
UST	underground storage tank
VMT	vehicle miles traveled
VOC	volatile organic compounds
WQMP	Water Quality Management Plan
WRCOG	Western Riverside Council of Governments

F.0 FINAL ENVIRONMENTAL IMPACT REPORT

F.1 INTRODUCTION TO THE FINAL ENVIRONMENTAL IMPACT REPORT (FEIR)

This Final Environmental Impact Report (FEIR) has been prepared in accordance with the California Environmental Quality Act (CEQA) as amended (Public Resources Code Section 21000 et seq.) and CEQA Guidelines (Title 14, California Code of Regulations, Section 15000 et seq.).

According to CEQA Guidelines Section 15132, the Final EIR shall consist of:

a. The draft EIR or a revision of the draft;
b. Comments and recommendations received on the draft EIR either verbatim or in summary;
c. A list of persons, organizations, and public agencies commenting on the draft EIR;
d. The responses of the Lead Agency to significant environmental points raised in the review and consultation process; and
e. Any other information added by the Lead Agency.

In accordance with the above listed requirements, this FEIR for Plot Plan PA12-0023 and associated discretionary and administrative actions actions consists of the following:

1. Comment letters and responses to public comment; and
2. The circulated First Inland Logistics Center II EIR and Technical Appendices, SCH No. 2012121011 with additions shown as underline text and deletions shown as ~~stricken~~ text in Subsection F.2.3, below.

This FEIR document has been prepared in accordance with CEQA and the CEQA Guidelines and represents the independent judgment of the Lead Agency (City of Moreno Valley).

F.2 RESPONSES TO COMMENTS

Section 15088 of the CEQA Guidelines requires the Lead Agency (City of Moreno Valley) to evaluate comments on environmental issues received from public agencies and interested parties who reviewed the Draft EIR and to provide written responses to any substantive comments received. This Section F.0, "Final Environmental Impact Report," provides all comments received on the Draft, the City's response to each comment, and a summary of revisions made to the Draft EIR as part of the FEIR in response to the various comment letters.

A total of eight (8) comment letters were received, including letters that were received during the public comment period (which closed on July 29, 2013) and a letter that was received from the U.S. Fish & Wildlife Service on August 5, 2013, after the comment period closed. A copy of each comment letter and a response to each substantive environmental point raised in those letters is included in Subsection F.4. No comments submitted to the City of Moreno Valley on the Draft EIR have produced substantial new information requiring recirculation or additional environmental review under State CEQA Guidelines Section 15088.5.

On the following pages, each comment letter is assigned a letter reference and each substantive comment is numbered. Responses to the numbered comments follow the letters. A list of agencies, organizations, and persons that submitted comments on the Draft EIR during the public review period is presented in Table F-1, *List of Persons, Organizations, and Public Agencies that Commented on the Draft EIR*. The State Clearinghouse letter appears first, followed by letters from federal, state, regional, and local agencies, organizations, and persons.

Table F-1 List of Persons, Organizations, and Public Agencies that Commented on the Draft EIR

Comment Letter Reference	Commenting Person, Organization, or Public Agency	Date of Comment
A.	Governor's Office of Planning and Research, State Clearinghouse and Planning Unit	July 23, 2013
B.	Native American Heritage Commission	June 14, 2013
C.	Department of Transportation	July 15, 2013
D.	City of Riverside Planning Division	July 29, 2013
E.	Johnson & Sedlack	July 29, 2013
F.	Sierra Club, San Gorgonio Chapter	n.d. (received July 29, 2013)
G.	Thomas Thornsley	July 29, 2013
H.	U.S. Fish & Wildlife Service	August 5, 2013

F.2.1 CEQA REQUIREMENTS REGARDING COMMENTS AND RESPONSES

CEQA Guidelines Section 15204(a) outlines parameters for submitting comments, and notes that the focus of review and comment of Draft EIRs should be:

> *…on the sufficiency of the document in identifying and analyzing possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated. Comments are most helpful when they suggest additional specific alternatives or mitigation measures that would provide better ways to avoid or mitigate the significant environmental effects. At the same time, reviewers should be aware that the adequacy of an EIR is determined in terms of what is reasonably feasible…CEQA does not require a lead agency to conduct every test or perform all research, study, and experimentation recommended or suggested by commenters. When responding to comments, lead agencies need only respond to significant environmental issues and do not need to provide all information requested by reviewers, as long as a good faith effort at full disclosure is made in the EIR.*

CEQA Guidelines Section 15204(c) further advises that, "Reviewers should explain the basis for their comments, and should submit data or references offering facts, reasonable assumptions based on facts, or expert opinion supported by facts in support of the comments. Pursuant to Section 15064, an effect shall not be considered significant in the absence of substantial evidence." Section 15204(d) also notes that, "Each responsible agency and trustee agency shall focus its comments on environmental information germane to that agency's statutory responsibility." Section 15204(e) states that, "This section shall not be used to restrict the ability of reviewers to comment on the general adequacy of a document or of the lead agency to reject comments not focused as recommended by [CEQA Guidelines Section 15204]."

In accordance with CEQA Guidelines Section 15088(b), copies of the written responses will be provided to commenting public agencies at least ten (10) days prior to certifying the FEIR. The responses will be provided with electronic copies of this FEIR, as permitted by CEQA, and will conform to the legal standards established for response to comments on Draft EIRs.

F.2.2 REVISIONS TO THE PROPOSED PROJECT IN RESPONSE TO PUBLIC COMMENTS

Since the time that the Draft EIR was circulated for public review, no substantive revisions to Plot Plan PA12-0023 were made by the Project Applicant and no changes to the proposed Project were warranted in response to any public comments received on the Draft EIR by the City of Moreno Valley.

F.2.3 CORRECTIONS AND ADDITIONS TO THE DRAFT EIR IN RESPONSE TO PUBLIC COMMENTS

Substantive changes made to the text, tables and/or exhibits of the Draft EIR in response to public comments on the Draft EIR are itemized in Table F-2, *Errata Table of Corrections and Additions*. Refer to the referenced sections and page numbers for additional detail, as not every revision is noted in the Errata Table. Additions are shown in Table F-2 as underline text and deletions shown as ~~stricken~~ text. No corrections or additions made to the Draft EIR are considered substantial new information requiring recirculation or additional environmental review under State CEQA Guidelines Section 15088.5.

Table F-2 Errata Table of Corrections and Additions

Page(s)	Section	Corrections and Additions
Page S-9	S.0, Executive Summary	The conclusion statement for Thresholds 2 and 3 in Table S-1, Mitigation Monitoring and Reporting Program, incorrectly indicated that near-term construction impacts would remain significant and unavoidable. This conclusion was not consistent with the conclusion reached in EIR Seciton 4.1, Air Quality, and has been revised as follows: Near-Term Construction (VOC and NOx emissions): Less than Significant Impact. Long-Term (NOx): Significant Unavoidable Direct and Cumulative Impact ~~(VOC and NOx (Near Term) and NOx (Long Term))~~
Figure 3-4	3.0, Project Description	In response to comments from Johnson & Sedlack (refer to Comment E-8.19) and in accordance with the California Building Standards Code, Plot Plan PA12-002, as depicted on EIR Figure 3-4, has been revised to indicate preferential passenger car parking spaces for electric vehicles (EVs), CNG vehicles, carpools, and vanpools
S-9 and 4.1-27	S.0, Executive Summary, and 4.1, Air Quality	In response to comments received from Johnson & Sedlack (refer to Comment E-7.1), Mitigation Measure MM 4.1-1 has been revised as follows: MM 4.1-1 Prior to grading permit issuance, the City shall verify that the following notes are specified on the grading plan to ensure implementation of SCAQMD Rule 403. It should be noted that the following list is non-exclusive, and identifies only key provisions of the SCAQMD Rule 403 requirements; regardless

Page(s)	Section	Corrections and Additions
		the Project shall be required to comply with all applicable provisions of SCAQMD Rule 403, whether listed below or not. Specifically, Project contractors shall be required to comply with the~~se~~ following notes and all other applicable SCAQMD Rule 403 requirements, and shall maintain written records of such compliance that can be inspected by the City of Moreno Valley upon request. a) All clearing, grading, earth-moving, and excavation activities shall cease when winds exceed 25 miles per hour. b) All unpaved roads and disturbed areas shall be watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day. c) The contractor shall ensure that traffic speeds on unpaved roads and areas where soil is exposed are reduced to 15 miles per hour or less. d) Public streets shall be swept at the end of each workday using a street sweeper meeting SCAQMD Rule 1186.1 if visible soil is carried onto paved public roads. e) The cargo area of all vehicles hauling soil, sand, or other loose earth materials shall be covered.
S-11 and 4.1-28	S.0, Executive Summary, and 4.1, Air Quality	In response to comments received from Johnson & Sedlack (refer to Responses to Comments E-7.1 through E-7.38), Mitigation Measure MM 4.1-3 has been modified as follows to reduce, to the maximum feasible extent, the Project's construction-related emissions: MM 4.1-3 Prior to grading permit and building permit issuance, the City shall verify that the following notes are specified on all grading and building plans. Project contractors shall be required to comply with these notes and permit periodic inspection of the construction site by City of Moreno Valley staff to confirm compliance. a) Mass grading shall be limited to no more than 4.0 acres per day. b) During construction activity, diesel engines shall not idle in excess of ~~five (5)~~three (3) minutes. c) All construction-related equipment ~~that is greater than or equal to 100 horsepower~~ shall be CARB ~~Tier 3~~ Certified ~~or better~~. d) Temporary traffic control for construction vehicles entering and exiting the site shall be implemented

Page(s)	Section	Corrections and Additions
		pursuant to the requirements of the California Manual on Uniform Traffic Control Devices. e) During construction activity, the operating time of all pieces of off-road diesel-powered equipment shall not exceed a combined total of 75 operating hours per day. f) Construction-related haul trips entering and existing the site shall occur during non-peak traffic hours. g) The construction contractor shall encourage construction site employees to rideshare by offering incentives or other inducements. h) High pressure injectors shall be used on all diesel powered construction equipment over 100 horsepower. i) All construction-related on-road diesel-powered haul trucks shall be 2007 or newer model year or 2010 engine compliant vehicles. j) On all construction-related equipment that has a particulate trap, the trap shall be Level 3 CARB certified. k) Electric-powered construction equipment and tools shall be used when technically feasible. l) Biodiesel fuel or other alternatives to diesel fuel shall be used to power construction equipment when technically feasible. m) Construction vehicles shall use the City's designated truck route. n) Construction parking shall be located and configured to minimize traffic interference on public streets. o) Import of earth materials and on-site grading activities shall not occur on the same day. No more than 66 loads of earth material (about 2,000 cubic yards) shall be brought to the site in any given day.
S-13 and 4.1-29	S.0, Executive Summary, and 4.1, Air Quality	The Mitigation Monitoring and Reporting Program (MMRP) included in the Public Review Draft EIR erroneously omitted Mitigation Measure MM 4.1-7; the MMRP has been revised accordingly. In addition, the following revisions were made to Mitigation Measure MM 4.1-7 in response to comments received from Johnson & Sedlack (refer to Comment E-8.1): MM 4.1-7 Prior to the issuance of occupancy permits, the Project's property owner shall provide documentation to the Planning Division verifying that provisions are included in the building's lease agreement that inform tenants about the availability of: 1) alternatively fueled cargo handling equipment; 2) grant programs for diesel fueled vehicle engine retrofit and/or replacement; 3) designated truck parking locations in the City of Moreno Valley; ~~and~~ 4) access to alternative fueling stations in the City of Moreno

Page(s)	Section	Corrections and Additions
		Valley that supply compressed natural gas (closest station is located on Indian Street, south of Nanina Avenue); and 5) the United States Environmental Protection Agency's SmartWay program.
S-13 and 4.1-30	S.0, Executive Summary, and 4.1, Air Quality	Mitigation measure MM 4.1-8 has been added to the EIR in response to comments provided by Johnson & Sedlack (refer to Comment E-8.7), as follows: MM 4.1-8 In the event that the building design is modified to accommodate refrigeration, all loading docks shall be equipped with an electrical hookup to power refrigerated tractor trailers.
S-17 and 4.3-16	S.0, Executive Summary, and 4.3, Noise	In response to comments received from Johnson & Sedlack (refer to Comment E-31), a new mitigation measure, Mitigation Measure MM 4.3-2 has been included as follows: MM 4.3-2 As a condition of the Project's building permit, the perimeter wall planned along San Michelle Road and at the corner of San Michelle Road and Perris Boulevard shall be installed early in the construction process.
S-17 through S-21 and 4.4-23 through 4.4-26	S.0, Executive Summary, and 4.4, Transportation/ Traffic	In response to comments received from Johnson & Sedlack (refer to Comment E-24), the Project Requirements (Project design features) previously identified as PR 4.4-1 through 4.4-7 have been converted to mitigation measures. Minor revisions also were made to the language included in these measures to specify a timing requirement (where appropriate) and to ensure the mitigation is enforced by the City during the Project's implementation.
S-22 and 4.5-15	S.0, Executive Summary, and 4.5, Biological Resources	In response to comments provided by the USFWS (refer to Comment H-3), the following Project Requirement has been added to the EIR as MM 4.5-2: MM 4.5-2 If clearing activities are proposed between February 1 and August 31, then within 30 days prior to vegetation clearing activities a qualified biologist shall conduct nesting bird surveys. If any nesting bird species are identified, then a construction buffer distance of 300 feet for non-listed, non-raptor species or 500 feet for listed and raptor species shall be maintained until the Project biologist certifies that the nests are no longer occupied.

F.2.4 RESPONSES TO COMMENTS

Provided in this section are the comment letters received in response to the Draft EIR, along with a response to all comments on environmental issues. Comment letters and specific comments are given letters and numbers for reference purposes.

F.3 NO RECIRCULATION OF THE DRAFT ENVIRONMENTAL IMPACT REPORT REQUIRED

CEQA Guidelines Section 15088.5 describes the conditions under which a Draft EIR that was circulated for public review is required to be re-circulated for additional public review and comment. CEQA Guidelines Section 15088.5 states that new information added to a Draft EIR is not significant unless the Draft EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement. "Significant new information" requiring recirculation includes, for example, a disclosure showing that:

a. A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.

b. A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.

c. A feasible project alternative or mitigation measure considerably different from the others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it.

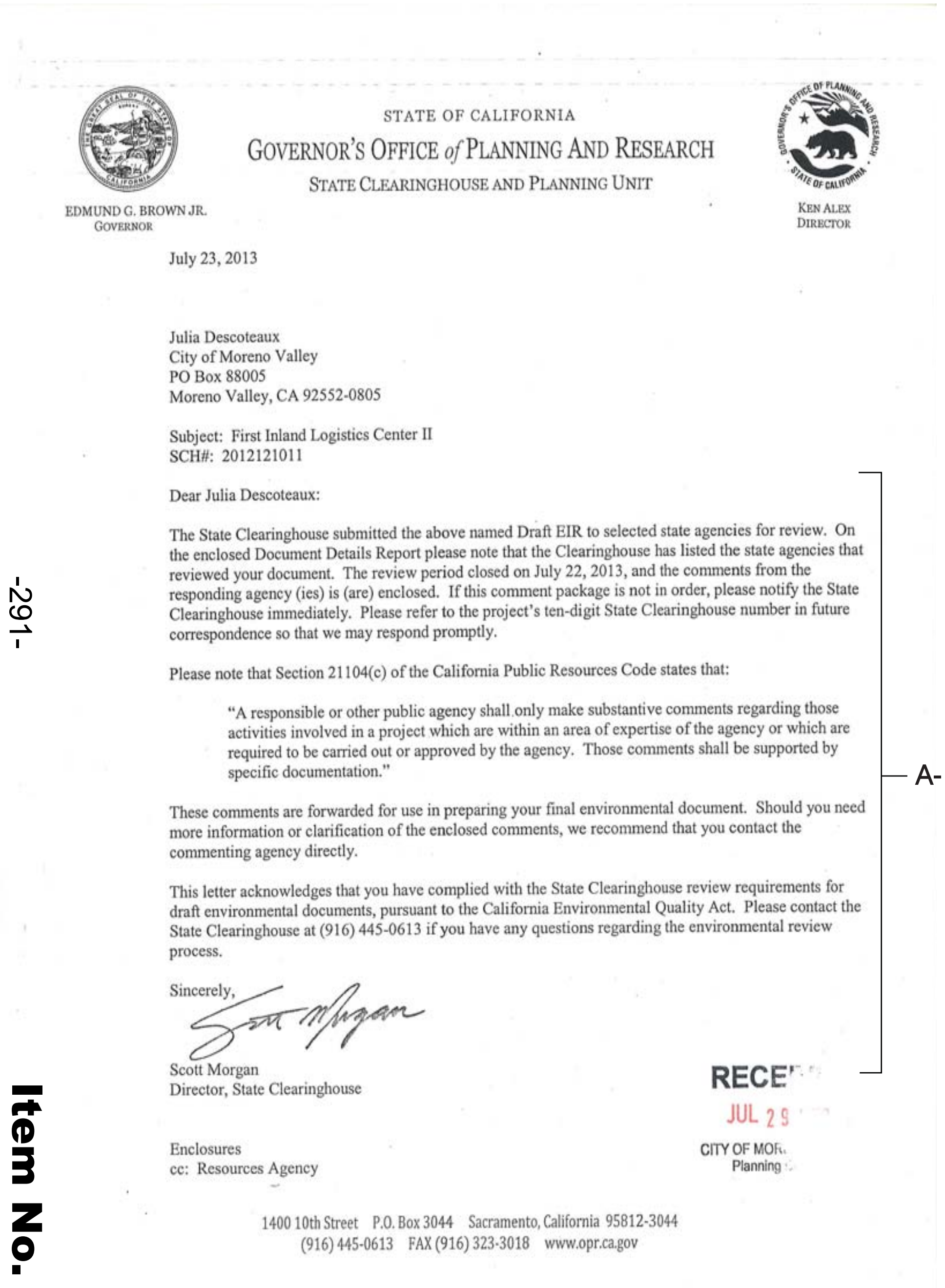
d. The Draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

As summarized in Section F.2.2, *Revisions to the Proposed Project in Response to Public Comments*, and based on the comment letters and responses thereto presented in Section F.2.4, *Responses to Comments* , there were no public comments or changes to the text or analysis contained in the Draft EIR that resulted in the identification of any new significant environmental effect or a substantial increase in the severity of an environmental effects that were disclosed in the Draft EIR. Based on comments received on the Draft EIR, minor revisions to the Project's mitigation requirements were incorporated (as described above in Table F-2, *Errata Table of Corrections and Additions*), and all suggested mitigation measures that would clearly lessen the significant environmental impacts of the Project were incorporated into the Final EIR. Additionally, the Draft EIR was fundamentally and basically adequate, and all conclusions within the Draft EIR were supported by evidence provided within the Draft EIR or the administrative record for the proposed Project. Furthermore, public comment letters on the Draft EIR did not identify any alternatives to the proposed Project considerably different from those analyzed in the Draft EIR that would substantially lessen the significant environmental impacts of the proposed Project while still attaining the Project's basic objectives.

Based on the foregoing, additional recirculation of the Draft EIR is not warranted according to the guidance set forth in Section 15088.5 of the State CEQA Guidelines.

F.4 RESPONSES TO COMMENT

Refer to the following pages.



STATE OF CALIFORNIA
GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

July 23, 2013

Julia Descoteaux
City of Moreno Valley
PO Box 88005
Moreno Valley, CA 92552-0805

Subject: First Inland Logistics Center II
SCH#: 2012121011

Dear Julia Descoteaux:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on July 22, 2013, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan

Scott Morgan
Director, State Clearinghouse

RECE
JUL 2 9
CITY OF MOR
Planning

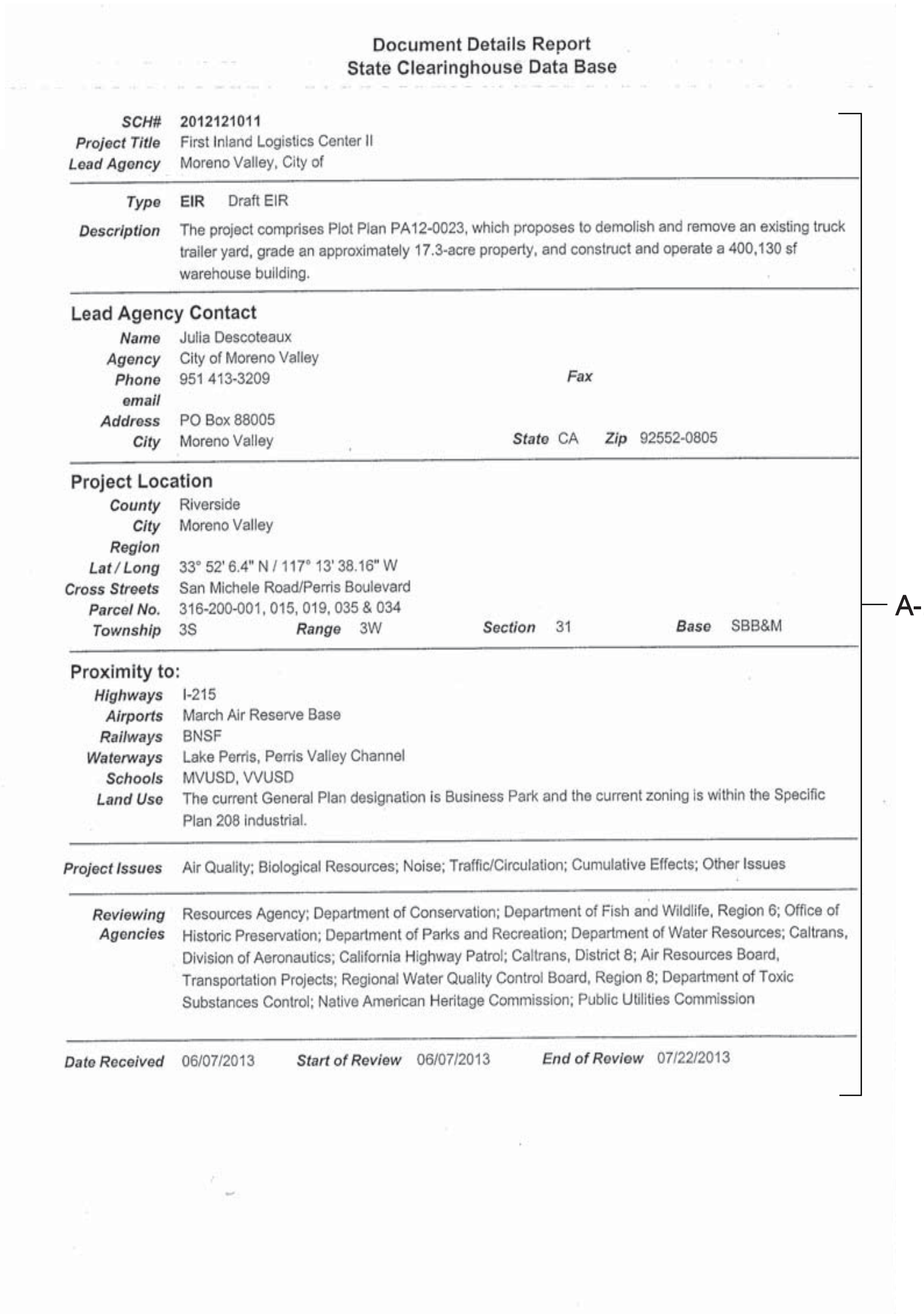
Enclosures
cc: Resources Agency

A-1

Responses

A-1 - The City of Moreno Valley acknowledges this letter indicating that the close of public review for the Draft EIR was July 23, 2013. The City will note the assigned State Clearinghouse Number of 2012120100 on all future correspondence with the Governor's Office of Planning and Research. The City further acknowledges that the Project has complied with the State Clearinghouse review requirements for draft environmental documents, and will contact the State Clearinghouse with any questions that may arise regarding the environmental review.

RESPONSES



Document Details Report
State Clearinghouse Data Base

SCH# 2012121011
Project Title First Inland Logistics Center II
Lead Agency Moreno Valley, City of

Type EIR Draft EIR
Description The project comprises Plot Plan PA12-0023, which proposes to demolish and remove an existing truck trailer yard, grade an approximately 17.3-acre property, and construct and operate a 400,130 sf warehouse building.

Lead Agency Contact
Name Julia Descoteaux
Agency City of Moreno Valley
Phone 951 413-3209 **Fax**
email
Address PO Box 88005
City Moreno Valley **State** CA **Zip** 92552-0805

Project Location
County Riverside
City Moreno Valley
Region
Lat / Long 33° 52' 6.4" N / 117° 13' 38.16" W
Cross Streets San Michele Road/Perris Boulevard
Parcel No. 316-200-001, 015, 019, 035 & 034
Township 3S **Range** 3W **Section** 31 **Base** SBB&M

Proximity to:
Highways I-215
Airports March Air Reserve Base
Railways BNSF
Waterways Lake Perris, Perris Valley Channel
Schools MVUSD, VVUSD
Land Use The current General Plan designation is Business Park and the current zoning is within the Specific Plan 208 industrial.

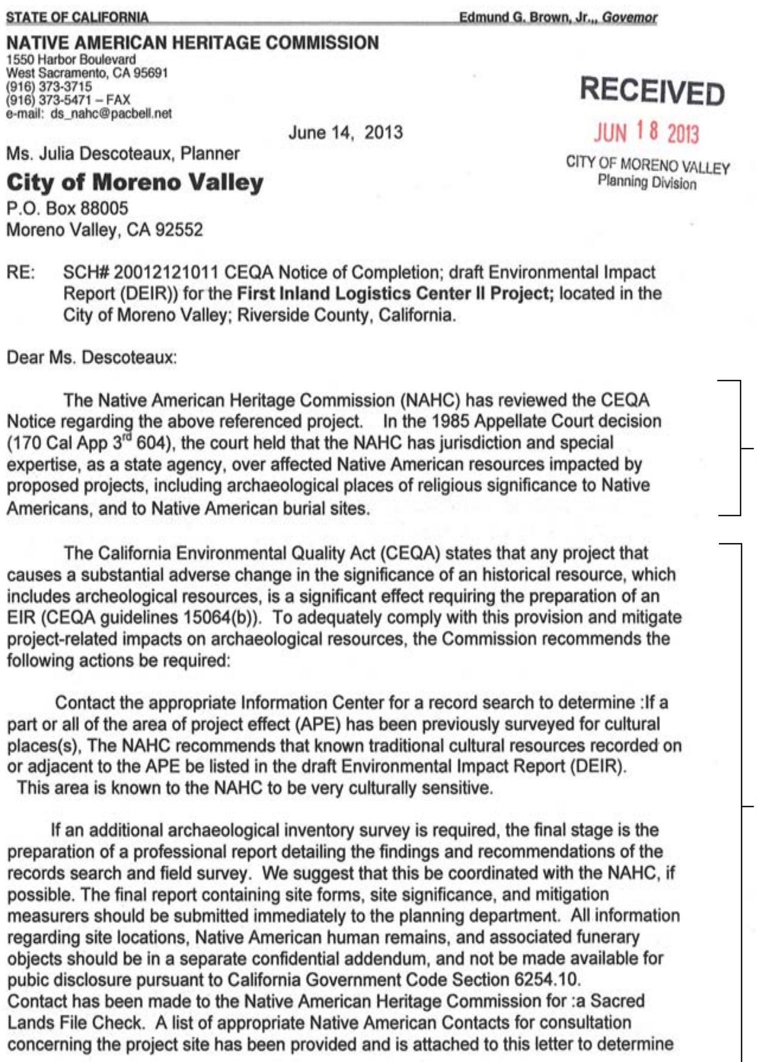
Project Issues Air Quality; Biological Resources; Noise; Traffic/Circulation; Cumulative Effects; Other Issues

Reviewing Agencies Resources Agency; Department of Conservation; Department of Fish and Wildlife, Region 6; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 8; Air Resources Board, Transportation Projects; Regional Water Quality Control Board, Region 8; Department of Toxic Substances Control; Native American Heritage Commission; Public Utilities Commission

Date Received 06/07/2013 **Start of Review** 06/07/2013 **End of Review** 07/22/2013

A-2

A-2 - The City of Moreno Valley acknowledges the State Clearinghouse Data Base Document Details Report.



STATE OF CALIFORNIA Edmund G. Brown, Jr., *Governor*

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Boulevard
West Sacramento, CA 95691
(916) 373-3715
(916) 373-5471 – FAX
e-mail: ds_nahc@pacbell.net

RECEIVED
JUN 18 2013
CITY OF MORENO VALLEY
Planning Division

June 14, 2013

Ms. Julia Descoteaux, Planner
City of Moreno Valley
P.O. Box 88005
Moreno Valley, CA 92552

RE: SCH# 20012121011 CEQA Notice of Completion; draft Environmental Impact Report (DEIR)) for the **First Inland Logistics Center II Project;** located in the City of Moreno Valley; Riverside County, California.

Dear Ms. Descoteaux:

The Native American Heritage Commission (NAHC) has reviewed the CEQA Notice regarding the above referenced project. In the 1985 Appellate Court decision (170 Cal App 3rd 604), the court held that the NAHC has jurisdiction and special expertise, as a state agency, over affected Native American resources impacted by proposed projects, including archaeological places of religious significance to Native Americans, and to Native American burial sites.

B-1

The California Environmental Quality Act (CEQA) states that any project that causes a substantial adverse change in the significance of an historical resource, which includes archeological resources, is a significant effect requiring the preparation of an EIR (CEQA guidelines 15064(b)). To adequately comply with this provision and mitigate project-related impacts on archaeological resources, the Commission recommends the following actions be required:

Contact the appropriate Information Center for a record search to determine :If a part or all of the area of project effect (APE) has been previously surveyed for cultural places(s), The NAHC recommends that known traditional cultural resources recorded on or adjacent to the APE be listed in the draft Environmental Impact Report (DEIR). This area is known to the NAHC to be very culturally sensitive.

If an additional archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey. We suggest that this be coordinated with the NAHC, if possible. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure pursuant to California Government Code Section 6254.10.
Contact has been made to the Native American Heritage Commission for :a Sacred Lands File Check. A list of appropriate Native American Contacts for consultation concerning the project site has been provided and is attached to this letter to determine

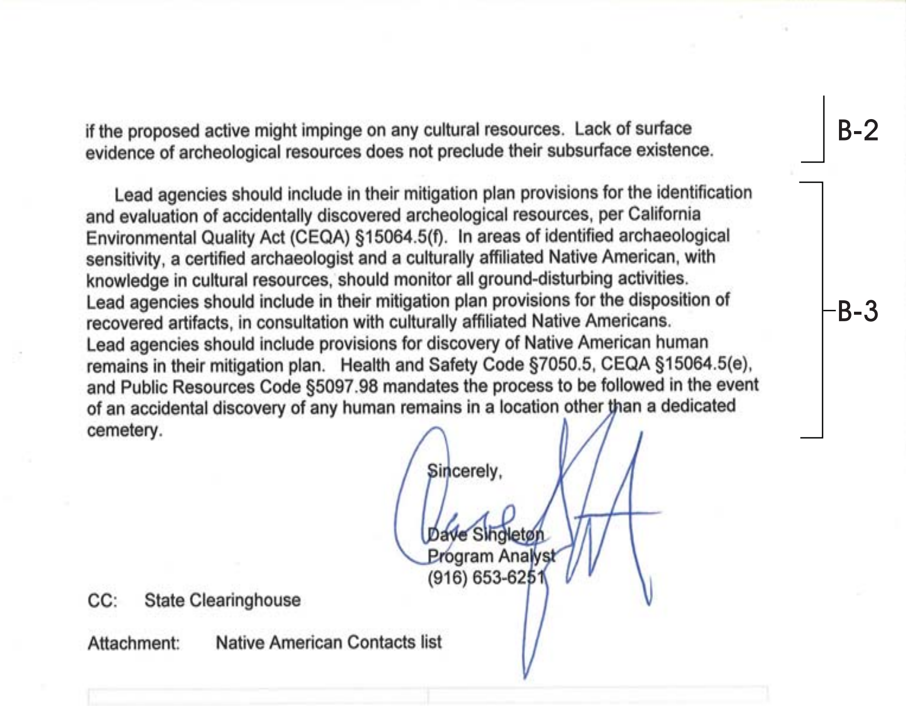
B-2

Responses

B-1 - The City of Moreno Valley acknowledges the Native American Heritage Commission's jurisdiction over affected Native American resources impacted by proposed projects.

B-2 - Impacts to cultural resources were determined to be less than significant as part of the Project's CEQA Initial Study process. As documented in EIR Section 5.4.3, a cultural resources inventory of the undeveloped portion of the proposed Project site was conducted by URS Corporation in 2012 that included a pedestrian survey and records search at the Eastern Information Center at the University of California, Riverside. The results of the records search determined that there are no known cultural resources within the Project site, nor have any resources been identified within a ½-mile radius of the Project site. No resources were identified during the pedestrian survey. In addition, a Mitigated Negative Declaration (MND; SCH No. 2008101041) and associated Addenda Nos. 1 and 2 were prepared to evaluate the development of an interim parking lot on the property, and concluded that the potential for uncovering resources was low. Additionally, no resources were uncovered during the site preparation activities associated with the construction of the parking lot in the southern portion of the site.

Although the surface and subsurface of the Project site do not contain any known or suspected cultural resources, Conditions of Approval are nonetheless imposed on the Project by the City that require review by a qualified archaeologist of any suspected archaeological resources that may be uncovered during ground-disturbing activities. In the event that suspected resources are uncovered, the City's Conditions of Approval for this Project require that the ground-disturbing activities be halted within the immediate vicinity of any suspected archaeological resources, and protective measures as recommended by a qualified archaeologist be implemented. With mandatory compliance with Conditions of Approval and as concluded in EIR Section 5.4.3, potential impacts to cultural resources would be reduced to a level below significance.



if the proposed active might impinge on any cultural resources. Lack of surface evidence of archeological resources does not preclude their subsurface existence. B-2

Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) §15064.5(f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities. Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans. Lead agencies should include provisions for discovery of Native American human remains in their mitigation plan. Health and Safety Code §7050.5, CEQA §15064.5(e), and Public Resources Code §5097.98 mandates the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery. B-3

Sincerely,

Dave Singleton
Program Analyst
(916) 653-6251

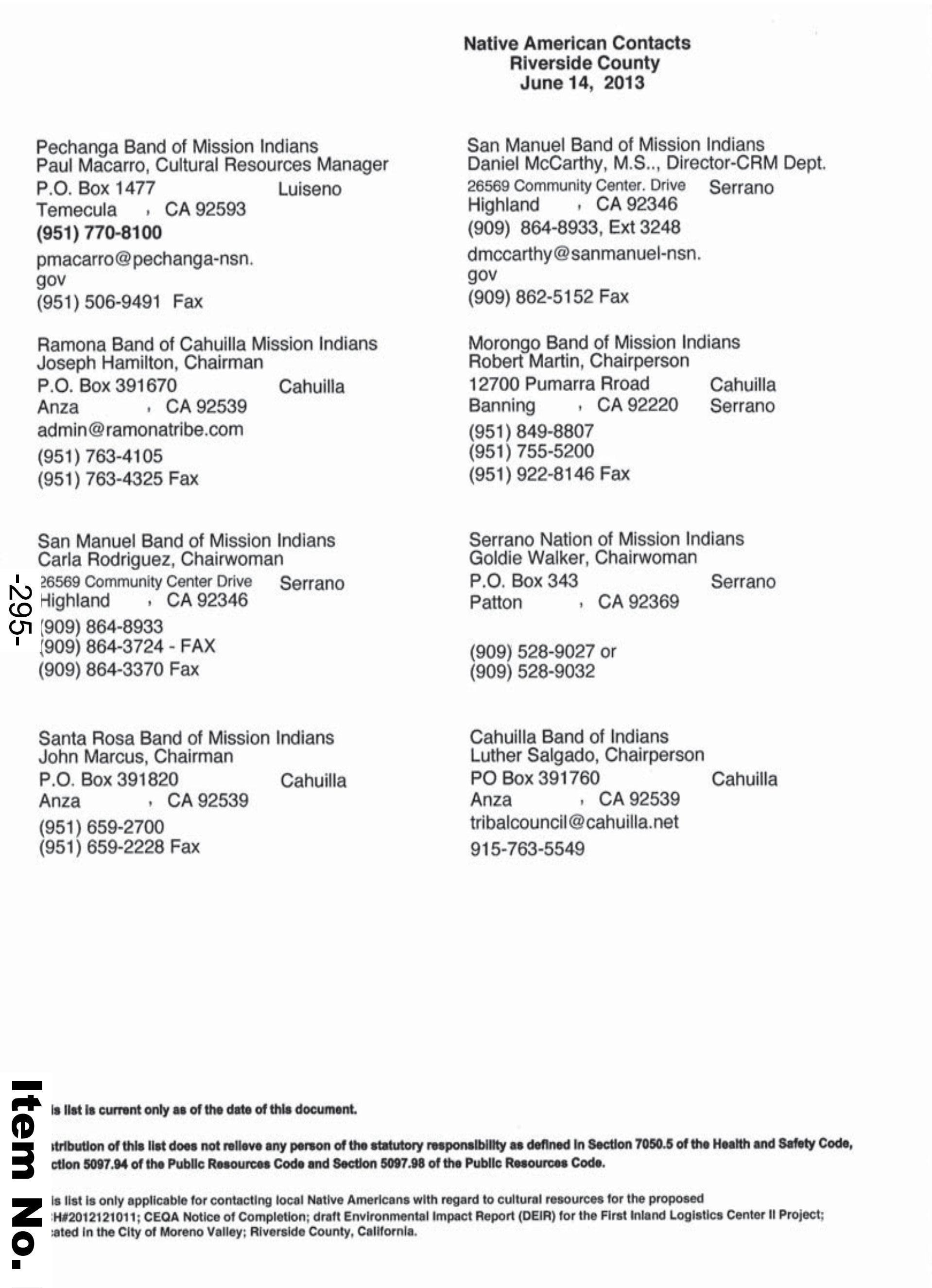
CC: State Clearinghouse

Attachment: Native American Contacts list

RESPONSES

Due to the lack of known and suspected resources and the low potential for resource discovery on the portion of the property developed as a parking lot, the City determined that additional archaeological inventory surveys were not required for the parking lot property. In preparing the January 2012 cultural resources report for the northern, undeveloped portion of the Project site, URS Corporation contacted the Native American Heritage Commission and sent letters to the 15 Native American contacts provided by the NAHC requesting interest or concerns involving the Project area. The written communication is documented in the City's administrative record for the proposed Project as Section Four of the January 2012 URS Corporation report. That report is attached as Appendix J to the Final EIR. No archaeological resources were identified on the Project site by URS Corporation and thus, no resources are documented in the January 2012 report. As such, the City did not disclose and had no potential to disclose any confidential information to the public regarding site locations, Native American human remains, or any associated funerary objects.

B-3 - Due to the partially developed nature of the Project site, absence of archaeological resources on the surface of the site, and low potential for the discovery of archaeological resources during the Project's construction activities based on evidence presented in the 2012 URS Corporation report and prior MND and MND Addenda addressing the Project site (SCH No. 2008101041), the City of Moreno Valley finds that the proposed Project does not require monitoring during ground-disturbing activities by an archaeological or Native American monitor. However, and as noted above in Response B-2, the City has imposed Conditions of Approval on the Project to address the potential discovery of cultural resources during the Project's construction. The Conditions of Approval require that a qualified archaeologist be consulted in the event that suspected historical resources, archaeological resources, paleontological resources, or human remains are uncovered during ground disturbing activities, and further requires the incorporation of measures that would ensure the appropriate treatment of any such resources, if discovered. The Conditions of Approval imposed



Native American Contacts
Riverside County
June 14, 2013

Pechanga Band of Mission Indians
Paul Macarro, Cultural Resources Manager
P.O. Box 1477 Luiseno
Temecula , CA 92593
(951) 770-8100
pmacarro@pechanga-nsn.gov
(951) 506-9491 Fax

San Manuel Band of Mission Indians
Daniel McCarthy, M.S.., Director-CRM Dept.
26569 Community Center. Drive Serrano
Highland , CA 92346
(909) 864-8933, Ext 3248
dmccarthy@sanmanuel-nsn.gov
(909) 862-5152 Fax

Ramona Band of Cahuilla Mission Indians
Joseph Hamilton, Chairman
P.O. Box 391670 Cahuilla
Anza , CA 92539
admin@ramonatribe.com
(951) 763-4105
(951) 763-4325 Fax

Morongo Band of Mission Indians
Robert Martin, Chairperson
12700 Pumarra Rroad Cahuilla
Banning , CA 92220 Serrano
(951) 849-8807
(951) 755-5200
(951) 922-8146 Fax

San Manuel Band of Mission Indians
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26569 Community Center Drive Serrano
Highland , CA 92346
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(909) 864-3724 - FAX
(909) 864-3370 Fax

Serrano Nation of Mission Indians
Goldie Walker, Chairwoman
P.O. Box 343 Serrano
Patton , CA 92369

(909) 528-9027 or
(909) 528-9032

Santa Rosa Band of Mission Indians
John Marcus, Chairman
P.O. Box 391820 Cahuilla
Anza , CA 92539
(951) 659-2700
(951) 659-2228 Fax

Cahuilla Band of Indians
Luther Salgado, Chairperson
PO Box 391760 Cahuilla
Anza , CA 92539
tribalcouncil@cahuilla.net
915-763-5549

is list is current only as of the date of this document.

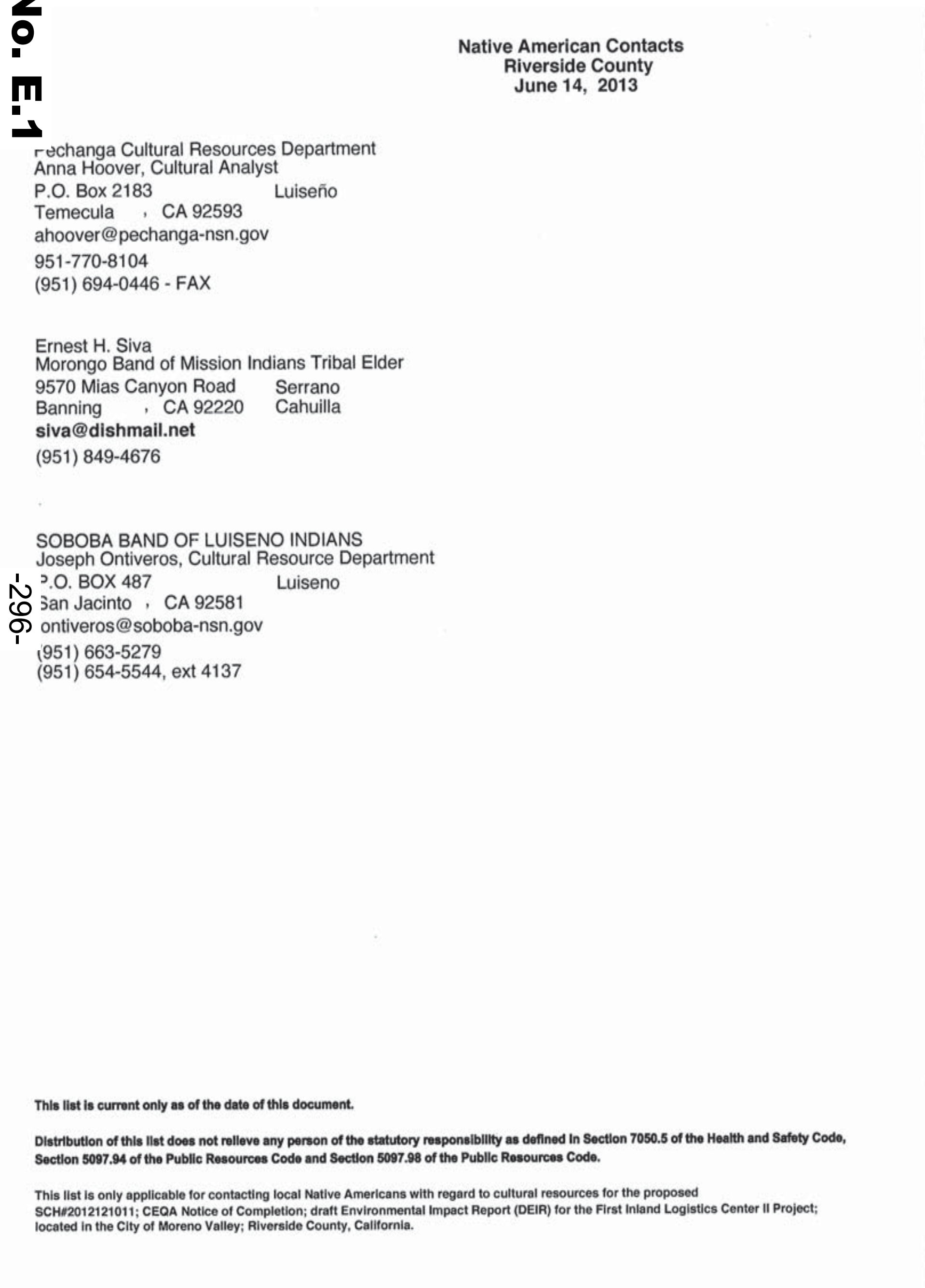
stribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, ction 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

is list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed H#2012121011; CEQA Notice of Completion; draft Environmental Impact Report (DEIR) for the First Inland Logistics Center II Project; ated in the City of Moreno Valley; Riverside County, California.

Responses

on the Project are consistent with and implement the provisions of CEQA Guidelines §§ 15064.5(e) and 15064.5(f).

RESPONSES



Native American Contacts
Riverside County
June 14, 2013

Pechanga Cultural Resources Department
Anna Hoover, Cultural Analyst
P.O. Box 2183 Luiseño
Temecula , CA 92593
ahoover@pechanga-nsn.gov
951-770-8104
(951) 694-0446 - FAX

Ernest H. Siva
Morongo Band of Mission Indians Tribal Elder
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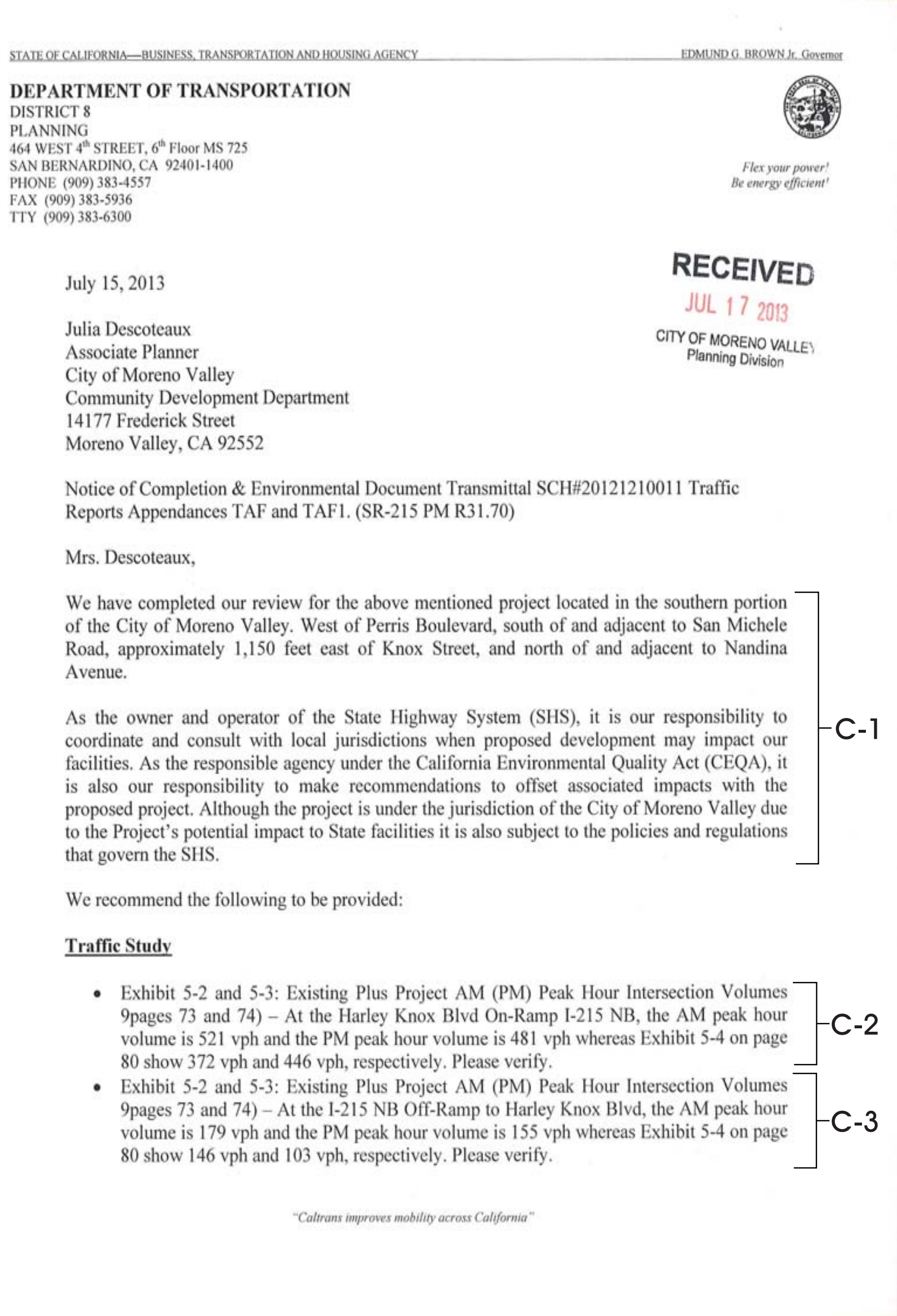
Banning , CA 92220 Cahuilla
siva@dishmail.net
(951) 849-4676

SOBOBA BAND OF LUISENO INDIANS
Joseph Ontiveros, Cultural Resource Department
P.O. BOX 487 Luiseno
San Jacinto , CA 92581
ontiveros@soboba-nsn.gov
(951) 663-5279
(951) 654-5544, ext 4137

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#2012121011; CEQA Notice of Completion; draft Environmental Impact Report (DEIR) for the First Inland Logistics Center II Project; located in the City of Moreno Valley; Riverside County, California.



STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY
EDMUND G. BROWN Jr. Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 8
PLANNING
464 WEST 4th STREET, 6th Floor MS 725
SAN BERNARDINO, CA 92401-1400
PHONE (909) 383-4557
FAX (909) 383-5936
TTY (909) 383-6300

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JUL 17 2013
CITY OF MORENO VALLEY
Planning Division

July 15, 2013

Julia Descoteaux
Associate Planner
City of Moreno Valley
Community Development Department
14177 Frederick Street
Moreno Valley, CA 92552

Notice of Completion & Environmental Document Transmittal SCH#20121210011 Traffic Reports Appendances TAF and TAF1. (SR-215 PM R31.70)

Mrs. Descoteaux,

We have completed our review for the above mentioned project located in the southern portion of the City of Moreno Valley. West of Perris Boulevard, south of and adjacent to San Michele Road, approximately 1,150 feet east of Knox Street, and north of and adjacent to Nandina Avenue.

As the owner and operator of the State Highway System (SHS), it is our responsibility to coordinate and consult with local jurisdictions when proposed development may impact our facilities. As the responsible agency under the California Environmental Quality Act (CEQA), it is also our responsibility to make recommendations to offset associated impacts with the proposed project. Although the project is under the jurisdiction of the City of Moreno Valley due to the Project's potential impact to State facilities it is also subject to the policies and regulations that govern the SHS.

C-1

We recommend the following to be provided:

__Traffic Study__

- Exhibit 5-2 and 5-3: Existing Plus Project AM (PM) Peak Hour Intersection Volumes 9pages 73 and 74) – At the Harley Knox Blvd On-Ramp I-215 NB, the AM peak hour volume is 521 vph and the PM peak hour volume is 481 vph whereas Exhibit 5-4 on page 80 show 372 vph and 446 vph, respectively. Please verify.

C-2

- Exhibit 5-2 and 5-3: Existing Plus Project AM (PM) Peak Hour Intersection Volumes 9pages 73 and 74) – At the I-215 NB Off-Ramp to Harley Knox Blvd, the AM peak hour volume is 179 vph and the PM peak hour volume is 155 vph whereas Exhibit 5-4 on page 80 show 146 vph and 103 vph, respectively. Please verify.

C-3

"Caltrans improves mobility across California"

RESPONSES

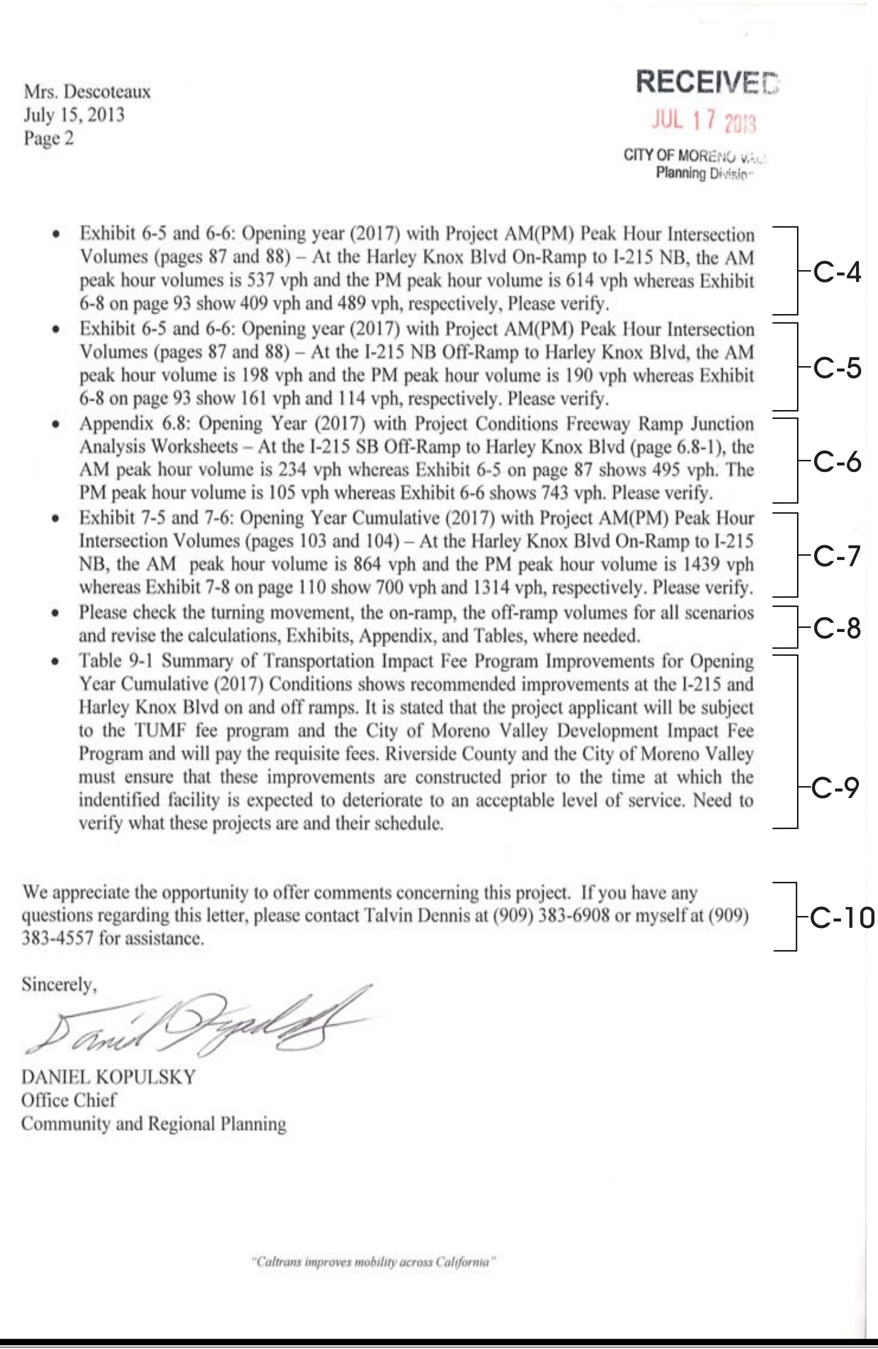
C-1 - The City acknowledges Caltrans' responsibilities as the owner and operator of the State Highway System (SHS), its role as a Responsible Agency in the CEQA process, and its obligation to assist local jurisdictions in evaluating impacts to State facilities to ensure compliance with the policies and regulations that govern the SHS. Please refer to Responses C-2 through C-9, below.

C-2 - The volumes shown on all of the turning movement volume exhibits, such as Exhibits 5-2 and 5-3, are in passenger car equivalents (PCE) and are applied to the intersection peak hour operations analysis and roadways segment analysis. PCE volumes are used in these analyses to consider the effects of heavy vehicles, such as large trucks on the roadway network.

The volumes shown on all I-215 Freeway at Harley Knox Boulevard exhibits, such as Exhibit 5-4, are in actual vehicles (not PCEs), which are used in the Basic Freeway Segment and Ramp Junction (Merge/Diverge) analyses. Actual vehicles are appropriate to use for the freeway mainline analyses because the percentage of heavy vehicles is an input parameter in the analysis tool utilized for Basic Freeway Segment and Ramp Junction (Merge/Diverge) analyses (HCS+). Because the heavy vehicles are entered as a percentage of total traffic, actual vehicles have been utilized as opposed to PCE volumes so that potential impacts due to heavy vehicles are not overstated. The use of the heavy vehicle percentage input parameter in conjunction with PCE volumes would essentially result in a double counting of heavy truck trips.

As such, the volumes shown on Exhibits 5-2 and 5-3 do not match the volumes shown on Exhibit 5-4 because the volumes shown on Exhibits 5-2 and 5-3 are in PCE while the volumes shown on Exhibit 5-4 are actual total vehicles.

C-3 - Please refer to Response C-2, above; no further response is necessary.



Mrs. Descoteaux
July 15, 2013
Page 2

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CITY OF MORENO VALLEY
Planning Division

- Exhibit 6-5 and 6-6: Opening year (2017) with Project AM(PM) Peak Hour Intersection Volumes (pages 87 and 88) – At the Harley Knox Blvd On-Ramp to I-215 NB, the AM peak hour volumes is 537 vph and the PM peak hour volume is 614 vph whereas Exhibit 6-8 on page 93 show 409 vph and 489 vph, respectively, Please verify. C-4
- Exhibit 6-5 and 6-6: Opening year (2017) with Project AM(PM) Peak Hour Intersection Volumes (pages 87 and 88) – At the I-215 NB Off-Ramp to Harley Knox Blvd, the AM peak hour volume is 198 vph and the PM peak hour volume is 190 vph whereas Exhibit 6-8 on page 93 show 161 vph and 114 vph, respectively. Please verify. C-5
- Appendix 6.8: Opening Year (2017) with Project Conditions Freeway Ramp Junction Analysis Worksheets – At the I-215 SB Off-Ramp to Harley Knox Blvd (page 6.8-1), the AM peak hour volume is 234 vph whereas Exhibit 6-5 on page 87 shows 495 vph. The PM peak hour volume is 105 vph whereas Exhibit 6-6 shows 743 vph. Please verify. C-6
- Exhibit 7-5 and 7-6: Opening Year Cumulative (2017) with Project AM(PM) Peak Hour Intersection Volumes (pages 103 and 104) – At the Harley Knox Blvd On-Ramp to I-215 NB, the AM peak hour volume is 864 vph and the PM peak hour volume is 1439 vph whereas Exhibit 7-8 on page 110 show 700 vph and 1314 vph, respectively. Please verify. C-7
- Please check the turning movement, the on-ramp, the off-ramp volumes for all scenarios and revise the calculations, Exhibits, Appendix, and Tables, where needed. C-8
- Table 9-1 Summary of Transportation Impact Fee Program Improvements for Opening Year Cumulative (2017) Conditions shows recommended improvements at the I-215 and Harley Knox Blvd on and off ramps. It is stated that the project applicant will be subject to the TUMF fee program and the City of Moreno Valley Development Impact Fee Program and will pay the requisite fees. Riverside County and the City of Moreno Valley must ensure that these improvements are constructed prior to the time at which the indentified facility is expected to deteriorate to an acceptable level of service. Need to verify what these projects are and their schedule. C-9

We appreciate the opportunity to offer comments concerning this project. If you have any questions regarding this letter, please contact Talvin Dennis at (909) 383-6908 or myself at (909) 383-4557 for assistance. C-10

Sincerely,

Daniel Kopulsky

DANIEL KOPULSKY
Office Chief
Community and Regional Planning

"Caltrans improves mobility across California"

Responses

C-4 - Please refer to Response C-2, above; no further response is necessary.

C-5 - Please refer to Response C-2, above; no further response is necessary.

C-6 - The volumes utilized for the Basic Freeway Segment and Ramp Junction (Merge/Diverge) Analyses are consistent with the actual volumes shown on Exhibit 6-8, not the PCE volumes shown on Exhibits 6-5 and 6-6. As noted previously (refer to Response C-2), the turning volume exhibits (Exhibits 6-5 and 6-6) are in PCE while the freeway mainline volumes shown on Exhibit 6-8 are actual vehicles. For the Basic Freeway Segment and Ramp Junction (Merge/Diverge) analyses, heavy vehicles are accounted for as a percentage of total traffic as an input parameter in the analysis software (HCS+).

C-7 - Please refer to Response C-2, above; no further response is necessary.

C-8 - Freeway mainline volumes shown on the exhibits throughout the report have been verified by Urban Crossroads, Inc. for each analysis scenario against the volumes utilized in the analysis. Urban Crossroads verified that all volumes are consistent. No revisions to the report exhibits, tables, calculations or technical appendices are necessary.

C-9 - As noted in Table 9-1 of the Project's traffic study contained in EIR Technical Appendix F, the required improvements at the I-215/Harley Knox Boulevard on- and off-ramps are fully accounted for by the TUMF Nexus fee program. Based on information obtained from the WRCOG, the I-215/Harley Knox Interchange is included in TUMF for improvement with a $10.9 million construction budget, and the WRCOG believes that this budget amount is sufficient to fully improve the ramps and approaches (WRCOG, 2013). TUMF funds are collected for improvements

RESPONSES

necessitated by growth with a 2035 time horizon and improvements are expected to be in place in the intervening years. However, no schedule is prescribed by the TUMF program. At the present time, there is no current planning effort underway by either the City of Perris or Caltrans to improve the interchange; however, the City of Perris expects planning to get underway in the next five years (Perris, 2013). The Western Riverside Council of Government's (WRCOG's) TUMF program was established to provide funding for infrastructure improvements warranted by development projects in the region that contribute vehicular traffic to the circulation network. As stated in the TUMF Nexus Study (2012, page 10), "the idea behind a uniform mitigation fee is to have new development throughout the region contribute equally to paying the cost of improving the transportation facilities that serve longer distance trips between communities. Thus, the fee should be used to improve transportation facilities that serve trips between communities within the region (primarily arterial roadways) as well as the infrastructure for public transportation." The TUMF Nexus Study (2012), which is herein incorporated by reference and available online at http://www.wrcog.cog.ca.us/tumf/nexus/tumf.pdf, establishes a nexus or reasonable relationship between the TUMF fee's use and the type of project for which the fee is required. Using the 2013/14 fee schedules, the proposed Project would be obligated to pay $429,094.00 in TUMF fees. An annual inflation adjustment is considered by WRCOG each year in January.

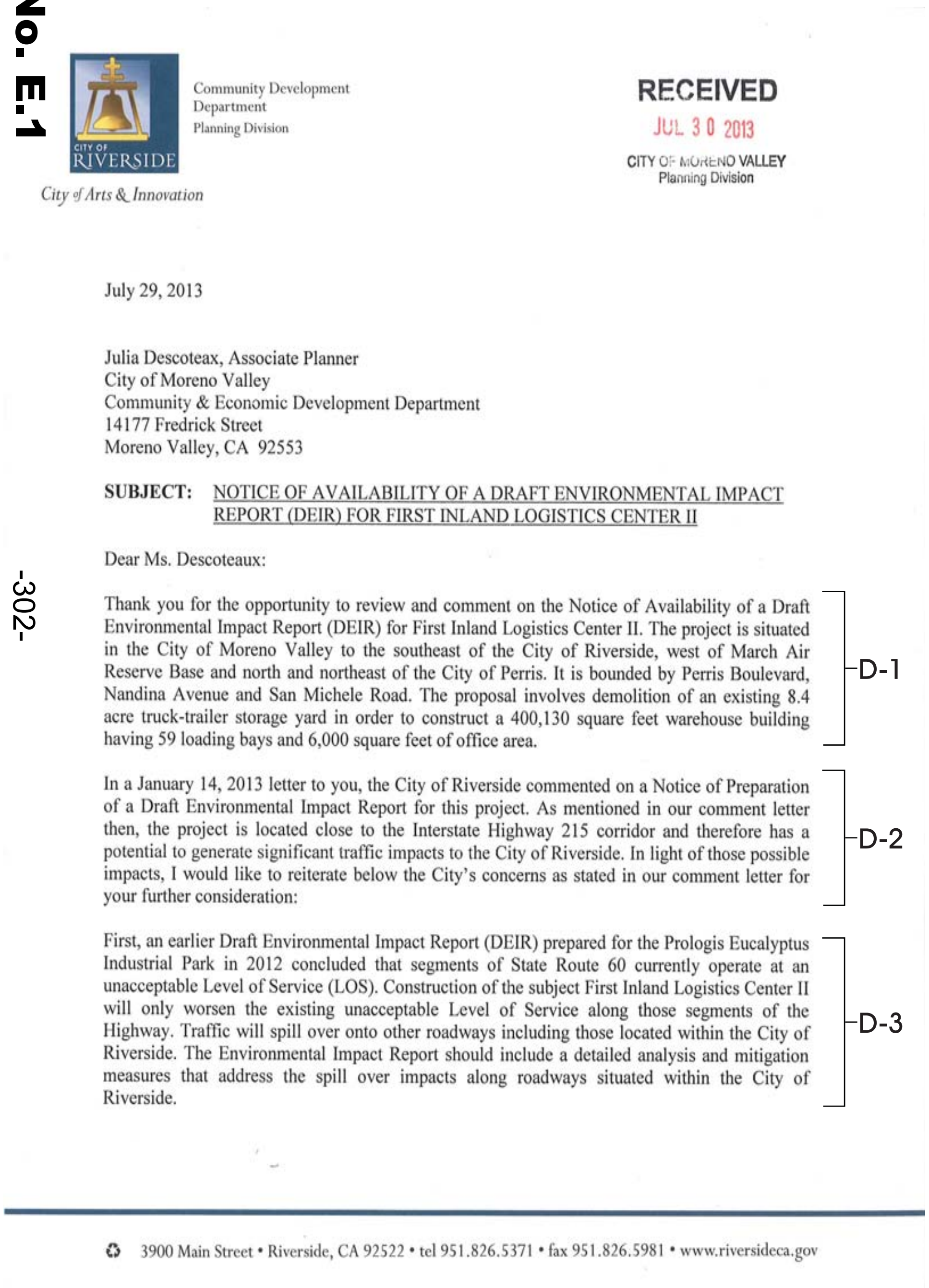
CEQA allows for the assessment of a fee as an appropriate form of mitigation when it is linked to a specific mitigation program. In this case, the TUMF is an established mitigation program and WRCOG's member agencies have successfully implemented many transportation improvements under the TUMF program. Based on the requirements of TUMF, the obligation of WRCOG to collect TUMF fees, and the obligations of the City of Perris and/or Caltrans to plan for and implement TUMF-funded improvements at the on- and off-ramps at I-215/Harley Knox Boulevard, there is assurance that the Project's TUMF payment is adequate mitigation for the Project's contribution of traffic to the

Responses

cumulative impact forecasted to occur at that interchange in the future. A fair share monetary contribution to a mitigation fund is adequate mitigation if the funds are part of a reasonable plan that the relevant agency (in this case City of Perris and/or Caltrans) is committed to implementing. As previously noted, although planning for the interchange improvement has not yet begun, the City of Perris expects to begin such work in the next five years. The City of Perris' commitment to roadway improvements is also evidenced by their creation of the North Perris Road and Bridge Benefit District (NPRBBD) in 2007, which includes Harley Knox Boulevard. The NPRBBD is a consolidation of TUMF, DIF and other facilities within a specific boundary. The program enables the City of Perris to retain a predetermined portion of the TUMF generated within the NPRBBD boundaries to improve facilities within the boundaries rather than forward the full TUMF to WRCOG for future distribution. The Harley Knox Boulevard/I-215 interchange is included in the NPRBBD program boundaries.

Although the EIR and EIR Appendix F acknowledge that the Project would result in cumulatively significant impacts at the I-215/Harley Knox Boulevard on- and off-ramps under Opening Year Cumulative (2017) conditions, the identified LOS deficiency occurs as a result of cumulative development and is not directly caused by the Project's traffic alone (as demonstrated in Table 6-1 of the Project's Traffic Study). As such, it is inappropriate to tie the improvement's timing to the proposed Project. As noted in Table 4-3 of EIR Appendix F, the Opening Year Cumulative (2017) analysis considers the implementation of 52 other cumulative development projects in the vicinity of the Project site. Each of these cumulative developments would also be required to contribute TUMF fees to address improvements needed to regional facilities, such as the I-215/Harley Knox ramps. If enough cumulative development occurs in addition to development of the Project to cause the LOS deficiency, and assuming that all of the implemented projects pay their mandatory TUMF fee, then WRCOG would be responsible for allocating funding for the requisite improvements to the I-215/Harley Knox Boulevard on- and off-ramps. The timing of improvements needed to the I-215/Harley Knox Boulevard on- and off-ramps will be determined by WRCOG and the City of Perris in part by the pace at which cumulative development projects are implemented and NPRBBD and TUMF funds are collected. WRCOG conducts on-going monitoring of the regional circulation system and plans for the distribution of TUMF funds as deficiencies in the regional and local transportation network are identified or anticipated. Congested areas are generally considered higher priorities than uncongested areas. In conclusion, the Project's payment of TUMF fees is adequate mitigation for its cumulative contribution of traffic to the Harley Knox Boulevard/I-215 interchange and there is reasonable assurance that WRCOG, the City of Perris and Caltrans will implement the improvement as called for by the TUMF and NPRBBD programs.

C-10 - The City will direct any questions regarding this letter to Talvin Dennis or Daniel Kopulsky at the contact information provided.



Community Development
Department
Planning Division
CITY OF RIVERSIDE
City of Arts & Innovation

RECEIVED
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CITY OF MORENO VALLEY
Planning Division

July 29, 2013

Julia Descoteax, Associate Planner
City of Moreno Valley
Community & Economic Development Department
14177 Fredrick Street
Moreno Valley, CA 92553

SUBJECT: NOTICE OF AVAILABILITY OF A DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR) FOR FIRST INLAND LOGISTICS CENTER II

Dear Ms. Descoteaux:

Thank you for the opportunity to review and comment on the Notice of Availability of a Draft Environmental Impact Report (DEIR) for First Inland Logistics Center II. The project is situated in the City of Moreno Valley to the southeast of the City of Riverside, west of March Air Reserve Base and north and northeast of the City of Perris. It is bounded by Perris Boulevard, Nandina Avenue and San Michele Road. The proposal involves demolition of an existing 8.4 acre truck-trailer storage yard in order to construct a 400,130 square feet warehouse building having 59 loading bays and 6,000 square feet of office area. D-1

In a January 14, 2013 letter to you, the City of Riverside commented on a Notice of Preparation of a Draft Environmental Impact Report for this project. As mentioned in our comment letter then, the project is located close to the Interstate Highway 215 corridor and therefore has a potential to generate significant traffic impacts to the City of Riverside. In light of those possible impacts, I would like to reiterate below the City's concerns as stated in our comment letter for your further consideration: D-2

First, an earlier Draft Environmental Impact Report (DEIR) prepared for the Prologis Eucalyptus Industrial Park in 2012 concluded that segments of State Route 60 currently operate at an unacceptable Level of Service (LOS). Construction of the subject First Inland Logistics Center II will only worsen the existing unacceptable Level of Service along those segments of the Highway. Traffic will spill over onto other roadways including those located within the City of Riverside. The Environmental Impact Report should include a detailed analysis and mitigation measures that address the spill over impacts along roadways situated within the City of Riverside. D-3

3900 Main Street • Riverside, CA 92522 • tel 951.826.5371 • fax 951.826.5981 • www.riversideca.gov

RESPONSES

D-1 - The description of the proposed Project and its location as provided by this comment are accurate; no response is necessary.

D-2 - The City is in receipt of the January 14, 2013 comment letter, a copy of which is included in Technical Appendix A to the EIR and was considered during preparation of the EIR. Please refer to Responses D-3 through D-4.g for responses to the individual comments expressed in this letter.

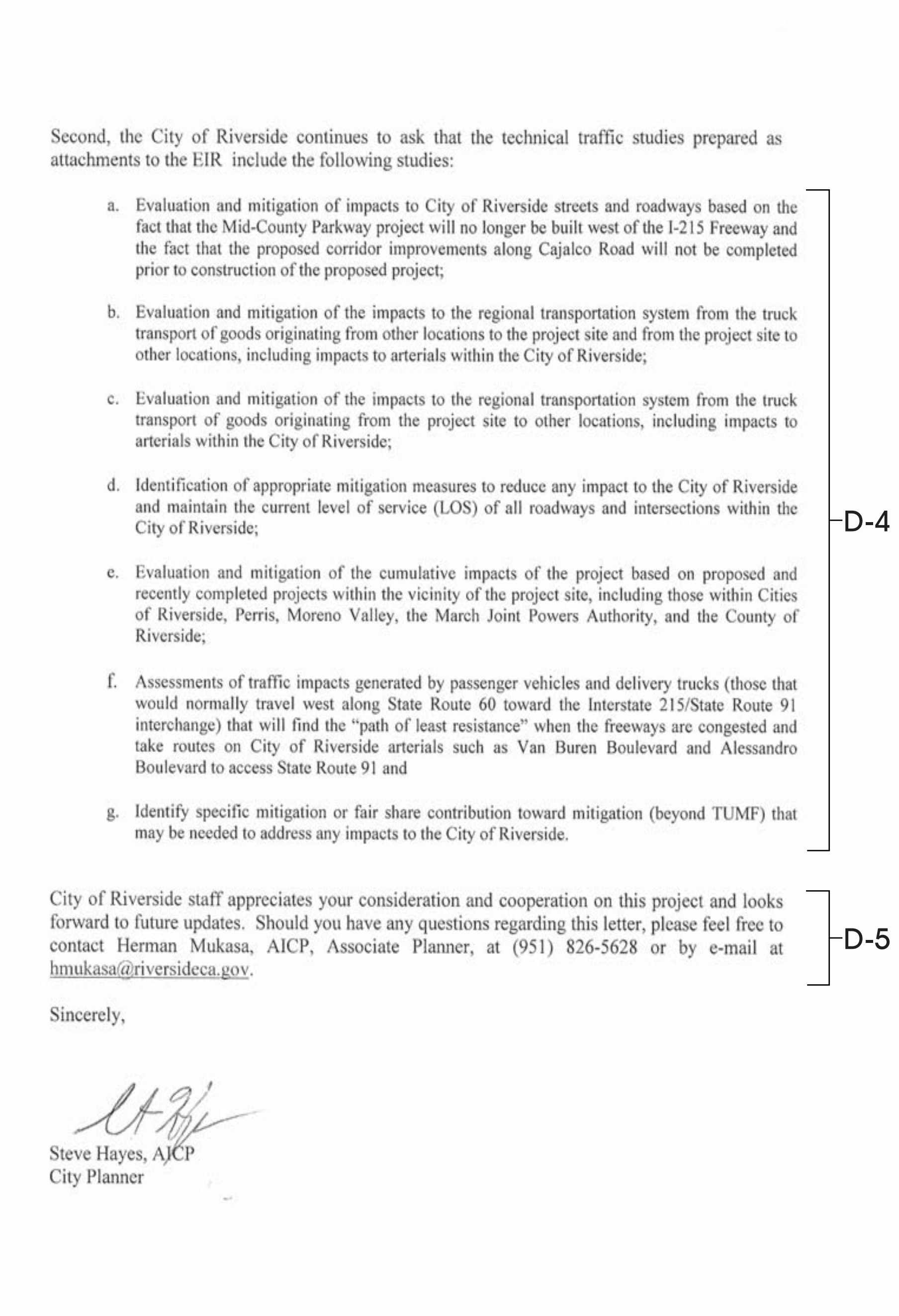
D-3 - The study area used in the Project's traffic impact analysis was defined in conformance with the requirements of the City's *Traffic Impact Analysis Preparation Guide* (August 2007) and Caltrans' *Guide for the Preparation of Traffic Impact Studies* (December 2002). In accordance with Caltrans' traffic study guidelines, the freeway mainline analysis locations include those freeway segments where the Project is anticipated to contribute 100 or more two-way peak hour trips (see Section 1.3.3 of Technical Appendix F). Where the Project generates less than 100 peak hour trips, no impact to state facilities occurs. Based on the analysis contained in Technical Appendix F, it was determined that the Project would contribute 100 or more two-way peak hour trips to four freeway segments (I-215 northbound and southbound segments located northerly and southerly of Harley Knox Boulevard). The Project will not generate 100 or more two-way peak hour trips to any segment of State Route 60 (SR-60). Accordingly, and in conformance with Caltrans' traffic study guidelines, the Project would result in a less-than-significant impact to SR-60, and would therefore not result in significant secondary impacts to City of Riverside roadways as a result of traffic congestion on SR-60.

EIR Section 4.4.1, "Study Area Description," states "[b]ased on a comparison of the trip generation information provided in Table 4.4-1, *Project Trip Generation Summary*, with the trip distribution patterns depicted on Figure 4.4-2, *Project (Passenger Car) Trip Distribution*, and Figure 4.4-3, *Project (Truck) Trip Distribution*, the proposed Project

RESPONSES

would not contribute more than 50 peak hour trips to any road segments or intersections located within the City of Riverside or unincorporated Riverside County; thus, intersections and roadway segments in those jurisdictions do not warrant analysis."

Additional consideration has been given to the likelihood of potential Project impacts resulting from the potential "spill over" onto City of Riverside arterial roadways during congested peak hour conditions on I-215. Based on the trip distribution and trip generation assumptions presented in the Project's traffic report, the Project is anticipated to contribute a total of 51 peak hour (Passenger Car Equivalent or PCE) trips to I-215 north of Harley Knox Boulevard during either the AM or PM peak hour. As such, 100% of Project traffic oriented to and from the I-215 north of Harley Knox Boulevard would need to "spill over" onto the same arterial roadway within the City of Riverside to meet the City of Riverside's stated traffic impact threshold of 50 or more peak hour trips. The probability of 100% of the Project's I-215 traffic oriented north of Harley Knox Boulevard choosing to use the exact same alternative route to the I-215 Freeway at the exact same time during typical peak hour conditions is extremely low and highly speculative. The commenter does not provide any substantial evidence to include that a 100% spill over scenario has any likelihood to occur.



Second, the City of Riverside continues to ask that the technical traffic studies prepared as attachments to the EIR include the following studies:

a. Evaluation and mitigation of impacts to City of Riverside streets and roadways based on the fact that the Mid-County Parkway project will no longer be built west of the I-215 Freeway and the fact that the proposed corridor improvements along Cajalco Road will not be completed prior to construction of the proposed project;

b. Evaluation and mitigation of the impacts to the regional transportation system from the truck transport of goods originating from other locations to the project site and from the project site to other locations, including impacts to arterials within the City of Riverside;

c. Evaluation and mitigation of the impacts to the regional transportation system from the truck transport of goods originating from the project site to other locations, including impacts to arterials within the City of Riverside;

d. Identification of appropriate mitigation measures to reduce any impact to the City of Riverside and maintain the current level of service (LOS) of all roadways and intersections within the City of Riverside;

e. Evaluation and mitigation of the cumulative impacts of the project based on proposed and recently completed projects within the vicinity of the project site, including those within Cities of Riverside, Perris, Moreno Valley, the March Joint Powers Authority, and the County of Riverside;

f. Assessments of traffic impacts generated by passenger vehicles and delivery trucks (those that would normally travel west along State Route 60 toward the Interstate 215/State Route 91 interchange) that will find the "path of least resistance" when the freeways are congested and take routes on City of Riverside arterials such as Van Buren Boulevard and Alessandro Boulevard to access State Route 91 and

g. Identify specific mitigation or fair share contribution toward mitigation (beyond TUMF) that may be needed to address any impacts to the City of Riverside.

D-4

City of Riverside staff appreciates your consideration and cooperation on this project and looks forward to future updates. Should you have any questions regarding this letter, please feel free to contact Herman Mukasa, AICP, Associate Planner, at (951) 826-5628 or by e-mail at hmukasa@riversideca.gov.

D-5

Sincerely,

Steve Hayes, AICP
City Planner

RESPONSES

D-4a - As noted above in Response D-3, the study area used in the Project's traffic study was defined based on the City's *Traffic Impact Analysis Preparation Guide* (August 2007), which states that the area to be studied "…shall include any intersection of 'Collector' or higher classification street, with 'Collector' or higher classification streets, at which the proposed project will add 50 or more peak hour trips" (City of Moreno Valley Traffic Impact Analysis Preparation Guide, 2007, p. 4). The "50 peak hour trip" criteria utilized by the City of Moreno Valley is consistent with the methodology employed by other jurisdictions throughout Riverside County, and generally represents a threshold of trips at which a typical intersection would have the potential to be impacted. In fact, the 50 peak hour trip criteria also is relied upon by the City of Riverside's *Traffic Impact Analysis Preparation Guide* (August 2012), which indicates that "…the area to be studied shall generally include any intersection of 'Collector' or higher classification streets on which the proposed project will add 50 or more peak hour trips up to a 5 mile radius of the project location" (City of Riverside, 2012, p. 3).

The study area identified by the Project's traffic impact analysis is depicted on Exhibit 1-2 of Technical Appendix F. The study area accounts for all intersections that would be potentially impacted by receiving 50 or more peak hour trips from the proposed Project. As shown on Exhibit 1-2 of Technical Appendix F, the Project would not contribute 50 or more peak hour trips to any intersection located within the City of Riverside. Therefore, in conformance with the City's *Traffic Impact Analysis Preparation Guide* (August 2007), and consistent with the study area requirements specified in the City of Riverside's *Traffic Impact Analysis Preparation Guide* (August 2012), the Project's traffic impact analysis properly defines the study area, which does not include any transportation facilities located within the City of Riverside. Because no facilities in the City of Riverside would receive 50 or more peak hour trips from the proposed Project, any impact to City of Riverside facilities would be less than significant and less than cumulatively considerable; thus, a detailed

Responses

analysis is not warranted.

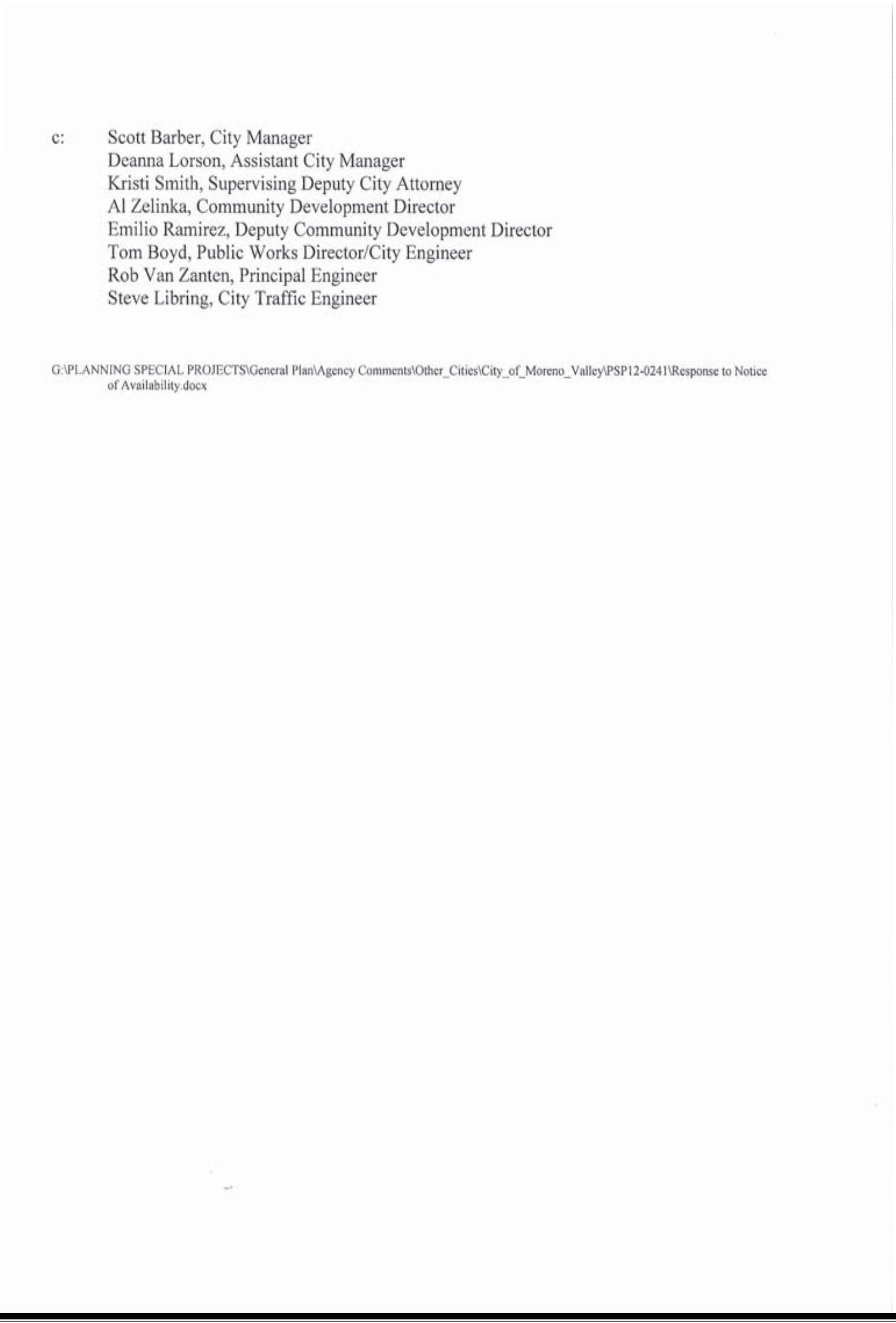
D-4b - The Project's Traffic Study (EIR Appendix F) includes an analysis of impacts to the regional transportation system, based on the City's *Traffic Impact Analysis Preparation Guide* (August 2007) and Caltrans' *Guide for the Preparation of Traffic Impact Studies* (December 2002). The Traffic Study accounts for trips coming to and departing from the Project site. As noted above in Responses D-3 and D-4.a, the Project does not contribute 50 or more peak hour trips to any facility located within the City of Riverside, nor does the Project contribute more than 100 peak hour trips to any freeway facility within or adjacent to the City of Riverside. Accordingly, the Project would have no impacts to transportation facilities located within the City of Riverside.

D-4c - Refer to Responses D-3, D-4a, and D-4b; no further response is necessary.

D-4d - Refer to Responses D-3, D-4., and D-4b; no further response is necessary.

D-4e - The Project's traffic study contained as Technical Appendix F includes an analysis of cumulative effects. As noted in Table 4-3 of Technical Appendix F, the Opening Year Cumulative (2017) analysis assumes the implementation of 52 cumulative development projects, including projects within the City of Moreno Valley, March Joint Powers Authority, unincorporated Riverside County, the City of Riverside, and the City of Perris. However, and for the reasons stated in Responses D-3, D-4a, and D-4b, the Project has no potential to result in direct or cumulatively considerable impacts to any transportation facility within the City of Riverside; thus, mitigation is not warranted.

D-4f - As noted in Responses D-3, D-4a, and D-4b, the Project has no potential to result in significant direct or cumulatively considerable impacts to SR-60 or any City of Riverside transportation facility including



c: Scott Barber, City Manager
Deanna Lorson, Assistant City Manager
Kristi Smith, Supervising Deputy City Attorney
Al Zelinka, Community Development Director
Emilio Ramirez, Deputy Community Development Director
Tom Boyd, Public Works Director/City Engineer
Rob Van Zanten, Principal Engineer
Steve Libring, City Traffic Engineer

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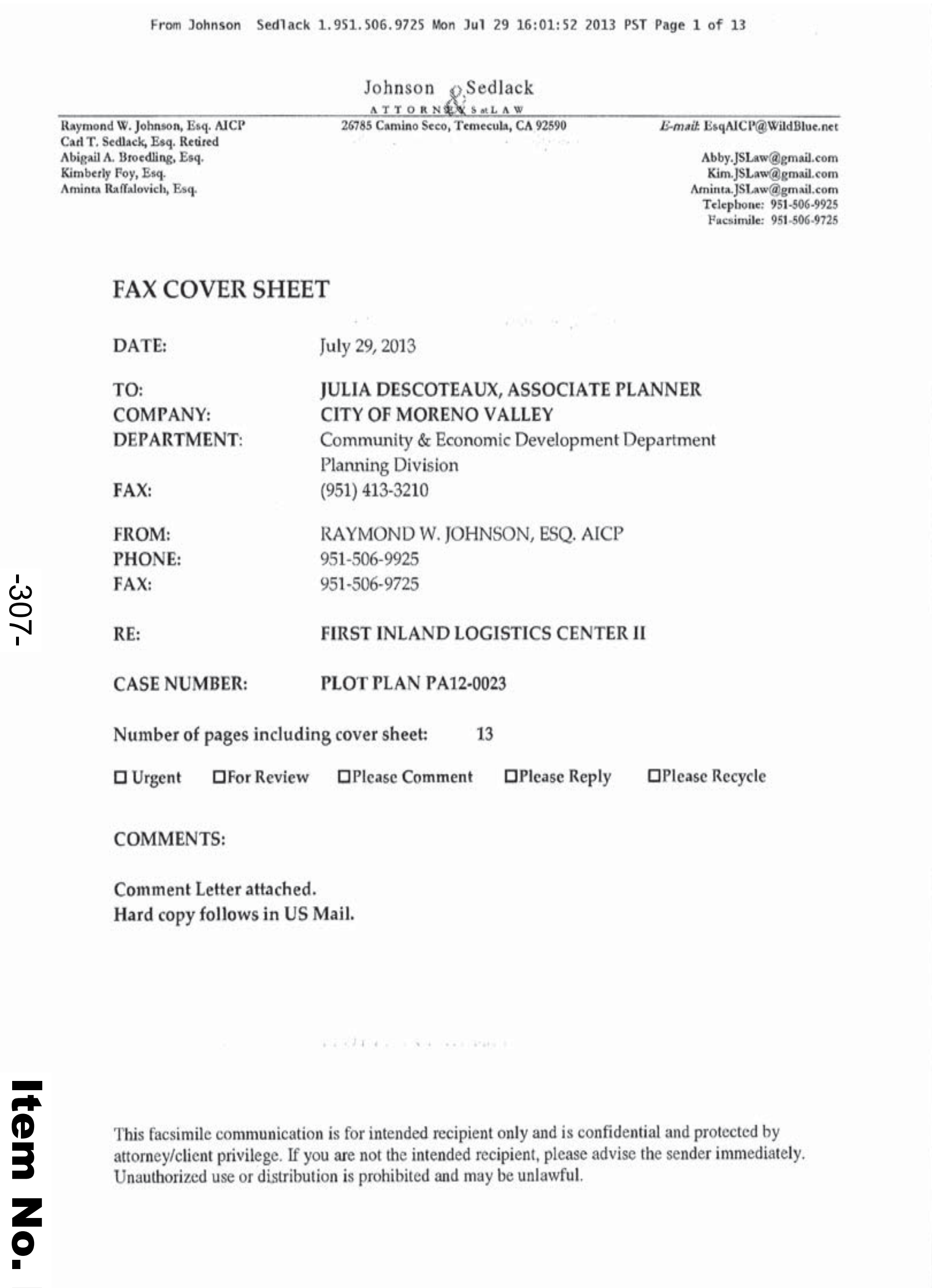
Responses

but not limited to Van Buren Boulevard, Alessandro Boulevard, and other City of Riverside arterials.

D-4g - As noted in Responses D-3, D-4a, and D-4b, the Project would not result in any significant direct or cumulatively considerable impacts to transportation facilities in the City of Riverside. Accordingly, mitigation measures beyond mandatory payment of TUMF fees are not warranted to address City of Riverside facilities.

D-5 - If questions arise regarding this letter, the City of Moreno Valley will contact Herman Mukasa, AICP, at the contact information provided.

Responses



From Johnson Sedlack 1.951.506.9725 Mon Jul 29 16:01:52 2013 PST Page 1 of 13

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FAX COVER SHEET

DATE: July 29, 2013

TO: JULIA DESCOTEAUX, ASSOCIATE PLANNER
COMPANY: CITY OF MORENO VALLEY
DEPARTMENT: Community & Economic Development Department
Planning Division
FAX: (951) 413-3210

FROM: RAYMOND W. JOHNSON, ESQ. AICP
PHONE: 951-506-9925
FAX: 951-506-9725

RE: FIRST INLAND LOGISTICS CENTER II

CASE NUMBER: PLOT PLAN PA12-0023

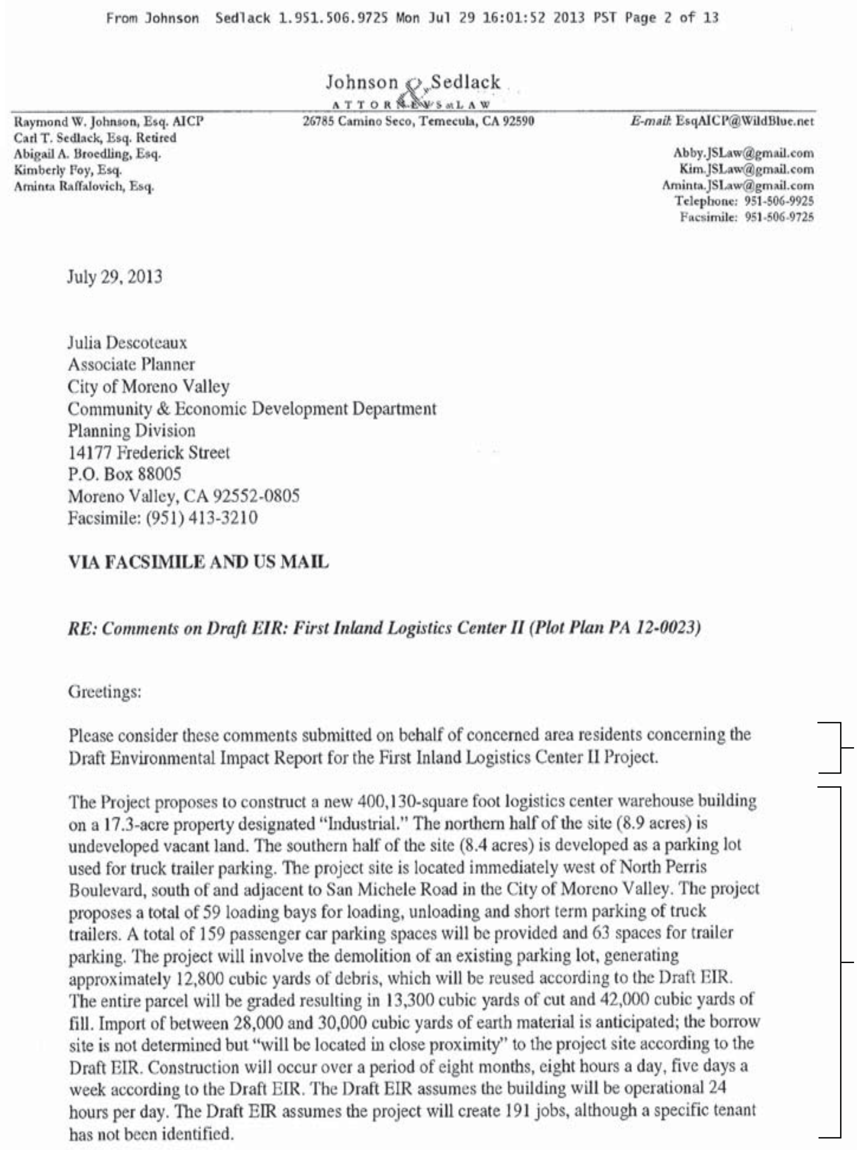
Number of pages including cover sheet: 13

☐ Urgent ☐ For Review ☐ Please Comment ☐ Please Reply ☐ Please Recycle

COMMENTS:

Comment Letter attached.
Hard copy follows in US Mail.

This facsimile communication is for intended recipient only and is confidential and protected by attorney/client privilege. If you are not the intended recipient, please advise the sender immediately. Unauthorized use or distribution is prohibited and may be unlawful.



From Johnson Sedlack 1.951.506.9725 Mon Jul 29 16:01:52 2013 PST Page 2 of 13

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July 29, 2013

Julia Descoteaux
Associate Planner
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Moreno Valley, CA 92552-0805
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VIA FACSIMILE AND US MAIL

RE: Comments on Draft EIR: First Inland Logistics Center II (Plot Plan PA 12-0023)

Greetings:

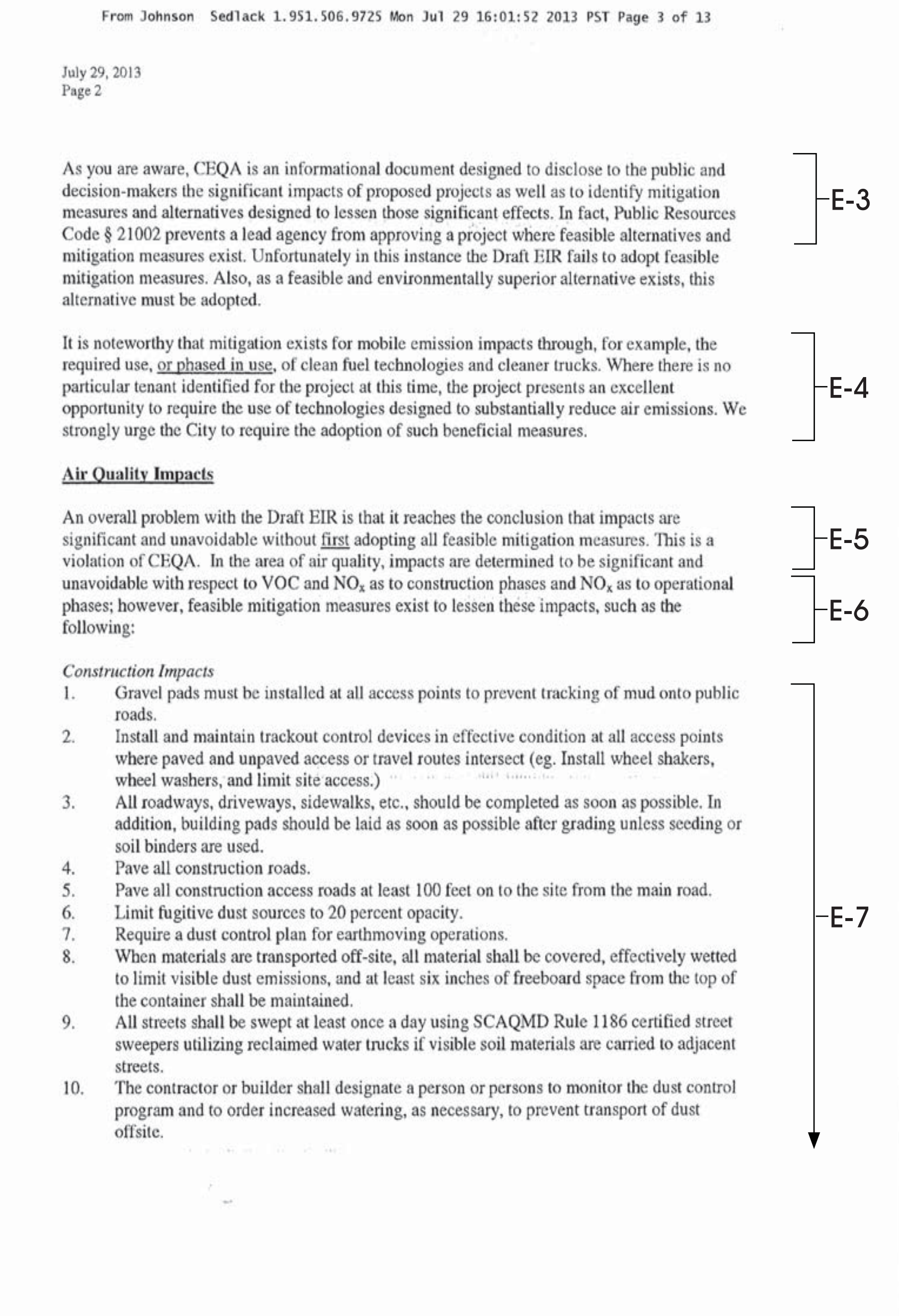
Please consider these comments submitted on behalf of concerned area residents concerning the Draft Environmental Impact Report for the First Inland Logistics Center II Project. E-1

The Project proposes to construct a new 400,130-square foot logistics center warehouse building on a 17.3-acre property designated "Industrial." The northern half of the site (8.9 acres) is undeveloped vacant land. The southern half of the site (8.4 acres) is developed as a parking lot used for truck trailer parking. The project site is located immediately west of North Perris Boulevard, south of and adjacent to San Michele Road in the City of Moreno Valley. The project proposes a total of 59 loading bays for loading, unloading and short term parking of truck trailers. A total of 159 passenger car parking spaces will be provided and 63 spaces for trailer parking. The project will involve the demolition of an existing parking lot, generating approximately 12,800 cubic yards of debris, which will be reused according to the Draft EIR. The entire parcel will be graded resulting in 13,300 cubic yards of cut and 42,000 cubic yards of fill. Import of between 28,000 and 30,000 cubic yards of earth material is anticipated; the borrow site is not determined but "will be located in close proximity" to the project site according to the Draft EIR. Construction will occur over a period of eight months, eight hours a day, five days a week according to the Draft EIR. The Draft EIR assumes the building will be operational 24 hours per day. The Draft EIR assumes the project will create 191 jobs, although a specific tenant has not been identified. E-2

RESPONSES

E-1 - Comment acknowledged. The concerned residents to whom this comment refers are not identified.

E-2 - The description of the proposed Project as provided in this comment is accurate.



From Johnson Sedlack 1.951.506.9725 Mon Jul 29 16:01:52 2013 PST Page 3 of 13

July 29, 2013
Page 2

As you are aware, CEQA is an informational document designed to disclose to the public and decision-makers the significant impacts of proposed projects as well as to identify mitigation measures and alternatives designed to lessen those significant effects. In fact, Public Resources Code § 21002 prevents a lead agency from approving a project where feasible alternatives and mitigation measures exist. Unfortunately in this instance the Draft EIR fails to adopt feasible mitigation measures. Also, as a feasible and environmentally superior alternative exists, this alternative must be adopted.

E-3

It is noteworthy that mitigation exists for mobile emission impacts through, for example, the required use, or phased in use, of clean fuel technologies and cleaner trucks. Where there is no particular tenant identified for the project at this time, the project presents an excellent opportunity to require the use of technologies designed to substantially reduce air emissions. We strongly urge the City to require the adoption of such beneficial measures.

E-4

Air Quality Impacts

An overall problem with the Draft EIR is that it reaches the conclusion that impacts are significant and unavoidable without first adopting all feasible mitigation measures. This is a violation of CEQA.

E-5

In the area of air quality, impacts are determined to be significant and unavoidable with respect to VOC and NO_x as to construction phases and NO_x as to operational phases; however, feasible mitigation measures exist to lessen these impacts, such as the following:

E-6

Construction Impacts

1. Gravel pads must be installed at all access points to prevent tracking of mud onto public roads.
2. Install and maintain trackout control devices in effective condition at all access points where paved and unpaved access or travel routes intersect (eg. Install wheel shakers, wheel washers, and limit site access.)
3. All roadways, driveways, sidewalks, etc., should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
4. Pave all construction roads.
5. Pave all construction access roads at least 100 feet on to the site from the main road.
6. Limit fugitive dust sources to 20 percent opacity.
7. Require a dust control plan for earthmoving operations.
8. When materials are transported off-site, all material shall be covered, effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.
9. All streets shall be swept at least once a day using SCAQMD Rule 1186 certified street sweepers utilizing reclaimed water trucks if visible soil materials are carried to adjacent streets.
10. The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite.

E-7

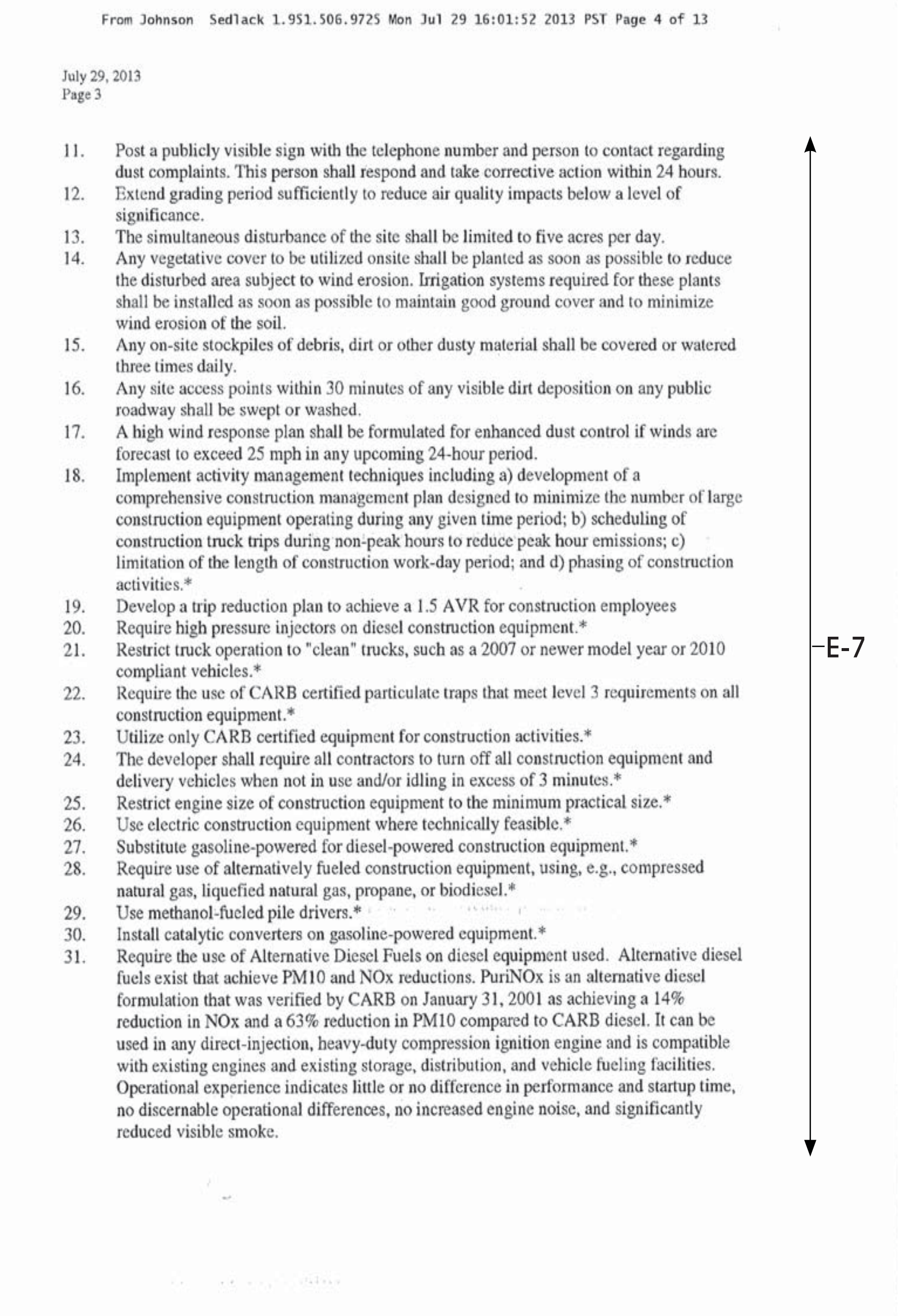
RESPONSES

E-3 - The City acknowledges the purpose of CEQA in the review of proposed projects and the need to identify mitigation measures and alternatives to lessen significant project-related effects. However, and for the reasons noted below under Responses E-5 through E-36, the City respectfully disagrees with the Commenter's allegation that the EIR fails to identify feasible mitigation measures, and also disputes the Commenter's assertion that a feasible environmentally superior alternative exists that must be adopted.

E-4 - The Commenter supplies no substantial evidence in this comment that the use of clean fuel technologies and cleaner trucks are feasible for the proposed Project, nor does Commenter supply a definition of such technologies or clean trucks In preparing the EIR and setting forth feasible mitigation measures for the topic of air quality, the City relied on three Project-specific technical reports (EIR Technical Appendices B, C, and D), as well as the reference sources cited therein and in EIR Section 7.0, References.

E-5 - The Commenter incorrectly characterizes the purpose of an EIR. An EIR does not "adopt" mitigation measures, but rather sets forth feasible measures for lead and responsible agencies to consider for adoption to avoid and reduce environmental effects when they deliberate on whether or not to approve a project. The EIR does not violate CEQA. For the reasons noted below under Responses E-6, E-7 and E-8 the City disagrees with the Commenter's allegation that the City has failed to identify adequate and feasible mitigation measures.

E-6 - In Comments E-7 and E-8, Commenter provides a list of 98 items for the City to consider to further reduce the proposed Project's significant effects on air quality. Commenter does not provide any substantial evidence regarding the feasibility of these suggestions and does not provide any evidence to indicate to what level of emissions reduction and air quality improvement, if any, the 98 suggestions would achieve.



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11. Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action within 24 hours.
12. Extend grading period sufficiently to reduce air quality impacts below a level of significance.
13. The simultaneous disturbance of the site shall be limited to five acres per day.
14. Any vegetative cover to be utilized onsite shall be planted as soon as possible to reduce the disturbed area subject to wind erosion. Irrigation systems required for these plants shall be installed as soon as possible to maintain good ground cover and to minimize wind erosion of the soil.
15. Any on-site stockpiles of debris, dirt or other dusty material shall be covered or watered three times daily.
16. Any site access points within 30 minutes of any visible dirt deposition on any public roadway shall be swept or washed.
17. A high wind response plan shall be formulated for enhanced dust control if winds are forecast to exceed 25 mph in any upcoming 24-hour period.
18. Implement activity management techniques including a) development of a comprehensive construction management plan designed to minimize the number of large construction equipment operating during any given time period; b) scheduling of construction truck trips during non-peak hours to reduce peak hour emissions; c) limitation of the length of construction work-day period; and d) phasing of construction activities.*
19. Develop a trip reduction plan to achieve a 1.5 AVR for construction employees
20. Require high pressure injectors on diesel construction equipment.*
21. Restrict truck operation to "clean" trucks, such as a 2007 or newer model year or 2010 compliant vehicles.*
22. Require the use of CARB certified particulate traps that meet level 3 requirements on all construction equipment.*
23. Utilize only CARB certified equipment for construction activities.*
24. The developer shall require all contractors to turn off all construction equipment and delivery vehicles when not in use and/or idling in excess of 3 minutes.*
25. Restrict engine size of construction equipment to the minimum practical size.*
26. Use electric construction equipment where technically feasible.*
27. Substitute gasoline-powered for diesel-powered construction equipment.*
28. Require use of alternatively fueled construction equipment, using, e.g., compressed natural gas, liquefied natural gas, propane, or biodiesel.*
29. Use methanol-fueled pile drivers.*
30. Install catalytic converters on gasoline-powered equipment.*
31. Require the use of Alternative Diesel Fuels on diesel equipment used. Alternative diesel fuels exist that achieve PM10 and NOx reductions. PuriNOx is an alternative diesel formulation that was verified by CARB on January 31, 2001 as achieving a 14% reduction in NOx and a 63% reduction in PM10 compared to CARB diesel. It can be used in any direct-injection, heavy-duty compression ignition engine and is compatible with existing engines and existing storage, distribution, and vehicle fueling facilities. Operational experience indicates little or no difference in performance and startup time, no discernable operational differences, no increased engine noise, and significantly reduced visible smoke.

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Although CEQA does not require the lead agency to analyze a list of every imaginable mitigation measure, Responses E-7 and E-8 address the feasibility and practicality of each suggestion made by the Commenter. Responses E-7 and E-8 also note which of Commenter's suggestions are duplicative of mandatory regulatory requirements or of mitigation measures already set forth in the EIR.

E-7.1 - As concluded in the EIR, the short-term air emissions that would occur during construction of the Project would exceed the SCAQMD regional thresholds for VOCs and NOx. There is no evidence to suggest that the Commenter's recommendation would reduce either VOC or NOx emissions. This type of measure typically addresses emissions of particulate matter (PM10; e.g., fugitive dust), which the EIR concludes is a less than significant impact. Mitigation measures are not required for impacts that are less than significant. Nonetheless, to address fugitive dust emissions and as disclosed in EIR Project Requirements PR 4.1-2 and PR 4.1-5, the Project is required to comply with the provisions of South Coast Air Quality Management District Rule 403, "Fugitive Dust" and Rule 1186, "PM10 Emissions from Paved and Unpaved Roads, and Livestock Operations." The City is not obligated to impose mitigation measures that are duplicative of mandatory regulatory requirements to which the Project is required to adhere. Regardless, to ensure compliance with SCAQMD Rule 403, the EIR sets forth Mitigation Measure MM 4.1-1, which contains a non-exclusive list of some of the Rule 403 requirements. For clarity in the Final EIR, MM 4.1-1 has been revised state that the list is non-exclusive and that full compliance to Rule 403 is required. Refer to Appendix B to EIR Technical Appendix B, Table 1, "Fugitive Dust Best Available Control Measures" for a detailed list of the requirements of Rule 403 that apply to the Project. The Commenter's recommendation is covered by mandatory compliance with SCAQMD Rule 403.

E-7.2 - Refer to Response E-7.1. The Commenter's recommendation is covered by mandatory compliance with SCAQMD Rule 403.

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E-7.3 - Refer to Response E-7.1. The Commenter's recommendation is covered by mandatory compliance with SCAQMD Rule 403.

E-7.4 - Refer to Response E-7.1. The Commenter's recommendation is covered by mandatory compliance with SCAQMD Rule 403.

E-7.5 - Refer to Response E-7.1. The Commenter's recommendation is covered by mandatory compliance with SCAQMD Rule 403.

E-7.6 - Refer to Response E-7.1. The Commenter's recommendation is covered by mandatory compliance with SCAQMD Rule 403. The requirements of Rule 403 explicitly state that "no person shall cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area such that the dust emission exceeds 20 percent opacity (as determined by the appropriate test method included in the Rule 403 Implementation Handbook), if the dust emission is the result of movement of a motorized vehicle."

E-7.7 - Refer to Response E-7.1. The Commenter's recommendation is covered by mandatory compliance with SCAQMD Rule 403.

E-7.8 - Refer to Response E-7.1. The Commenter's recommendation is covered by mandatory compliance with SCAQMD Rule 403.

E-7.9 - Refer to Response E-7.1. Additionally, refer to EIR Mitigation Measure 4.1-1(d), which specifically sets forth Commenter's suggestion as a mitigation measure.

E-7.10 - Refer to Response E-7.1. Monitoring of SCAQMD Rule 403 compliance is the responsibility of the Construction Contractor, City of Moreno Valley, and SCAQMD, as specified the EIR's Mitigation Monitoring Program.

E-7.11 - Refer to Response E-7.1. Additionally, refer to EIR Mitigation

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Measure 4.1-2, which specifically sets forth Commenter's suggestion as a mitigation measure.

E-7.12 - Refer to Mitigation Measure 4.1-3(a), which requires that mass grading be limited to no more than 4.0 acres per day. Extending the grading period to a longer period of time is not warranted, as there is no evidence to suggest that lengthening the grading period would reduce emissions of VOCs and NOx emissions. In fact, lengthening the grading period may increase NOx emissions, because construction equipment would be operating on the property for a greater number of days.

E-7.13 - Refer to Mitigation Measure 4.1-3(a), which requires that mass grading be limited to no more than 4.0 acres per day.

E-7.14 - Refer to Response E-7.1. The Commenter's recommendation is covered by mandatory compliance with SCAQMD Rule 403.

E-7.15 - Refer to Response E-7.1. The Commenter's recommendation is covered by mandatory compliance with SCAQMD Rule 403.

E-7.16 - Refer to Response E-7.1. The Commenter's recommendation is covered by mandatory compliance with SCAQMD Rule 403.

E-7.17 - Refer to Response E-7.1. Additionally, refer to EIR Mitigation Measure 4.1-1(a), which specifically sets forth Commenter's suggestion as a mitigation measure.

E-7.18 - As shown on EIR Table 4.1-13, with implementation of Mitigation Measures MM 4.1-1 through MM 4.1-3, all construction-related air quality impacts would be reduced to below a level of significance, including NOx and VOC emissions, for which mitigation measures are set forth to reduce those emissions to below SCAQMD significance thresholds. Regarding Commenter's suggestions:

a) Table 3-1 in EIR Technical Appendix B specifies the types of large

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construction equipment, by construction phase, that are anticipated to be used during Project construction and that were analyzed in the EIR. To ensure that the analyzed emission levels from the assumed construction fleet is not exceeded, Mitigation Measure 4.1-3(e) has been added to the Final EIR, as follows: "During construction activity, the operating time of all pieces of off-road diesel-powered equipment shall not exceed a combined total of 75 operating hours per day."

b) Mitigation Measure 4.1-3(f) has been added to the Final EIR as follows "Construction-related haul trips entering and exiting the site shall occur during non-peak traffic hours."

c) Refer to Mitigation Measure 4.1-3(a), which requires that mass grading be limited to no more than 4.0 acres per day. Also refer to Mitigation Measure 4.1-3(e) that has been added to the Final EIR and applies a limit to the number of combined operating hours that diesel-powered equipment can operate per day. Further, the City's Noise Ordinance limits the hours during which construction is permitted to occur. Further shortening the work day would result in construction activity occurring over a greater number of days, which would increase the potential for other environmental effects to be extended, such as erosion, dust, and noise.

d) The proposed Project involves the construction of one (1) building. As described in EIR Section 3.3.5(F) and analyzed in the EIR, construction would occur in several phases: demolition, grading, utility installation, building construction, landscaping, and finish site improvements. Because only one (1) building is proposed, it is not feasible to further phase construction activity.

E-7.19 - Pursuant to California Health and Safety Code Section 40717.9, no public agency shall require an employer to implement an employee trip reduction program unless the program is required by federal law. Accordingly, pursuant to Health and Safety Code Section 40717.9, the City is not authorized to effectively mandate that the tenant/owner implement mandatory employee carpooling." Regardless, Mitigation Measure 4.1-3(g) has been added to the Final EIR as follows "The

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construction contractor shall encourage construction site employees to rideshare by offering incentives or other inducements." While the Commenter's recommendation to develop a trip reduction plan for construction workers would be feasible, adherence to such a plan would not be feasible to enforce or monitor and is not required by federal law; thus, there would be no enforceable benefit to preparing such a plan. Commenter offers no evidence to suggest that implementation of a trip reduction plan for construction workers is feasible or enforceable. Furthermore, the largest component of NOx air emissions during the construction phase is from diesel-powered equipment, not from on-road vehicles used by workers commuting to and from the site. Refer to Mitigation Measure 4.1-3(e) that has been added to the Final EIR and applies a limit to the number of combined operating hours that diesel-powered equipment can operate per day.

E-7.20 - Mitigation Measure 4.1-3(h) has been added to the Final EIR as follows "High pressure injectors shall be used on all diesel powered construction equipment over 100 horsepower."

E-7.21 - Mitigation Measure 4.1-3(i) has been added to the Final EIR as follows "All construction-related on-road diesel-powered haul trucks shall be 2007 or newer model year or 2010 engine compliant vehicles."

E-7.22 - Commenter's recommendation is not realistic. There are very few pieces of construction equipment that have particulate traps, so Commenter's recommendation to require CARB certified particulate traps on all construction equipment is not possible. Mitigation Measure 4.1-3(j) has been added to the Final EIR as follows "On all construction-related equipment that has a particulate trap, the trap shall be Level 3 CARB certified."

E-7.23 - Mitigation Measure 4.1-3(c) has been expanded to specify that all construction-related equipment be CARB Certified.

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E-7.24 - The idling time limitation specified in Mitigation Measure 4.1-3(b) has been reduced from 5 minutes to 3 minutes in the Final EIR.

E-7.25 - Mitigation Measure 4.1-3(e) has been added to the Final EIR, as follows: "During construction activity, the operating time of all pieces of off-road diesel-powered equipment shall not exceed a combined total of 75 operating hours per day." This measure would achieve the same result as Commenter's recommendation to restrict engine size of construction equipment.

E-7.26 - Mitigation Measure 4.1-3(k) has been added to the Final EIR as follows "Electric-powered construction equipment and tools shall be used when technically feasible."

E-7.27 - Commenter's recommendation is not feasible because there are very few pieces of commercially available construction equipment that use gasoline. Mitigation Measure 4.1-3(e) added to the Final EIR will apply a limitation on the number of operating hours per day that diesel-powered equipment can operate, which will achieve the same result as this recommendation.

E-7.28 - Mitigation Measure 4.1-3(l) has been added to the Final EIR as follows "Biodiesel fuel or other alternatives to diesel fuel shall be used to power construction equipment when technically feasible."

E-7.29 - Commenter's recommendation is not feasible because methanol-fueled pile drivers are not commercially available. Mitigation Measure 4.1-3(e) added to the Final EIR will apply a limitation on the number of operating hours per day that diesel-powered equipment can operate, which will achieve the same result as this recommendation.

E-7.30 - Commenter's recommendation is not feasible because there are very few pieces of commercially available construction equipment that use gasoline. As such, gasoline-powered construction equipment is not

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anticipated to be used at the Project site.

E-7.31 - Mitigation Measure 4.1-3(l) has been added to the Final EIR as follows "Biodiesel fuel or other alternatives to diesel fuel shall be used to power construction equipment when technically feasible."

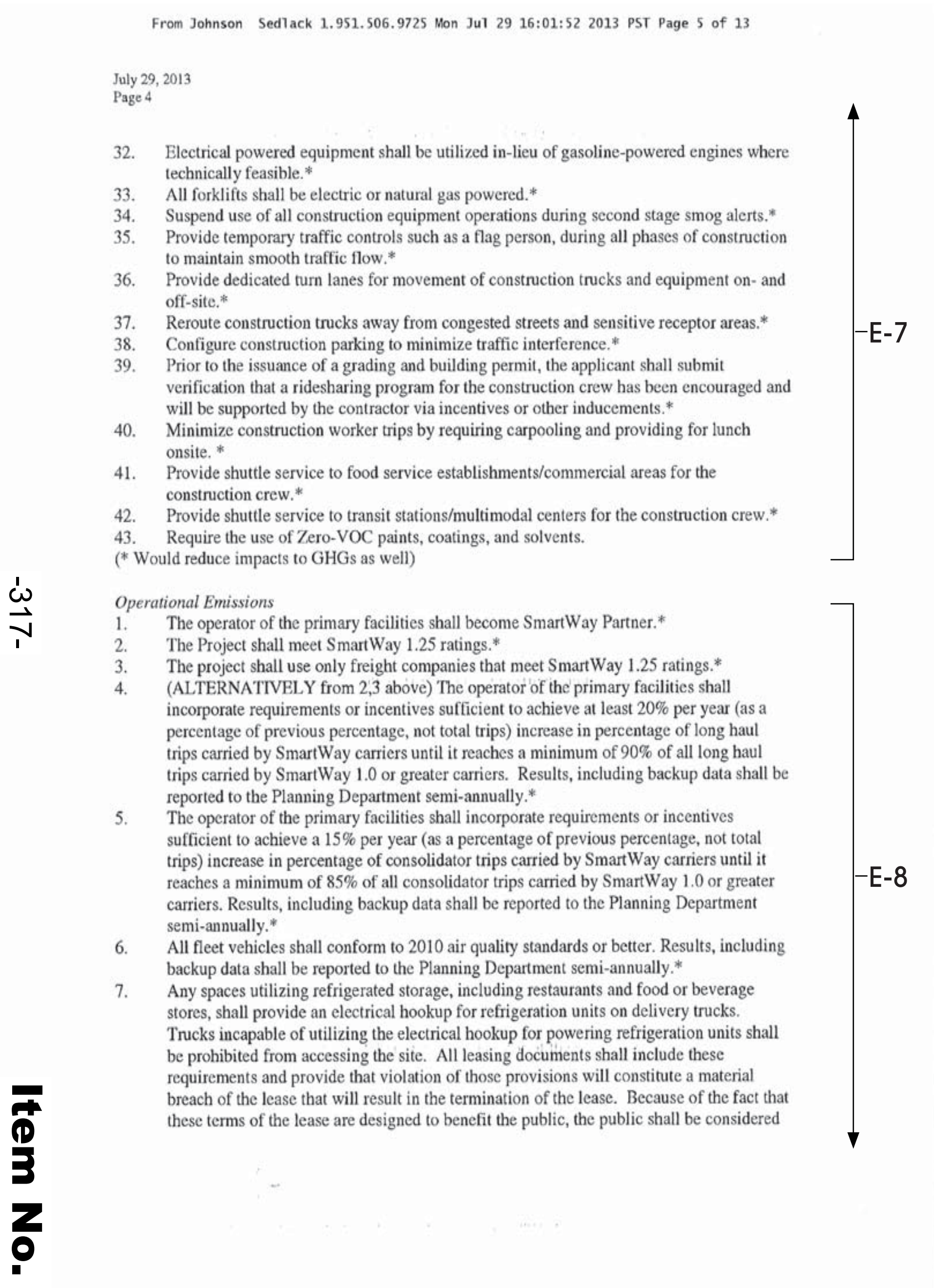
E-7.32 - Mitigation Measure 4.1-3(k) has been added to the Final EIR as follows "Electric-powered construction equipment and tools shall be used when technically feasible."

E-7.33 - As noted in EIR Table 4.1-5, the only phase of the construction process during which forklifts would be used is during construction of the building. Commenter's recommendation is not realistic because there are very few construction contractors that own or have access to alternatively fueled fork lifts. Mitigation Measure 4.1-3(e) added to the Final EIR will apply a limitation on the number of operating hours per day that diesel-powered equipment can operate, which will achieve the same result as this recommendation.

E-7.34 - Smog alerts are infrequent and when they occur, last the duration of the day. The historical trends available from the SCAQMD at: http://www.aqmd.gov/smog/o3trend.html illustrate that there have been no Stage 1 Ozone occurrences since 2004. Furthermore. SCAQMD Rule 701 (http://aqmd.gov/rules/reg/reg07/r701.pdf) identifies various "Stage 2" episode criteria that must be complied with if a Stage 2 Alert occurs. Mandatory compliance with SCAQMD Rule 701 achieves the Commenter's recommendation.

E-7.35 - Refer to EIR Mitigation Measure 4.1-3(d), which specifically sets forth Commenter's suggestion as a mitigation measure.

E-7.36 - Refer to EIR Mitigation Measure 4.1-1(d), which will achieve the same result as this recommendation.



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32. Electrical powered equipment shall be utilized in-lieu of gasoline-powered engines where technically feasible.*
33. All forklifts shall be electric or natural gas powered.*
34. Suspend use of all construction equipment operations during second stage smog alerts.*
35. Provide temporary traffic controls such as a flag person, during all phases of construction to maintain smooth traffic flow.*
36. Provide dedicated turn lanes for movement of construction trucks and equipment on- and off-site.*
37. Reroute construction trucks away from congested streets and sensitive receptor areas.*
38. Configure construction parking to minimize traffic interference.*
39. Prior to the issuance of a grading and building permit, the applicant shall submit verification that a ridesharing program for the construction crew has been encouraged and will be supported by the contractor via incentives or other inducements.*
40. Minimize construction worker trips by requiring carpooling and providing for lunch onsite. *
41. Provide shuttle service to food service establishments/commercial areas for the construction crew.*
42. Provide shuttle service to transit stations/multimodal centers for the construction crew.*
43. Require the use of Zero-VOC paints, coatings, and solvents.

(* Would reduce impacts to GHGs as well)

Operational Emissions

1. The operator of the primary facilities shall become SmartWay Partner.*
2. The Project shall meet SmartWay 1.25 ratings.*
3. The project shall use only freight companies that meet SmartWay 1.25 ratings.*
4. (ALTERNATIVELY from 2,3 above) The operator of the primary facilities shall incorporate requirements or incentives sufficient to achieve at least 20% per year (as a percentage of previous percentage, not total trips) increase in percentage of long haul trips carried by SmartWay carriers until it reaches a minimum of 90% of all long haul trips carried by SmartWay 1.0 or greater carriers. Results, including backup data shall be reported to the Planning Department semi-annually.*
5. The operator of the primary facilities shall incorporate requirements or incentives sufficient to achieve a 15% per year (as a percentage of previous percentage, not total trips) increase in percentage of consolidator trips carried by SmartWay carriers until it reaches a minimum of 85% of all consolidator trips carried by SmartWay 1.0 or greater carriers. Results, including backup data shall be reported to the Planning Department semi-annually.*
6. All fleet vehicles shall conform to 2010 air quality standards or better. Results, including backup data shall be reported to the Planning Department semi-annually.*
7. Any spaces utilizing refrigerated storage, including restaurants and food or beverage stores, shall provide an electrical hookup for refrigeration units on delivery trucks. Trucks incapable of utilizing the electrical hookup for powering refrigeration units shall be prohibited from accessing the site. All leasing documents shall include these requirements and provide that violation of those provisions will constitute a material breach of the lease that will result in the termination of the lease. Because of the fact that these terms of the lease are designed to benefit the public, the public shall be considered

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E-7.37 - EIR Figure 4.4-13 depicts the City's designated truck route. Mitigation Measure 4.1-3(m) has been added to the Final EIR as follows "Construction vehicles shall use the City's designated truck route."

E-7.38 - Mitigation Measure 4.1-3(n) has been added to the Final EIR as follows "Construction parking shall be located and configured to minimize traffic interference on public streets."

E-7.39 - Refer to Response E-7.19. Mitigation Measure 4.1-3(g) has been added to the Final EIR as follows "The construction contractor shall encourage construction site employees to rideshare by offering incentives or other inducements."

E-7.40 - Refer to Response E-7.39. Mobile food vendors regularly visit construction sites in the City of Moreno Valley. Commenter's recommendation to require that lunch be provided to construction workers by their employer or other person, or to require that construction workers pack a lunch to eat on-site in an effort to keep workers from traveling off-site to eating establishments is not practical, nor would such a requirement be feasible for the City to monitor or enforce.

E-7.41 - Refer to Responses E-7.19 and E-7.40.

E-7.42 - Refer to Response E-7.19. A Riverside Transit Agency (RTA) bus route (Route 19), with designated northbound and southbound stops on Perris Boulevard, is available adjacent to the Project site, rendering it unnecessary to shuttle the construction crew to a transit station.

E-7.43 - Refer to EIR Mitigation Measure 4.1-4, which specifically sets forth Commenter's suggestion as a mitigation measure.

E-8.1 - SmartWay is a U.S. Environmental Protection Agency (EPA) program that individuals and companies in the transportation industry can voluntarily join and which encourages voluntary achievement of fuel

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efficiency practices. Commenter's recommendation to require the future tenant of the proposed building to join a voluntary program in which participation is voluntary would not assure the reduction of mobile source emissions. Regardless, Mitigation Measure 4.1-7 has been expanded to require disclosure about the EPA's SmartWay program.

E-8.2 - Commenter's recommendation is not feasible. The U.S. EPA SmartWay program applies to vehicle fuel efficiency and not project design. There is no way for Project's design to achieve a SmartWay rating.

E-8.3 - Commenter suggests that the City of Moreno Valley prohibit or substantially limit long-haul trucks from accessing the Project site unless they meet U.S. EPA SmartWay ratings. SmartWay is a voluntary program that encourages vehicles to operate at a higher fuel efficiency then state and federal emission laws require. The imposition of a SmartWay fleet requirement on this Project (or any emissions requirement more stringent that state or federal laws require) would reduce mobile source emissions emitted by Project operations compared to the levels disclosed in the EIR, which were calculated based on the SCAQMD's California Emissions Estimator Model™ (CalEEMod™), but would do nothing to improve regional air quality. Such a requirement would merely displace vehicles not achieving SmartWay ratings to another location in the South Coast Air Basin where the requirement is not imposed, thereby resulting in no improvement to regional air quality. Additionally, if the displacement was to another location further from regional transportation routes, the vehicles would travel a longer distance and emit more pollutants. Thus, the Commenter's recommendation would not effectively reduce or avoid the impact to air quality in the South Coast Air Basin. The Commenter provides no evidence that the recommendation to impose a SmartWay long-haul carrier requirement or other mobile fleet requirement on this one project would be effective in improving air quality in the South Coast Air Basin.

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E-8.4 - Refer to Response E-8.3.

E-8.5 - Refer to Response E-8.3.

E-8.6 - Refer to Response E-8.3.

E-8.7 - As stated on EIR page 3-6, "[t]he building is not designed to accommodate tenants that would require warehouse refrigeration." Regardless, Mitigation Measure 4.1-8 has been added to the EIR, as follows "In the event that the building design is modified to accommodate refrigeration, all loading docks shall be equipped with an electrical hookup to power refrigerated tractor trailers." As specified as EIR Project Requirements PR 4.1-7 and PR 4.1-8, the Project is required to comply with California Code of Regulations Title 13, which requires a limitation on truck idling. Further, Mitigation Measure MM 4.1-5 requires the placement of signs on the property instructing drivers to idle for no more than three (3) minutes. Mandatory compliance with Title 13 will achieve the same result as this recommendation. As such, it is not necessary to include a truck prohibition in the lease.

The Commenter's request that all leasing documents include these provisions and that a material breach of the lease shall result in termination of the lease has not been included for the following reasons. First, the "general public" cannot be a third party beneficiary to a private contractual arrangement. Second, if enforcement is a concern, resident taxpayers and those who with a geographical nexus to the project have standing to seek a writ of mandate against the City for any non-compliance with any and all mitigation measures set forth in this EIR, its Mitigation Monitoring and Reporting Program (MMRP) or any other MMRP. Third, Mitigation Measures become conditions of Project approval and are enforceable through Code Enforcement actions that can result in civil and at times criminal liability. Thus, not only is it unlawful and impractical to require some sort of nebulous "third party beneficiary" right in a private lease, but more importantly such a requirement is unnecessary as the public has

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ample opportunities to enforce or to seek enforcement of the Mitigation Measures as set forth above.

E-8.8 - Regarding on-road vehicles powered by gasoline that access the Project site, Commenter's recommendation is not necessary because the same result is achieved by mandatory compliance with state and federal vehicle emission laws. Regarding off-road gasoline powered equipment that might be used by a building tenant or operator on the Project site, there are various exhaust emission technologies available and various state and federal emission regulations that must be complied with to reduce NOx emissions. The City does not have an enforcement mechanism or the staffing resources to monitor and enforce the mechanical composition of every piece of gasoline powered equipment, especially given the cyclical nature of equipment used by building tenants. Additionally, Commenter does not establish any nexus or rough proportionality between this recommendation and the Project's NOx air quality impact, which is primarily caused by on-road mobile sources and not off-road operational equipment.

E-8.9 - Regarding on-road vehicles powered by diesel fuel, refer to Response E-8-3. Regarding off-road diesel powered equipment that might be used by a building tenant or operator on the Project site, EIR Mitigation Measures 4.1-7 requires that the building tenant be notified about the availability of alternatively fueled cargo handling equipment. The City does not have an enforcement mechanism or the staffing resources to monitor and enforce the fuel usage of every piece of gasoline powered equipment, especially given the cyclical nature of equipment used by building tenants. Additionally, Commenter does not establish any nexus or rough proportionality between this recommendation and the Project's NOx air quality impact, which is primarily caused by on-road mobile sources and not off-road operational equipment.

E-8.10 - Refer to Response E-8.7. The City does not have an enforcement mechanism or the staffing resources to monitor and enforce the power

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supply requirement of every piece of equipment used in the Project's operation, especially given the cyclical nature of equipment used by building tenants. Additionally, Commenter does not establish any nexus or rough proportionality between this recommendation and the Project's NOx air quality impact, which is primarily caused by on-road mobile sources and not off-road operational equipment.

E-8.11 - Refer to Response E-8.10.

E-8.12 - Refer to Response E-8.10.

E-8.13 - Refer to Response E-8.10.

E-8.14 - Refer to EIR Project Requirements PR 4.1-7 and PR 4.1-8 and Mitigation Measure 4.1-5, which specifically sets forth Commenter's suggestion as mandatory regulatory requirements and a mitigation measure.

E-8.15 - Refer to Responses E-8.3, E-8.9 and E.8-10.

E-8.16 - Commenter's recommendation is not feasible. Given the nature of the proposed Project, there will be no parking fee.

E-8.17 - In regard to tractor trailers, electric powered heavy duty trucks do not exist in the marketplace so there would be no environmental benefit to providing charging stations for such vehicles. Mitigation Measure 4.1-8 has been added to the EIR that will require loading docks to be equipped with an electric hookup if the trucks and warehoused goods require refrigeration. Regarding passenger cars, this project like all new developments in the State of California are required to comply with the California Building Standard Code (also known as CalGreen, 2013). CalGreen Section 5.106, Site Development, requires that a certain number of parking spaces be designated for any combination of low-emitting, fuel-efficient and carpool/vanpool vehicles. CalGreen does not require the

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installation of electric vehicle (EV) plug-in units, but the Project Applicant may install conduit to these spaces to allow the future installation of EV units by the building tenant.

E-8.18 - Alternative fuel infrastructure is best provided in a planned, regional manner, based on the demand for such fuels. Two alternative fueling stations supplying compressed natural gas (CNG) are open to the public in Moreno Valley. Vehicle operators accessing the proposed Project would have access to this alternative fuel source a short distance away and there would be no measurable environmental benefit to duplicating CNG fuel infrastructure at the Project site.

E-8.19 - Commenter’s recommendation is achieved by mandatory compliance with the California Building Standards Code (CalGreen, 2013). CalGreen Section 5.106, Site Development, requires that a certain number of parking spaces be designated for any combination of low-emitting, fuel-efficient and carpool/vanpool vehicles. The designated parking stalls are required to be painted “Clean Air Vehicle” (CalGreen, 2013, Table 5.106.5.2).

E-8.20 - Commenter’s recommendation is not feasible. Given the nature of the proposed Project, there is no enforceable mechanism available to the City to require the imposition of punitive parking fee on workers and visitors to the Project site that arrive in a single occupant vehicle. Additionally, Commenter does not provide any information to demonstrate that such a punitive measure would result in an improvement to air quality. The likely result would be a fee payment to park, which would not result in reduced NOx emissions or have any benefit on regional air quality. Additionally, pursuant to Health and Safety Code Section 40717.9, no public agency shall require an employer to implement an employee trip reduction program unless the program is required by federal law. Accordingly, pursuant to Health and Safety Code Section 40717.9, the City is not authorized to effectively mandate that the tenant/owner implement mandatory employee carpooling.

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E-8.21 - A landscaping plan is a requirement of the Project's proposed Building Plot Plan and is shown on EIR Figure 3-7. The City requires that 10% of the property be landscaped, and the Project proposes to exceed that requirement by providing 13.2% landscape cover. The planting of trees in the truck court is not required by the City or proposed by the Project to avoid maneuverability issues for trucks. Commenter does not establish any nexus or rough proportionality between this recommendation and the Project's NOx air quality impact, which is primarily caused by on-road mobile sources and not from parked vehicles in unshaded parking lots.

E-8.22 - A landscaping plan is a requirement of the Project's proposed Building Plot Plan and is shown on EIR Figure 3-7. The City requires that 10% of the property be landscaped, and the Project proposes to exceed that requirement by providing 13.2% landscape cover. Several of the tree species and other plant materials specified qualify as "low ozone forming", based on a University of California Davis study titled "Urban Trees and Ozone Formation: A Consideration of Large-Scale Plantings" published March 2012 and available at http://anrcatalog.ucdavis.edu/pdf/8484.pdf.

E-8.23 - Refer to Responses E-8.21 and E-8.22.

E-8.24 - The Project's one (1) proposed building is oriented north/south as Commenter recommends. Regarding landscaping, refer to Responses E-8.21 and E-8.22. Given the nature of the proposed Project and the regional climate and meteorology as described in EIR Section 4.1.1(B), there would be a de minimus effect associated with passive solar heating and cooling by the planting of trees around the structure. In any case, a landscaping plan is a requirement of the Project's proposed Building Plot Plan and is shown on EIR Figure 3-7. Tress would be planted around three (3) sides of the structure. The east-facing elevation would consist of an interior truck yard where trees and other landscaping are not proposed to avoid interference with vehicle movements.

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E-8.25 - Refer to Response E-8.24. Commenter does not establish any nexus or rough proportionality between this recommendation and the Project's NOx air quality impact, which is primarily caused by on-road mobile sources and not from the surfaces of parking lots. Adding landscape pockets in parking lots is also not water-use efficient and would increase the Project's demand for irrigation water, which is reliant on fossil fuels to produce and convey.

E-8.26 - Commenter does not establish any nexus or rough proportionality between this recommendation and the Project's NOx air quality impact, which is primarily caused by on-road mobile sources and not from the use of landscape maintenance equipment. Beginning on January 1, 2014, the California Building Standards Code (CalGreen) Title 24, Section 5.409, Building Maintenance and Operation, will require new non-residential buildings over 10,000 s.f. to comply with commissioning and reporting requirements and conduct functional performance testing for energy efficiency. Mandatory compliance with CalGreen achieves Commenter's recommendation to reduce energy use associated with building maintenance activities.

E-8.27 - The proposed Project is not a residential, commercial, or mixed-use development; thus, Commenter's recommendation does not apply. Furthermore, Commenter does not establish any nexus or rough proportionality between this recommendation and the Project's NOx air quality impact, which is primarily caused by on-road mobile sources and not from landscape maintenance equipment.

E-8.28 - The proposed Project is not a residential development; thus, Commenter's recommendation does not apply.

E-8.29 - Commenter's recommendation is not feasible. There is no enforceable mechanism available to the City to require that private building tenants pay their employees to abstain from arriving to work by motorized vehicle, or to use transit, carpools, or vanpools.

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E-8.30 - Commenter's recommendation is not feasible. There is no enforceable mechanism available to the City to require private building tenants to institute a carpooling or vanpooling program.

E-8.31 - The proposed Project is not a residential development; thus, Commenter's recommendation does not apply.

E-8.32 - The proposed Project is not a residential development; thus, Commenter's recommendation does not apply.

E-8.33 - Refer to Response E-8.19.

E-8.34 - Refer to Responses E-8.19 and E-8.29.

E-8.35 - As specified in EIR Section 3.3.2, bicycle parking is required to be provided on the property in compliance with the City of Moreno Valley Municipal Code Section 9.11. Bicycle parking also is required pursuant to the California Building Standards Code (CalGreen, 2013, Sections 5.106.4.1 and .2).

E-8.36 - As specified in EIR Section 3.3.5(A), the Project proposes to install a transit stop along its frontage with Perris Boulevard. A sidewalk also is proposed along the Project's frontage with Perris Boulevard, which will provide a pedestrian connection to the transit stop.

E-8.37 - In August 2013, the City commissioned the preparation of a city-wide bicycle master plan. Commenter's recommendation will be addressed on a city-wide basis by the master plan and is not applicable to the proposed Project, which would not affect a bicycle route.

E-8.38 - Interior tenant improvements are not under consideration by the City at this time as part of the Project's proposed Building Plot Plan. Commenter's recommendation is not included because Commenter

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supplies no evidence, and the City has uncovered no evidence in professional literature, to indicate that the provision of on-site showers in an industrial warehouse in a contextual setting similar to the proposed Project's would incentivize employees to bike or walk to work and reduce air emissions associated with worker commuting by motorized vehicle.

E-8.39 - Refer to Response E-8.35. The proposed Project is not a retail development; thus, Commenter's recommendation does not apply.

E-8.40 - Refer to Response E-8.37.

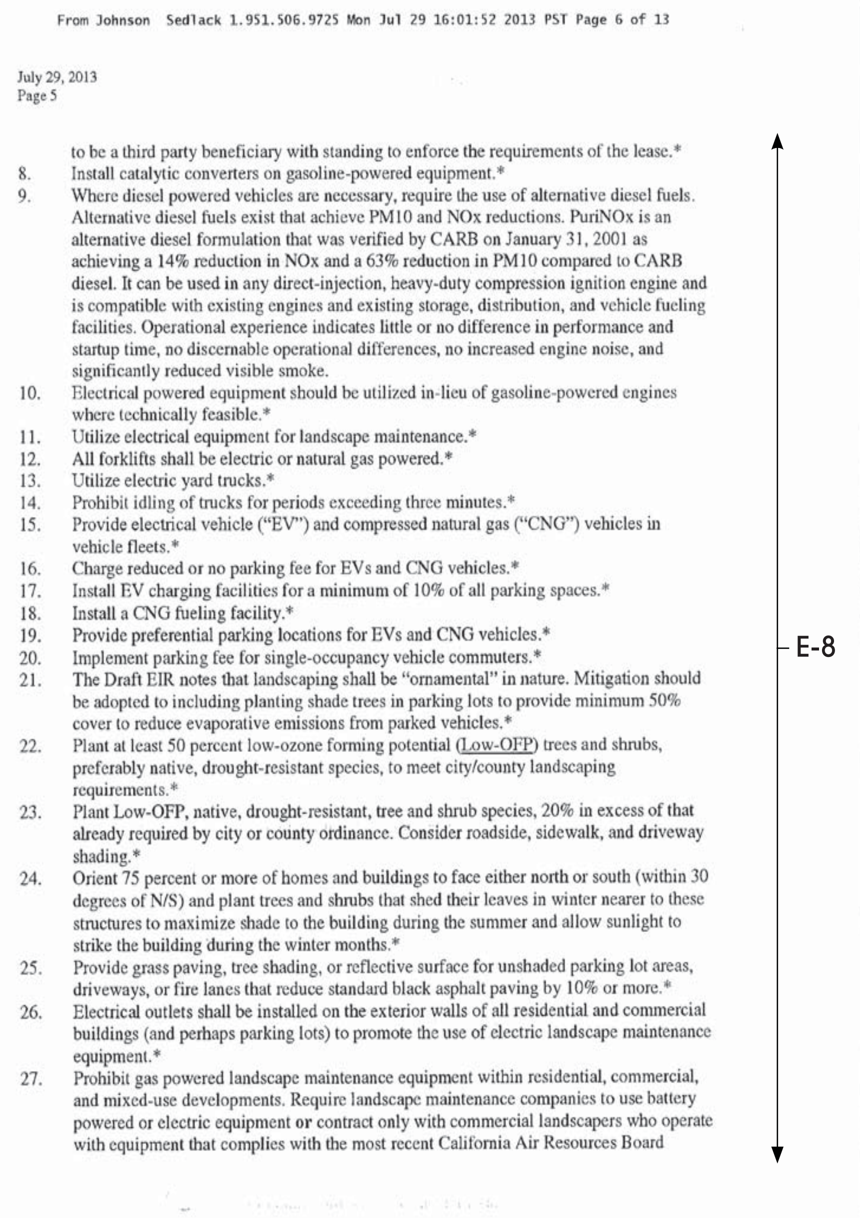
E-8.41 - Refer to Response E-8.36.

E-8.42 - Refer to Response E-8.36.

E-8.43 - Commenter's recommendation is not feasible. There is no enforceable mechanism available to the City to require private building tenants to post information about transportation options. Further, state and federal law directs that public agencies are prohibited from imposing employee trip reduction programs unless such a program is expressly required by federal law (Health & Safety Code Section 40717.9 and Section 40454).

E-8.44 - Mobile food vendors regularly visit employment sites in the City of Moreno Valley. Commenter's recommendation to require that private building tenants shuttle their employees to lunch, or require that their employees pack a lunch to eat on-site in an effort to keep workers from traveling off-site to eating establishments is not practical, nor would such a requirement be feasible for the City to monitor or enforce.

E-8.45 - Commenter's recommendation is not incorporated because as specified in EIR Section 3.3.5(A), the Project proposes to install a transit stop along its frontage with Perris Boulevard. Because a transit stop would be available adjacent to the property, there would be no benefit in



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to be a third party beneficiary with standing to enforce the requirements of the lease.*

8. Install catalytic converters on gasoline-powered equipment.*
9. Where diesel powered vehicles are necessary, require the use of alternative diesel fuels. Alternative diesel fuels exist that achieve PM10 and NOx reductions. PuriNOx is an alternative diesel formulation that was verified by CARB on January 31, 2001 as achieving a 14% reduction in NOx and a 63% reduction in PM10 compared to CARB diesel. It can be used in any direct-injection, heavy-duty compression ignition engine and is compatible with existing engines and existing storage, distribution, and vehicle fueling facilities. Operational experience indicates little or no difference in performance and startup time, no discernable operational differences, no increased engine noise, and significantly reduced visible smoke.
10. Electrical powered equipment should be utilized in-lieu of gasoline-powered engines where technically feasible.*
11. Utilize electrical equipment for landscape maintenance.*
12. All forklifts shall be electric or natural gas powered.*
13. Utilize electric yard trucks.*
14. Prohibit idling of trucks for periods exceeding three minutes.*
15. Provide electrical vehicle ("EV") and compressed natural gas ("CNG") vehicles in vehicle fleets.*
16. Charge reduced or no parking fee for EVs and CNG vehicles.*
17. Install EV charging facilities for a minimum of 10% of all parking spaces.*
18. Install a CNG fueling facility.*
19. Provide preferential parking locations for EVs and CNG vehicles.*
20. Implement parking fee for single-occupancy vehicle commuters.*
21. The Draft EIR notes that landscaping shall be "ornamental" in nature. Mitigation should be adopted to including planting shade trees in parking lots to provide minimum 50% cover to reduce evaporative emissions from parked vehicles.*
22. Plant at least 50 percent low-ozone forming potential (<u>Low-OFP</u>) trees and shrubs, preferably native, drought-resistant species, to meet city/county landscaping requirements.*
23. Plant Low-OFP, native, drought-resistant, tree and shrub species, 20% in excess of that already required by city or county ordinance. Consider roadside, sidewalk, and driveway shading.*
24. Orient 75 percent or more of homes and buildings to face either north or south (within 30 degrees of N/S) and plant trees and shrubs that shed their leaves in winter nearer to these structures to maximize shade to the building during the summer and allow sunlight to strike the building during the winter months.*
25. Provide grass paving, tree shading, or reflective surface for unshaded parking lot areas, driveways, or fire lanes that reduce standard black asphalt paving by 10% or more.*
26. Electrical outlets shall be installed on the exterior walls of all residential and commercial buildings (and perhaps parking lots) to promote the use of electric landscape maintenance equipment.*
27. Prohibit gas powered landscape maintenance equipment within residential, commercial, and mixed-use developments. Require landscape maintenance companies to use battery powered or electric equipment or contract only with commercial landscapers who operate with equipment that complies with the most recent California Air Resources Board

E-8

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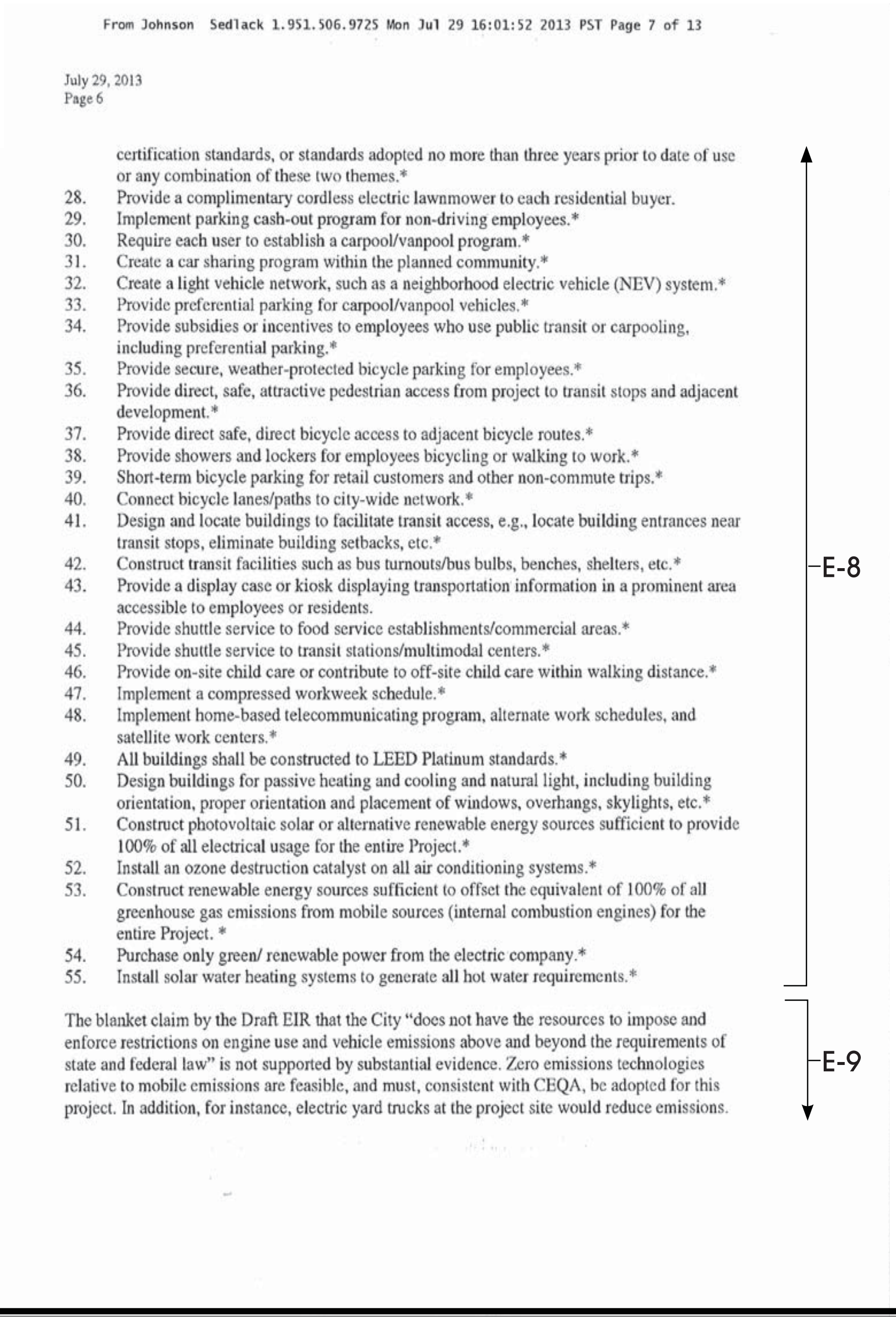
requiring the private building tenant to shuttle its employees to a transit stop.

E-8.46 - Interior tenant improvements are not under consideration by the City at this time as part of the Project's proposed Building Plot Plan. Commenter's recommendation is not included because Commenter supplies no evidence, and the City has uncovered no evidence in professional literature, to indicate that the provision of on-site child care in an industrial warehouse in a contextual setting similar to the proposed Project's would reduce air emissions associated with worker commuting by motorized vehicle.

E-8.47 - Commenter's recommendation is not incorporated because there is no enforceable mechanism available to the City to require that private employers implement alternative work week schedules for their employees. Additionally, most distribution warehouses operate 7 days per week, up to 24 hours per days and need to be staffed at all times. Further, Commenter provides no evidence that alternative work week schedules in a 7 day per week, up to 24 hour per day operation would reduce NOx emissions associated with worker commuting.

E-8.48 - Refer to Response E-8.47.

E-8.49 - Leadership in Energy & Environmental Design (LEED) is a national program of the United States Green Building Council (USGBC), wherein the USGBC can supply a third-party verification of "green" buildings at various levels based on their own rating system. In January 2011, California adopted the first statewide mandatory green building code in the country, known as CALGreen. The California Code of Regulations (CCR), Title 24, also known as the California Building Standards Code, or CALGreen Code, sets forth building standards for all construction in the State of California. Title 24 is updated approximately every three (3) years, with the most recent update going into effect on January 1, 2014. The 2014 update will even more stringent building standards to conserve



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certification standards, or standards adopted no more than three years prior to date of use or any combination of these two themes.*

28. Provide a complimentary cordless electric lawnmower to each residential buyer.
29. Implement parking cash-out program for non-driving employees.*
30. Require each user to establish a carpool/vanpool program.*
31. Create a car sharing program within the planned community.*
32. Create a light vehicle network, such as a neighborhood electric vehicle (NEV) system.*
33. Provide preferential parking for carpool/vanpool vehicles.*
34. Provide subsidies or incentives to employees who use public transit or carpooling, including preferential parking.*
35. Provide secure, weather-protected bicycle parking for employees.*
36. Provide direct, safe, attractive pedestrian access from project to transit stops and adjacent development.*
37. Provide direct safe, direct bicycle access to adjacent bicycle routes.*
38. Provide showers and lockers for employees bicycling or walking to work.*
39. Short-term bicycle parking for retail customers and other non-commute trips.*
40. Connect bicycle lanes/paths to city-wide network.*
41. Design and locate buildings to facilitate transit access, e.g., locate building entrances near transit stops, eliminate building setbacks, etc.*
42. Construct transit facilities such as bus turnouts/bus bulbs, benches, shelters, etc.*
43. Provide a display case or kiosk displaying transportation information in a prominent area accessible to employees or residents.
44. Provide shuttle service to food service establishments/commercial areas.*
45. Provide shuttle service to transit stations/multimodal centers.*
46. Provide on-site child care or contribute to off-site child care within walking distance.*
47. Implement a compressed workweek schedule.*
48. Implement home-based telecommunicating program, alternate work schedules, and satellite work centers.*
49. All buildings shall be constructed to LEED Platinum standards.*
50. Design buildings for passive heating and cooling and natural light, including building orientation, proper orientation and placement of windows, overhangs, skylights, etc.*
51. Construct photovoltaic solar or alternative renewable energy sources sufficient to provide 100% of all electrical usage for the entire Project.*
52. Install an ozone destruction catalyst on all air conditioning systems.*
53. Construct renewable energy sources sufficient to offset the equivalent of 100% of all greenhouse gas emissions from mobile sources (internal combustion engines) for the entire Project. *
54. Purchase only green/ renewable power from the electric company.*
55. Install solar water heating systems to generate all hot water requirements.*

E-8

The blanket claim by the Draft EIR that the City "does not have the resources to impose and enforce restrictions on engine use and vehicle emissions above and beyond the requirements of state and federal law" is not supported by substantial evidence. Zero emissions technologies relative to mobile emissions are feasible, and must, consistent with CEQA, be adopted for this project. In addition, for instance, electric yard trucks at the project site would reduce emissions.

E-9

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energy in every community across the State. All buildings constructed in California inherently incorporate some of the features that qualify for LEED points in the USGBC's rating system.

Commenter's recommendation is not implemented because mandatory compliance with CALGreen will achieve a similar result as Commenter's recommendation to construct the building to LEED Platinum standards. Furthermore, CALGreen requirements and feature that quality for LEED points are intended to reduce energy use in building operation. As concluded by the EIR, the proposed Project's NOx impact is primarily associated with emissions from mobile vehicles and not from other building operations such as use of electricity or other fossil-fuel reliant activities. As such, Commenter does not establish any nexus or rough proportionality between this recommendation and the Project's NOx air quality impact.

E-8.50 - Refer to Response E-8.49.

E-8.51 - Refer to Response E-8.49.

E-8.52 - Refer to Response E-8.49.

E-8.53 - Refer to Response E-8.49.

E-8.54 - Refer to Response E-8.49.

E-8.55 - Refer to Response E-8.49.

E-9 - Refer to Responses E-7.1 through E-8.55.

The Commentator requests that the MMRP contain restrictions on emissions and vehicle use and access at the site. The SCAQMD regulates a unified Air Basin. One of the statutory charges of SCAQMD is to ensure uniform CEQA review by lead agencies located within the Air Basin. Uniform CEQA review allows SCAQMD to track progress toward State

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and federal CAA attainment status. As a result of SCAQMD's uniform CEQA review throughout the South Coast Air Basin (SCAB), and through the use of SCAQMD's CEQA thresholds of significance, which are based on science, and the adoption of numerous regulatory programs regulating non-mobile source emissions, air quality in the SCAB has dramatically improved over the past 30 years. The California Air Resources Board (ARB) most recent *Almanac of Emissions and Air Quality* (2009, Chapter 3) indicates that NOx and ROG emissions trends and forecasts are trending downward, showing an overall improvement in air quality. Continued improvement in air quality is expected to occur through the continued implementation of SCAQMD regulations and uniform CEQA review and through the enforcement of the State's low carbon fuel (Pavley) and low sulfur diesel fuel programs.

SCAQMD's Fiscal Year 2012-2103 Budget & Work Program (herein incorporated by reference and available for review at http://www.aqmd.gov/finn/PDF/finalbudget1213.pdf), page 2, states that although the SCAB has suffered unhealthful air since World War II and is one of the most unhealthful air basins in the United States, the 65-year history of the region's air pollution control efforts is, in many ways, one of the world's key success stories. Peak ozone levels have been cut by almost three-fourths since air monitoring began in the 1950 and population exposure was cut in half during the 1980s alone. (SCAQMD, 2013, page 2) Thus, overall air quality within the Air Basin is dramatically improving as the result of regulatory programs and is expected to continue to improve in the future as regulations become more stringent. As stated in AQMD's Fiscal Year 2012-2013 Budget and Work Program:

"Ozone levels have fallen by about three-quarters since peaks in the mid-1950s. Lead, nitrogen dioxide, sulfur dioxide, and carbon monoxide levels have gone down from non-attainment to full attainment of federal health standards. In November 2008, US EPA revised the lead standard from a 1.5 µg/m3 quarterly average to a 0.15 µg/m3 rolling 3-month average. The current Basin lead network remains below the new standard.... In 2011,

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the Basin exceeded the current federal 8-hour ozone standard on 107 days. 2010 was the cleanest year on record for ozone in the Basin, exceeding the federal standard on 102 days. The standard was exceeded on 113 days in 2009.

In 2007 US EPA formally redesignated the Basin from non-attainment to full attainment of the federal health standard for carbon monoxide. Basin-wide maximum levels of carbon monoxide have been consistently measured at more than 30% below the federal standard since 2004. In 2010, US EPA established a new NO2 1-hour standard at a level of 100 ppb (0.100ppm) and SO2 1-hour standard at a level of 75 ppb (0.075 ppm). In 2011, a few sites in Los Angeles County exceeded the new 1-hour NO2 standard on one day. Based on the 3-year design values, the region continues to remain in attainment of the NO2 and SO2 standards.

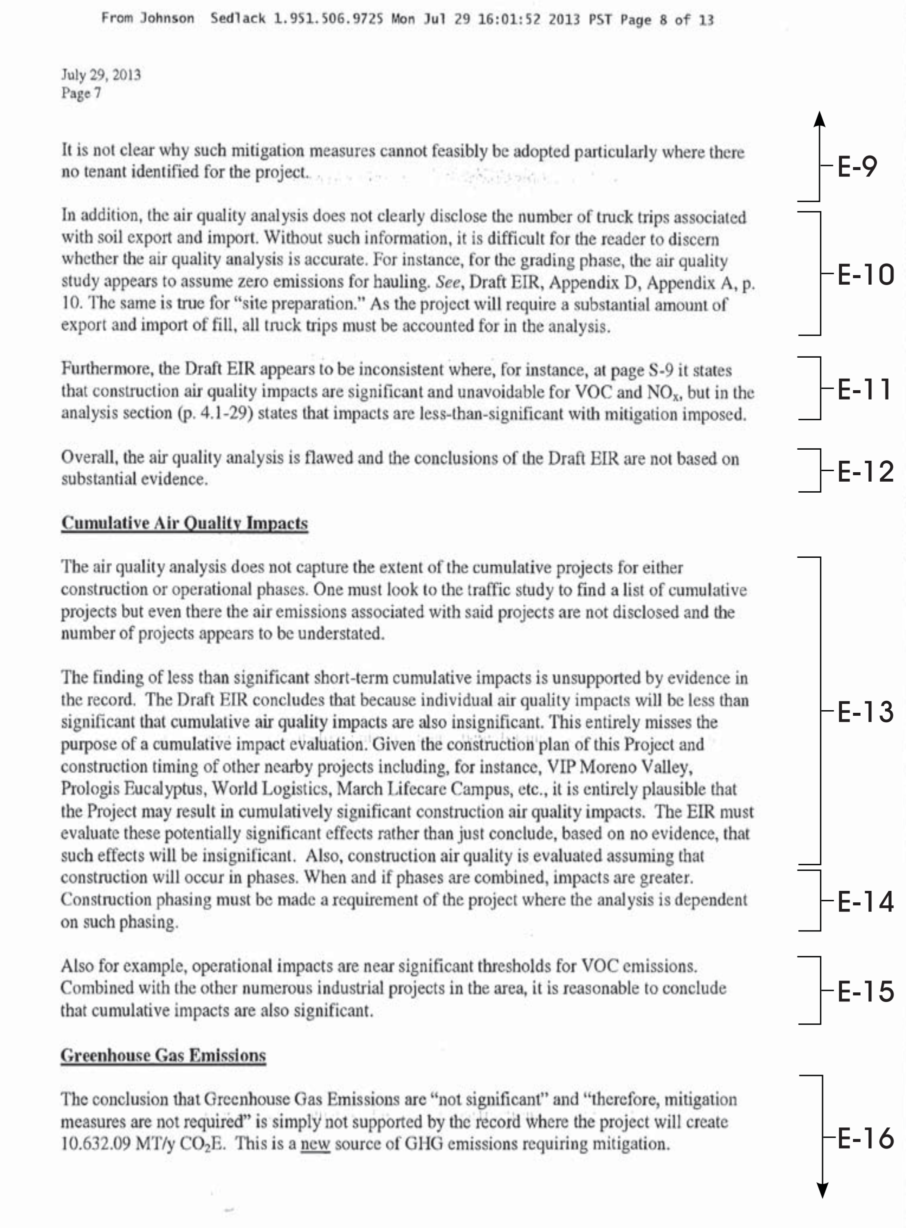
In 2006, US EPA rescinded the annual federal standard for PM10 but retained the 24-hour standard. Ambient levels of PM10 in the Basin meet the federal 24-hour PM10 standard and the AQMD has requested US EPA to redesignate the Basin as in attainment of the health based standard for PM10. PM2.5 levels have decreased dramatically in the Basin since the beginning of the decade; however, regional concentrations continue to exceed the federal annual and 24-hour standards." (SCAQMD, 2013, pages 3-4).

Imposing fleet controls on the Project would not be feasible given the realities of the southern California economy and the nature of local control. High cube logistics and warehousing is one of the largest sectors of the California economy and is subject to fierce competition. A city's decision to unilaterally impose fleet controls on projects within its boundaries would have no real environmental benefit. Companies seeking to rent or buy such warehousing space have a tremendous range of options throughout Southern California (particularly in the Inland Empire) and if a City were to unilaterally impose fleet restrictions on warehouse buildings within its borders, its share of the developable market for warehouse

RESPONSES

uses would evaporate as users and tenants would simply relocate to other cities within the SCAQMD Air Basin (such as Ontario, Perris, Riverside, Corona, Beaumont, etc.). Thus the NOx, ROG and DPM emissions would simply be shifted to another portion of the Air Basin and the Air Basin's overall air quality would not be benefited. Additionally, the overall air quality in the Air Basin could arguably be worsened if the alternative locations resulted in increased vehicle miles traveled and hence more emissions. The same rational holds true for electric yard trucks. Electric yard trucks would still be powered from the electrical grid and thus the emissions would simply be transferred to some other portion of the Air Basin where the electrical generation occurs. Moreover, the Project HRA demonstrated that there are no sensitive receptors that will be significantly impacted by Project operations.

The Commentator requests that the MMRP contain restrictions on emissions and vehicle use and access at the site. The SCAQMD regulates a unified Air Basin. One of the statutory charges of SCAQMD is to ensure uniform CEQA review by lead agencies located within the Air Basin. Uniform CEQA review allows SCAQMD to track progress toward State and federal CAA attainment status. As a result of SCAQMD's uniform CEQA review throughout the South Coast Air Basin (SCAB), and through the use of SCAQMD's CEQA thresholds of significance, which are based on science, and the adoption of numerous regulatory programs regulating non-mobile source emissions, air quality in the SCAB has dramatically improved over the past 30 years. The California Air Resources Board (ARB) most recent *Almanac of Emissions and Air Quality* (2009, Chapter 3) indicates that NOx and ROG emissions trends and forecasts are trending downward, showing an overall improvement in air quality. Continued improvement in air quality is expected to occur through the continued implementation of SCAQMD regulations and uniform CEQA review and through the enforcement of the State's low carbon fuel (Pavley) and low sulfur diesel fuel programs.



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It is not clear why such mitigation measures cannot feasibly be adopted particularly where there no tenant identified for the project. E-9

In addition, the air quality analysis does not clearly disclose the number of truck trips associated with soil export and import. Without such information, it is difficult for the reader to discern whether the air quality analysis is accurate. For instance, for the grading phase, the air quality study appears to assume zero emissions for hauling. *See*, Draft EIR, Appendix D, Appendix A, p. 10. The same is true for "site preparation." As the project will require a substantial amount of export and import of fill, all truck trips must be accounted for in the analysis. E-10

Furthermore, the Draft EIR appears to be inconsistent where, for instance, at page S-9 it states that construction air quality impacts are significant and unavoidable for VOC and NO_X, but in the analysis section (p. 4.1-29) states that impacts are less-than-significant with mitigation imposed. E-11

Overall, the air quality analysis is flawed and the conclusions of the Draft EIR are not based on substantial evidence. E-12

<u>Cumulative Air Quality Impacts</u>

The air quality analysis does not capture the extent of the cumulative projects for either construction or operational phases. One must look to the traffic study to find a list of cumulative projects but even there the air emissions associated with said projects are not disclosed and the number of projects appears to be understated.

The finding of less than significant short-term cumulative impacts is unsupported by evidence in the record. The Draft EIR concludes that because individual air quality impacts will be less than significant that cumulative air quality impacts are also insignificant. This entirely misses the purpose of a cumulative impact evaluation. Given the construction plan of this Project and construction timing of other nearby projects including, for instance, VIP Moreno Valley, Prologis Eucalyptus, World Logistics, March Lifecare Campus, etc., it is entirely plausible that the Project may result in cumulatively significant construction air quality impacts. The EIR must evaluate these potentially significant effects rather than just conclude, based on no evidence, that such effects will be insignificant. E-13 Also, construction air quality is evaluated assuming that construction will occur in phases. When and if phases are combined, impacts are greater. Construction phasing must be made a requirement of the project where the analysis is dependent on such phasing. E-14

Also for example, operational impacts are near significant thresholds for VOC emissions. Combined with the other numerous industrial projects in the area, it is reasonable to conclude that cumulative impacts are also significant. E-15

<u>Greenhouse Gas Emissions</u>

The conclusion that Greenhouse Gas Emissions are "not significant" and "therefore, mitigation measures are not required" is simply not supported by the record where the project will create 10.632.09 MT/y CO_2E. This is a <u>new</u> source of GHG emissions requiring mitigation. E-16

RESPONSES

E-10 - As specified in EIR Section 3.3.5(D), import of between 28,000 and 30,000 cubic yards of earth material is anticipated to implement the proposed Project. Haul trucks carry up to approximately 30 cubic yards per trip (depending on weight to meet Caltrans weight restriction requirements). Thus, approximately 1,000 inbound and outbound construction-related haul trips would be required over the course of approximately 15 days, or approximately 66 trips per day. Although import of earth materials was not specifically studies in the technical air quality analysis, there would be no greater air quality impact associated with hauling than as disclosed in the EIR for the grading and construction operations themselves. To ensure that the levels of construction-related air emissions disclosed in the EIR are not exceeded, Mitigation Measure 4.1-3(o) has been added to the Final EIR as follows "Import of earth materials and on-site grading activities shall not occur on the same day. No more than 66 loads of earth material (about 2,000 cubic yards) shall be brought to the site in any given day."

E-11 - The conclusion drawn in EIR Section 4.1 is accurate. Construction-related NOx and VOC impacts will be less than significant after the incorporation of mitigation measures. The Executive Summary has been corrected accordingly in the Final EIR.

E-12 - Refer to Responses E-5 through E-12, which indicate that the air quality analysis is not flawed and is based on substantial evidence.

E-13 - The significance threshold for cumulative air quality impacts relies on regional and localized significance thresholds published by the South Coast Air Quality Management District (SCAQMD), as indicated in EIR Table 4.1-4. The SCAQMD's CEQA Air Quality Significance Thresholds indicate that any projects in the South Coast Air Basin (SCAB) with daily emissions that exceed any of the indicated thresholds should be considered as having an individually <u>and</u> cumulatively significant air quality impact. Thus, the significance threshold for direct and cumulative impacts is the same, pursuant to SCAQMD protocols and methodologies.

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The extent of cumulative projects and their quantified air emissions is thus irrelevant to the conclusion of whether or not the proposed Project would have a significant impact, and at what level of severity. Also refer to the SCAQMD "White Paper on Potential Control Strategies to Address Cumulative Impacts From Air Pollution" (March 2003), herein incorporated by reference, and available for review at http://www.aqmd.gov/rules/ciwg/final_white_paper.pdf, which addresses the AQMD's comprehensive strategy for addressing accumulated effects of emission sources. In this report the AQMD clearly states (Page D-3):

> *"…the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR….Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."*

The Commenter provides no information about what it believes to appropriately constitute a cumulative impact or cumulatively considerable project impact, if not SCAQMD guidance, which is relied upon by nearly every CEQA lead agency in the South Coast Air Basin. For all of these reasons, detailed quantified dispersion modeling for a list of cumulative projects is not required and would not result in a different impact conclusion for the Project.

Another factor to consider when determining the lack of warrants for a quantified cumulative emissions calculation is the overall impact trend. Air quality is rapidly improving across California due to regulations adopted at the federal, state, and air district levels. As noted in the EIR, the Project's largest source of air emissions would be associated with diesel-fueled vehicles. The California Air Resources Board (ARB) Diesel Risk Reduction Plan (DRRP) (California Air Resources Board,

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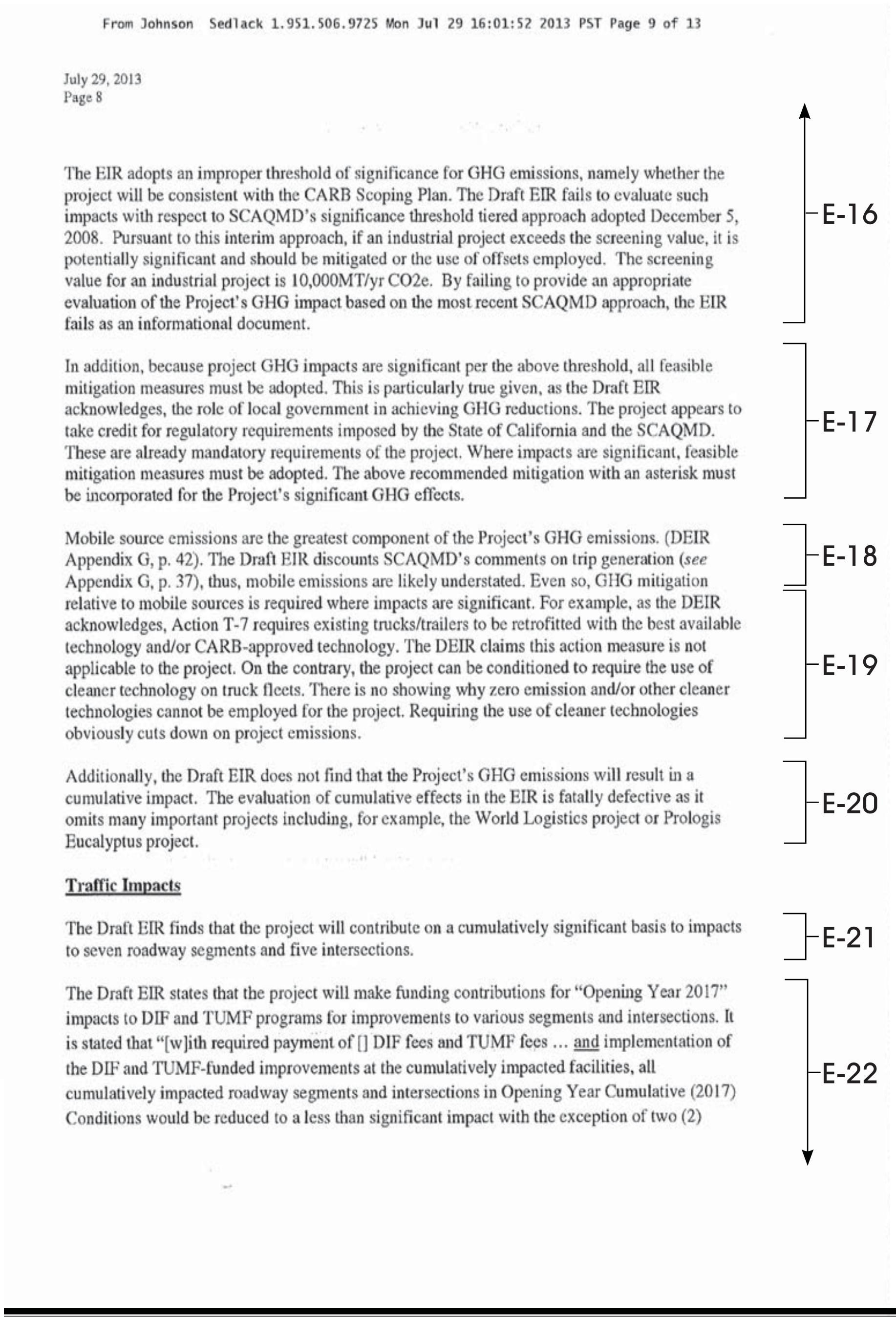
2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles. Stationary Source Division. Mobile Source Control Division.* October 2000) led to the adoption of new state regulatory standards for all new on-road, off-road, and stationary diesel-fueled engines and vehicles to reduce diesel particulate matter (DPM) emissions by about 90 percent overall from year 2000 levels as stated on page 1 of the DRRP. The projected emission benefits associated with the full implementation of this plan (p. 2), including federal measures, are reductions in DPM emissions and associated cancer risks of 75 percent by 2010 and 85 percent by 2020 (ARB 2000). Additionally, and according to the most recent ARB Almanac (2009) and SCAQMD 2012-2013 Budget & Work Program, sources of toxic air contaminates have achieved a downward trajectory over recent decades. Also refer to Response E-13. Therefore, overall improvement in air quality is anticipated to continue to accrue for the foreseeable future as current and more stringent state and federal regulations are implemented, resulting in an improvement in air quality when considered in a cumulative context.

E-14 - Mitigation Measure 4.1-3(e) has been added to the Final EIR, as follows: "During construction activity, the operating time of all pieces of off-road diesel-powered equipment shall not exceed a combined total of 75 operating hours per day." Additionally, refer to Mitigation Measure 4.1-3(a), which requires that mass grading be limited to no more than 4.0 acres per day. These measures will ensure that daily construction activity is limited to no more than assumed and analyzed in the EIR.

E-15 - Refer to Response E-13.

E-16 - As explained in the EIR, California Assembly Bill (AB) 32, the California Climate Solutions Act of 2006, requires that statewide greenhouse gas (GHG) emissions be reduced to 1990 levels by the year 2020. Because AB 32 is the primary plan, policy or regulation adopted in the State of California to reduce GHG emissions, the City appropriately applied compliance with AB32 as the EIR's significance threshold. A



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The EIR adopts an improper threshold of significance for GHG emissions, namely whether the project will be consistent with the CARB Scoping Plan. The Draft EIR fails to evaluate such impacts with respect to SCAQMD's significance threshold tiered approach adopted December 5, 2008. Pursuant to this interim approach, if an industrial project exceeds the screening value, it is potentially significant and should be mitigated or the use of offsets employed. The screening value for an industrial project is 10,000MT/yr CO2e. By failing to provide an appropriate evaluation of the Project's GHG impact based on the most recent SCAQMD approach, the EIR fails as an informational document.

E-16

In addition, because project GHG impacts are significant per the above threshold, all feasible mitigation measures must be adopted. This is particularly true given, as the Draft EIR acknowledges, the role of local government in achieving GHG reductions. The project appears to take credit for regulatory requirements imposed by the State of California and the SCAQMD. These are already mandatory requirements of the project. Where impacts are significant, feasible mitigation measures must be adopted. The above recommended mitigation with an asterisk must be incorporated for the Project's significant GHG effects.

E-17

Mobile source emissions are the greatest component of the Project's GHG emissions. (DEIR Appendix G, p. 42). The Draft EIR discounts SCAQMD's comments on trip generation (*see* Appendix G, p. 37), thus, mobile emissions are likely understated.

E-18

Even so, GHG mitigation relative to mobile sources is required where impacts are significant. For example, as the DEIR acknowledges, Action T-7 requires existing trucks/trailers to be retrofitted with the best available technology and/or CARB-approved technology. The DEIR claims this action measure is not applicable to the project. On the contrary, the project can be conditioned to require the use of cleaner technology on truck fleets. There is no showing why zero emission and/or other cleaner technologies cannot be employed for the project. Requiring the use of cleaner technologies obviously cuts down on project emissions.

E-19

Additionally, the Draft EIR does not find that the Project's GHG emissions will result in a cumulative impact. The evaluation of cumulative effects in the EIR is fatally defective as it omits many important projects including, for example, the World Logistics project or Prologis Eucalyptus project.

E-20

Traffic Impacts

The Draft EIR finds that the project will contribute on a cumulatively significant basis to impacts to seven roadway segments and five intersections.

E-21

The Draft EIR states that the project will make funding contributions for "Opening Year 2017" impacts to DIF and TUMF programs for improvements to various segments and intersections. It is stated that "[w]ith required payment of [] DIF fees and TUMF fees … and implementation of the DIF and TUMF-funded improvements at the cumulatively impacted facilities, all cumulatively impacted roadway segments and intersections in Opening Year Cumulative (2017) Conditions would be reduced to a less than significant impact with the exception of two (2)

E-22

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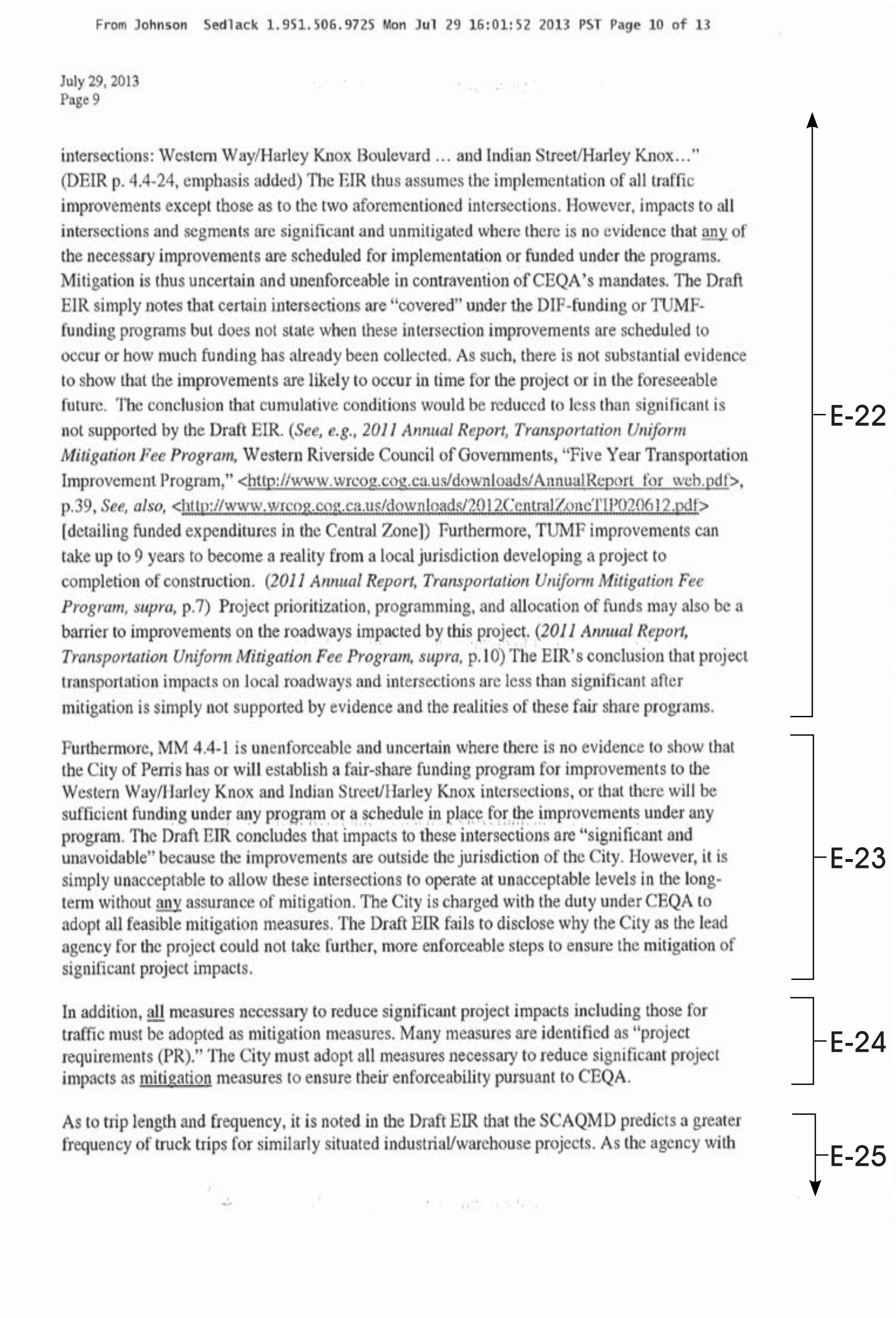
numerical threshold for determining the significance of greenhouse gas emissions in the South Coast Air Basin has not been established by the SCAQMD for projects where it is not the lead agency. Further, the screening threshold of 10,000 MT/year CO2e used by the SCAQMD for its own lead agency industrial projects applies to stationary sources of air pollution, such as smokestacks, whereas the proposed Project's primary source of air emissions is not a stationary source, but rather mobile source emissions associated with vehicles traveling to and from the property. The EIR quantifies and discloses the Project's annual greenhouse gas emissions even though a numerical significance threshold was not applied; as such, the EIR clearly does not fail as an informational document.

E-17 - As concluded in the EIR, the proposed Project would result in a less than significant GHG emissions impact because the Project complies with AB32. Refer to Response E-16 for more information regarding the use of AB32 as a credible basis for determining significance. Mitigation measures are not required for impacts that are less than significant. Nonetheless, the EIR sets forth Mitigation Measure MM 4.2-1 and 4.2-2 to reduce reliance on fossil fuel usage. Additionally, refer to Responses E-7.1 through E-7.55.

E-18 - The City respectfully disagrees with Commenter's and SCAQMD assertion that the EIR underestimates the Project's trip generation. The EIR assumes a maximum of 576 vehicle trips per day, including 265 passenger cars and 311 trucks. With only 54 loading bays proposed, this would mean that every bay would need to turn over at least 5 or 6 times a day to accommodate 311 trucks, which is highly unlikely (Cochran, 2013). The trip rates used in the EIR analysis are rates recommended by the Institute of Traffic Engineers (ITE), which are based on national scientific study. Additionally, the Commercial Real Estate Development Association (formerly known by the acronym NAIOP), commissioned a study of high-cube warehouses over 500,000 s.f. in size in the Inland Empire in 2011 using data collected in 2008. The NAIOP study covered 31 warehouse sites and was overseen by a Technical Advisory Group



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intersections: Western Way/Harley Knox Boulevard … and Indian Street/Harley Knox…" (DEIR p. 4.4-24, emphasis added) The EIR thus assumes the implementation of all traffic improvements except those as to the two aforementioned intersections. However, impacts to all intersections and segments are significant and unmitigated where there is no evidence that any of the necessary improvements are scheduled for implementation or funded under the programs. Mitigation is thus uncertain and unenforceable in contravention of CEQA's mandates. The Draft EIR simply notes that certain intersections are "covered" under the DIF-funding or TUMF-funding programs but does not state when these intersection improvements are scheduled to occur or how much funding has already been collected. As such, there is not substantial evidence to show that the improvements are likely to occur in time for the project or in the foreseeable future. The conclusion that cumulative conditions would be reduced to less than significant is not supported by the Draft EIR. (*See, e.g., 2011 Annual Report, Transportation Uniform Mitigation Fee Program,* Western Riverside Council of Governments, "Five Year Transportation Improvement Program," <http://www.wrcog.cog.ca.us/downloads/AnnualReport_for_web.pdf>, p.39, *See, also,* <http://www.wrcog.cog.ca.us/downloads/2012CentralZoneTIP020612.pdf> [detailing funded expenditures in the Central Zone]) Furthermore, TUMF improvements can take up to 9 years to become a reality from a local jurisdiction developing a project to completion of construction. (*2011 Annual Report, Transportation Uniform Mitigation Fee Program, supra,* p.7) Project prioritization, programming, and allocation of funds may also be a barrier to improvements on the roadways impacted by this project. (*2011 Annual Report, Transportation Uniform Mitigation Fee Program, supra,* p.10) The EIR's conclusion that project transportation impacts on local roadways and intersections are less than significant after mitigation is simply not supported by evidence and the realities of these fair share programs. E-22

Furthermore, MM 4.4-1 is unenforceable and uncertain where there is no evidence to show that the City of Perris has or will establish a fair-share funding program for improvements to the Western Way/Harley Knox and Indian Street/Harley Knox intersections, or that there will be sufficient funding under any program or a schedule in place for the improvements under any program. The Draft EIR concludes that impacts to these intersections are "significant and unavoidable" because the improvements are outside the jurisdiction of the City. However, it is simply unacceptable to allow these intersections to operate at unacceptable levels in the long-term without any assurance of mitigation. The City is charged with the duty under CEQA to adopt all feasible mitigation measures. The Draft EIR fails to disclose why the City as the lead agency for the project could not take further, more enforceable steps to ensure the mitigation of significant project impacts. E-23

In addition, all measures necessary to reduce significant project impacts including those for traffic must be adopted as mitigation measures. Many measures are identified as "project requirements (PR)." The City must adopt all measures necessary to reduce significant project impacts as mitigation measures to ensure their enforceability pursuant to CEQA. E-24

As to trip length and frequency, it is noted in the Draft EIR that the SCAQMD predicts a greater frequency of truck trips for similarly situated industrial/warehouse projects. As the agency with E-25

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with representatives of the City of Moreno Valley, WRCOG, RCTC, San Bernardino County Associated Governments (SANBAG) and UC Riverside. That study revealed that no single trip generation rate is uniformly applicable to all warehouse projects, but that on average, trips generated by large warehouses in the Inland Empire are 0.9904 trips per thousand square feet (TSF), which is less than the rate recommended by the ITE and used in the Project's traffic report. Additionally, as stated in EIR Section 4.1, Air Quality, and Section 4.2, Greenhouse Gas Emissions, air emissions calculated for the Project and disclosed in the EIR are likely overstated because no credit for, or reduction in, emissions was assumed based on diversion of existing trips. A one-way trip length of 17 miles was assumed for passenger cars and a one-way trip length of 61 miles was used for trucks, which is longer than recommended by AQMD in its CalEEMod model calculations.

E-19 - The EIR correctly concludes that GHG emissions are less than significant. Mitigation measures are not required for impacts that are less than significant. Also refer to Response E-8.3, E-13 and E-16.

E-20 - Refer to Response E-13.

E-21 - This statement is accurate.

E-22 - The Western Riverside Council of Government's (WRCOG's) TUMF program was established to provide funding for infrastructure improvements warranted by development projects in the region that contribute vehicular traffic to the circulation network. As stated in the TUMF Nexus Study (2012, page 10), "the idea behind a uniform mitigation fee is to have new development throughout the region contribute equally to paying the cost of improving the transportation facilities that serve longer distance trips between communities. Thus, the fee should be used to improve transportation facilities that serve trips between communities within the region (primarily arterial roadways) as well as the infrastructure for public transportation." Using the 2013/14

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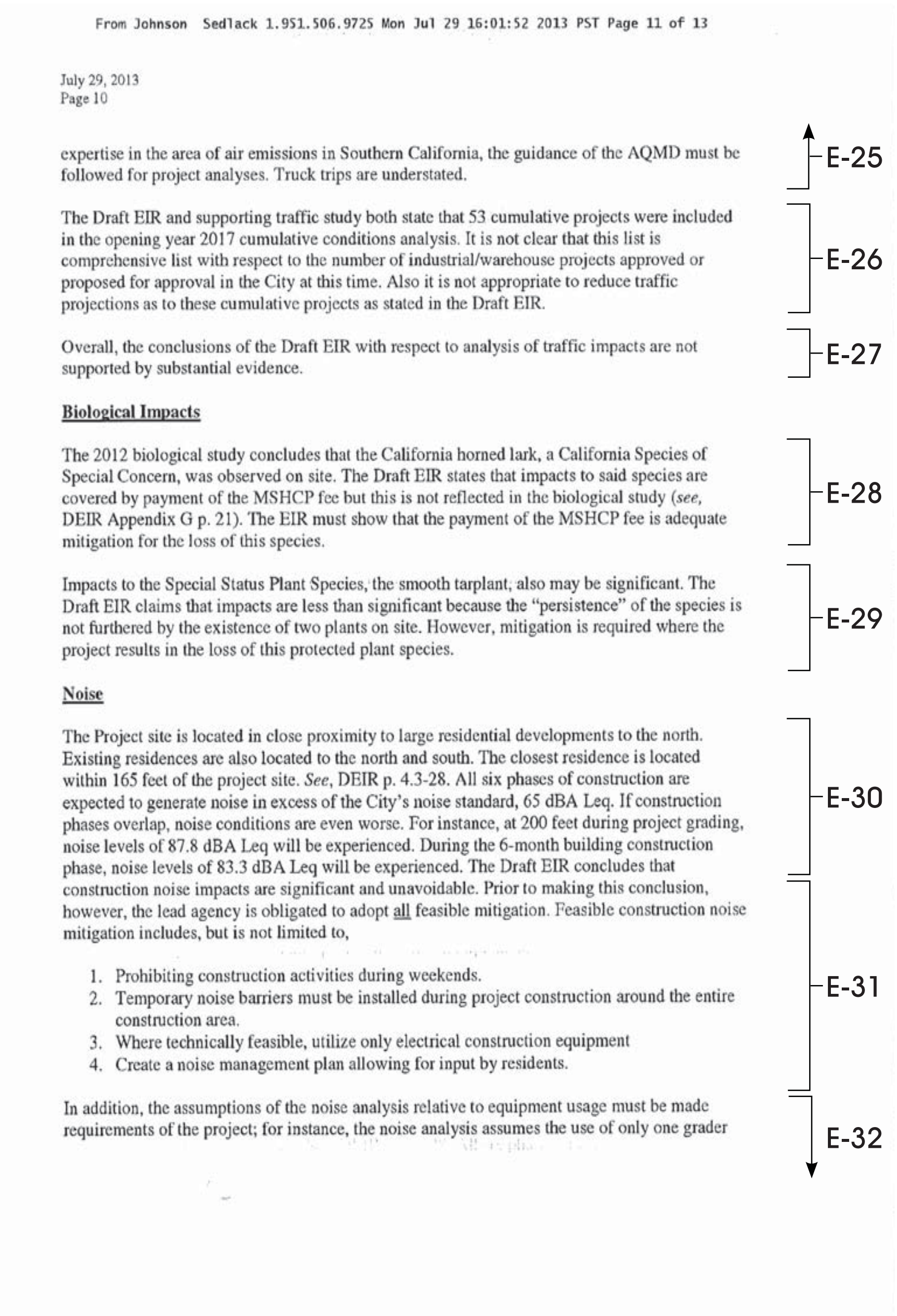
fee schedules, the proposed Project would be obligated to pay $429,094 in TUMF fees. An annual inflation adjustment is considered by WRCOG each year in January. Similarly, the City of Moreno Valley's DIF program collects and applies funding for local roadway improvements, to which the proposed Project is required to contribute $398,333 using 2013 fee rates. In total, the Project's TUMF and DIF fee obligations using current rates would be $827,427.

CEQA allows for the assessment of a fee as an appropriate form of mitigation when it is linked to a specific mitigation program. In this case, the TUMF and DIF are established mitigation programs and WRCOG and the City of Moreno Valley have successful track records of implementing transportation improvements as warranted. The EIR and EIR Appendix F acknowledge that the Project would contribute to cumulatively significant traffic impacts that would not be directly caused by the Project's traffic alone. As such, it is inappropriate to tie the improvement timing for those to the proposed Project. As noted in Table 4-3 of EIR Appendix F, the Opening Year Cumulative (2017) analysis considers the implementation of 52 other cumulative development projects in the vicinity of the Project site. Each of these cumulative developments would also be required to contribute TUMF fees to address improvements needed to regional facilities. Other projects in the City of Moreno Valley would also be required to pay DIF fees. The timing of improvement needs will be determined in part by the pace at which cumulative development projects are implemented and TUMF and DIF funds are collected. WRCOG and the City of Moreno Valley conducts on-going monitoring of the circulation system and plans for the expenditure of TUMF and DIF funds as deficiencies in the regional and local transportation network are identified or anticipated. The payment of these fees as mitigation has a nexus and rough proportionality to the Project's impacts. CEQA does not require that single projects bear the expense of fully mitigating a significant cumulative impact.

E-23 - The EIR acknowledges that Mitigation Measure 4.4-1 might not be



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expertise in the area of air emissions in Southern California, the guidance of the AQMD must be followed for project analyses. Truck trips are understated. E-25

The Draft EIR and supporting traffic study both state that 53 cumulative projects were included in the opening year 2017 cumulative conditions analysis. It is not clear that this list is comprehensive list with respect to the number of industrial/warehouse projects approved or proposed for approval in the City at this time. Also it is not appropriate to reduce traffic projections as to these cumulative projects as stated in the Draft EIR. E-26

Overall, the conclusions of the Draft EIR with respect to analysis of traffic impacts are not supported by substantial evidence. E-27

Biological Impacts

The 2012 biological study concludes that the California horned lark, a California Species of Special Concern, was observed on site. The Draft EIR states that impacts to said species are covered by payment of the MSHCP fee but this is not reflected in the biological study (*see*, DEIR Appendix G p. 21). The EIR must show that the payment of the MSHCP fee is adequate mitigation for the loss of this species. E-28

Impacts to the Special Status Plant Species, the smooth tarplant, also may be significant. The Draft EIR claims that impacts are less than significant because the "persistence" of the species is not furthered by the existence of two plants on site. However, mitigation is required where the project results in the loss of this protected plant species. E-29

Noise

The Project site is located in close proximity to large residential developments to the north. Existing residences are also located to the north and south. The closest residence is located within 165 feet of the project site. *See*, DEIR p. 4.3-28. All six phases of construction are expected to generate noise in excess of the City's noise standard, 65 dBA Leq. If construction phases overlap, noise conditions are even worse. For instance, at 200 feet during project grading, noise levels of 87.8 dBA Leq will be experienced. During the 6-month building construction phase, noise levels of 83.3 dBA Leq will be experienced. The Draft EIR concludes that construction noise impacts are significant and unavoidable. E-30 Prior to making this conclusion, however, the lead agency is obligated to adopt all feasible mitigation. Feasible construction noise mitigation includes, but is not limited to,

1. Prohibiting construction activities during weekends.
2. Temporary noise barriers must be installed during project construction around the entire construction area.
3. Where technically feasible, utilize only electrical construction equipment
4. Create a noise management plan allowing for input by residents.

E-31

In addition, the assumptions of the noise analysis relative to equipment usage must be made requirements of the project; for instance, the noise analysis assumes the use of only one grader E-32

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effective; thus, the EIR correctly concludes that the Project's significant cumulative impact to these two intersections in the City of Perris would be significant and unavoidable. CEQA does not preclude a CEQA lead agency from adopting mitigation measures that might not be effective so long as the uncertainty is acknowledged and a statement of overriding considerations is adopted, which is the case in this circumstance. As an informational document, the EIR provides full disclosure for informed decision-making. It is not the purpose of CEQA or obligation of the City of Moreno Valley or this Project to assure full mitigation of an impact where the responsibility of implementing the measure is under the authority of another government jurisdiction.

E-24 - The EIR distinguishes between mitigation measures that the City is applying to address the Project's environmental impacts (Mitigation Measures, labeled "MM" in the EIR) and other mandatory measures that the Project is obligated to comply with pursuant to federal, state, and local laws and requirements (Project Requirements, labeled "PR" in the EIR). The City does not have the discretion over federal and state laws and requirements and is not exercising its discretion to make any revisions or modifications to local laws regarding the proposed Project. The EIR's characterization of Mitigation Measures and Project Requirements is appropriate. The Project Requirements specified in EIR Section 4.4, Transportation/Traffic, are proposed Project design features over which the City has discretion, so they have been changed to Mitigation Measures in the Final EIR.

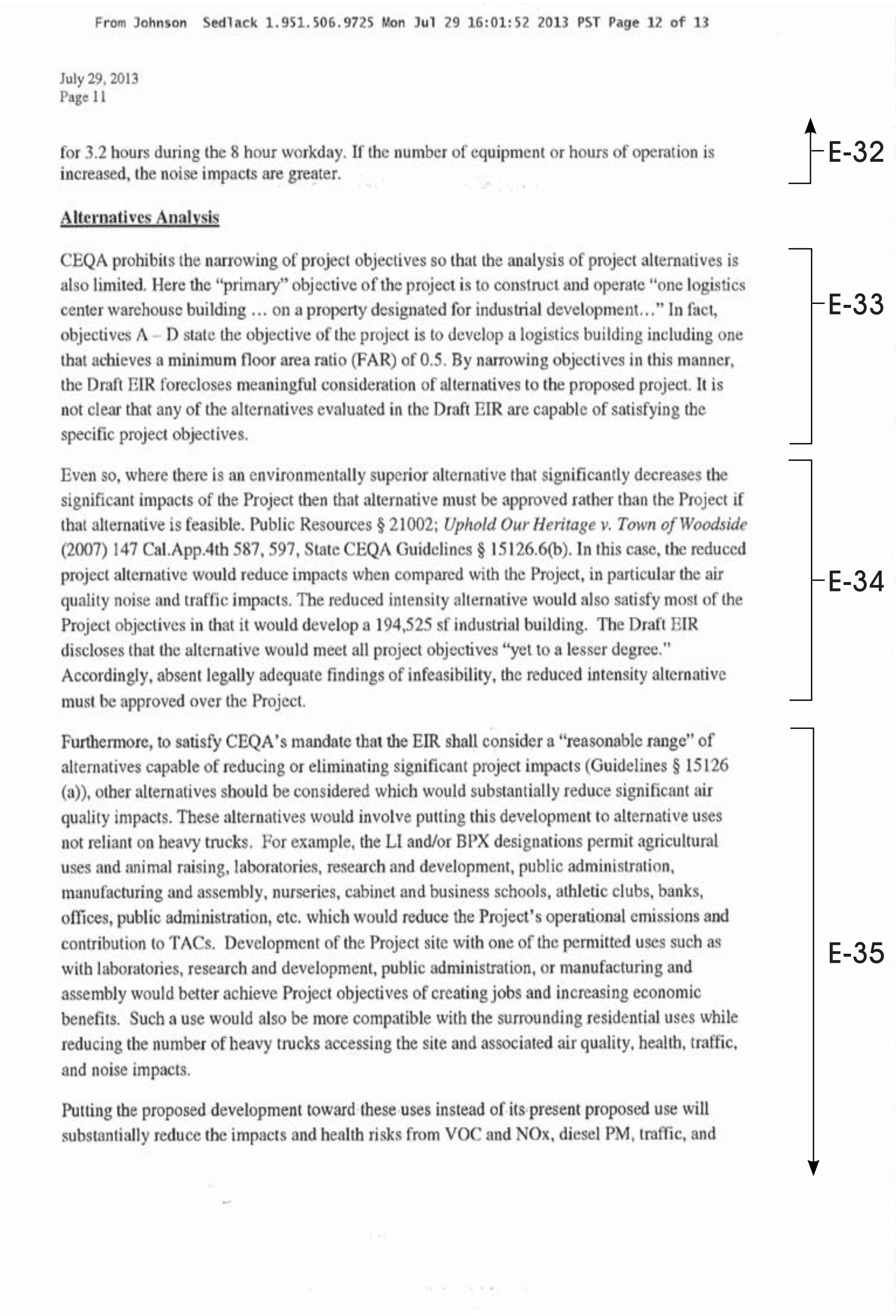
E-25 - Refer to Response E-18.

E-26 - The list of cumulative projects was compiled based on lists of past, present, and probable future projects on file with the City of Moreno Valley, City of Riverside, City of Perris, and County of Riverside at the time the EIR's NOP was released for public review (December 2, 2012). Additionally, the geographic area of study was determined based on a reasonable distance at which the traffic of other projects would mix with traffic from the proposed Project in the Project's traffic study area. Traffic from other projects beyond this distance is captured in the analysis by the application of a 2% annually compounded growth rate over five (5) years. The Commenter does not suggest any additional projects that should have been considered in the cumulative analysis. The Commenter also does not provide any evidence to demonstrate adding additional projects, if any would be appropriate to add, would result in new impacts or more severe impacts than disclosed in the EIR.

E-27 - Refer to Responses E-22 though E-26. Substantial evidence is provided to support the traffic analysis contained in the EIR.

E-28 - As noted in Table 3 of the Biological Technical Report (EIR Appendix G, Page 15), the California horned lark is a covered species under the MSHCP. Confirmation of the coverage status for this species is provided in the California Horned Lark section of Volume 2, Section B of the MSHCP Reference Document, which states: "conservation for this species will be achieved by the inclusion of at least 153,750 acres of suitable Conserved Habitat and the Core Areas within the Prado Basin, Wasson Canyon, and Mystic Lake/San Jacinto Wildlife Area, as well as a portion of the Core Area within the Murrieta/Murrieta Hot Springs area (Proposed Core 2)."

Pursuant to Moreno Valley Municipal Code Chapter 3.48 (Western Riverside County Multiple Species Habitat Conservation Plan Fee Program), the Project applicant would be required to contribute appropriate MSHCP fees to assist in the establishment of the MSHCP Reserve System, of which the Project site is not a part. Payment of this fee is considered full mitigation for the Project's impacts to covered species within the MSHCP for projects (such as the proposed Project) that are not identified as part of the Reserve System established by the MSHCP.



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E-32

for 3.2 hours during the 8 hour workday. If the number of equipment or hours of operation is increased, the noise impacts are greater.

Alternatives Analysis

E-33

CEQA prohibits the narrowing of project objectives so that the analysis of project alternatives is also limited. Here the "primary" objective of the project is to construct and operate "one logistics center warehouse building … on a property designated for industrial development…" In fact, objectives A – D state the objective of the project is to develop a logistics building including one that achieves a minimum floor area ratio (FAR) of 0.5. By narrowing objectives in this manner, the Draft EIR forecloses meaningful consideration of alternatives to the proposed project. It is not clear that any of the alternatives evaluated in the Draft EIR are capable of satisfying the specific project objectives.

E-34

Even so, where there is an environmentally superior alternative that significantly decreases the significant impacts of the Project then that alternative must be approved rather than the Project if that alternative is feasible. Public Resources § 21002; *Uphold Our Heritage v. Town of Woodside* (2007) 147 Cal.App.4th 587, 597, State CEQA Guidelines § 15126.6(b). In this case, the reduced project alternative would reduce impacts when compared with the Project, in particular the air quality noise and traffic impacts. The reduced intensity alternative would also satisfy most of the Project objectives in that it would develop a 194,525 sf industrial building. The Draft EIR discloses that the alternative would meet all project objectives "yet to a lesser degree." Accordingly, absent legally adequate findings of infeasibility, the reduced intensity alternative must be approved over the Project.

E-35

Furthermore, to satisfy CEQA's mandate that the EIR shall consider a "reasonable range" of alternatives capable of reducing or eliminating significant project impacts (Guidelines § 15126 (a)), other alternatives should be considered which would substantially reduce significant air quality impacts. These alternatives would involve putting this development to alternative uses not reliant on heavy trucks. For example, the LI and/or BPX designations permit agricultural uses and animal raising, laboratories, research and development, public administration, manufacturing and assembly, nurseries, cabinet and business schools, athletic clubs, banks, offices, public administration, etc. which would reduce the Project's operational emissions and contribution to TACs. Development of the Project site with one of the permitted uses such as with laboratories, research and development, public administration, or manufacturing and assembly would better achieve Project objectives of creating jobs and increasing economic benefits. Such a use would also be more compatible with the surrounding residential uses while reducing the number of heavy trucks accessing the site and associated air quality, health, traffic, and noise impacts.

Putting the proposed development toward these uses instead of its present proposed use will substantially reduce the impacts and health risks from VOC and NOx, diesel PM, traffic, and

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As noted by Section 6.8.1 of the Western Riverside County MSHCP:

> "In accordance with the Habitat Conservation Plan ("No Surprises") Assurances Rule (63 Federal Register 8859, as codified in 50 C F.R. Sections 17.3, 17.22[b] and 17.32[b]), it is acknowledged that the purpose of the Western Riverside County MSHCP is to provide for the Conservation of Covered Species and the mitigation, minimization and compensatory measures required in connection with incidental taking of the Covered Species in the course of otherwise lawful and permitted activities within the MSHCP Plan Area. Accordingly, as described below and except as otherwise required by law and/or provided under the terms of the MSHCP Plan and except for Unforeseen Circumstances, in particular as these requirements are addressed in Section 6.8.2 of this document, no further mitigation or compensation shall be required by the Service to address impacts of Covered Activities undertaken by the Permittees, Third Parties Granted Take Authorization and Participating Special Entities, pursuant to the Federal Endangered Species Act. Pursuant to 50 Code of Federal Regulations, sections 17.22(b)(5) and 17.32(b)(5), the Service shall not require from the Permittees, Third Parties Granted Take Authorization, Participating Special Entities, or other individuals or entities receiving Take Authorization under the Permits the commitment of additional land or financial compensation or additional restrictions on the use of land or other natural resources with regard to Covered Activities and their impact on Covered Species beyond that provided pursuant to the Western Riverside County MSHCP, provided that the Permittees are properly implementing the Plan, the IA and the Permits. In the event that the USFWS makes a finding of Unforeseen Circumstances and such Unforeseen Circumstances warrant the requirement of additional mitigation, enhancement or compensation measures, any such additional measures shall be restricted to modification of the management of the MSHCP Conservation Area, and shall be the least burdensome measures available to address the Unforeseen Circumstances."

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To date, the Service has not made a finding of Unforeseen Circumstances requiring additional mitigation for the California horned lark. Therefore, and in accordance with the No Surprises rule of the MSHCP, the Project's payment of MSHCP fees, as required by Municipal Code Chapter 3.48, is considered full and complete mitigation for the Project's impacts to this species. Therefore, the City finds that the Project Applicant's mandatory payment of MSHCP fees represents adequate mitigation for the loss of this species.

E-29 - MSHCP Section 6.3.2 (Additional Survey Needs and Procedures) provides specific survey and conservation requirements associated with special status plant species, including the smooth tarplant. As noted in MSHCP Section 6.3.2, for sites where special status plant species have been identified, "…90% of those portions of the property that provide for long-term conservation value for the identified species shall be avoided until it is demonstrated that conservation goals for the particular species are met."

In the case of the proposed Project, the Project's biologist (URS Corporation) conducted a site-specific survey of the site for the smooth tarplant, the results of which are contained in EIR Appendix G2. As noted in Appendix G2 (refer to the "Results" section), "Due to surrounding land use on the Project site and vicinity, it is unlikely that this species would establish a larger population and impacts to these two plants is not likely to have a significant impact on the persistence of the species." A similar discussion also is provided under the discussion "Plant Species" under the analysis of Threshold 1 in EIR Section 4.5.3. Based on the professional opinion of the Project's biologist, the Project site would not provide for long-term conservation value for the smooth tarplant, and therefore does not require site-specific mitigation pursuant to MSHCP Section 6.3.2.

Please refer also to the discussion provided under Response E-28 for a discussion of why additional mitigation is not required for species, such as the smooth tarplant, that are covered by the MSHCP and for which no

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finding of Unforeseen Circumstances has been made by the Service.

Therefore, the EIR correctly concludes that Project impacts to the smooth tarplant represent less-than-significant impacts that do not require mitigation, and no revision to the EIR is warranted pursuant to this comment.

E-30 - Commenter correctly describes the information provided in EIR Section 4.3.

E-31 - Regarding the construction noise analysis, the significance criteria used in the EIR is based on the City's noise ordinance for operational activities, as the City does not have any noise limits at all for construction activities. As a very conservative approach, the EIR applied the operational noise standard (60dBA at 200 feet) to the construction process. As disclosed in the EIR, there are a few non-conforming residential structures located near the property, with the closest concentration of residential homes being located north of the Perris Valley Channel, approximately 1,500 feet north of Project site's northeastern corner. As shown on EIR Tables 4.3-5 through 4.3-10, noise levels exceeding 65 dBA (assuming a clear line of sight and all assumed equipment operating simultaneously) could occur to this residential area during site preparation and grading activities (approximately 3 weeks in duration) and to a lesser extent during building construction (6 months in duration).

Mitigation restricting construction activities to weekdays would not serve to reduce the Project's construction noise impacts. The total number of days required to implement the Project would be the same regardless of whether the Project construction activities occur seven days a week or are restricted to weekdays only. Thus, a mitigation measure prohibiting construction activities during weekends only would serve to increase the total duration of each construction phase, without reducing the number of days that nearby sensitive receptors would be exposed to construction noise levels exceeding the City's standard. Furthermore, mitigation

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already is imposed on the Project (refer to Mitigation Measure MM 4.3-1) that restricts construction hours to between 7:00 a.m. and 8:00 p.m. so as to minimize potential impacts to nearby sensitive receptors. Accordingly, no revision has been made to the EIR to restrict construction activities only to weekdays, as such a mitigation requirement would not be effective in reducing construction-related noise levels.

Regarding Commenter's suggestion to install a temporary noise barrier, a noise barrier can reduce sound levels by as much as 15dBA, but the use of barriers have limitations. For a noise barrier to work, it must be high enough and long enough with no openings, to block the view of the noise source. Therefore, to be effective in mitigating construction-related noise, any temporary barrier at the Project site would need to be at least 30 feet tall along San Michelle Road and stable enough to withstand wind forces and other potential hazards that may cause it to collapse into the San Michelle right-of-way. Furthermore, construction noise associated with installation of the barrier would likely occur longer than the three (3) weeks that site preparation and grading is anticipated to occur in the first place, thereby not eliminating the impact. Regardless, to reduce, but not eliminate, the Project's significant and unavoidable construction noise impact, Mitigation Measure MM 4.3-2 has been added to the EIR, as follows "As a condition of the Project's building permit, the perimeter wall planned along San Michelle Road and at the corner of San Michelle Road and Perris Boulevard shall be installed early in the construction process." It is acknowledged that this wall will have openings for driveway access, but nonetheless would partially mitigate the temporary construction-related noise impact to residents positioned north of the property.

Mitigation Measure 4.1-3(k) has been added to the Final EIR as follows "Electric-powered construction equipment and tools shall be used when technically feasible." As indicated in EIR Tables 4.3-5 through 4.3-10, all of the construction equipment cannot be feasibly powered by electricity. For example, during grading (when construction noise levels would be

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highest), the primary noise generating sources would be water trucks, scrapers, graders, rubber tired dozers, excavators, and tractors/loaders/backhoes (as presented in EIR Table 4.3-7). These types of construction equipment are not commercially available in electric-powered models.

It is unclear from this comment how a noise management plan that would require review and input by the public would serve to reduce the Project's construction-related noise levels. Mitigation has been imposed on the Project (refer to EIR Mitigation Measures 4.3-1 and 4.3-2) that restricts construction hours; requires properly maintained mufflers on construction equipment; requires stationary construction equipment and staging areas to be located as close as possible to the center of the western property line (which is the portion of the site furthest away from nearby noise-sensitive uses); requires adherence to the City-approved haul routes; and requires the construction of the wall along San Michelle Road and at the corner of San Michelle Road and Perris Boulevard early in the construction process. Aside from the specific mitigation recommendations that are addressed in the paragraphs above, this comment does not identify any additional construction noise-attenuation measures that would need to be included in a noise management plan and that would serve to reduce the Project's near-term construction impacts. Accordingly, no revision has been made to the EIR to require a construction noise management plan.

E-32 - The construction noise levels shown in EIR Tables 4.3-5 through 4.3-10 were calculated using the Federal Highway Administration (FHWA) Construction Noise Model (January 2006). The usage factor identified in these tables is based on a reasonable estimate of the duration of peak noise levels (Lmax) from each piece of construction equipment. The FHWA's estimate of equipment usage factors are based on extensive measurements resulting from the FHWA's observation of actual construction activities (refer to Section 9.4.1 of the FHWA Construction Noise Model, which describes the methodology for determining the usage factors identified in the model). The usage factor is a necessary component of the Construction Noise Model because it accounts for the

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fact that each individual piece of construction equipment does not operate at a constant noise level; rather, noise levels for individual pieces of equipment vary depending on the intensity of the activity. For example, a grader that is idling will produce substantially less noise than a grader that is operating at maximum capacity while moving earth materials. A usage factor must be identified in order to avoid overstating the intensity of noise levels from construction equipment. The City finds that the usage factor identified by the FHWA Construction Noise Model represents a reasonable estimate of the noise levels that could be anticipated during construction activities.

Furthermore, the usage factor identified by the FHWA Construction Noise Model does not assume that each piece of equipment operates only during limited hours of the day. On the contrary, the usage factor estimates the fraction of time each piece of equipment is operating at full power during a construction operation, as noted in Footnote 2 to EIR Tables 4.3-5 through 4.3-10. For example, the Construction Noise Model assumes that although the grader may be used throughout the 8-hour work day, the grader would only produce peak noise levels approximately 40% of the time (or 3.2 hours during an 8-hour work day). Thus, it would not be feasible for the City to impose a mitigation measure requiring that construction equipment adhere to the usage factors identified in EIR Tables 4.3-5 through 4.3-10, as such a requirement would be arbitrary and unenforceable, as well as unnecessary given the extensive research conducted by the FHWA in developing the usage factor rates for each individual piece of equipment. To address construction-related air emission effects, which also would in part also address noise sources, Mitigation Measure 4.1-3(e) has been added to the Final EIR, as follows: "During construction activity, the operating time of all pieces of off-road diesel-powered equipment shall not exceed a combined total of 75 operating hours per day." Additionally, Mitigation Measure 4.1-3(a) requires that mass grading be limited to no more than 4.0 acres per day, which also in part would address noise sources.

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E-33 - The City finds that the Commenter's assertion that the Project objectives have been narrowed so as to limit the analysis of alternatives is incorrect. As stated in CEQA Guidelines § 15126.6(b), "…the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, *even if these alternatives would impede to some degree the attainment of the project objectives*, or would be more costly" (emphasis added). CEQA Guidelines Section 15126.6(c) further clarifies that one of the factors that may be relied upon in eliminating an alternative from detailed consideration in an EIR is its "failure to meet most of the basic objectives." Thus, CEQA allows for the rejection of alternatives that would fail to meet most of the basic objectives of a project, but does not allow for rejecting alternatives merely on the basis that the alternative would not meet one or more of the project's individual objectives.

As stated in EIR Section 3.2, the primary objective of the proposed Project "…is to construct and operate a logistics center warehouse building in the City of Moreno Valley on a property designated for industrial development by the Moreno Valley Industrial Area Plan (Specific Plan 208)." As stated in EIR Section 6.2 (Alternatives Considered and Rejected), alternatives that were rejected from detailed consideration in the EIR due to a conflict with the Project's objectives were not rejected simply because they did not meet one or more of the Project's objectives; rather, such alternatives were rejected only if "…they could not accomplish the basic objectives of the Project…" (Final EIR at Page 6-3). Since the Project's primary objective is to construct and operate a logistics center warehouse building, only those alternatives that did not involve the construction and operation of a logistics center warehouse building were rejected from detailed consideration due to a conflict with the Project's primary and basic objective. Other alternatives that would provide for a logistics center warehouse building were considered, even if they would impede to some degree the attainment of the various objectives listed in EIR Section 3.2. For example, Alternative 4 (Reduced Project/North Building Alternative) would not achieve the Project's objectives to achieve a minimum FAR of

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0.5, and would be less effective in providing logistics center warehouse building space in comparison to the proposed Project; nonetheless, because Alternative 4 would provide for a logistics center warehouse building, it was not rejected from detailed consideration in the EIR because it would, to some degree, achieve the Project's basic and primary objective.

Therefore, the City finds that the range of Project alternatives studied in EIR Section 6.0 represents a reasonable range that is in full compliance with CEQA requirements, and further finds that the Project objectives listed in EIR Section 3.2 did not narrow the meaningful consideration of alternatives in the EIR.

E-34 - Neither CEQA nor the CEQA Guidelines provide any definition of the "environmentally superior alternative," nor do they identify any prescribed methodology for determining which alternative is "environmentally superior." Thus, it is left to the City as the Lead Agency to determine the best way to comply with the requirement in CEQA Guidelines Section 15126.6(e)(2) that the EIR identify an environmentally superior alternative, and to determine whether such alternative would "significantly decrease the significant impacts of the Project."

In the case of the Reduced Project/North Building Alternative (Alternative 4), and as cited under the "Conclusion" subheading in EIR Section 6.3.4, "…selection of the Reduced Project/North Building Alternative would not result in a reduction in demand for industrial business park development in western Riverside County; thus, it is likely for a portion of the Project's environmental impacts to occur elsewhere rather than be avoided." This is because the demand for warehouse space is driven by market conditions, and the reduction in warehouse space on-site would result in an increased demand for warehouse space in other locations within the City or nearby jurisdictions as needed to meet the regional demand for industrial warehouse space. Thus, although Alternative 4 may reduce the

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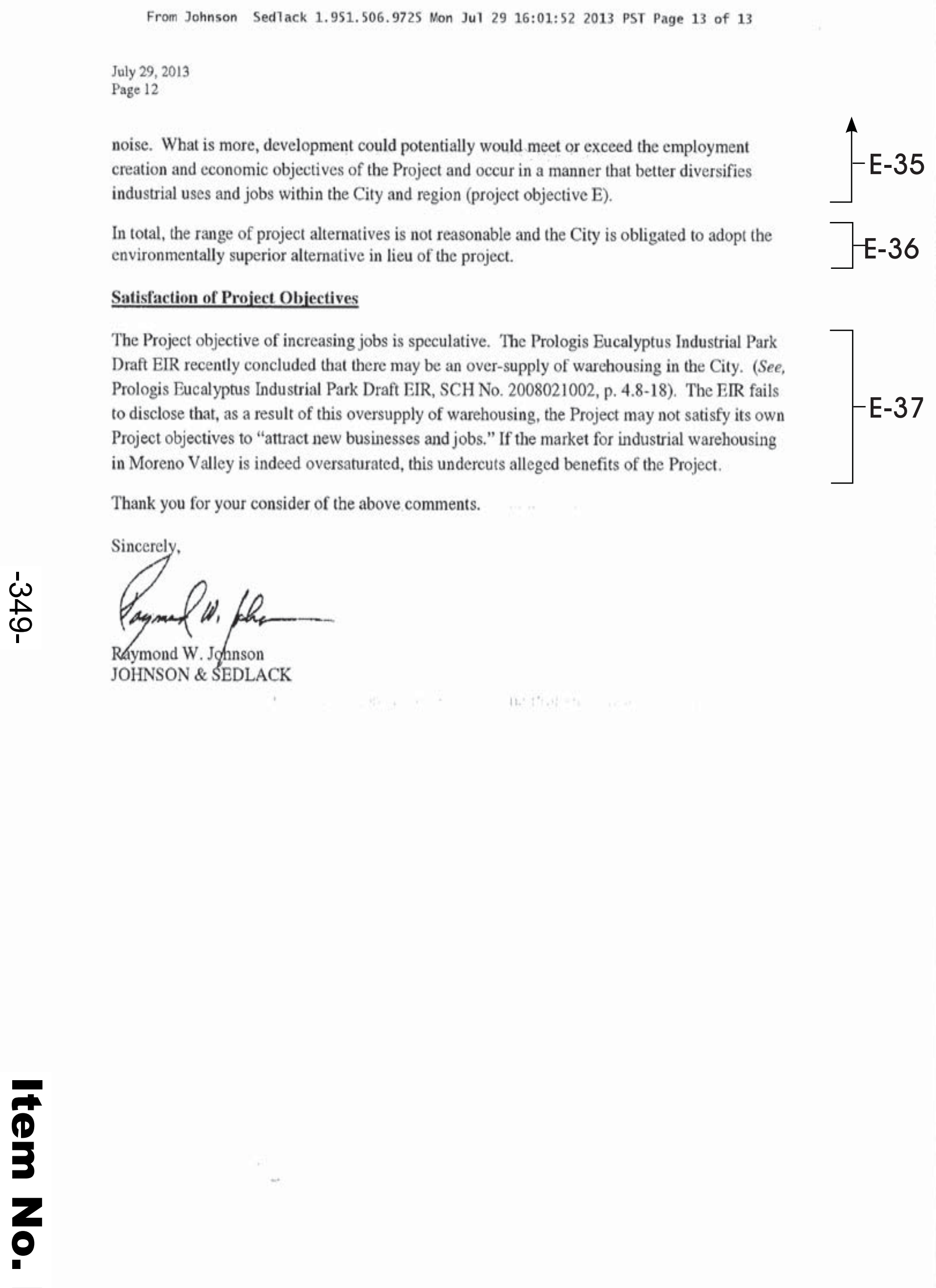
site-specific air quality emissions associated with the proposed Project, overall regional emissions would not be substantially reduced because any reduction in air quality emissions on-site (due to reduced building area) would be accompanied by a concomitant increase air quality emissions in other locations as a result of the increase in building area in off-site locations as needed to satisfy the regional demand for warehouse space. Similarly, although a reduction in building area on-site may result in a reduction in the Project's cumulative near-term and unavoidable traffic impact to the intersections of Western Way/Harley Knox Boulevard and Indian Street/Harley Knox Boulevard, it is reasonable to conclude that increased development of warehouse space in other locations within the City or adjacent jurisdictions likely would result in similar (or increased) cumulative impacts to other locations within western Riverside County. Furthermore, although Alternative 4 would result in a reduction in site-specific noise levels during construction due to the decreased duration of construction activities on-site, the reduced building area on-site would merely result in increased building area at other locations within the City or adjacent jurisdictions, the construction of which would result in an increase in construction-related noise impacts at off-site locations.

Regardless, the City of Moreno Valley Planning Commission will consider adoption of Alternative 4 during public hearings for the proposed Project, and will make specific findings at that time as to whether the factors cited above provide substantial evidence to justify the rejection of Alternative 4 in accordance with CEQA Guidelines Section 15126.6.

E-35 - The Commenter's suggestion that the EIR must consider alternatives that "…would involve putting this development to alternative uses not reliant on heavy trucks…" would represent a direct conflict with the Project's primary and basic objective to "…construct and operate a logistics center warehouse building in the City of Moreno Valley on a property designated for industrial development by the Moreno Valley Industrial Area Plan (Specific Plan 208)." As stated in CEQA Guidelines Section 15126.6(c), one of the factors that may be used to



From Johnson Sedlack 1.951.506.9725 Mon Jul 29 16:01:52 2013 PST Page 13 of 13

July 29, 2013
Page 12

noise. What is more, development could potentially would meet or exceed the employment creation and economic objectives of the Project and occur in a manner that better diversifies industrial uses and jobs within the City and region (project objective E).

E-35

In total, the range of project alternatives is not reasonable and the City is obligated to adopt the environmentally superior alternative in lieu of the project.

E-36

Satisfaction of Project Objectives

The Project objective of increasing jobs is speculative. The Prologis Eucalyptus Industrial Park Draft EIR recently concluded that there may be an over-supply of warehousing in the City. (*See*, Prologis Eucalyptus Industrial Park Draft EIR, SCH No. 2008021002, p. 4.8-18). The EIR fails to disclose that, as a result of this oversupply of warehousing, the Project may not satisfy its own Project objectives to "attract new businesses and jobs." If the market for industrial warehousing in Moreno Valley is indeed oversaturated, this undercuts alleged benefits of the Project.

E-37

Thank you for your consider of the above comments.

Sincerely,

Raymond W. Johnson
JOHNSON & SEDLACK

RESPONSES

eliminate alternatives from detailed consideration in an EIR includes a "failure to meet most of the basic project objectives." Alternatives that would proposed to develop the site with "agricultural uses and animal raising, laboratories, research and development, public administration, manufacturing and assembly, nurseries, cabinet and business schools, athletic clubs, banks, offices, public administration, etc.," would fail to meet the Project's primary and basic objective to develop the site with a logistics center warehouse building. Furthermore, CEQA Guidelines Section 15126.6(a) clarifies that an "…EIR need not consider every conceivable alternative to a project." Accordingly, alternatives that would not involve the construction of a logistics center warehouse building have been properly rejected from detailed consideration in the EIR in accordance with CEQA Guidelines Section 15126.6, irrespective of the degree to which such alternative uses may result in reduced impacts to the environment or the degree to which such alternative uses may achieve one or more of the Project's secondary objectives.

E-36 - For the reasons stated above in Responses E-33 through E-35, the City finds that the range of alternatives studied in the EIR fully complies with CEQA Guidelines Section 15126.6. Additionally, and for the reasons cited above in Response E-34, the City further finds that Alternative 4 would not substantially reduce the Project's environmental effects, although the Planning Commission will consider adoption of Alternative 4 during public hearings for the proposed Project and, if appropriate, will be required to make specific findings demonstrating its rationale for approval of the proposed Project in lieu of Alternative 4.

E-37 - As noted in the Prologis Eucalyptus Industrial Park Draft EIR, "… the addition of industrial space from the proposed project and the adjacent West Ridge (industrial) project may create an over-supply of warehousing space in the City, *based on current economic conditions*" (pg. 4.8-18, emphasis added).

The Notice of Preparation (NOP) for the Prologis Eucalyptus Industrial

Responses

Park Draft EIR (SCH No. 2008021002) was distributed in 2008, which established the environmental baseline conditions evaluated in the Prologis EIR in accordance with CEQA Guidelines Section 15125(a). At the time the Prologis NOP was published and distributed for public review in 2008, the United States and western Riverside County had recently entered into a recession that lasted from December 2007 to June 2009, according to information available from the National Bureau of Economic Research (available on-line at http://www.nber.org/cycles.html). The 2007-2009 recession resulted in a depressed demand for industrial space within western Riverside County.

The NOP for the proposed Project was published and distributed for public review in December 2012, by which time the 2007-2009 recession had ended and economic circumstances had improved. Therefore, the statement in the Prologis Eucalyptus Industrial Park Draft EIR that there may have been a potential for over-supply of warehousing space in the City based on economic conditions that existed in 2008 does not provide substantial evidence demonstrating a potential for oversupply of warehousing space in the current post-recession era. Thus, the City finds that there is no evidence provided in this comment or anywhere in the administrative record demonstrating that there is an overabundance of warehouse space under the current post-recessionary economic conditions, and further finds that the EIR's discussion of the Project's potential benefits of providing business and jobs are valid factors to be considered by the Planning Commission during public hearings for the proposed Project.

SIERRA CLUB
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SAN GORGONIO CHAPTER

4079 Mission Inn Avenue, Riverside, CA 92501 (951) 684-6203
Membership/Outings (951) 684-6203 Fax (951) 684-6172
Regional Groups Serving Riverside and San Bernardino Counties: Big Bear, Los Serranos, Mojave, Moreno Valley, Mountains, Tahquitz, Santa Margarita.

Good afternoon Ms Descoteaux,

The following are some Sierra Club comments on the First Inland Logistic Center II DEIR.

The FEIR needs to explain why Tier IV construction equipment and non-diesel generators are not going to be required to protect the health of Moreno Valley residents. F-1

The Sierra Club doesn't accept the information on GHG and expects the FEIR to have a more thorough explaination of this projects contribution to this major problem. F-2

The FEIR must include all warehouse/logistic center projects going through planning within in the City of Moreno Valley in the cumulative impacts or the document will be insufficient and inadequate. F-3

This project will significantly impact at least seven roadways. The FEIR must make sure that Moreno Valley residents do not need to suffer. The Sierra Club expects the FEIR to show how this will be resolved and what has been done to coordinate with the City of Perris and other projects to help resolve this unacceptable situation. F-4

The Biological impact are significant and are not fully mitigated. Out valley is home to more than 20 species of raptors and to take away all these acres from foraging is an impact. It is also an impact to possible agricultural uses which are not addressed. Two individual smooth tarplants are significant and could impact the persistence of the species -- especially if everywhere two tarplants are considered not significant and therefore allowed to be eliminated. The Sierra Club expects the FEIR to explain more on what mitigation measures will be taken for all these species -- including the western burrowing owl. The FEIR must prove that the F-5

Responses

F-1 - As concluded in the EIR, the proposed Project would not result in a direct or cumulatively significant health risk. Mitigation measures are not required to be imposed for impacts that are not significant. Also refer to Responses E-7.1 through E-8.55.

F-2 - A discussion and analysis of the Project's impacts due to greenhouse gas (GHG) emissions is provided in EIR Section 4.2. It is unclear from this comment what additional information needs to be added to Section 4.2 to fully disclose the Project's contribution to global warming. Accordingly, no revision to the EIR has been made pursuant to this comment.

F-3 - Please refer to EIR Section 4.0.2, which describes the cumulative projects assumed in the analysis of the Project's potential for resulting in cumulatively significant impacts. As noted therein, the EIR for the Project uses the summary of projections approach, except for the evaluation of cumulative traffic and vehicular-related air quality and noise impacts, which instead rely upon the list of projects approach in accordance with the City of Moreno Valley Transportation Engineering Division's Traffic Impact Analysis Preparation Guide (Final EIR at Page 4.0-2). This comment does not identify any projects that were not considered as part of the cumulative impact analyses provided in the EIR. As such, no revision to the EIR has been made pursuant to this comment.

F-4 - As discussed in EIR Section 4.4.7, although the Project would result in cumulative impacts at seven (7) roadway segments and five (5) intersections in Opening Year Cumulative (2017) Conditions, with required payment of City of Moreno Valley DIF fees and TUMF fees (see PR 4.4-3) and implementation of the DIF and TUMF-funded improvements at the cumulatively impacted facilities, all cumulatively impacted roadway segments and intersections in Opening Year Cumulative (2017) Conditions would be reduced to a less than significant impact with the exception of two (2) intersections: Western Way/Harley

Knox Boulevard and Indian Street/ Harley Knox Boulevard. Although improvements are anticipated to relieve these deficiencies in the long-term along Harley Knox Boulevard, funded by the North Perris Road Bridge and Benefit District, there is no assurance that the improvements will be in place at the time of the proposed Project's Opening Year Cumulative (2017) Conditions. Thus, the cumulative impact is considered a near-term impact, until such time as the intersection improvements are in place.

Accordingly, the EIR identifies mitigation measures to address all of the Project's impacts to study area roadways and intersections, although the impacts to Western Way/Harley Knox Boulevard and Indian Street/ Harley Knox Boulevard are conservatively assumed to comprise significant unavoidable impacts of the proposed Project under near-term conditions, prior to the completion of improvements per the North Perris Road Bridge and Benefit District. As noted above in Response C-9, these impacts are evaluated as significant and unavoidable because the Project Applicant cannot assure the timing of improvements to these intersections, and because it is not known whether all of the cumulative developments that would contribute to this cumulatively significant impact would be in place at the time of the Project's opening year in 2017. It is possible that cumulatively significant impacts to these intersections may not occur if some or all of the cumulative developments are not implemented prior to the Project's opening year (2017). Nonetheless, improvements to these intersections would occur per the North Perris Road Bridge and Benefit District, which ultimately would fully address the Project's cumulative impacts to these intersections once the necessary improvements have been implemented. It is unclear from this comment what additional mitigation would be required to resolve this situation beyond what is already specified in the Project's EIR. Accordingly, no revision to the EIR has been made pursuant to this comment.

F-5 - The proposed Project occurs within the Western Riverside County MSHCP, which has been designed to provide for the long-term conservation of habitat for plant and animal species throughout western

Responses

Riverside County. Pursuant to Moreno Valley Municipal Code Chapter 3.48 (Western Riverside County Multiple Species Habitat Conservation Plan Fee Program), the Project applicant would be required to contribute appropriate MSHCP fees to assist in the establishment of the MSHCP Reserve System, of which the Project site is not a part. Payment of this fee is considered full mitigation for the Project's impacts to covered species within the MSHCP for projects (such as the proposed Project) that are not identified as part of the Reserve System established by the MSHCP. Please refer also to Response H-3.

Impacts to agricultural resources are discussed in EIR Section 5.4.2. As indicated in the discussion therein, the Project: does not contain any Important Farmland types; is not subject to a Williamson Act Contract and is not within an agricultural preserve; would not conflict with the site's existing industrial zoning designation; and would not directly or indirectly result in the conversion of adjacent properties from agricultural to non-agricultural uses. This comment does not identify any potential impacts to agricultural resources that are not already addressed in EIR Section 5.4.2. Accordingly, no revision has been made to the EIR pursuant to this comment.

Please refer to Response E-29 for a detailed discussion of impacts to the smooth tarplant. As indicated in that discussion, the Project's biologist (URS Corporation) conducted a site-specific survey of the site for the smooth tarplant, the results of which are contained in EIR Appendix G2. As noted in Appendix G2 (refer to the "Results" section), "Due to surrounding land use on the Project site and vicinity, it is unlikely that this species would establish a larger population and impacts to these two plants is not likely to have a significant impact on the persistence of the species." Based on the professional opinion of the Project's biologist, the Project site would not provide for long-term conservation value for the smooth tarplant, and therefore does not require site-specific mitigation pursuant to MSHCP Section 6.3.2. Since the MSHCP has been designed to provide for the long-term conservation of covered species, including the mitigations for threatened and endangered species is adequate and that nothing else is possible. F-5

In the FEIR the alternatives should include other less intense uses for these lands and then analyze everything as was tried with this project. F-6

The project needs to analyze the impact of toxic diesel emissions on the workers. They will be breathing in these emissions all day. Moreno Valley should be demanding not just jobs, but healthy jobs for its residents. F-7

Since the 2010 census showed that about 55% of Moreno Valley is Latino and almost 25% speak another language, all these environmental documents and notices need to be reissued in Spanish as should future documents/notices. F-8

Please keep the Sierra Club informed of all future meetings and documents related to this project by using the below address. F-9

Thank you,

George Hague
Sierra Club
Moreno Valley Group
Conservation Chair

26711 Ironwood Ave
Moreno Valley, CA 92555

RESPONSES

smooth tarplant, Project impacts to the smooth tarplant would not result in a significant impact assuming mandatory payment of the City's MSHCP fees. Please refer also to Response E-28 for a discussion of why additional mitigation is not required for species, such as the smooth tarplant, that are covered by the MSHCP and for which no finding of Unforeseen Circumstances has been made by the Service. With regards to cumulative impacts to this species, individual development projects located within the Western Riverside County MSHCP would be required to conduct site-specific surveys for the smooth tarplant. If individuals are located and if those individuals occur within habitat that could provide for the long-term conservation value of the species, then pursuant to the MSHCP, 90% of the habitat providing for the long-term conservation value of the species must be preserved. Accordingly, due to the Project's compliance to the MSHCP goals and policies, Project-related impacts to the two smooth tarplant individuals on-site represent a less-than-significant impact on both a direct and cumulative basis following the payment of MSHCP fees, and no additional mitigation measures are required to address cumulative impacts to this species.

EIR Section 4.5 includes an analysis of impacts to all sensitive plant and wildlife species with a potential for occurrence on-site. As concluded in the discussion and analysis contained therein, impacts were determined to be less than significant, with exception of potential impacts to the burrowing owl. Implementation of EIR Mitigation Measure MM 4.5-1 would ensure that pre-construction surveys are conducted prior to Project grading activities, and further requires the passive or active relocation of burrowing owls in accordance with MSHCP and CDFW relocation protocol. Therefore, the City finds that the EIR fully explains all of the Project's potential impacts to biological resources, and has incorporated mitigation to address the only significant impact to the burrowing owl. Because this comment does not identify any impacts or new mitigation measures not already discussed in the EIR, no revision to the EIR has been made pursuant to this comment.

Responses

Commenter does not provide any substantive evidence to demonstrate that the Project would result in significant impacts to threatened or endangered species, beyond what is already discussed and mitigated to a level below significance in EIR Section 4.5. Furthermore, CEQA does not require individual projects to incorporate an exhaustive list of mitigation measures; rather, CEQA only requires that impacts be mitigated to a level below significance, as is already done in EIR Section 4.5. Accordingly, no revision to the EIR is warranted pursuant to this comment, and no additional mitigation measures are required.

F-6 - Please refer to Responses E-33 through E-36. It is unclear from this comment what additional alternatives require study in the EIR. An analysis of a less intensive alternative is provided in the discussion and analysis of Alternative 4 (Reduced Project/North Building Alternative) within EIR Section 6.3.4. Other "less intensive" uses on the site that do not involve the construction and operation of a logistics center warehouse building would not meet the Project's basic and primary objectives, and are rejected from detailed consideration in the EIR for the reasons stated in Response E-35. Furthermore, this comment does not identify any specific alternative for the site that should have been considered in the EIR. Accordingly, no revision to the EIR is warranted pursuant to this comment.

F-7 - The Project's potential to expose future on-site workers to toxic diesel emissions is evaluated under the discussion and analysis of Threshold 4 in EIR Section 4.1, and was based on a Project-specific Mobile Source Health Risk Assessment that is included in EIR Appendix C. As concluded in the discussion in EIR Section 4.1, at the maximally exposed individual worker (MEIW), the maximum risk is estimated to be 1.23 in one million, which does not exceed the risk threshold of 10 in one million established by SCAQMD. As such, impacts were evaluated as less than significant, and no additional mitigation is required. No revisions to the EIR are warranted pursuant to this comment, as the Commenter does not identify any deficiencies in the analysis of Project impacts to the

Responses

MEIW as contained in EIR Section 4.1.

F-8 - There is no requirement in CEQA or the CEQA Guidelines to indicate that CEQA documents and notices must be provided in Spanish. Furthermore, it is misleading to assert that the City's Latino residents speak only Spanish. Likewise, the fact that almost 25% speak another language does not demonstrate that these individuals exclusively speak another language, nor does it demonstrate that these residents all speak Spanish. Accordingly, no recirculation of the EIR or its associated notices is required.

F-9 - Comment is acknowledged; the City will provide the Sierra Club with notices of all future meetings and documents related to this project by using the contact information provided in this comment letter.

Thomas Thornsley
29177 Stevens Street
Moreno Valley, CA 92555

July 29, 2013

Ms. Julia Descoteaux
City of Moreno Valley
14177 Frederick Street/P.O. Box 88005
Moreno Valley, California 92552

Via e-mail: JuliaD@moval.org

Dear Mr. Bradshaw:

Re: Draft Environmental Impact Report (DEIR) First Inland Logistic Center II, SCH#: 2012121011

As a concerned residents, and as a member of Residents for a Livable Moreno Valley, I have reviewed the aft Environmental Impact Report (DEIR) for the proposed First Inland Logistic Center II. I can not ree with some of the conclusions because it appears that some impacts are not being mitigated to the eatest extent possible. The City simply has not taken a progressive stand on potential development impacts nor adopted stricter criteria for development (i.e.: defined methods for greenhouse gas mitigation, operational standards to further reduce air pollutants, enhanced development standard and limited design guidelines, or full infrastructure improvements with future restitution.). As with most projects requiring EIRs this project has some significant impacts that, quite simply, are being written off because the impact can not be completely mitigated to below a level of significance. However, several impacts could be lessened with further mitigated than what is proposed; most notable with regard to Air, Greenhouse Gases, and Traffic Impacts. In these instances it would be prudent to impose mitigation(s) to further lessen those impacts, thereby, leaving a smaller intensity of impacts that to be overridden by the City Council. G-1

Project Description – There is no mention of the demolition of the existing improvements to the site nor how the loss of these impacts will impact the current user. G-2

Climate Change and Greenhouse Gases

Since the state has enacted legislation to lower greenhouse gas emissions any and all possible measures to lower emissions that could be undertaken by this project should be listed, discussed and analyzed for their effectiveness, not just a list of improvements that will exceed Title 24. The City should then include gation measures that significantly reduce (though they may not entirely mitigate impacts) associated acts prior to any consideration to override them as the DEIR suggests. G-3

This project should be designed to meet some of the highest LEEDS standards. G-4
igation measure cannot simply be recommended as stated under MM for GHG Thresholds 1 and 2 if e is to be any expectation that the project will comply with strategies in the 2006 Climate Action m report. Change "recommended" to "required." G-5

Responses

G-1 - Comments are acknowledged. The City respectfully disagrees with the Commenter's assertion that the EIR has failed to fully evaluate or mitigate the Project's impacts, particularly with respect to the issue areas of air quality, greenhouse gas emissions, and traffic, for the reasons noted below in Responses G-3 through G-16.

G-2 - A discussion of the Project's demolition activities during construction is included in EIR Section 3.3.5.E, and includes an estimate of the total duration of demolition activities and an estimate of demolition debris that would be generated. Environmental impacts associated with the Project's demolition activities are evaluated under the EIR's discussion of impacts to air quality, noise, and greenhouse gas emissions.

The existing improvements on-site consist of a truck trailer parking area that is not needed to support any nearby uses, including the existing industrial warehouse building to the west of the proposed Project site. Specifically, the approved Plot Plan 12-0053 is required to provide for a total of 142 stalls pursuant to the City of Moreno Valley Municipal Code Chapter 9.11 (Off-Street Parking Requirements), while a total of 159 parking spaces are currently provided, in addition to the 63 existing truck trailer parking stalls. Thus, with demolition of the existing truck trailer parking area, adequate parking still would be provided for the existing industrial warehouse building to the west. Accordingly, no impact to the existing industrial warehouse building to the west would occur as a result of the proposed Project.

As the Commenter does not identify any impacts to the environment resulting from the Project's demolition activities that are not already addressed in the EIR, no revision is warranted pursuant to this comment.

G-3 - As concluded in the EIR, the proposed Project would result in a less than significant impact due to GHG emissions. Mitigation measures are not required for impacts that are less than significant. Nonetheless, the EIR sets forth Mitigation Measure MM 4.2-1 and 4.2-2 to reduce reliance

mas Thornsley
er date 7/29/13

Comment to DEIR for First Inland Logistics Center II

litional mitigation measures should be added that will require the installation of solar cells to offset intensity electrical use of the offices. Should this be a speculative building or if the builder modifies the plan as proposed additional on-site renewable energy power sufficient to meet the needs of: additions to office space beyond that proposed with the approved Project plans; any additional high energy demand improvements including, but not limited to, refrigeration units, heavy machinery, manufacturing equipment, automated goods processing systems, or other equipment with high energy consumption rates not previously anticipated or assessed at the time of Project approval by the City of Moreno Valley. G-6

To further offset GHG mitigation measures should be included that require the installation of automobile recharging stations to further the advancement and use of alternative fuel vehicle by the employees while also reducing emissions. G-7

Aesthetics

Site and architectural drawing were not provided for public review with the DEIR to confirm the finding in the Initial Study. Past review of developments plans has found that only a limited application of design and architectural standards along with on-site amenities have been propose by the applicant. Further review will be required and comments may follow. G-8

Light and Glare – This area falls just within the Mount Palomar Observatory Dark Skies area and should comply with their limitation to prevent light pollution. The International Dark-Sky Association web site www.darksky.org lists lighting fixtures and methods to meet dark sky specifications. Add a tigation Measure (beyond city policy) to assure that site lighting is compatible with "Dark-Sky" ecifications or limit lighting to only the use of low pressure sodium lights, full shielding above a rizontal plain and that no building or pole mounted lighting fixtures shall project light outward horizontally beyond the property boundary to eliminate the potential for nighttime light glare to motorist. G-9

Landscaping – This element could not be review at this time but will likely be addressed in the future. This project is along the main southern entry of the city and as such the street and sight landscaping should provide significant aesthetic relief to the 40-foot tall building. G-10

Traffic

It seems that DEIR states that the project will not be required to make all the improvements where needed (MM 4.4, PR 4.4-3) but will be required to pay fees but the payment of these fees will not assure their timely completion and pending completion of required improvements the Project's incremental contributions to Opening Year Cumulative traffic impacts at or affecting (certain) intersections are considered cumulatively significant and unavoidable. This project should be held responsible to further eliminate those impacts beyond just "paying the TUMF" and letting the improvement happen when they may. G-11

○ How will Air Quality suffer by not actually completing the necessary traffic improvements which will lead to traffic congestion and excessive idling for prolongs time periods? G-12

Air Quality

There is no doubt that any urban development on the project site will generate long-term operational emissions that will exceed the South Coast Air Quality District's regional thresholds. G-13

RESPONSES

on fossil fuel usage. Additionally, refer to Responses E-7.1 through E-7.55.

G-4 - Refer to Response E-8.49.

G-5 - An EIR sets forth feasible measures for lead and responsible agencies to consider for adoption to avoid and reduce environmental effects when they deliberate on whether or not to approve a project. The City can require Mitigation Measures 4.2-1 and 4.2-2 as part of its deliberations and require them as part of the EIR's Mitigation Monitoring and Reporting Program.

G-6 - Mitigation Measure 4.2-2 requires that the structure roof be constructed to support solar panels.

G-7 - Refer to E-8.17.

G-8 - As indicated in EIR Section 7.2, all of the Project's plans were made available for public inspection during the public review period for the EIR. Additionally, EIR Section 3.0 incorporates several images depicting Plot Plan PA12-0023 (EIR Figure 3-4), Plot Plan PA12-0023 Detail (EIR Figure 3-5), architectural elevations (EIR Figure 3-6), and the conceptual landscape plan (EIR Figure 3-7). No revisions to the EIR are warranted pursuant to this comment, as all of the Project's plans were available for public inspection during the public review period and because this comment does not identify any deficiencies in either the CEQA process for the Project or the EIR's discussion of the Project's scope.

G-9 - Lighting effects associated with the proposed Project are addressed in EIR Section 5.4.1. The City acknowledges that the Project site occurs approximately 41 miles northwest of the Mt. Palomar Observatory, and therefore the Project has the potential to result in the generation of artificial light sources that could contribute to skyglow effects that in turn could adversely affect operations at the observatory. However, the

RESPONSES

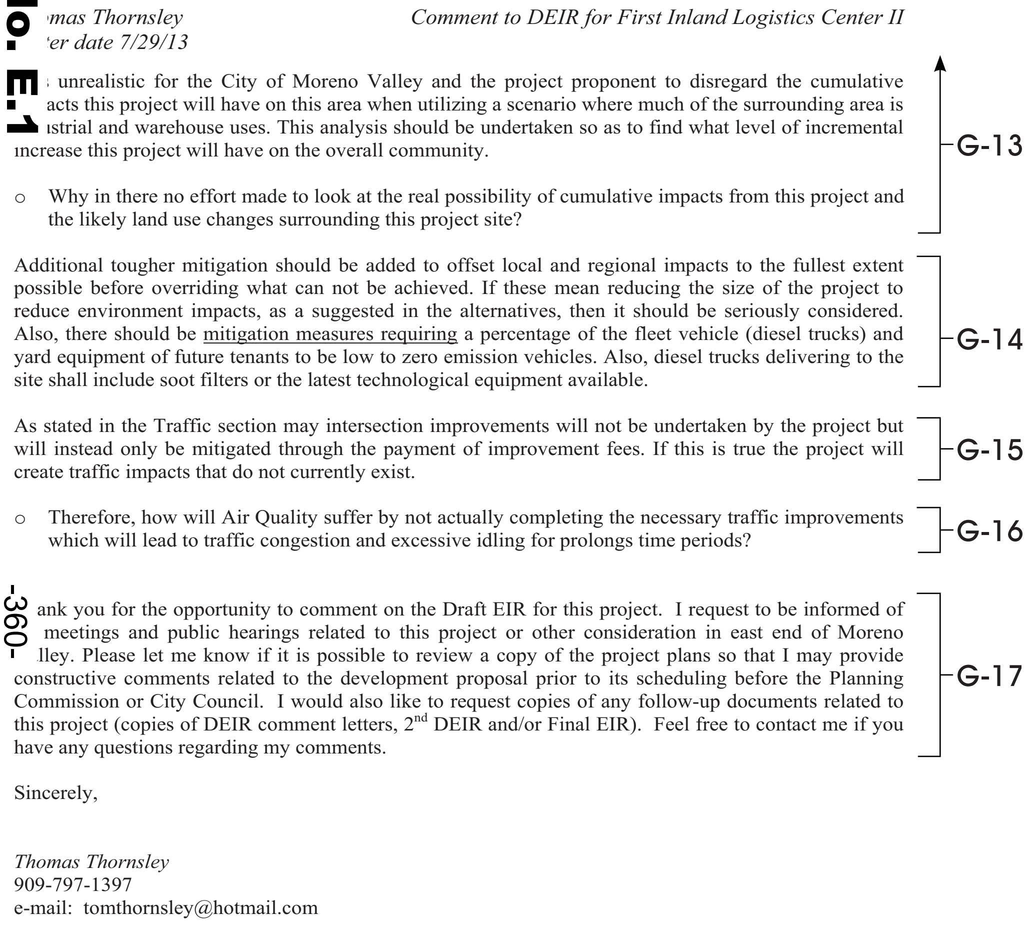
proposed Project would be required to comply with City of Moreno Valley Ordinance No. 359 and the provisions of the Moreno Valley Industrial Area Plan (MVIAP), which require implementing projects to prevent light spillage and use full cut off' fixtures. Demonstration of compliance with Ordinance No. 359 and the Lighting standards of the MVIAP would be required prior to City issuance of a building permit. Mandatory compliance with Ordinance No. 359 and the Lighting standards of the MVIAP would ensure that Project lighting does not directly or cumulatively impact nighttime operations at the observatory. No revisions to the EIR are warranted pursuant to this comment.

G-10 - As indicated in EIR Section 7.2, all of the Project's plans were made available for public inspection during the public review period for the EIR, including the Project's conceptual landscape plan. Additionally, the EIR included the conceptual landscape plan as Figure 3-7. A description of the conceptual landscape plan also is included in EIR Section 3.3.4. This comment does not identify any specific aesthetic impacts that would result from implementation of the proposed Project; accordingly, no revision to the EIR is warranted pursuant to this comment.

G-11 - Refer to Responses C-9 and E-22.

G-12 - The air quality impacts disclosed in the EIR represent the maximum daily emissions during both construction and operational activity. Any potential emissions resulting from purported traffic congestion that may or may not occur would be well within the modeled results and evaluating any other scenario would be speculative at best.

G-13 - Refer to Responses E-13, E-26, and F-5.



mas Thornsley — *Comment to DEIR for First Inland Logistics Center II*
er date 7/29/13

unrealistic for the City of Moreno Valley and the project proponent to disregard the cumulative acts this project will have on this area when utilizing a scenario where much of the surrounding area is istrial and warehouse uses. This analysis should be undertaken so as to find what level of incremental increase this project will have on the overall community.

- Why in there no effort made to look at the real possibility of cumulative impacts from this project and the likely land use changes surrounding this project site?

G-13

Additional tougher mitigation should be added to offset local and regional impacts to the fullest extent possible before overriding what can not be achieved. If these mean reducing the size of the project to reduce environment impacts, as a suggested in the alternatives, then it should be seriously considered. Also, there should be <u>mitigation measures requiring</u> a percentage of the fleet vehicle (diesel trucks) and yard equipment of future tenants to be low to zero emission vehicles. Also, diesel trucks delivering to the site shall include soot filters or the latest technological equipment available.

G-14

As stated in the Traffic section may intersection improvements will not be undertaken by the project but will instead only be mitigated through the payment of improvement fees. If this is true the project will create traffic impacts that do not currently exist.

G-15

- Therefore, how will Air Quality suffer by not actually completing the necessary traffic improvements which will lead to traffic congestion and excessive idling for prolongs time periods?

G-16

ank you for the opportunity to comment on the Draft EIR for this project. I request to be informed of meetings and public hearings related to this project or other consideration in east end of Moreno lley. Please let me know if it is possible to review a copy of the project plans so that I may provide constructive comments related to the development proposal prior to its scheduling before the Planning Commission or City Council. I would also like to request copies of any follow-up documents related to this project (copies of DEIR comment letters, 2nd DEIR and/or Final EIR). Feel free to contact me if you have any questions regarding my comments.

G-17

Sincerely,

Thomas Thornsley
909-797-1397
e-mail: tomthornsley@hotmail.com

3

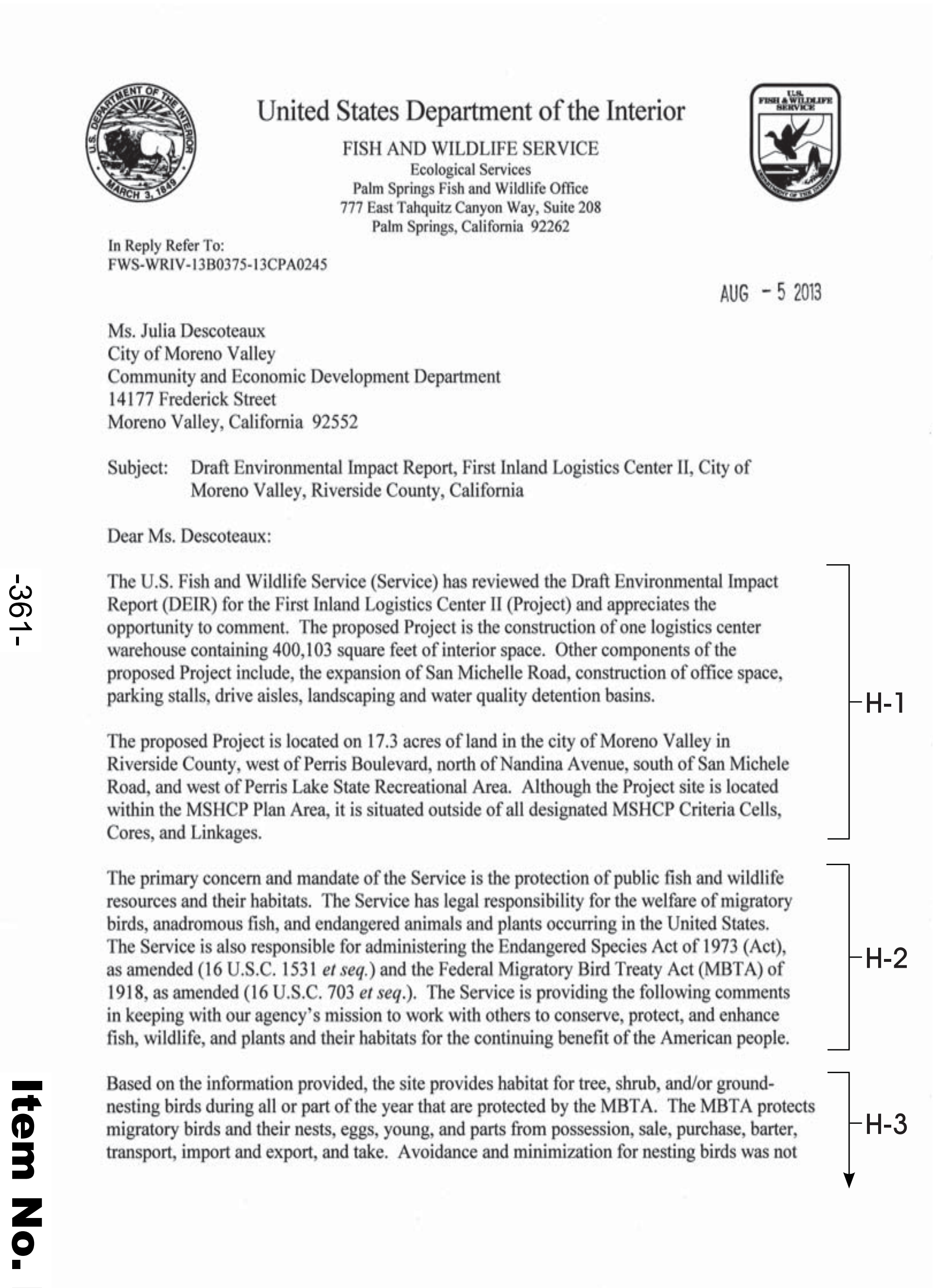
Responses

G-14 - Refer to Responses F-8.1 through F.8-55.

G-15 - Refer to Responses C-9 and E-22.

G-16 - Refer to Responses C-9, E-22, and G-12.

G-17 - As indicated in EIR Section 7.2, all of the Project's plans are available for public review at the City of Moreno Valley Community and Economic Development Department, Planning Division, 14177 Frederick Street, Moreno Valley, CA 92552. The City will provide all CEQA required notices to Thomas Thornsley at the contact information provided in this letter.



United States Department of the Interior
FISH AND WILDLIFE SERVICE
Ecological Services
Palm Springs Fish and Wildlife Office
777 East Tahquitz Canyon Way, Suite 208
Palm Springs, California 92262

In Reply Refer To:
FWS-WRIV-13B0375-13CPA0245

AUG - 5 2013

Ms. Julia Descoteaux
City of Moreno Valley
Community and Economic Development Department
14177 Frederick Street
Moreno Valley, California 92552

Subject: Draft Environmental Impact Report, First Inland Logistics Center II, City of Moreno Valley, Riverside County, California

Dear Ms. Descoteaux:

The U.S. Fish and Wildlife Service (Service) has reviewed the Draft Environmental Impact Report (DEIR) for the First Inland Logistics Center II (Project) and appreciates the opportunity to comment. The proposed Project is the construction of one logistics center warehouse containing 400,103 square feet of interior space. Other components of the proposed Project include, the expansion of San Michelle Road, construction of office space, parking stalls, drive aisles, landscaping and water quality detention basins.

The proposed Project is located on 17.3 acres of land in the city of Moreno Valley in Riverside County, west of Perris Boulevard, north of Nandina Avenue, south of San Michele Road, and west of Perris Lake State Recreational Area. Although the Project site is located within the MSHCP Plan Area, it is situated outside of all designated MSHCP Criteria Cells, Cores, and Linkages.

H-1

The primary concern and mandate of the Service is the protection of public fish and wildlife resources and their habitats. The Service has legal responsibility for the welfare of migratory birds, anadromous fish, and endangered animals and plants occurring in the United States. The Service is also responsible for administering the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*) and the Federal Migratory Bird Treaty Act (MBTA) of 1918, as amended (16 U.S.C. 703 *et seq.*). The Service is providing the following comments in keeping with our agency's mission to work with others to conserve, protect, and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people.

H-2

Based on the information provided, the site provides habitat for tree, shrub, and/or ground-nesting birds during all or part of the year that are protected by the MBTA. The MBTA protects migratory birds and their nests, eggs, young, and parts from possession, sale, purchase, barter, transport, import and export, and take. Avoidance and minimization for nesting birds was not

H-3

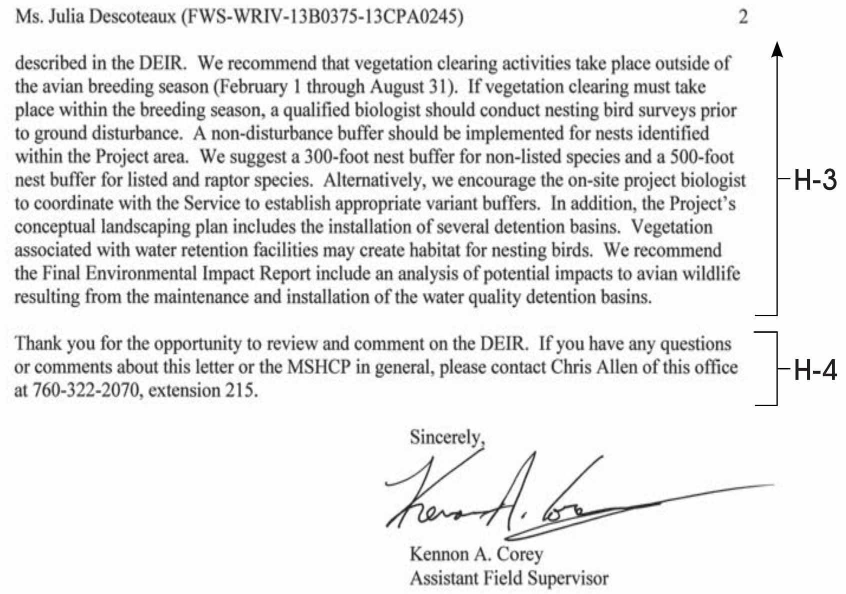
Responses

H-1 - The description of the proposed Project and its location as provided in this comment are accurate. No response is necessary.

H-2 - The City of Moreno Valley appreciates the role of the Service in fulfilling its mandate to protect public fish and wildlife resources and their habitats. Please refer to Response H-3 for a response to the Service's concerns and comments regarding the proposed Project.

H-3 - Comments are acknowledged. The City finds that the Project's potential to impact nesting birds already are subject to the avoidance requirements set forth by the Migratory Bird Treaty Act (MBTA). Additionally, due to the generally disturbed/developed nature of the Project site, the likelihood for occupation of the site by nesting birds is considered low. Nonetheless, and in order to ensure that the provisions of the MBTA are adhered to during Project construction activities, a new Project Requirement (PR 4.5-3) has been added to EIR Section 4.5 requiring surveys within 30 days prior to vegetation clearing activities (if clearing activities are proposed during the breeding season), and adherence to a 300- or 500-foot avoidance buffer should any nesting birds be identified on-site during the breeding season. The City Planning Division shall ensure that the Project complies with the requirements specified in Project Requirement PR 4.5-3.

With regards to the Service's comments regarding the installation of water quality basins, it should be noted that several of the water quality basins already occur on-site under existing conditions in association with the improved truck trailer parking area. Specifically, under existing conditions two (2) water quality/detention basins are located on the southern portion of the Project site, located at the property's southwestern corner and parallel to the site's frontage with Nandina Avenue. These basins were constructed as part of approved Parcel Map No. 35859 (PA07-0165) and facilitate drainage flow from the southern portion of the property to the City's storm drain system. As part of the proposed Project, these existing



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described in the DEIR. We recommend that vegetation clearing activities take place outside of the avian breeding season (February 1 through August 31). If vegetation clearing must take place within the breeding season, a qualified biologist should conduct nesting bird surveys prior to ground disturbance. A non-disturbance buffer should be implemented for nests identified within the Project area. We suggest a 300-foot nest buffer for non-listed species and a 500-foot nest buffer for listed and raptor species. Alternatively, we encourage the on-site project biologist to coordinate with the Service to establish appropriate variant buffers. In addition, the Project's conceptual landscaping plan includes the installation of several detention basins. Vegetation associated with water retention facilities may create habitat for nesting birds. We recommend the Final Environmental Impact Report include an analysis of potential impacts to avian wildlife resulting from the maintenance and installation of the water quality detention basins.

Thank you for the opportunity to review and comment on the DEIR. If you have any questions or comments about this letter or the MSHCP in general, please contact Chris Allen of this office at 760-322-2070, extension 215.

Sincerely,

Kennon A. Corey
Assistant Field Supervisor

RESPONSES

basins would be modified to accommodate two new drive entrances along Nandina Avenue and one of the basins would be divided into three sections, with one section increasing in size to compensate for the area subtracted by the two new drive aisles. Thus, because the total surface area and landscaping improvements within the water quality basins located along Nandina Avenue would not substantially change as compared to existing conditions, there would be no new impacts to avian species resulting from these basins as compared to what already occurs under existing conditions. The only new water quality basin proposed as part of the Project would occur along North Perris Boulevard and would comprise a long and narrow strip of land that would abut North Perris Boulevard. Although routine maintenance activities would be required in the new water quality basin along North Perris Boulevard, the City finds that the possibility of this water quality basin being occupied by sensitive avian species is low due to its close proximity to North Perris Boulevard, which is a high capacity roadway that generates noise levels exceeding 65 dBA at a distance of 100 feet. Based on the foregoing discussion, no revisions to the EIR appear warranted pursuant to this comment.

H-4 - The City of Moreno Valley appreciates the comments provided by the USFWS, and will contact Chris Allen at the contact information provided if there are any questions.

S.0 EXECUTIVE SUMMARY

S.1 INTRODUCTION

The California Environmental Quality Act (CEQA), Public Resources Code §21000, et seq. requires that before a public agency makes a decision to approve a project that could have one or more adverse effects on the physical environment, the agency must inform itself about the project's potential environmental impacts, give the public an opportunity to comment on the environmental issues, and take feasible measures to avoid or reduce potential harm to the physical environment.

This Environmental Impact Report (EIR), having California State Clearinghouse No. 2012121011, has been prepared in accordance with CEQA Guidelines Article 9, §15120 to §15132, to evaluate the potential environmental impacts associated with planning, constructing, and operating the proposed First Inland Logistics Center II Project (herein, "the Project"). This EIR does not recommend either approval or denial of the proposed Project; rather, it is a source of impartial information regarding potential impacts that the Project may cause to the physical environment. The Draft EIR will be available for public review for a period of 45 days. After consideration of public comment, the City of Moreno Valley will consider certifying the Final EIR and adopting required findings in conjunction with Project approval. In the case that there are any adverse environmental impacts that cannot be fully mitigated, the City of Moreno Valley must adopt a Statement of Overriding Considerations if it approves the Project, stating why the Project is being approved despite its unavoidable impacts.

This Executive Summary has been prepared in accordance with CEQA Guidelines §15123. The scope of this EIR covers five (5) primary subject areas determined through the completion of an Initial Study prepared by the City of Moreno Valley pursuant to CEQA Guidelines §15063, and in consideration of public comment received by the City in response to this EIR's Notice of Preparation (NOP). The Initial Study, NOP, and written comments received by the City in response to the NOP are attached to this EIR as *Technical Appendix A*. As determined by the Initial Study and in consideration of public comment on the NOP, the five (5) environmental subject areas that could be reasonably and significantly affected by the Project are analyzed herein, including:

1. Air Quality
2. Greenhouse Gas Emissions
3. Noise
4. Transportation/Traffic
5. Biological Resources

Refer to Section 4.0, *Environmental Analysis*, for a full account and analysis of the subject matters listed above. As mentioned, the scope of this EIR includes these five (5) subject areas as determined through the completion of an Initial Study pursuant to CEQA Guidelines §15063, and in consideration of public comment to this EIR's NOP. Subject areas for which the Initial Study concluded that impacts would be clearly less than significant and that do not warrant further analysis in this EIR are addressed in Subsection 5.4, *Effects Found Not to Be Significant as Part of the Initial Study Process*. For each of the five (5) subject areas analyzed in Section 4.0, this EIR describes: 1) the physical conditions that existed at the approximate time this EIR's NOP was filed with the California State Clearinghouse (December 2012); 2) discloses the type and magnitude of potential environmental impacts resulting from Project planning, construction, and operation; and 3) if warranted, recommends feasible mitigation measures that would reduce or avoid any significant adverse environmental impacts that the Project may cause. A summary of the Project's significant environmental impacts and the mitigation measures imposed by the City of Moreno Valley to lessen or avoid those impacts is included in this Executive Summary as Table S-1, *Mitigation Monitoring and Reporting Program*.

This EIR also discusses alternatives to the proposed Project. Alternatives are studied that would attain most of the Project objectives while avoiding or substantially lessening the proposed Project's significant environmental effects. A full discussion of Project alternatives is found in EIR Section 6.0, *Alternatives*.

S.2 PROJECT OVERVIEW

S.2.1 LOCATION AND REGIONAL SETTING

The 17.3-acre Project site is located in the City of Moreno Valley, in western Riverside County, California. From a regional perspective, the Project site is located to the north and northeast of the City of Perris and to the southeast of the City of Riverside. The March Air Reserve Base (ARB) is located approximately 0.9-mile west of the site. The property is rectangular-shaped and located immediately west of North Perris Boulevard, south of and adjacent to San Michele Road, approximately 1,150 feet east of Knox Street, and north of and adjacent to Nandina Avenue. This portion of the City of Moreno Valley is developing as a center for distribution warehousing and light industrial land uses. Currently, the Project site is surrounded by a mixture of warehouse buildings, undeveloped lands, and other land uses located on properties designated and zoned for industrial development. Refer to Subsections 2.1, 2.2, and 2.3 of this EIR for more information about the Project's location and regional setting.

S.2.2 EXISTING PHYSICAL CONDITIONS

The northern half of the Project site (approximately 8.9 acres) is an undeveloped vacant lot and is routinely maintained (e.g., disced) to remove vegetation that may pose a wildland fire hazard. The southern half of the site (approximately 8.4 acres) is developed as a parking lot that is used for truck trailer parking, with a driveway access provided from Nandina Avenue and landscaping provided along Nandina Avenue and Perris Boulevard. Additional landscaping is located at the boundary between the existing parking lot in the south and the undeveloped portion of the site in the north. There are no unique land uses, topographic features, or environmental resources present on the property.

S.2.3 PROJECT OBJECTIVES

The primary objective of the proposed Project is to construct and operate one logistics center warehouse building in the City of Moreno Valley on a property designated for industrial development by the Moreno Valley Industrial Area Plan (Specific Plan 208). The following is a list of specific objectives sought by the proposed Project.

A. To construct and operate a logistics center warehouse building in the City of Moreno Valley on a property designated for industrial development by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208.)

B. To develop a logistics center warehouse building that is feasible to construct and operate and that appeals to light industrial and warehouse distribution tenants seeking to locate in the Moreno Valley area.

C. To make efficient use of property designated for industrial development by developing a logistics center warehouse building on a property that is adjacent to existing warehouse development and that achieves a minimum floor area ratio (FAR) of 0.5.

D. To construct and operate a logistics center warehouse building within five miles of major regional transportation corridors.

E. To attract new businesses and jobs to the City of Moreno Valley, thereby providing a more equal jobs/housing balance both in the city and in Riverside County and reducing the need for members of the existing local workforce to commute outside the area for employment.

S.2.4 BACKGROUND

The proposed Project site is located within the geographical limits of the Moreno Valley Industrial Area Plan (Specific Plan (SP) 208), which designates the property as “Industrial.” The Project site was the subject of previous environmental review under CEQA as part of the EIR certified in 1989 for SP 208 (State Clearinghouse Number 1988080813). More recently, in 2008, the City of Moreno Valley approved Tentative Parcel Map No. 35859 (PA07-0165) and two Plot Plans (PA07-0166 and PA07-0167) that covered the southern portion of the Project site and additional property located to the immediate west. For that project, the City prepared a Mitigated Negative Declaration (2008 MND) in compliance with CEQA (SCH No. 2008101041). That approved project consisted of a 700,000 s.f. warehouse building west of the currently proposed Project site, which is constructed and occupied by Harbor Freight Tools, and an 180,000 s.f. warehouse building on the southern portion of the currently proposed Project site which is not constructed.

In 2011, Addendum No. 1 to the 2008 MND was prepared to address minor design modifications to the approved buildings, parking stalls, and driveways, as well as a proposal to construct an interim truck parking lot with 213 stalls on the southern portion of the currently proposed Project site (at the approximate location of the originally approved 180,000 s.f. building). That project was constructed and the southern portion of the currently proposed Project site is now developed as an interim truck parking lot, although the original approval of an 180,000 s.f. building remains valid and could be implemented in the future. In 2012, the City of Moreno Valley approved a site plan (P12-061) to allow the expansion of the interim truck parking lot constructed on the southern portion of the Project site across the northern portion of the Project site. For this project, the City prepared Addendum No 2 to the 2008 MND. The parking lot expansion has not yet been constructed and under existing conditions the northern portion of the Project site remains vacant.

S.2.5 PROJECT DESCRIPTION SUMMARY

The Project proposes to develop a 17.3-acre property with one logistics center warehouse building containing 400,130 square feet (s.f.) of interior building space. Associated improvements to the property would include, but are not limited to 59 loading bays, surface parking areas, drive aisles, utility infrastructure, landscaping, exterior lighting, signage, and water quality/detention basins. Construction of the proposed Project involves demolition and removal of the existing parking lot, grading of the 17.3-acre property, and construction of the proposed building. One discretionary action is requested of the City of Moreno Valley to implement the Project, PA12-0023. The proposed building is designed to contain 394,130 s.f. of warehouse space and 6,000 s.f. of office and mezzanine space. The front door and office would be positioned at the southeast corner of the building, facing the intersection of Perris Boulevard/Nandina Avenue. On the 17.3 acre property, 0.3 acres would be dedicated to the City of Moreno Valley for the widening of San Michele Road, so the total net parcel acreage is 17.0 acres. Over the 17.0 net acre parcel, the proposed building would calculate to a floor area ratio (FAR) of 0.51.

S.3 EIR PROCESS

As a first step in complying with the procedural requirements of CEQA for an EIR, an Initial Study was prepared by the City of Moreno Valley to determine whether any aspect of the proposed Project, either individually or cumulatively, may cause a significant adverse effect on the physical environment (refer to EIR *Technical Appendix A*). After completion of the Initial Study, the City filed a NOP with the California Office of Planning and Research (State Clearinghouse) to indicate that an EIR would be prepared. In turn, the Initial Study and NOP were distributed for a minimum 30-day public review period, which ended on January 14, 2013.

Written comments on the scope of the EIR were received during the NOP comment period, and were considered by the City during the preparation of this EIR. For this Project, the Initial Study indicated that this EIR should focus on four (4) environmental subject areas. As a result of considering the public comment submitted as part of the NOP process, one (1) additional subject area was added (biological resources) to the scope of the EIR. Therefore, this EIR focuses on five (5) primary environmental topics: air quality, greenhouse gas, noise, traffic/circulation, and biological resources.

This EIR is being circulated for review and comment by the public and other interested parties, agencies, and organizations for a 45-day review period. During the 45-day public review period, public notices announcing availability of the Draft EIR will be mailed to interested parties, advertisements will be posted in the local newspaper, and copies of the Draft EIR and its Technical Appendices will be available for review at the locations indicated in the public notices.

After the close of the 45-day Draft EIR public comment period, responses to written comments on the environmental effects of the proposed Project will be prepared and published. The Final EIR will then be considered for certification by the City of Moreno Valley Planning Commission during a public hearing(s). The Planning Commission will review and consider the Final EIR prior to deciding to approve, approve with revision, or reject the proposed Project. Approval of the proposed Project would be accompanied by the adoption of written findings and a statement of overriding considerations for any significant unavoidable environmental impacts identified in the Final EIR. In addition, the City must adopt a Mitigation, Monitoring, and Reporting Program (MMRP), which describes the process to ensure implementation of the mitigation measures identified in the Final EIR to reduce or avoid significant impacts on the physical environment. The MMRP, which is included as Table S-1 in this EIR, will ensure CEQA compliance during Project construction and operation. The decision of the Planning Commission is appealable to the Moreno Valley City Council.

S.4 AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

CEQA Guidelines §15123(b)(2) requires that areas of controversy known to the Lead Agency (City of Moreno Valley) be identified in the Executive Summary. In consideration of the comments received in response to the NOP, the City of Moreno Valley has identified one area of controversy.

The South Coast Air Quality Management District (SCAQMD) suggested that mitigation measures be applied for air quality impacts that go beyond what is required by law. The City of Moreno Valley applies mitigation measures which it determines to be feasible and practical for the Project Applicant to implement and the City of Moreno Valley to monitor and enforce. Although some of these measures may go beyond what the law requires, the imposed measures must have an essential nexus to the Project's impacts, be feasible to implement and enforce, be legal for the City to impose, and result in a benefit to the physical environment. Due to the non-attainment status of the South Coast Air Basin for the federal 8-hour ozone standard, there is controversy regarding the feasibility of applying mitigation measures for nitrogen oxide (NOx) mobile source emissions on a project-by-project basis beyond those required by federal and state law, and the resultant benefits, if any, to regional air quality.

Regarding issues to be resolved, this EIR addresses the environmental issues that are known by the City and that are identified in the Initial Study prepared for the Project (refer to *Appendix A* of this EIR). Eight (8) written comment letters were received by the City on this EIR's NOP, copies of which are also included in *Appendix A*. Environmental topics raised in written comment to the NOP are primarily related to the issue areas of air quality, environmental and human health hazards, traffic, biological resources, agriculture, cultural resources, and soils. Refer to Table 1-2, *Summary of NOP Comments*, in Section 1.0 of this EIR.

S.5 ALTERNATIVES TO THE PROPOSED PROJECT

In compliance with CEQA Guidelines §15126.6, an EIR must describe a range of reasonable alternatives to the Project or to the location of the Project. Each alternative must be able to feasibly attain most of the Project's objectives and avoid or substantially lessen the Project's significant effects on the environment. A detailed description of each alternative evaluated in this EIR, as well as an analysis of the potential environmental impacts associated with each alternative, is provided in Section 6.0, *Alternatives to the Proposed Project*. Also described in Section 6.0 is a list of alternatives that were considered but rejected from further analysis. The alternatives considered by this EIR include those listed below.

S.5.1 ALTERNATIVE 1 – NO PROJECT/TRAILER YARD ALTERNATIVE

The No Project Alternative/Trailer Yard Alternative is included in the alternatives analysis as required pursuant to CEQA Guidelines §15126.6(e), which requires evaluation of an alternative that considers what would reasonably be expected to occur on the property in the foreseeable future if the Project were not approved, based on current plans and consistent with available infrastructure and community services. For purposes of analysis in this EIR, the No Project/Trailer Yard Alternative assumes that the Project site would be developed in accordance with its existing entitlements pursuant to previously approved Amended Plot Plan P12-061. Under this alternative, improvements on the site would involve the expansion of the existing truck trailer parking yard to the northern portion of the property, thereby increasing the number of truck trailer parking spaces on-site from 338 spaces to 722 spaces. Access to the property would be afforded via a driveway along San Michele Road, and via the existing driveway located along Nandina Avenue. With exception of near-term noise impacts, all significant effects of the proposed Project would be avoided or lessened by the selection of this alternative. However, this alternative would not achieve the objectives of the Project.

S.5.2 ALTERNATIVE 2 – NO PROJECT/INDUSTRIAL BUILDING ALTERNATIVE

The No Project/Industrial Building Alternative also is included in the alternatives analysis as required pursuant to CEQA Guidelines §15126.6(e). This alternative assumes that the proposed Project is not approved, and that the site would be developed in accordance with existing entitlements. Under this alternative, the northern portion of the site would be developed with a truck trailer yard consisting of approximately 384 trailer spaces, as approved by Amended Plot Plan P12-061, while the southern portion of the site would be developed with a 181,031 s.f. industrial building with 26 dock doors pursuant to previously approved Plot Plan PA07-0167. To construct the building, the existing parking lot located in the southern portion of the property would be demolished. Access to the site would be provided via driveways along Nandina Avenue, Perris Boulevard, and San Michele Road. The No Project/Industrial Building Alternative would meet most of the Project's objectives, but generally to a lesser degree. Implementation of this alternative would avoid the Project's significant and unavoidable near-term impact to transportation/traffic, and would reduce the magnitude of many of the other Project-related impacts that are related to building intensity. However, this alternative would reduce, but would not fully avoid, the proposed Project's impacts due to long-term operational-related emissions of NO_x, and would reduce but not fully avoid the proposed Project's significant unavoidable impact due to construction-related noise.

S.5.3 ALTERNATIVE 3 – REDUCED PROJECT/SMALL BUILDINGS ALTERNATIVE

The Reduced Project/Small Buildings Alternative considers development of the site with two smaller industrial buildings consisting of a 194,525 s.f. building in the northern portion of the site and a 181,031 s.f. building in the southern portion of the site. There would be a total of 375,556 s.f. of interior floor space in two structures, which is 24,574 s.f. less than the proposed Project (a 6% reduction in building area). Access to the site would be provided via driveways along Nandina Avenue, Perris Boulevard, and San Michele Road. This alternative was selected by the Lead Agency to compare the environmental effects of the proposed Project (one larger building that is likely to attract one tenant) against the environmental effects of constructing two smaller buildings that are likely to attract two different tenants. Implementation of this alternative would generate more traffic. Therefore, it would increase the proposed Project's significant and unavoidable impacts to long-term air quality (NO_x emissions) and near-term transportation/traffic, and would generally increase other Project-related operational impacts that are related to average daily traffic volumes. The Reduced Project/Small Buildings Alternative would meet all of the Project's objectives, except it may have more difficulty meeting the objective to construct a logistics center that appeals to tenants seeking to locate in the Moreno Valley area due to the smaller sized buildings as compared to the larger building proposed by the Project.

S.5.4 ALTERNATIVE 4 – REDUCED PROJECT/NORTH BUILDING ALTERNATIVE

The Reduced Project/North Building Alternative is identified as the Environmentally Superior Alternative. It would involve no changes to the existing trailer parking yard in the southern portion of the site, while the northern portion of the site would be developed with a 194,525 s.f. industrial building. This alternative would construct 205,605 s.f. less building area than the proposed Project (a reduction in building area by approximately 51%). Site access under this alternative would be afforded via new driveways along San Michele Road and Perris Boulevard, while the existing access via the adjacent lot along Nandina Avenue would be maintained. Implementation of this alternative would reduce the proposed Project's significant unavoidable impacts to near- and long-term air quality, near-term noise, and near-term transportation/traffic, although such impacts would not be fully avoided under this alternative. Other Project-related operational impacts that are related to average daily traffic volumes also would be reduced under this alternative. The Reduced Project/North Building Alternative would meet most of the Project's objectives, but generally to a lesser degree. Selection of the Reduced Project/North Building Alternative, while providing less building space on the property, would not result in a reduction in demand for industrial business park development in western Riverside County; thus, it is likely for a portion of the Project's environmental impacts to occur elsewhere rather than be avoided.

S.6 SUMMARY OF IMPACTS, PROJECT REQUIREMENTS, MITIGATION MEASURES, AND CONCLUSIONS

S.6.1 EFFECTS FOUND NOT TO BE SIGNIFICANT

The scope of this EIR includes five (5) subject areas as determined through the completion of an Initial Study prepared by the City of Moreno Valley pursuant to CEQA Guidelines §15063 and CEQA Statute §21002.1(e), as well as consideration of public comments received by the City on this EIR's NOP. The Initial Study, NOP, and public comments received in response to the NOP, are attached to this EIR as *Technical Appendix A*. Subject areas for which the Initial Study concluded that impacts would be clearly less than significant and that do not warrant further analysis in this EIR include: aesthetics, agricultural resources, cultural resources, geology/soils, hazards and hazardous materials, hydrology/water quality, land use/planning , mineral resources, population and housing, public services, recreation, and utilities/service systems. The EIR addresses these topics in EIR Subsection 5.4, *Effects Found Not to be Significant as Part of the Initial Study Process.*

S.6.2 IMPACTS OF THE PROPOSED PROJECT

Table S-1, *Mitigation, Monitoring, and Reporting Program*, provides a summary of the proposed Project's environmental impacts, as required by CEQA Guidelines §15123(a). Also presented are the Project's design features and mandatory project requirements that would serve to reduce or avoid impacts, as well as the mitigation measures imposed on the Project by the City of Moreno Valley to further avoid adverse environmental impacts or to reduce their level of significance.

Table S-1 Mitigation, Monitoring, and Reporting Program

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
4.1 Air Quality					
Applicable Project Requirements					
	PR 4.1-1 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 402, "Nuisance."	Project Construction Manager, Project Tenants	South Coast Air Quality Management District (SCAQMD)	During construction activities and ongoing during long-term operation	
	PR 4.1-2 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 403, "Fugitive Dust." Rule 403 requires implementation of best available dust control measures during construction activities that generate fugitive dust, such as earth moving activities, grading, and equipment travel on unpaved roads.	Project Construction Manager	SCAQMD	During construction activities	
	PR 4.1-3 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 431.2, "Sulfur Content of Liquid Fuels."	Project Construction Manager, Project Tenants	SCAQMD	During construction activities and ongoing during long-term operation	
	PR 4.1-4 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 1113, "Architectural Coatings."	Project Construction Manager, Project Tenants	City of Moreno Valley Building and Safety Division, SCAQMD	During construction activities and ongoing during long-term operation	
	PR 4.1-5 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 1186, "PM10 Emissions from Paved and Unpaved Roads, and Livestock Operations."	Project Construction Manager	SCAQMD	During construction activities	
	PR 4.1-6 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 1186.1, "Less-Polluting Street Sweepers."	Project Construction Manager	SCAQMD	During construction activities	

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	PR 4.1-7 The Project is required to comply with California Code of Regulations Title 13, Division 3, Chapter 1, Article 4.5, Section 2025, "Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles."	Project Construction Manager, Project Tenants	SCAQMD	During construction activities and ongoing during long-term operation	
	PR 4.1-8 The Project is required to comply with California Code of Regulations Title 13, Division 3, Chapter 10, Article 1, Section 2485, "Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling."	Project Tenants	SCAQMD	Ongoing during long-term operation	
	PR 4.1-9 The Project is required to comply with California Code of Regulations Title 24, "California Building Standards Code" and the "California Green Building Code."	Project Architect	City of Moreno Valley Building and Safety Division	Prior to issuance of building permit and during construction activities	
Summary of Impacts					
Threshold 1: The proposed Project would not conflict with or obstruct implementation of the SCAQMD's AQMP.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Thresholds 2 and 3: Emissions during Project construction (near-term) would violate the SCAQMD regional thresholds for VOCs and NOx. In addition, emissions during Project operation (long term) are projected to exceed the SCAQMD regional threshold for NOx. Near-term emissions of VOCs and near- and long-term emissions of NOx also would contribute to an existing air quality violation in the SCAB (i.e., non-attainment status for O_3) because both VOCs and NOx are precursors for O_3. As such, Project-related air emissions would violate SCAQMD air quality standards and contribute to the non-attainment status of a criteria pollutant (i.e., O_3). These Project-related air emissions are concluded to be a significant impact on a direct and cumulative basis.	**PM10 Emissions – Near Term** **MM 4.1-1** Prior to grading permit issuance, the City shall verify that the following notes are specified on the grading plan to ensure implementation of SCAQMD Rule 403. It should be noted that the following list is non-exclusive, and identifies only key provisions of the SCAQMD Rule 403 requirements; regardless the Project shall be required to comply with all applicable provisions of SCAQMD Rule 403, whether listed below or not. Specifically, Project contractors shall be required to comply with the following notes and all other applicable SCAQMD Rule 403 requirements, and shall maintain written records of such compliance that can be inspected by the City of Moreno Valley upon request. All clearing, grading, earth-moving, and excavation activities shall cease when winds exceed 25 miles	Project Engineer/ Project Construction Manager	City of Moreno Valley Planning Division and Land Development Division	Prior to the issuance of grading permit(s) and during construction activities	Near-Term Construction (VOC and NOx emissions): Less than Significant Impact. Long-Term (NOx): Significant Unavoidable Direct and Cumulative Impact

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	per hour. All unpaved roads and disturbed areas shall be watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day. The contractor shall ensure that traffic speeds on unpaved roads and areas where soil is exposed are reduced to 15 miles per hour or less. Public streets shall be swept at the end of each workday using a street sweeper meeting SCAQMD Rule 1186.1 if visible soil is carried onto paved public roads. The cargo area of all vehicles hauling soil, sand, or other loose earth materials shall be covered.				
	MM 4.1-2 Prior to the start of grading, the construction contractor shall post legible, durable, weather-proof signs at the property's frontage with Perris Boulevard, San Michelle Road, and Nandina Avenue stating the name and phone number of an authorized individual to be contacted to resolve dust complaints. Proof of sign posting in the form of photographs shall be placed on file with the City of Moreno Valley. These signs shall remain posted on the property until grading is complete. All legitimate dust complaints shall be resolved in 24 hours.	Project Construction Manager	City of Moreno Valley Planning Division and Land Development Division	Prior to the issuance of grading permit(s) and during construction activities	
	<u>NOx Emissions – Near-Term</u>				
	MM 4.1-3 Prior to grading permit and building permit issuance, the City shall verify that the following notes are specified on all grading and building plans. Project contractors shall be required to comply with these notes and permit periodic inspection of the construction site by City of Moreno Valley staff to confirm compliance.	Project Applicant/ Developer	SCAQMD, City of Moreno Valley Planning Division, Building and Safety Division, and Land Development Division	Prior to the issuance of grading permit(s) and building permit(s) and during construction activities	

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	Mass grading shall be limited to no more than 4.0 acres per day. During construction activity, diesel engines shall not idle in excess of three (3) minutes. All construction-related equipment shall be CARB Certified. Temporary traffic control for construction vehicles entering and exiting the site shall be implemented pursuant to the requirements of the California Manual on Uniform Traffic Control Devices. During construction activity, the operating time of all pieces of off-road diesel-powered equipment shall not exceed a combined total of 75 operating hours per day. Construction-related haul trips entering and existing the site shall occur during non-peak traffic hours. The construction contractor shall encourage construction site employees to rideshare by offering incentives or other inducements. High pressure injectors shall be used on all diesel powered construction equipment over 100 horsepower. All construction-related on-road diesel-powered haul trucks shall be 2007 or newer model year or 2010 engine compliant vehicles. On all construction-related equipment that has a particulate trap, the trap shall be Level 3 CARB certified. Electric-powered construction equipment and tools shall be used when technically feasible. Biodiesel fuel or other alternatives to diesel fuel shall be used to power construction equipment when technically feasible.				

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	Construction vehicles shall use the City's designated truck route. Construction parking shall be located and configured to minimize traffic interference on public streets. Import of earth materials and on-site grading activities shall not occur on the same day. No more than 66 loads of earth material (about 2,000 cubic yards) shall be brought to the site in any given day.				
	<u>VOC Emissions – Near Term</u>				
	MM 4.1-4 Prior to building permit issuance, the City shall verify that the following note is specified on all building plans. Project contractors shall be required to comply with these notes and maintain written records of such compliance that can be inspected by the City of Moreno Valley upon request. All surface coatings shall consist of Zero-Volatile Organic Compound paints (no more than 150 gram/liter of VOC) and/or be applied with High Pressure Low Volume (HPLV) applications consistent with SCAQMD Rule 1113. Alternatively, building materials may be used that do not require painting or are delivered to the construction site pre-painted.	Project Construction Supervisor	City of Moreno Valley Planning Division, Building and Safety Division, and Land Development Division	Prior to the issuance of building permit(s) and during construction activities	
	<u>NOx Emissions – Long-Term</u>				
	MM 4.1-5 Legible, durable, weather-proof signs shall be placed at truck access gates, loading docks, and truck parking areas that identify applicable California Air Resources Board (CARB) anti-idling regulations. At a minimum each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) instructions for drivers of diesel trucks to restrict idling to no more than three (3) minutes; and 3) telephone numbers of the building facilities manager and the CARB to report	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division and Planning Division	Prior to the issuance of occupancy permit(s)	

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	violations. Prior to occupancy permit issuance, the City shall conduct a site inspection to ensure that the signs are in place.				
	MM 4.1-6 Prior to the issuance of building permits, the City shall verify that the parking lot striping and security gating plan allows for adequate truck stacking at gates to prevent queuing of trucks outside the property.	Project Applicant/ Developer	City of Moreno Valley Planning Division	Prior to the issuance of building permit(s)	
	MM 4.1-7 Prior to the issuance of occupancy permits, the Project's property owner shall provide documentation to the Planning Division verifying that provisions are included in the building's lease agreement that inform tenants about the availability of: 1) alternatively fueled cargo handling equipment; 2) grant programs for diesel fueled vehicle engine retrofit and/or replacement; 3) designated truck parking locations in the City of Moreno Valley; 4) access to alternative fueling stations in the City of Moreno Valley that supply compressed natural gas (closest station is located on Indian Street, south of Nanina Avenue); and 5) the United States Environmental Protection Agency's SmartWay program.	Project Applicant/ Developer	City of Moreno Valley Planning Division	Prior to the issuance of occupancy permit(s)	
	MM 4.1-8 In the event that the building design is modified to accommodate refrigeration, all loading docks shall be equipped with an electrical hookup to power refrigerated tractor trailers	Project Applicant/ Developer	City of Moreno Valley Planning Division	Prior to the issuance of building permits for any building design that accommodates refrigeration	
<u>Threshold 4</u>: Near-term construction and long-term operation of the proposed Project would not expose nearby sensitive receptors to substantial pollutant concentrations of any criteria pollutant or diesel particulate matter. As such, a less than significant impact would occur.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
<u>Threshold 5:</u> The Project does not propose land uses or operational activities associated with emitting objectionable odors. Any odor emissions generated during Project construction would be short term, not	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
objectionable, and not affect a substantial population. Therefore, impacts due to odors would be less than significant.					
4.2 Greenhouse Gas Emissions					
Applicable Project Requirements					
	PR 4.2-1 The Project is required to comply with mandatory regulatory requirements imposed by the State of California and the South Coast Air Quality Management District aimed at the reduction of air quality emissions. Those that are applicable to the Project and that would assist in the reduction of Project-related GHG emissions include, but are not limited to the following: a) Global Warming Solutions Act of 2006 (AB32). b) Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies (SB 375). c) Pavely Fuel Efficiency Standards (AB1493), which establishes fuel efficiency ratings for new vehicles. d) California Code of Regulations Title 13, Division 3 addressing diesel exhaust emissions. Specifically, Chapter 1, Article 4.5, §2025, “Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles” and Chapter 10, Article 1, §2485, “Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling.” e) California Code of Regulations Title 24 (California Building Code), which establishes energy efficiency requirements for new construction. f) California Code of Regulations Title 20 (Appliance Energy Efficiency Standards), which establishes energy efficiency requirements for	Project Applicant/ Developer	City of Moreno Valley Planning Division and Building and Safety Division	Prior to the issuance of building permit(s) and ongoing during long-term operation	

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	appliances. g) Title 17 California Code Regulations (Low Carbon Fuel Standard). Requires carbon content of fuel sold in California to be 10% less by 2020. h) California Water Conservation in Landscaping Act of 2006 (AB1881), which requires local agencies to adopt the Department of Water Resources updated Water Efficient Landscape Ordinance or equivalent by January 1, 2010 to ensure efficient landscapes in new development and reduce water waste in existing landscapes. i) Statewide Retail Provider Emissions Performance Standards (SB 1368), requiring energy generators to achieve performance standards for GHG emissions. j) Renewable Portfolio Standards (SB 1078). Requires electric corporations to increase the amount of energy obtained from eligible renewable energy resources to 20 percent by 2012 and 33 percent by 2020. k) South Coast Air Quality Management District Rule 1118 "PM10 Emissions from Paved and Unpaved Roads, and Livestock Operations," and Rule 1186.1 "Less Polluting Street Sweepers."				
	PR 4.2-2 The Project will provide on-site bicycle storage pursuant to City of Moreno Valley Municipal Code §9.11.060.B, Off-Street Bicycle Parking Requirements.	Project Applicant/ Developer	City of Moreno Valley Planning Division and Building and Safety Division	Prior to the issuance of building permit(s)	N/A
	PR 4.2-3 The Project will comply with all applicable provisions of the City of Moreno Valley Municipal Code Chapter 6.02 "Refuse Collection, Transfer and Disposal" and Chapter 8.80 "Recycling and Diversion of Construction and Demolition Waste."	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division	Prior to the issuance of building permit(s)	N/A
Summary of Impacts					
Thresholds 1 and 2: The proposed Project would not generate GHG emissions, either directly or indirectly, in quantities that may	Impacts would not be significant; therefore, mitigation measures are not required. Regardless, to ensure that the Project will comply with				Less than Significant Impact

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
have a direct or cumulatively considerable significant impact on the environment. In addition, the proposed Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.	applicable GHG emission reduction strategies specified in California's 2006 Climate Action Team report, the following mitigation measures are recommended.				
	MM 4.2-1 Prior to the approval of building permits, the City shall review the building plans to ensure that the building's mechanical/electrical /plumbing (MEP) plans specify the installation of U.S. EPA Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and water-conserving shower heads (if showers are proposed).	Project Applicant/ Developer	City of Moreno Valley Planning Division and Building and Safety Division	Prior to the issuance of building permit(s) and as part of final building inspection	
	MM 4.2-2 Prior to the approval of building permits, the City shall review the building plans to ensure that the building's roof is structurally designed to accommodate the future addition of photovoltaic solar panels.	Project Applicant/ Developer	City of Moreno Valley Planning Division and Building and Safety Division	Prior to the issuance of building permit(s) and as part of final building inspection	
4.3 Noise					
Applicable Project Requirements					
	PR 4.3-1 The Project is required to comply with the City of Moreno Valley Noise Ordinance (Moreno Valley Municipal Code Chapter 11.80).	Project Construction Manager, Project Tenants	City of Moreno Valley Code and Neighborhood Services Division	During construction activities and ongoing during long-term operation	N/A
Summary of Impacts					
Thresholds 1, 3, and 4: During Project construction, noise levels beyond 200 feet from the property boundary would exceed levels specified in the City of Moreno Valley Noise Ordinance. Existing sensitive receptors (residential) located within 2,774 feet of the Project boundary with a clear line of site to the construction activity would experience noise levels above 65 dBA leq at some point during the construction process. Additionally, in the event that Project construction activities occur simultaneously with other construction activities that affect the same sensitive receptors, cumulative construction-related noise would also be significant. Under long-term operating conditions, the Project would not generate traffic-related or	**MM 4.3-1** Prior to grading or building permit issuance, the City shall review grading and building plans to ensure that the following notes are included. Project contractors shall be required to comply with these notes and maintain written records of such compliance that can be inspected by the City of Moreno Valley upon request. a) All construction activities, including but not limited to haul truck deliveries, shall be limited to between the hours of 7:00 a.m. and 8:00 p.m. b) Construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards. c) All stationary construction equipment and equipment staging areas shall be placed as close as	Project Construction Manager	City of Moreno Valley Land Development Division and Building and Safety Division	Prior to the issuance of grading permit(s) and building permit(s)	Significant Unavoidable Direct and Cumulative Impact (Near-Term)

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
stationary noise levels above the standards given in the City of Moreno Valley Noise Ordinance or in any adjacent jurisdiction's General Plan. Long-term impacts would be less than significant.	possible to the center of the western property line. d) All haul truck deliveries shall use City-approved haul routes. Should alternate routes be necessary, haul trucks shall not use roadways that pass noise-sensitive land uses or residential dwellings unless approved by the City of Moreno Valley.				
	MM 4.3-2 As a condition of the Project's building permit, the perimeter wall planned along San Michelle Road and at the corner of San Michelle Road and Perris Boulevard shall be installed early in the construction process	Project Applicant/ Developer	City of Moreno Valley Planning Division	During Project construction	
Threshold 2: Near-term construction activities and long-term operation of the proposed Project would not expose persons to or generate excessive groundborne vibration or groundborne noise levels.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 5: The Project would not expose people to excessive noise levels associated with the operation of an airport.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 6: There are no private airstrips in the vicinity of the Project site; as such, the Project has no potential to expose people residing or working in the area to excessive noise levels associated with operation of a private airstrip.	Mitigation is not required.	N/A	N/A	N/A	No Impact
4.4 Transportation/Traffic					
Summary of Impacts					
Threshold 1: The proposed Project would result in cumulatively considerable significant impacts to the existing and planned roadway network by contributing traffic to facilities that would operate at deficient levels of service with or without the addition of Project traffic. Project traffic would make a cumulatively considerable contribution to identified cumulative impacts at seven (7) roadway segments and five (5) intersections in Opening Year Cumulative (2017) Conditions. With required payment of	**MM 4.4-1** In the event that the City of Perris establishes a fair-share funding program for improvements to the following intersections (or immediately adjacent roadways segments that contribute to the intersection's level of service), that applies to projects in the City of Moreno Valley, then prior to the issuance of a building permit for the project, the Project Applicant shall contribute a fair-share payment to the established funding program to address the Project's cumulative impacts to the following facilities:	Project Applicant/ Developer	City of Moreno Valley Public Works Department (Transportation Engineering Division)	Prior to the issuance of the first (1st) building permit	Significant Unavoidable Cumulative Impact (Near-Term)

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
City of Moreno Valley DIF fees and TUMF fees (see PR 4.4-3) and implementation of the DIF and TUMF-funded improvements at the cumulatively impacted facilities, all cumulatively impacted roadway segments and intersections in Opening Year Cumulative (2017) Conditions would be reduced to a less than significant impact with the exception of two (2) intersections: Western Way/Harley Knox Boulevard (Project's traffic contribution is 3.3%) and Indian Street/ Harley Knox Boulevard (Project's traffic contribution is 3.5%)). Although improvements are anticipated to relieve these deficiencies in the long-term along Harley Knox Boulevard, funded by the North Perris Road Bridge and Benefit District, there is no assurance that the improvements will be in place at the time of the proposed Project's Opening Year Cumulative (2017) Conditions. Thus, the cumulative impact is considered a near-term impact, until such time as the intersection improvements are in place.	a) Intersection of Western Way/ Harley Knox Boulevard (Project's fair-share contribution is 3.3%); b) Intersection of Indian Street/ Harley Knox Boulevard (Project's fair-share contribution is 3.5%)				
	MM 4.4-2 Prior to the issuance of occupancy permits, the Project shall construct roadway improvements (including but not limited to parkway, landscaping, and sidewalk improvements) along its frontage with Perris Boulevard and San Michele Road as specified in the City of Moreno Valley's Conditions of Approval for Plot Plan PA12-0023.	Project Applicant/ Project Construction Supervisor	City of Moreno Valley Land Development Division	Prior to the issuance of the first (1st) occupancy permit	N/A
	MM 4.4-3 Prior to the issuance of occupancy permits, the Project shall construct intersection improvements at each Project Driveway as specified in the City of Moreno Valley's Conditions of Approval for Plot Plan PA12-0023.	Project Applicant/ Project Construction Supervisor	City of Moreno Valley Land Development Division	Prior to the issuance of the first (1st) occupancy permit	N/A
	MM 4.4-4 MM 4.4-4 Prior to the issuance of building or occupancy permits, the Project shall comply with the City of Moreno Valley Development Impact Fee (DIF) program, which requires the payment of a fee to the City to reduce traffic congestion by participating in funding the installation of intersection improvements. Prior to the issuance of occupancy permits, the project also shall comply with the Transportation Uniform Mitigation Fee (TUMF) program, which funds off-site regional transportation improvements. The following study area intersection improvements are currently covered under DIF-funding and/or TUMF-funding: a) I-215 Southbound Ramps/ Harley Knox Boulevard (ID #1): One (1) southbound lane; one (1) westbound lane; and re-striping for one southbound lane and one southbound right turn. b) I-215 Northbound Ramps/ Harley Knox Boulevard (ID #2): One westbound free right lane, and re-striping for one (1) northbound right turn lane.	Project Applicant/ Project Construction Supervisor	City of Moreno Valley Land Development Division and Planning Division	Prior to the issuance of the first (1st) occupancy permit	N/A

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	c) Patterson Avenue/ Harley Knox Boulevard (ID #4): One (1) eastbound turn lane, and one (1) westbound turn lane. d) Indian Street/ Nandina Avenue (ID #5): One (1) northbound turn lane; one (1) southbound turn lane; one (1) southbound right turn lane; one (1) eastbound lane; and protected left-turn on eastbound and westbound approaches. e) Indian Street/ Harley Knox Boulevard (ID #6): Two (2) southbound right turn lanes with overlapping phasing; one (1) eastbound lane; one (1) eastbound turn lane; and remove cross-walk on north leg (westbound approach). f) Perris Boulevard/ San Michele Road (ID #12): One southbound turn lane.				
	MM 4.4-5 On-site direction signing and striping shall be installed in conjunction with detailed construction plans for the Project and as approved by the City of Moreno Valley. The on-site signing and striping plans shall be subject to review and approval by the Planning Division, and shall clearly indicate the location of service area docks and public parking areas.	Project Applicant/ Project Construction Supervisor	City of Moreno Valley Planning Division	Prior to the issuance of occupancy permit(s)	N/A
	MM 4.4-6 All final grading, landscaping, and street improvement plans shall provide sight distance standards in accordance with City of Moreno Valley and California Department of Transportation (Caltrans) standards, as appropriate.	Project Applicant/ Project Construction Supervisor	City of Moreno Valley Department of Public Works (Transportation Engineering Division), City of Moreno Valley Land Development Division and Planning Division	Prior to the issuance of building permit(s)	N/A
	MM 4.4-7 The minimum number of vehicle and bicycle parking spaces specified by the City of Moreno Valley Municipal Code shall be provided.	Project Applicant/ Project Construction Supervisor	City of Moreno Valley Planning Division	Prior to the issuance of occupancy permit(s)	N/A
	MM 4.4-8 A future transit stop will be provided by the Project on the southbound side of Perris Boulevard as specified in the City of Moreno Valley's Conditions of Approval for Plot Plan PA12-0023.	Project Applicant/ Project Construction Supervisor	City of Moreno Valley Department of Public Works (Transportation Engineering Division)	Prior to the issuance of the first (1st) occupancy permit	N/A

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Threshold 2: The proposed Project would result in less than significant direct and cumulative impacts to CMP facilities.	Mitigation is not required	N/A	N/A	N/A	Less than Significant Impact
Threshold 3: There is no potential for the Project to change air traffic levels or create substantial air traffic safety risks.	Mitigation is not required.	N/A	N/A	N/A	No Impact
Threshold 4: No transportation safety hazards would be introduced as a result of the proposed Project's design.	Mitigation is not required.	N/A	N/A	N/A	No Impact
Threshold 5: Adequate emergency access would be provided to the Project site.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 6: The proposed Project is consistent with adopted policies and programs regarding public transit, bicycle, and pedestrian facilities. The Project is designed to reduce all potential transportation mode conflicts. Potential impacts to the performance or safety of transit, bicycle, and pedestrian systems would be less than significant.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
4.5 Biological Resources					
Applicable Project Requirements					
	PR 4.5-1 The Project shall comply with City of Moreno Valley Municipal Code Title 3, Chapter 3.48, Western Riverside County Multiple Species Habitat Conservation Plan Fee Program, which requires a per-acre local development mitigation fee that will assist in providing revenue to acquire and preserve vegetation communities and natural areas within the city and western Riverside County which are known to support threatened, endangered or key sensitive populations of plant and wildlife species.	Project Applicant/ Developer	City of Moreno Valley Planning Division	Prior to the issuance of a building permit	N/A

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	PR 4.5-2 The Project shall comply with City of Moreno Valley Municipal Code Title 3, Chapter 8.60, Threatened and Endangered Species, which requires a per-acre local development mitigation fee pursuant to the City's adopted "The Habitat Conservation Plan for the Stephens' Kangaroo Rat in Western Riverside County, California" and as established pursuant to Fee Resolution 89-92.	Project Applicant/ Developer	City of Moreno Valley Planning Division	Prior to the issuance of grading permit(s)	N/A
Summary of Impacts					
Threshold 1: No sensitive vegetation communities are located on the Project site. A less than significant impact on sensitive plant species would occur because the loss of two individual smooth tarplant would not significantly impact the persistence of the species. The loss of habitat for the California horned lark is less than significant with mandatory MSHCP compliance because the species is a MSHCP Covered Species. Although the western burrowing owl is not present on the Project site, the species could be impacted if it migrates onto the property prior to the commencement of ground-disturbing construction activities, which is a potentially significant direct and cumulative impact.	**MM 4.5-1** Within 30 days prior to grading, a qualified biologist shall conduct a survey of the undeveloped portions of the property and make a determination regarding the presence or absence of the burrowing owl. The determination shall be documented in a report and shall be submitted, reviewed, and accepted by the Planning Division prior to the issuance of a grading permit and subject to the following provisions: a) In the event that the pre-construction survey identifies no burrowing owls on the property, a grading permit may be issued without restriction. b) In the event that the pre-construction survey identifies the presence of at least one individual but less than three (3) mating pairs of burrowing owl, then prior to the issuance of a grading permit and prior to the commencement of ground-disturbing activities on the property, the qualified biologist shall passively or actively relocate any burrowing owls. Passive relocation, including the required use of one-way doors to exclude owls from the site and the collapsing of burrows, will occur if the biologist determines that the proximity and availability of alternate habitat is suitable for successful passive relocation. Passive relocation shall follow CDFW relocation protocol and shall only occur between September 15 and February 1. If proximate alternate habitat is not present as determined by the biologist, active relocation shall follow CDFW relocation protocol. The biologist shall confirm in writing that the species has fledged the site or been relocated prior to the issuance of a grading permit.	Project Applicant/ Developer/Project Biologist	City of Moreno Valley Planning Division	Prior to the issuance of grading permit(s)	Significant Direct and Cumulative Impact Mitigated to Less than Significant

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	c) In the event that the pre-construction survey identifies the presence of three (3) or more mating pairs of burrowing owl, the requirements of MSCHP Species-Specific Conservation Objectives 5 for the burrowing owl shall be followed. Objective 5 states that if the site (including adjacent areas) supports three (3) or more pairs of burrowing owls and supports greater than 35 acres of suitable Habitat, at least 90 percent of the area with long-term conservation value and burrowing owl pairs will be conserved onsite until it is demonstrated that Objectives 1-4 have been met. A grading permit shall only be issued, either: • upon approval and implementation of a property-specific Determination of Biologically Superior Preservation (DBESP) report for the western burrowing owl by the CDFW. • a determination by the biologist that the site is part of an area supporting less than 35 acres of suitable Habitat, and upon passive or active relocation of the species following accepted CDFW protocols. Passive relocation, including the required use of one-way doors to exclude owls from the site and the collapsing of burrows, will occur if the biologist determines that the proximity and availability of alternate habitat is suitable for successful passive relocation. Passive relocation shall follow CDFW relocation protocol and shall only occur between September 15 and February 1. If proximate alternate habitat is not present as determined by the biologist, active relocation shall follow CDFW relocation protocol. The biologist shall confirm in writing that the species has fledged the site or been relocated prior to the issuance of a grading permit.				
	MM 4.5-2 If clearing activities are proposed	Project Applicant/	City of Moreno Valley	Prior to the issuance of	Significant Direct and

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	between February 1 and August 31, then within 30 days prior to vegetation clearing activities a qualified biologist shall conduct nesting bird surveys. If any nesting bird species are identified, then a construction buffer distance of 300 feet for non-listed, non-raptor species or 500 feet for listed and raptor species shall be maintained until the Project biologist certifies that the nests are no longer occupied.	Developer/Project Biologist	Planning Division	grading permit(s)	Cumulative Impact Mitigated to Less than Significant
Threshold 2: The Project site lacks riparian and other sensitive habitats; therefore, the Project would have no impact on riparian or other sensitive habitats as defined by the CDFW or USFWS.	Mitigation is not required	N/A	N/A	N/A	No Impact
Threshold 3: No federally protected wetlands are located on the Project site; therefore, no impact would occur.	Mitigation is not required	N/A	N/A	N/A	No Impact
Threshold 4: There is no potential for the Project to interfere with the movement of fish or impede the use of a native wildlife nursery site. Additionally, the Project would not have the ability to interfere with an established migratory wildlife corridor or result in wildlife movement impacts on the MSHCP Preserve.	Mitigation is not required	N/A	N/A	N/A	No Impact
Threshold 5: The Project would not conflict with any local policies or ordinances governing biological resources.	Mitigation is not required	N/A	N/A	N/A	No Impact
Threshold 6: The Project site is subject to the Western Riverside County MSHCP and its survey requirements for the western burrowing owl. Although compliant with all MSHCP provisions, and although the species is absent on the property, the property contains suitable habitat for the western burrowing owl. If the species is present on the property at the time a grading permit is issued, impacts would be significant, requiring mitigation.	Mitigation Measure 4.5-1 Applies	Project Applicant/ Developer/Project Biologist	City of Moreno Valley Planning Division	Prior to the issuance of grading permit(s)	Significant Direct and Cumulative Impact Mitigated to Less than Significant

1.0 INTRODUCTION

1.1 PURPOSES OF CEQA AND THIS EIR

As stated by CEQA Guidelines §15002, the basic purposes of CEQA are to:

- Inform governmental decision makers and the public about the potential, significant environmental effects of proposed [government actions (including the discretionary approval of development projects)];
- Identify the ways that environmental damage can be avoided or significantly reduced;
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and

If a project will be approved involving significant environmental effects,

- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose.

This Environmental Impact Report (EIR, P12-064) is an informational document prepared by the City of Moreno Valley to evaluate the physical environmental effects that could be caused by constructing and operating the First Inland Logistics Center II Project (hereafter, the "Project"). The Project proposes governmental approval of Plot Plan PA12-0023 and other related discretionary and administrative actions that would be required to construct and operate the Project described in this EIR.

The Project is proposed on a 17.3-acre property located at the southwest corner of San Michele Road and North Perris Boulevard in the City of Moreno Valley, Riverside County, California. The City of Moreno Valley's Specific Plan 208, titled "Moreno Valley Industrial Area Plan" (MVIAP), designates the property for development as "Industrial." The southeastern corner of the property is located within an "Industrial Support Area" overlay that allows for commercial or industrial support land uses to be located within 300 feet of key roadway intersections, including the Nandina Avenue/ North Perris Boulevard intersection at the property's southeastern corner. The City of Moreno Valley's General Plan Land Use Map, which is intended to reflect the land use designations applied to the property by Specific Plan 208, designates the property for development with "Business Park/Light Industrial (BP)" land uses, with the southeastern corner of the property designated as "Commercial." The General Plan's commercial designation in the southeastern corner of the site is intended to correspond to the Specific Plan's "Industrial Support Area" overlay designation. Consistent with these land use designations, the property's zoning designation is "Industrial (I)."

The proposed Project is consistent with the property's land use designations as applied by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208), as well as the property's zoning designation. CEQA Guidelines §15183(a) mandates that projects which are consistent with the development density established by existing zoning, community plan, or general plan policies for which an EIR was certified, shall not require additional environmental review, except as might be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site. In this case, the subject property was evaluated as part of an EIR certified in 1989 for Specific Plan 208 (State Clearinghouse Number 1988080813) and as part of the City's General Plan Program EIR certified in 2006 (State Clearinghouse Number 2000091075). Therefore, as mandated by CEQA Guidelines §15183(a), this EIR focuses on project-specific effects that are peculiar to the proposed First Inland Logistics Center II project and its 17.3-acre property.

An Initial Study was prepared by the City of Moreno Valley pursuant to CEQA Guidelines §15063 to determine if the Project could have a significant effect on the environment. The Initial Study determined that implementation of the Project has the potential to result in significant environmental effects, and a Project EIR, as defined by CEQA Guidelines §15161, is required. As stated in CEQA Guidelines §15161, a Project EIR should "…focus primarily on the changes in the environment that would result from the development project," and "…examine all phases of the project including planning, construction, and operation."

Accordingly, and in conformance with CEQA Guidelines §15121(a), the purposes of this EIR are to: (1) disclose information by informing public agency decision makers and the public generally of the significant environmental effects associated with all phases of the Project, (2) identify possible ways to minimize or avoid those significant effects, and (3) to describe a reasonable range of alternatives to the Project that would feasibly attain most of the basic Project objectives but would avoid or substantially lessen its significant environmental effects.

1.2 SUMMARY OF THE PROJECT EVALUATED BY THIS EIR

For purposes of this EIR, the term "Project" refers to the discretionary actions required to implement the First Inland Logistics Center II Project as proposed and all of the activities associated with its implementation, including planning, construction, and ongoing operation. In summary, the Project proposes the construction and operation of one warehouse distribution building with up to 400,130 square feet (s.f.) of interior building space, as well as surface parking areas and drive aisles, loading docks, roadway improvements, utility infrastructure, landscaping, water quality/detention basins, and other site improvements.

The Project proposes the following discretionary action, which is under consideration by the City of Moreno Valley:

- Plot Plan PA12-0023 provides a site arrangement, architectural plans, and landscape design for the building that is proposed to be constructed and operated on the Project site. A maximum of 400,130 s.f. of interior building space is proposed, consisting of 394,130 s.f. of warehouse space and 6,000 s.f. of office and mezzanine space.

Refer to EIR Section 3.0, *Project Description*, for a detailed description of the proposed Project, including a listing of permits and actions that would be required of the City of Moreno Valley as well as other agencies and authorities.

1.3 PROJECT HISTORY

The proposed Project site is located within the geographical limits of the Moreno Valley Industrial Area Plan (Specific Plan (SP) 208). SP 208 was originally referred to as the Oleander Specific Plan when first approved by the City in 1989, but was renamed as the Moreno Valley Industrial Area Plan in 2001 after 40 acres of additional area was added to the Specific Plan boundaries, bringing the total land area within SP 208 to 1,540 acres. SP 208 was again amended in 2002, which consolidated the Business Park, Mixed Use, Light Industry, and Heavy Industry land use designations of the original Specific Plan into a single "Industrial" land use classification in order to increase flexibility in accommodating economic development opportunities (SP 208, 2002). This Industrial classification is applied to the 17.3-acre First Inland Logistics Center II property, which is the subject of this EIR.

The Project site was the subject of previous environmental review under CEQA as part of an EIR certified in 1989 for SP 208 (State Clearinghouse Number 1988080813). In 2008, the City of Moreno Valley approved Tentative Parcel Map No. 35859 (PA07-0165) and two Plot Plans (PA07-0166 and PA07-0167) that covered the southern portion of the Project site in addition to additional land area located to the immediate west. For that project, the City prepared a Mitigated Negative Declaration (2008 MND) in compliance with CEQA (SCH No. 2008101041). The 2008 MND concluded that all significant environmental effects could be mitigated to below established thresholds of significance. That approved project consisted of a 700,000 s.f. warehouse building west of the currently proposed Project site and an 180,000 s.f. warehouse building on the southern portion of the currently proposed Project site.

In 2011, an Addendum to the 2008 MND was prepared, hereinafter referred to as Addendum No. 1. Addendum No. 1 addressed minor design modifications to the approved buildings, parking stalls, and driveways, as well as a proposal to construct an interim truck parking lot with 213 stalls on the southern portion of the currently proposed Project site (at the approximate location of the originally approved 180,000 s.f. building). That project was constructed and the southern portion of the currently proposed Project site is now developed as an interim truck parking lot, although the original approval of an 180,000 s.f. building remains valid and could be implemented in the future.

In 2012, the City of Moreno Valley approved a site plan (P12-061) to allow the expansion of the interim truck parking lot constructed on the southern portion of the Project site across the northern portion of the Project site. For this project, the City prepared a second Addendum to the 2008 MND, hereinafter referred to as Addendum No. 2. Addendum No. 2 addressed potential environmental effects associated with the expansion of the interim truck parking lot from approximately 8.5 acres to approximately 17.0 acres to accommodate a maximum of 487 truck parking stalls, a water quality basin, and screen walls along San Michele Road and Perris Boulevard. Addendum No. 2 concluded that expansion of the interim truck parking lot and associated improvements would not result in any new or more severe impacts than previously identified in the 2008 MND, and all potential environmental impacts would be adequately reduced to below established thresholds of significance with mandatory implementation of conditions of approval and the mitigation measures identified in the 2008 MND. The parking lot expansion has not yet been constructed and under existing conditions the northern portion of the Project site remains vacant.

1.4 LEGAL AUTHORITY

This EIR was prepared in accordance with all criteria, standards, and procedures of CEQA (California Public Resource Code Section 21000 et seq.) and the CEQA Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3, Section 15000 et seq.).

Pursuant to CEQA §21067 and CEQA Guidelines Article 4 and §15367, the City of Moreno Valley is the Lead Agency under whose authority this EIR has been prepared. "Lead Agency" refers to the public agency that has the principal responsibility for carrying out or approving a project. Serving as the Lead Agency and before taking action to approve the proposed Project, the City of Moreno Valley has the obligation to: (1) ensure that this EIR has been completed in accordance with CEQA; (2) review and consider the information contained in this EIR as part of its decision making process; (3) make a statement that this EIR reflects the City of Moreno Valley's independent judgment; (4) ensure that all significant effects on the environment are avoided or substantially lessened where feasible; and, if necessary (5) make written findings for each unavoidable significant environmental effect stating the reasons why mitigation measures or project alternatives identified in this EIR are infeasible and citing the specific benefits of the proposed Project that outweigh its unavoidable adverse effects (CEQA Guidelines §§15090 through 15093).

Pursuant to CEQA Guidelines §§15040 through 15043, and upon completion of the CEQA review process, the City of Moreno Valley will have the legal authority to do any of the following:

- Approve the proposed Project;
- Require feasible changes in any or all activities involved in the Project in order to substantially lessen or avoid significant effects on the environment;
- Disapprove the Project, if necessary, in order to avoid one or more significant effects on the environment that would occur if the Project was approved as proposed; or
- Approve the Project even through the Project would cause a significant effect on the environment if the City makes a fully informed and publicly disclosed decision that: 1) there is no feasible way to lessen the effect or avoid the significant effect; and 2) expected benefits from the Project will outweigh significant environmental impacts of the Project.

This EIR fulfills the CEQA environmental review requirements for the proposed Plot Plan (PA12-0023) and all other governmental discretionary and administrative actions related to the Project.

This EIR is an informational document intended for use by the City of Moreno Valley decision makers, Trustee and Responsible agencies, and members of the general public in evaluating the physical environmental effects of the proposed Project. As mandated by CEQA Guidelines §15183(a), this EIR focuses on the specific environmental effects that are peculiar to the proposed Project and its property, because designation of the property for industrial/business park development was previously and adequately evaluated in accordance with CEQA by two prior EIRs (an EIR certified in 1989 for Specific Plan 208 (State Clearinghouse Number 1988080813) and the City's General Plan Program EIR certified in 2006 (State Clearinghouse Number 2000091075)). Additionally, physical impacts to the Project site were previously evaluated as part of the 2008 MND and subsequent Addendum No. 1 and Addendum No. 2 (State Clearinghouse Number 1988080813). As such, those analyses do not need to be repeated and the 2008 MND and its Addenda are herein incorporated by reference and available for public inspection at the location specified in Section 7.0, References.

1.5 RESPONSIBLE AND TRUSTEE AGENCIES

Section 21104 of the California Public Resource Code requires that all EIRs be reviewed by state responsible and trustee agencies (see also CEQA Guidelines §15082 and §15086(a)). As defined by CEQA Guidelines §15381, "the term 'Responsible Agency' includes all public agencies other than the Lead Agency which have discretionary approval power over the project." A Trustee Agency is defined in CEQA Guidelines §15386 as "a state agency having jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California."

For the proposed Project, the Santa Ana Regional Water Quality Control Board (RWQCB) is identified as a Trustee Agency that is responsible for the protection of water resources and water quality. The RWQCB is responsible for issuance of a National Pollution Discharge Elimination System (NPDES) Permit to ensure that during and after construction, on-site water flows do not result in siltation, other erosional actions, or degradation of surface or subsurface water quality. There are no other agencies that are identified as Responsible or Trustee Agencies for the proposed Project.

1.6 EIR SCOPE, FORMAT, AND CONTENT

1.6.1 EIR SCOPE

As a first step in complying with the procedural requirements of CEQA, an Initial Study was prepared by the City of Moreno Valley to preliminarily identify the environmental issue areas that may be adversely impacted by the Project. Following completion of the Initial Study, the City filed a NOP with the California Office of Planning and Research (State Clearinghouse) to indicate that an EIR would be prepared to evaluate the Project's potential to impact the environment. The NOP was filed with the State Clearinghouse and distributed to Responsible Agencies, Trustee Agencies, and other interested parties on December 3, 2012, for a 30-day public review period. Because the review period extended over two federal holidays (December 25 and January 1), the response deadline was extended to January 14, 2013. The objective of distributing the NOP for public review was to solicit responses to assist the City in identifying the full scope and range of potential environmental concerns associated with the Project so that these issues could be fully examined in this EIR. Because the proposed Project does not meet the CEQA Guidelines §15206 definition of a project having statewide, regional, or areawide significance and does not meet the requirements of a project necessitating a scoping meeting as specified in CEQA Guidelines §15082(c), the City of Moreno Valley was not required to and did not hold a scoping meeting for this EIR.

As a result of the Initial Study and in consideration of all comments received by the City on the NOP, this EIR evaluates the Project's potential to cause adverse effects to the following environmental issue areas:

- Air Quality
- Greenhouse Gas Emissions
- Noise
- Transportation/Traffic
- Biological Resources

The Initial Study, NOP, public review distribution list, and written comments received by the City during the 30-day NOP public review period are provided in Technical Appendix A to this EIR. Substantive topics raised in response to the NOP are summarized below in Table 1-1, *Summary of NOP Comments*. The purpose of this table is to present the primary environmental issues of concern raised during the NOP review period. The table is not intended to list every comment received by the City during the NOP review period. Regardless of whether or not a comment is listed in the table, all applicable comments received in responses to the NOP are addressed in this EIR.

Table 1-1 Summary of NOP Comments

COMMENTER	DATE	COMMENTS
CA Department of Transportation	December 10, 2012	– Prepare a traffic impact study that includes State highway facilities where the project adds 100 or more peak hour trips. – Clearly label the traffic analysis scenarios. – Indicate and exhibit LOS with and without improvements. – Eliminate or reduce impacts to the State highway system.
Native American Heritage Commission	December 19, 2013	– Identify and avoid or reduce any substantial adverse changes in the significance of an historical resource. – Consult with local Native American contacts.
South Coast Air Quality Management District	December 20, 2012	– Identify potential adverse air quality impacts and air pollutant sources. – Quantify $PM_{2.5}$ emissions. – Analyze regional and localized air quality impacts. – Perform a mobile health risk assessment. – Apply mitigation measures that go beyond what is required by law.
Johnson & Sedlack	January 7, 2013	– Evaluate impacts to Farmland of Local Importance. – Consider all feasible mitigation for air quality impacts. – Consider significant impacts to biological resources. – Consider impacts relative to glare. – Consider geological/soils impacts. – Consider individual and cumulative, local and regional impacts to area highways.

Table 1-1 Summary of NOP Comments

COMMENTER	DATE	COMMENTS
CA Department of Toxic Substances Control	January 8, 2013	– Identify if the project would pose a threat to human health or the environment. – Conduct an investigation for hazardous materials. – Properly dispose of any contaminated soils. – Manage hazardous wastes in accord with State law.
CA Department of Fish and Wildlife	January 14, 2013	– Identify impacts to sensitive flora and fauna and jurisdictional waters. – Discuss any inconsistencies with the MSHCP. – Discuss direct, indirect, and cumulative impacts to biological resources
City of Riverside	January 14, 2013	– Analyze and mitigate for spill-over traffic impacts in the City of Riverside. – Evaluate cumulative traffic impacts, considering other projects in the vicinity.
Sierra Club San Gorgonio Chapter	undated	– Analyze cumulative effects to traffic, air quality, and greenhouse gas. – Implement AQMD recommendations. – Evaluate impacts to biological and agricultural resources. – Include an analysis of hazards and hazardous materials.

In consideration of the comments received in response to the NOP, the City of Moreno Valley has identified one area of controversy. The SCAQMD suggests that mitigation measures be applied that go beyond what is required by law. The City of Moreno Valley applies mitigation measures which it determines to be feasible and practical for the Project Applicant to implement and the City of Moreno Valley to monitor and enforce. Although some of these measures may go beyond what the law requires, the imposed measures must have an essential nexus to the Project's impacts, be feasible to implement and enforce, be legal for the City to impose, and result in a benefit to the physical environment. Due to the non-attainment status of the South Coast Air Basin for the federal 8-hour ozone standard, there is controversy regarding the feasibility of applying mitigation measures for nitrogen oxide (NOx) mobile source emissions beyond those required by federal and state law on a project-by-project basis and the resultant benefits, if any, to regional air quality.

1.6.2 EIR FORMAT AND CONTENT

This EIR contains all of the information required to be included in an EIR as specified by the CEQA Statutes and Guidelines (California Public Resources Code, Section 21000 et. seq. and California Code of Regulations, Title 14, Chapter 5). CEQA requires that an EIR contain, at a minimum, certain specified content. Table 1-2, *Location of CEQA-Required Topics*, provides a quick reference in locating the CEQA-required sections within this document.

Table 1-2 Location of CEQA-Required Topics

CEQA REQUIRED TOPIC	CEQA GUIDELINES REFERENCE	LOCATION IN THIS EIR
Table of Contents	§15122	Table of Contents
Summary	§15123	Section S.0
Project Description	§15124	Section 3.0
Environmental Setting	§15125	Section 2.0
Consideration and Discussion of Environmental Impacts	§15126	Section 4.0
Significant Environmental Effects Which Cannot be Avoided if the Proposed Project is Implemented	§15126.2(b)	Section 4.0 & Subsection 5.1
Significant Irreversible Environmental Changes Which Would be Caused by the Proposed Project Should it be Implemented	§15126.2(c)	Subsection 5.2
Growth-Inducing Impact of the Proposed Project	§15126.2(d)	Subsection 5.3
Consideration and Discussion of Mitigation Measures Proposed to Minimize Significant Effects	§15126.4	Section 4.0 & Table S-1
Consideration and Discussion of Alternatives to the Proposed Project	§15126.6	Section 6.0
Effects Not Found to be Significant	§15128	Subsection 5.4
Organizations and Persons Consulted	§15129	Section 7.0 & Technical Appendices
Discussion of Cumulative Impacts	§15130	Section 4.0

In summary, the content and format of this EIR is as follows:

- **Executive Summary**, includes all of the summary requirements pursuant to CEQA Guidelines §15123.

- **Section 1.0, Introduction**, provides introductory information about the CEQA process and the responsibilities of the City of Moreno Valley, serving as the Lead Agency for this EIR.

- **Section 2.0, Environmental Setting**, describes the environmental setting, including descriptions of the Project site's physical conditions and surrounding context. The existing setting is defined as the condition of the Project site and surrounding area at the date this EIR's NOP was released for public review (December 3, 2012).

- **Section 3.0, Project Description**, serves as the EIR's Project Description for purposes of CEQA and contains a level of specificity commensurate with the level of detail proposed by the Project,

- **Section 4.0, Environmental Analysis**, provides an analysis of potential direct, indirect, and cumulative impacts that may occur with implementation of the proposed Project. A conclusion concerning significance is reached for each discussion and mitigation measures are presented as warranted. The environmental changes identified in Section 4.0 and throughout this EIR are referred to as "effects" or "impacts" interchangeably. The CEQA Guidelines also identify the terms "effects" and "impacts" as being synonymous (CEQA Guidelines §15358). In the environmental analysis subsections of Section 4.0, the existing conditions are disclosed that are pertinent to the subject area being analyzed, accompanied by a specific analysis of physical impacts that may be caused by implementation of the proposed Project.

The analyses are based in part upon technical reports that are appended to this EIR. Information also is drawn from other sources of analytical materials that directly or indirectly relate to the proposed Project and cited in Section 7.0, *References*. Where the analysis demonstrates that a physical adverse environmental effect may or would (without undue speculation) occur, feasible mitigation measures are recommended to reduce or avoid the significant effect. In most cases, implementation of the mitigation measures would reduce the adverse environmental impact to below a level of significance. If mitigation measures are not available or feasible to reduce an identified impact to below a level of significance, the environmental effect is identified as a significant and unavoidable adverse impact, for which a statement of overriding considerations would need to be adopted by the City of Moreno Valley pursuant to CEQA §15093.

- **Section 5.0, Other CEQA Considerations**, includes specific topics that are required by CEQA. These include a summary of the Project's significant and unavoidable environmental effects, a discussion of the significant and irreversible environmental changes that would occur should the Project be implemented, as well as potential growth-inducing impacts of the proposed Project. Section 5.0 also includes a discussion of the potential environmental effects that were found not be significant during this EIR's Initial Study and NOP process and that, therefore, do not require a detailed evaluation in this EIR.

- **Section 6.0, Project Alternatives**, describes and evaluates alternatives to the proposed Project that could reduce or avoid the Project's adverse environmental effects. CEQA does not require an EIR to consider every conceivable alternative to the Project but rather to consider a reasonable range of alternatives that will foster informed decision making and public participation. A range of four (4) alternatives is presented in Section 6.0.

- **Section 7.0, References**, cites all reference sources used in preparing this EIR and lists the agencies and persons that were consulted in preparing this EIR. Section 7.0 also lists the persons who authored or participated in preparing this EIR.

- **Technical Appendices**. CEQA Guidelines §15147 states that the "information contained in an EIR shall include summarized…information sufficient to permit full assessment of significant environmental impacts by reviewing agencies and members of the public," and that the "placement of highly technical and specialized analysis and data in the body of an EIR shall be avoided." Therefore, the detailed technical studies, reports, and supporting documentation that were used in preparing this EIR are bound separately as Technical Appendices. The Technical Appendices are available for review at the City of Moreno Valley Community and Economic Development Department, Planning Division, 14177

Frederick Street, Moreno Valley, California, 92552, during the City's regular business hours or can be requested in electronic form by contacting the City Planning Division. The individual technical studies, reports, and supporting documentation that comprise the Technical Appendices are as follows:

A: Initial Study, Notice of Preparation, and Written Comments on the NOP
B: Air Quality Impact Analysis
C: Mobile Source Health Risk Assessment
D: Greenhouse Gas Analysis
E: Noise Study
F: Traffic Study
G: Biological Technical Report
G1: Protocol Burrowing Owl Survey
G2: Special Status Plant Species Survey Results
H: Geotechnical Report
I: Phase 1 Environmental Assessment

- **Documents Incorporated by Reference**. CEQA Guidelines §15150 allows for the incorporation "by reference all or portions of another document…[and is] most appropriate for including long, descriptive, or technical materials that provide general background but do not contribute directly to the analysis of a problem at hand." Documents, analyses, and reports that are incorporated into this EIR by reference are listed in Section 7.0, *References*, of this EIR. The purpose of incorporation by reference is to assist the Lead Agency in limiting the length of an EIR. Where this EIR incorporates a document by reference, the document is identified in the body of the EIR, citing the appropriate section(s) of the incorporated document and describing the relationship between the incorporated part of the referenced document and this EIR.

2.0 ENVIRONMENTAL SETTING

2.1 REGIONAL SETTING AND LOCATION

The 17.3-acre Project site is located in the City of Moreno Valley, in western Riverside County, California. Western Riverside County abuts San Bernardino County to the northeast, Orange County to the west and San Diego County to the south. The site's location in a regional context is shown on Figure 3-1, *Regional Map*, in Section 3.0, *Project Description*.

Riverside County is located in an urbanizing area of southern California commonly referred to as the Inland Empire. The Inland Empire is an approximate 28,000 square mile region comprising San Bernardino County, Riverside County, and the eastern tip of Los Angeles County. According to the Southern California Association of Governments (SCAG), this region is a fast-growing metropolitan area with large amounts of available land for future growth (SCAG, 2008a, 59-68). According to U.S Census data, the 2010 population of Riverside County was 2,189,641 (U.S. Census Bureau, 2011). SCAG forecast models predict that the population of Riverside County will grow to approximately 3.59 million persons (an approximate 1.4 million person increase) by the Year 2035 (SCAG, 2008b).

Unincorporated areas of Riverside County in the vicinity of the Project site include the unincorporated communities of Woodcrest and Mead Valley to the west and southwest, the unincorporated communities of Reche Canyon and Pigeon Pass to the north, and the unincorporated community of Lakeview and rugged terrain known as the "Badlands" to the east. The Project site is generally located to the north and northeast of the City of Perris and to the southeast of the City of Riverside. Additionally, the March Air Reserve Base (ARB) is located approximately 0.9-mile west of the site.

2.2 LOCAL SETTING AND LOCATION

The Project site is situated in the southern portion of the City of Moreno Valley. The property is rectangular-shaped and located immediately west of North Perris Boulevard, south of and adjacent to San Michele Road, approximately 1,150 feet east of Knox Street, and north of and adjacent to Nandina Avenue. Figure 3-2, *Vicinity Map*, in Section 3.0, *Project Description*, depicts the specific location of the Project site. The property encompasses Assessor Parcel Numbers (APNs) 316-200-001, 316-200-015, 316-200-019, 316-200-035, and a portion of APN 316-200-034. The Project site lies within Section 31 of Township 3 South, Range 3 West of the San Bernardino Base and Meridian.

Land within the southwestern portion of the City, including the Project site, is located with an area subject to the City's adopted Moreno Valley Industrial Area Plan (Specific Plan 208). Property in the Area Plan's boundaries was once rural in nature, but over the past decade has been transitioning into an important industrial and economic center for the City, as called for by the Area Plan. Several large-scale industrial and warehouse buildings have been developed and there are several approved development projects in this area that are pending construction. Subsection 2.3, below, describes the conditions surrounding the Project site in more detail.

2.3 SURROUNDING LAND USES AND DEVELOPMENT

As shown on Figure 2-1, *Surrounding Land Uses and Development*, the Project site is located in a portion of Moreno Valley that is developing as a center for distribution warehousing and light industrial land uses. Currently, the Project site is surrounded by a mixture of warehouse buildings, undeveloped lands, and other land uses located on properties designated and zoned for industrial development. Properties located north and south of Nandina Avenue and west of Perris Boulevard are developed or approved for development with distribution warehouse buildings. Lands located immediately south of Nandina Avenue across from the proposed Project site, in addition to lands located north of San Michele Road immediately across from the proposed Project site, are designated for industrial development pursuant to the City's General Plan and MVIAP, but are not yet entitled for development with specific projects.

Immediately abutting the proposed Project site on the west is property containing a warehouse building occupied by Harbor Freight Tools with associated parking areas and landscaping that was constructed pursuant to approved Plot Plan PA07-0166, beyond which is a warehouse distribution facility currently occupied by Modular Metal Fabrications, Inc. Lands located north of the site consist of undeveloped land, several existing non-conforming single-family residences, a automobile junk yard, and a large warehouse distribution facility currently occupied by O'Reilly Auto Parts. Land immediately east of the Project site includes undeveloped land and two warehouse distribution facilities currently occupied by El Dorado Stone and Walgreens. To the south of the proposed Project site are disturbed lands used for truck trailer parking and one non-conforming single-family residence, south of which is a warehouse distribution facility currently occupied by Harman Distribution Center.

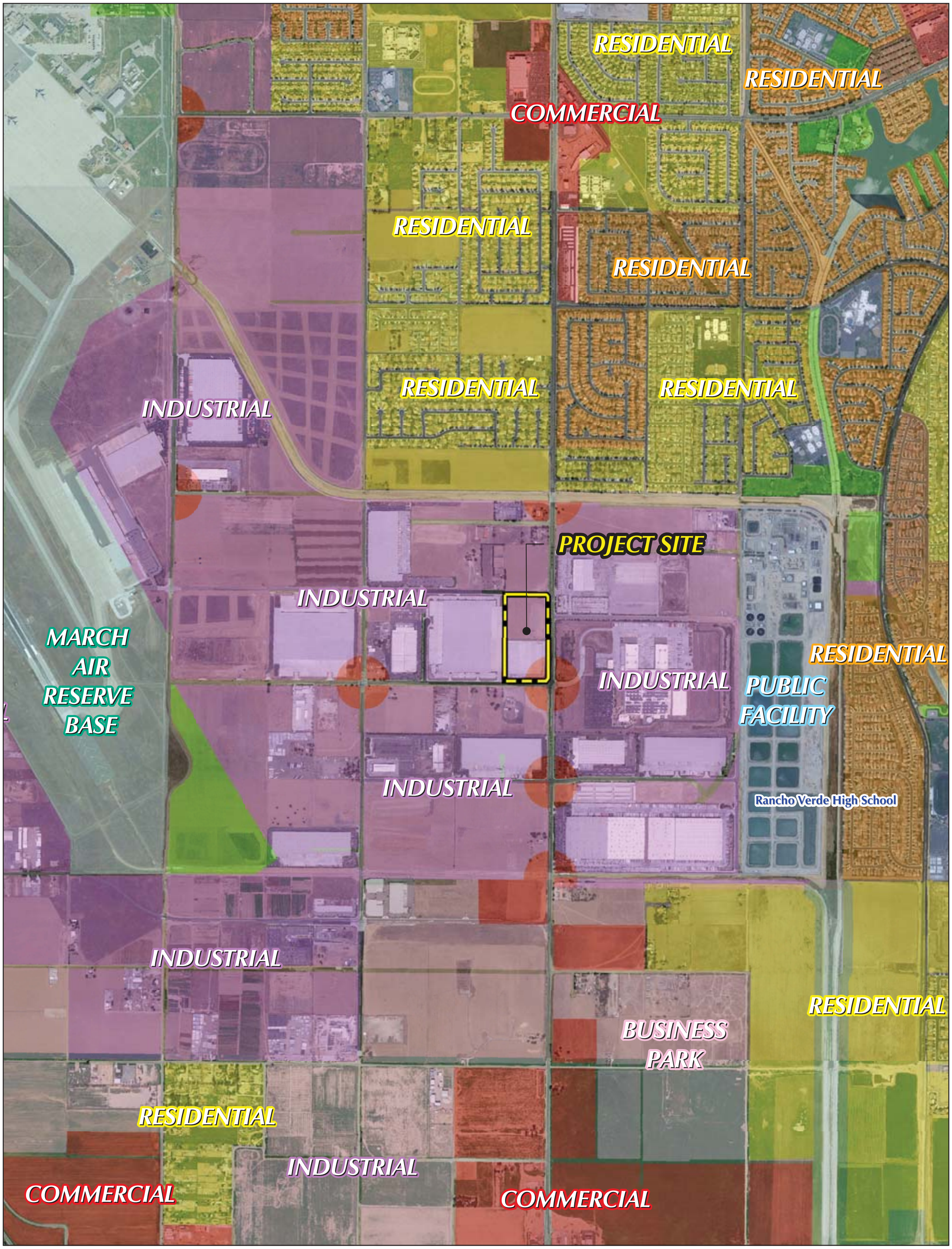
There is one school located within one (1) mile of the proposed Project site: El Potrero Elementary School, located approximately 0.7 mile northeast of the site. In addition, the March Air Reserve Base is located approximately 0.9 mile to the west

2.4 PLANNING CONTEXT

Provided in this subsection is a description of the Project site's land use designations, as applied by planning documents adopted by the City of Moreno Valley.

2.4.1 CITY OF MORENO VALLEY GENERAL PLAN

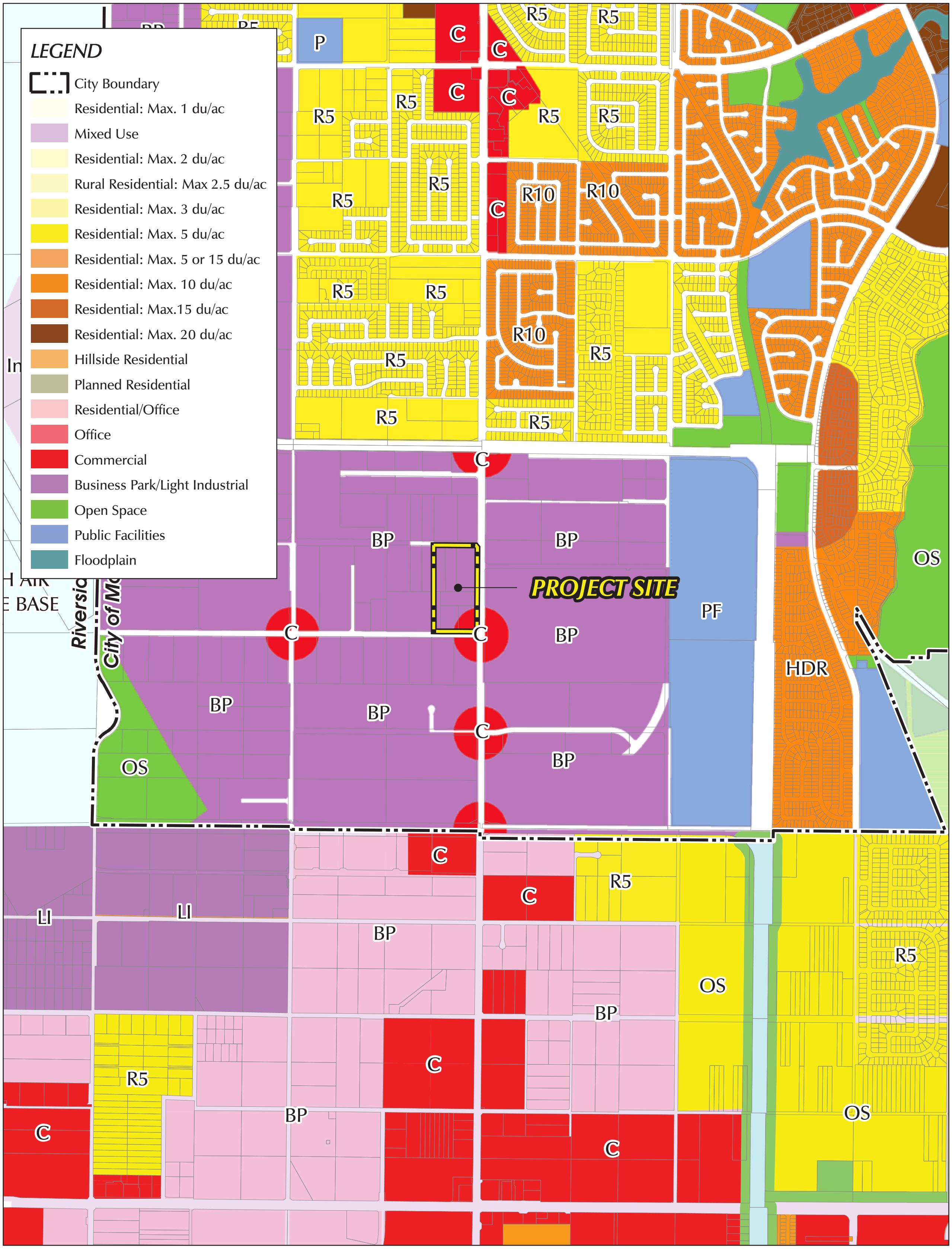
The City of Moreno Valley's prevailing planning document is its General Plan, dated July 11, 2006. As depicted on Figure 2-2, *Existing General Plan Land Use Designations*, the City's General Plan designates a majority of the Project site for Business Park/Light Industrial (BP) land uses. The southeast corner of the site is designated for Commercial (C) land uses. The Business Park/Light Industrial land use designation calls for employee intensive uses, including manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities, with a building intensity up to 1.0 floor area ratio (FAR). The Commercial land use designation calls for local retail and service commercial activities, with a building intensity up to 1.0 FAR.



Source: RCTLMA (2012), Eagle Aerial (2008), Google Earth (2012), Cities of Moreno Valley & Perris

Figure 2-1

Surrounding Land Uses and Development



Source: RCTLMA (2012), City of Moreno Valley, City of Perris

Figure 2-2

Existing General Plan Land Use Designations

2.4.2 MORENO VALLEY INDUSTRIAL AREA PLAN (SPECIFIC PLAN 208)

The Project site is located within the geographic boundaries of the MVIAP (Specific Plan 208). The MVIAP document is herein incorporated by reference pursuant to CEQA Guidelines §15150 and is available for review at the physical location indicated in Subsection 7.2, *Documents Incorporated by Reference*. As stated in the Area Plan, the Moreno Valley Industrial Area Plan "establishes development regulations and design standards that will ensure quality development which will positively contribute to the City's industrial employment base…" (City of Moreno Valley, 2002 I-4). The Moreno Valley Industrial Area Plan designates a majority of the subject property for Industrial land uses. The southeastern corner of the site is designated as an Industrial Support Area (see Figure 2-3, *Moreno Valley Industrial Area Plan Map*). The Industrial designation provides for a wide range of industrial land uses, while the Industrial Support Area provides for services to support industrial services without affecting the integrity of lands available for industrial uses.

2.4.3 ZONING

The development regulations and design standards specified in the MVIAP (Specific Plan 208) supersede the zoning standards contained in the City of Moreno Valley's Municipal Code. The Area Plan applies the "Industrial (I)" zoning designation to the proposed Project site, which permits a wide range of industrial and industrial/business related support uses.

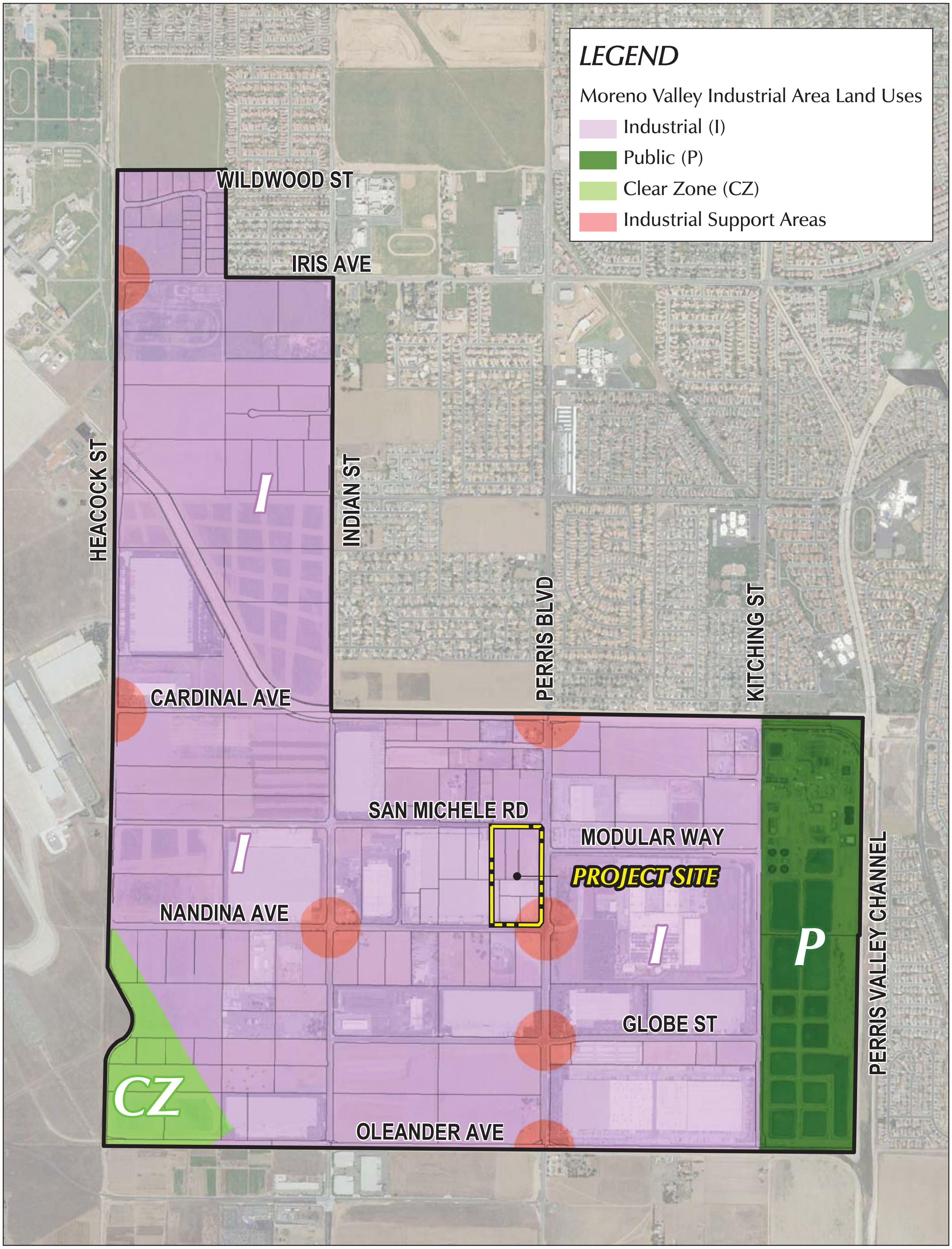
2.5 EXISTING PHYSICAL SITE CONDITIONS

Pursuant to CEQA Guidelines §15125, the physical environmental condition for purposes of establishing the setting of an EIR is the environment as it existed at the time the EIR's NOP was released for public review. The NOP for this EIR was released for public review on December 3, 2012, and the following subsections provide a description of the Project site's physical environmental condition as of that approximate date. More information regarding the Project site's environmental setting as related to the environmental topics evaluated in this EIR is provided in the various subsections of Section 4.0, *Environmental Analysis*.

2.5.1 LAND USE

The area surrounding the Project site, as described previously in Subsection 2.3, is characterized by a mixture of undeveloped lands, warehouse buildings, and other land uses located on properties designated and zoned for industrial development by the City of Moreno Valley. The Project site is not used for agricultural production and is not located in an agricultural area. There are no Williamson Act Contract lands or Agricultural Preserves located on the site or in the immediately surrounding area.

As shown on Figure 2-4, *Aerial Photograph*, the northern half of the site (approximately 8.9 acres) is undeveloped and is routinely maintained (e.g., disced) to remove vegetation that may pose a wildland fire hazard. The southern half of the site (approximately 8.4 acres) is developed as a parking lot that is used for truck trailer parking, with a driveway access provided from Nandina Avenue and landscaping provided along Nandina Avenue and Perris Boulevard. Additional landscaping is provided at the boundary between the existing parking lot in the south and the undeveloped portion of the site in the north. There are no unique land uses or aesthetic features present on the property.



Source: RCTLMA (2012), Eagle Aerial (2008), Google Earth (2012), Moreno Valley Industrial Area Plan

Figure 2-3

Moreno Valley Industrial Area Plan Map

Source: RCTLMA (2012), Eagle Aerial (2008), Google Earth (2012)

Figure 2-4

0 0.25 0.5 Miles

Aerial Photograph

2.5.2 AIR QUALITY AND CLIMATE

The Project site is located in the 6,745-square-mile South Coast Air Basin (SCAB), which includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The SCAB is bound by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. As documented in the Project's air quality report (*Technical Appendix B* to this EIR), although the climate of the SCAB can be characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. More than 90% of the SCAB's rainfall occurs from November through April. Temperatures during the year range from an average minimum of 47°F in January to over 100°F maximum in the summer. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed "Santa Anas" each year.

The SCAB is currently not in attainment of state and/or federal standards established for Ozone (O3) one-hour and eight-hour, particulate matter (PM_{10} and $PM_{2.5}$), and Nitrogen Oxides (NO_X), and also not in attainment for Lead (Pb) in Los Angeles County (CARB, 2011). The South Coast Air Quality Management District (SCAQMD) conducts in-depth analyses of the toxic air contaminants and their resulting health risks for all of Southern California. This study, entitled, *Multiple Air Toxics Exposure Study in the South Coast Air Basin, MATES III*, predicted an excess cancer risk of 566 in one million for the vicinity of the Project site.

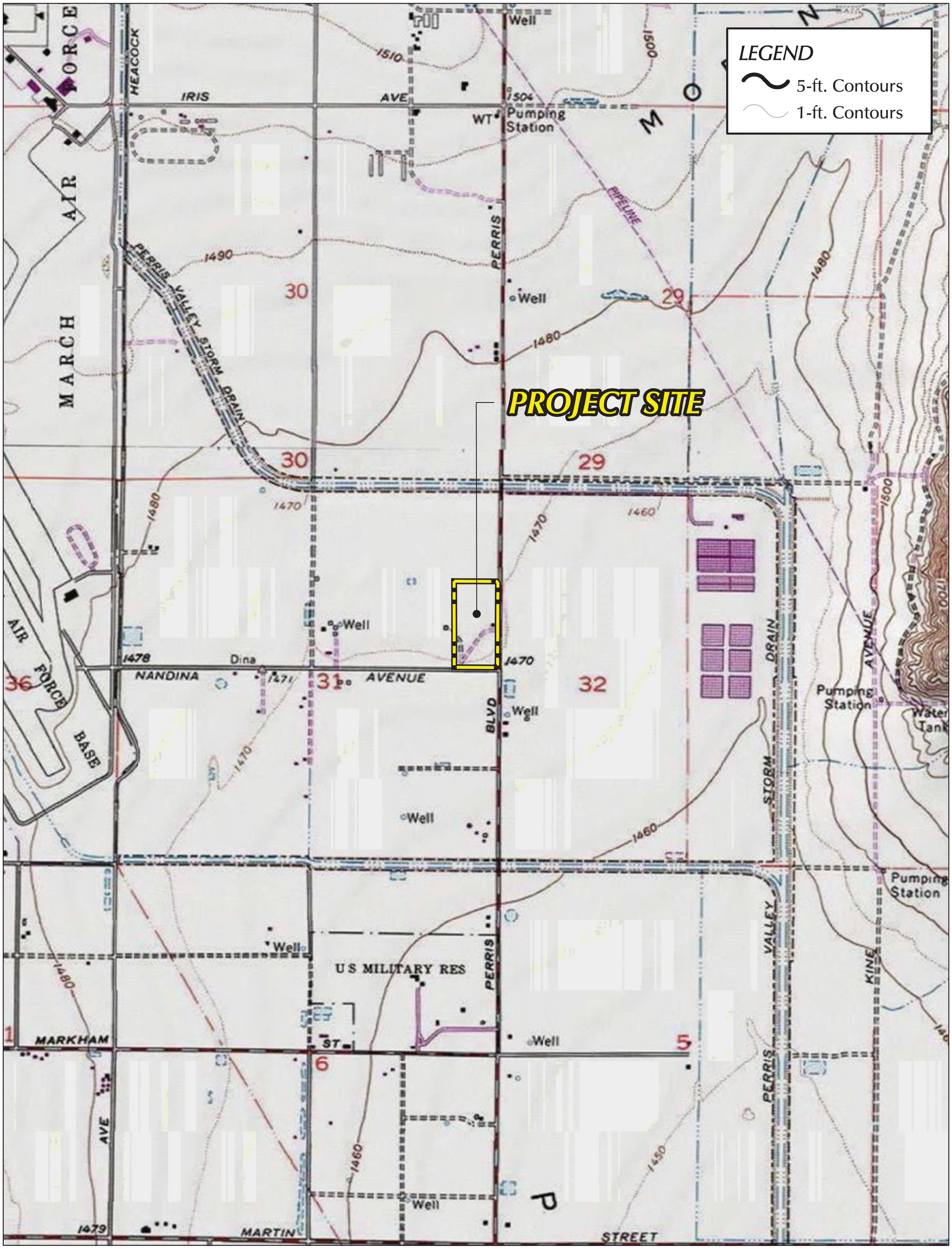
Refer to Subsection 4.1, *Air Quality*, and Subsection 4.3 *Greenhouse Gas Emissions*, for a more thorough discussion of the Project's site existing air quality and climate setting.

2.5.3 TOPOGRAPHY, GEOLOGY, AND SOILS

The proposed Project site consists of flat land. On-site elevations ranging from 1,474 feet above mean sea level (amsl) in the northwest corner to 1471 feet amsl in the southeastern corner. Figure 2-5, *Topographic Map*, depicts the Project site's existing topographic conditions. Based on prior geological investigations of the Project site that supported a prior 2008 MND and MND Addenda (SCH No. 1988080813), the property's earth materials consist of native alluvial soils extending from the ground surface to depths exceeding 25 feet, and consist of silty sands, sands, sandy silts, clayey sands, clayey silts and sandy clays. Based on information available from Eastern Municipal Water District's (EMWD's) West San Jacinto Groundwater Basin Management Plan 2010 Annual Report, groundwater is known to occur at depths of approximately 75 feet below the existing ground surface (EMWD 2011 21). The Project site is not located within an active Alquist-Priolo earthquake zone or a City-designated fault hazard zone, meaning that no active faults are mapped or known to exist on the Project site or in the immediate surrounding area. The nearest known active fault is the San Jacinto Valley section of the San Jacinto Fault zone located approximately 7.5 miles east of the Project site.

2.5.4 HYDROLOGY

The Project site is located in the Santa Ana River watershed, which drains a 2,650 square-mile area and is the principal surface flow water body within the region (SAWPA, 2010 Ch. 3). The San Jacinto River drains the area in the vicinity of the Project site. It starts in the San Jacinto Mountains



Source: RCTLMA (2012), USGS

Figure 2-5

Topographic Map

(approximately 30 miles southeast of the proposed Project site), runs westerly and discharges into Lake Elsinore. In wet years, the San Jacinto River will overflow the lake and connect with the Santa Ana River through the Temescal Wash (SAWPA, 2010 Ch. 3). Under existing conditions, two (2) water quality/detention basins are located on the southern portion of the Project site, located at the property's southwestern corner and parallel to the site's frontage with Nandina Avenue. These basins were constructed as part of approved Parcel Map No. 35859 (PA07-0165) and facilitate drainage flow from the southern portion of the property to the City's storm drain system.

2.5.5 BIOLOGICAL RESOURCES

The Project site contains few biological resources. The southern portion of the property is developed as a truck parking lot and the northern portion of the property is disturbed and regularly disced for fire fuel management. Regionally, the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) is a comprehensive, multi-jurisdictional Habitat Conservation Plan (HCP) focusing on the conservation of sensitive plant and animal species and their associated habitats in western Riverside County. The City of Moreno Valley approved the MSHCP on January 13, 2004. The MSHCP identifies a Criteria Area, in which habitat conservation efforts are targeted. The Project site is not located with the Criteria Area. As such, the site is not targeted for open space conservation as part of the regional plan for habitat conservation (Riverside County, 2003c, Vol. 1 Ch. 3).

2.5.6 CULTURAL RESOURCES

The Project site contains no historic resources, no known cultural or paleontological resources, and has a low potential for the discovery of subsurface resources. According to Figure 5.10-3 of the Moreno Valley General Plan Final EIR, mountainous areas in the eastern portion of the City, known as the Badlands, have the greatest potential for encountering paleontological resources in Moreno Valley (City of Moreno Valley, 2006b). The Project site is not located in close proximity to the Badlands. From an archaeological perspective, Moreno Valley is located in the traditional tribal use areas of Native American Tribes, particularly the Luiseno and Cahuilla Indians. Although no archaeological resources are known to be present on the Project site and have a low potential for being discovered beneath the surface of the site, subsurface resources still have the potential to exist.

2.5.7 TRANSPORTATION

Interstate 215 (I-215), Interstate 15 (I-15), State Route 60 (SR-60) and State Route 91 (SR-91) are major vehicular travel routes in the region of the Project site. The Project site is located approximately 1.9 miles east of I-215, easterly of the Harley Knox Boulevard interchange. From the Harley Knox Boulevard interchange, I-215 connects with I-15 approximately 24 roadway miles to the south and connects with SR-60 approximately 6.0 roadway miles to the north.

The Project site is located immediately south of San Michele Road, west of Perris Boulevard, north of Nandina Avenue, and approximately 1,150 feet east of Knox Street. Existing traffic on nearby roadways consists of both passenger vehicles and trucks accessing the existing industrial/warehouse developments in the area. The City of Moreno Valley's designated truck route includes Cactus Avenue, Frederick Street, Heacock Street, San Michele Road, Nandina Avenue, and Indian Street south of San Michele Road.

Regarding other forms of transportation, field observations indicated that there is nominal pedestrian and bicycle activity in the area (refer to *Technical Appendix F*). The Riverside Transit Agency (RTA) operates bus services along Perris Boulevard via Route 19. There is currently no commuter rail service in the City of Moreno Valley, but a route is planned along the west side of I-215 called the Perris Valley Line, with a planned station at Alessandro Boulevard, approximately 7.0 roadway miles from the Project site (RCTC, n.d.). Approximately 0.9 mile west of the Project site is the March ARB/Inland Port Airport (IPA), at which the airport is used by military and government aircraft with limited use by civilian aircraft. Although air cargo service was discontinued in 2008, the March ARB/IPA Joint Land Use Study (March JPA, 2010 Ch. 2), discloses the potential for increased general aviation use.

Refer to Subsection 4.4, *Transportation/Traffic*, for a more thorough discussion of the Project's site existing transportation setting.

2.5.8 NOISE

Primary sources of noise in the Project vicinity include vehicle noise, aircraft noise, and noise from construction and operational activities associated with development. To determine the existing acoustical setting, 24-hour noise measurements were taken in the Project study area by Urban Crossroads, Inc. at five (5) locations on October 25, 2012. Measured hourly noise levels ranged from 53.5 to 66.9 decibels (dBA Leq), resulting in Community Noise Equivalent Levels (CNELs) ranging from 61.4 CNEL to 66.9 CNEL (refer to *Technical Appendix E*).

Refer to Subsection 4.3, *Noise*, for a more thorough discussion of the Project's site existing noise setting.

2.5.9 UTILITIES AND SERVICE SYSTEMS

The Project site is located in the service area of Eastern Municipal Water District (EMWD) for domestic water and sewer service. EMWD manages the domestic water supply and delivery service within its 555 square mile service area, including the City of Moreno Valley, all or portions of six other cities, and a portion of unincorporated Riverside County. As documented in EMWD's 2010 Urban Water Management Plan, EMWD has four sources of water supply: imported water from the Metropolitan Water District (MWD), recycled water, local groundwater production, and desalted groundwater (EMWD, 2011 Ch. 3). EMWD has an adopted Water Shortage Contingency Plan (EMWD Ordinance 117.2) that applies regulations and restrictions on the delivery of and consumption of water during water shortages. Regarding sewer collection and treatment, EMWD collects and treats all of the wastewater collected in its service area to tertiary standards. Treated wastewater is disposed of by means of customer sales, discharge to Temescal Creek, and through percolation and evaporation while stored in EMWD ponds (EMWD, 2011, Ch. 3). Solid waste collection and disposal in the Project area is conducted by Waste Management of the Inland Empire, a division of Waste Management, Inc. Landfills that have the potential of receiving solid waste from the Project site include the El Sobrante Landfill, the Badlands Sanitary Landfill, and the Lamb Canyon Sanitary Landfill.

3.0 PROJECT DESCRIPTION

This section provides all of the information required by CEQA Guidelines §15124, including: a description of the Project's precise location and boundaries; a statement of the Project's objectives; a description of the Project's technical, economic, and environmental characteristics; and a description of the intended uses of this EIR including a list of government agencies that are expected to use this EIR in their decision-making processes, a list of the permits and approvals that are required to implement the Project, and a list of related environmental review and consultation requirements.

Under existing conditions, the 17.3-acre Project site contains an 8.3-acre trailer parking yard and 9.0 acres of disturbed, undeveloped land that is approved for development as a parking lot which has not yet been constructed. The proposed Project involves demolition and removal of the existing trailer yard, grading of the 17.3-acre property, and construction and operation of a warehouse building containing 400,130 square feet (s.f.) of interior building space. Associated improvements to the property include, but are not limited to loading docks, surface parking areas, drive aisles, utility infrastructure, landscaping, exterior lighting, signage, and water quality/detention basins.

This EIR (P12-064) analyzes the physical environmental effects associated with all components of the Project, including planning, construction, and operation. Approval of a Plot Plan (PA12-0023) is requested of the City of Moreno Valley to implement the proposed Project. No other discretionary actions are required on the part of the City to approve the Project; nonetheless, this EIR covers any and all other discretionary and administrative approvals that may be required of the City of Moreno Valley or other governmental agencies to fully implement the proposed Project.

3.1 PROJECT LOCATION

The Project site consists of 17.3 acres in the southern portion of the City of Moreno Valley, Riverside County, California (see Figure 3-1, *Regional Map*). From a regional perspective, the Project site is located north of the City of Perris, southeast of the City of Riverside, and south, east, and west of unincorporated areas in Riverside County. Interstate 215 (I-215) is located approximately 1.85 miles to the west of the site and State Route 60 (SR-60) is located approximately 4.85 miles to the north of the site. At the local scale, the Project site is situated south of San Michele Road, north of Nandina Avenue, west of Perris Boulevard, and about 1,150 feet east of Knox Street, as illustrated on Figure 3-2, *Vicinity Map*, and Figure 3-3, *USGS Topographic Map*. Refer to EIR Section 2.0 for more information about the Project site's regional and local setting.

3.2 STATEMENT OF OBJECTIVES

The primary objective of the proposed Project is to construct and operate a logistics center warehouse building in the City of Moreno Valley on a property designated for industrial development by the Moreno Valley Industrial Area Plan (Specific Plan 208.) The following is a list of specific objectives sought by the proposed Project.

A. To construct and operate a logistics center warehouse building in the City of Moreno Valley on a property designated for industrial development by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208.)

B. To develop a logistics center warehouse building that is feasible to construct and operate and that appeals to light industrial and warehouse distribution tenants seeking to locate in the Moreno Valley area.

C. To make efficient use of property designated for industrial development by developing a logistics center warehouse building on a property that is adjacent to existing warehouse development and that achieves a minimum floor area ratio (FAR) of 0.5.

D. To construct and operate a logistics center warehouse building within five miles of major regional transportation corridors.

E. To attract new businesses and jobs to the City of Moreno Valley, thereby providing a more equal jobs/housing balance both in the city and in Riverside County and reducing the need for members of the existing local workforce to commute outside the area for employment.

3.3 PROPOSED PLOT PLAN PA12-0023

The Project involves the construction and operation of one warehouse building containing 400,130 s.f. of interior floor space. The only discretionary action required to be approved by the City of Moreno Valley is Plot Plan PA12-0023. Other discretionary and administrative actions that would or could be necessary to implement the proposed Project are listed in Table 3-1, *Matrix of Project Approvals/Permits*. A detailed description of the proposed Project is provided in the following subsections.

Table 3-1 Matrix of Project Approvals/Permits

PUBLIC AGENCY	APPROVALS AND DECISIONS
City of Moreno Valley	
Proposed Project – City of Moreno Valley Discretionary Approvals	
City of Moreno Valley Planning Commission	• Approve, conditionally approve, or deny PA12-0023. • Reject or certify this EIR along with appropriate CEQA Findings (P12-064).
Subsequent City of Moreno Valley Discretionary and Ministerial Approvals	
City of Moreno Valley Subsequent Implementing Approvals	• Approve Final Maps, parcel mergers, lot line adjustments, or parcel consolidations, as may be appropriate. • Approve Conditional or Temporary Use Permits, if required. • Issue Grading Permits. • Issue Building Permits. • Approve Road Improvement Plans. • Issue Encroachment Permits. • Accept public right-of-way dedications.
Other Agencies – Subsequent Approvals and Permits	
Riverside County Flood Control and Water Conservation District	• Approvals for drainage infrastructure.
Eastern Municipal Water District	• Approvals for water and sewer infrastructure.
Santa Ana Regional Water Quality Control Board	• Issuance of a Construction Activity General Construction Permit. • Issuance of a National Pollution Discharge Elimination

PUBLIC AGENCY	APPROVALS AND DECISIONS
	System (NPDES) Permit.

3.3.2 GENERAL DESCRIPTION OF PLOT PLAN PA12-0023

As shown on Figure 3-4, *Plot Plan PA12-0023*, the Project Applicant proposes to construct and operate a new logistics center warehouse building on a 17.3-acre property in accordance with the "Industrial" land use designation applied the property by the Moreno Valley Industrial Area Plan (MVIAP). Although the MVIAP designates an "Industrial Support Area" overlay on the southeastern corner of the site, which allows industrial support uses to occur within 300 feet of the Perris Boulevard/Nandina Avenue intersection, the Project Applicant has elected not to include industrial support uses as part of the proposed Project.

The proposed building is designed to contain 400,130 s.f. of interior floor space consisting of 394,130 s.f. of warehouse space and 6,000 s.f. of office and mezzanine space. As shown on Figure 3-5, *Plot Plan PA12-0023 Detail*, the front door and office would be positioned at the southeast corner of the building, facing the intersection of Perris Boulevard/Nandina Avenue. A total of 59 loading bays are planned for loading, unloading, and short-term parking of truck trailers. On the 17.3 acre property, 0.3 acres would be dedicated to the City of Moreno Valley for the widening of San Michele Road, so the total net parcel acreage is 17.0 acres. Over the 17.0 net acre parcel, the proposed building calculates to a floor area ratio (FAR) of 0.51.

The proposed Plot Plan also depicts the number and location of proposed driveway entrances and passenger car and trailer parking spaces. The Plot Plan specifies 159 passenger car parking spaces (including six (6) spaces accessible to persons with disabilities) and 63 spaces for trailer parking. The trailer parking spaces and the building's dock doors are proposed to have restricted access by automatic gates. Bicycle parking also would be provided on the property in compliance with the City of Moreno Valley Municipal Code Section 9.11. Two (2) driveway entrances would occur at San Michele Road and two (2) driveway entrances would occur at Nandina Avenue.

3.3.3 ARCHITECTURE

Figure 3-6, *Architectural Elevations*, depicts conceptual architectural elevations for the proposed building. The structure would be 40 feet tall, although architectural projections may exceed 40 feet. Exterior materials include concrete tilt-up panels and glass windows with blue reflective glazing. The color palette for the exterior building façades includes shades of white and gray. The building interior is designed to provide a main warehouse floor, office space, and mezzanine. Although the building has the potential to be divided for multiple tenant use, it is designed for a single user/ occupant (Cochran, 2012a).

3.3.4 CONCEPTUAL LANDSCAPE PLAN

A conceptual landscape plan accompanies the proposed Plot Plan application and is depicted on Figure 3-7, *Conceptual Landscaping Plan*. The landscape plan indicates that trees, shrubs, and groundcovers are proposed to be planted along the property's street frontages at Nandina Avenue, Perris Boulevard, and San Michele Road, at building entries and driveways, in and around proposed detention/water quality basins, around the perimeter of the building except for the west-facing façade where the loading bay doors would occur, and in the passenger car parking areas.

Proposed landscaping would be ornamental in nature, except within detention basins where plant materials would be selected to serve water quality functions. Prior to the issuance of a building permit, the Project Applicant would be required to submit specific planting and irrigation plans to the City of Moreno Valley for review and approval. The plans would be required to comply with Chapter 9.17 of the City of Moreno Valley Municipal Code, which establishes requirements for landscape design, automatic irrigation system design, and water-use efficiency.

3.3.5 INFRASTRUCTURE IMPROVEMENTS

A. Public Roadway Improvements

The existing public street network servicing and abutting the Project site consists of San Michele Road to the north, Perris Boulevard to the east, and Nandina Avenue to the south. Public roadway dedications and improvements that are proposed as part of the Plot Plan are described below.

- **Perris Boulevard**. Perris Boulevard is a north-south oriented roadway located along the Project site's eastern boundary. The proposed Project would install curb, gutter, and sidewalk improvements along its frontage as specified by the final conditions of approval for the proposed Project and applicable City of Moreno Valley standards. The Project also would provide space for a transit stop along its Perris Boulevard frontage for the construction of a turnout for mass transit vehicles.

- **San Michele Road**. San Michele Road is an east-west oriented roadway located along the northern boundary of the Project site. As part of the proposed Project, 0.3 acres of land would be conveyed to the City of Moreno Valley to widen the San Michele Road public right-of-way along the northern Project frontage. The proposed Project would improve San Michele Road along the property's frontage by adding curb, gutter, sidewalk, and pavement as will be required by the final conditions of approval for the proposed Project and applicable City of Moreno Valley standards.

A complete description of other Project-required transportation improvements is provided in EIR Subsection 4.4, *Transportation and Traffic*.

B. Water and Wastewater Conveyance Facilities

Water and wastewater service is provided to the Project site by Eastern Municipal Water District (EMWD). All proposed water and sewer facilities are required to be designed in accordance with EMWD standards and would require review and approval by EMWD prior to their installation. The locations of proposed fire hydrants also require review and approval by the Moreno Valley Fire Department prior to installation.

❑ **Water Service**

Fire and domestic service connections have already been provided to the site during the construction of the warehouse building located to the immediate west. Water service is available to the Project site under existing conditions via EMWD's existing 12" line located beneath Nandina Avenue. As part of the proposed Project, subsurface water lines would be installed on the property to connect with the existing system. Also, a pump house is proposed to be constructed on the site associated with the Project's fire protection system. No water line installations are proposed beyond the boundaries of the Project site.

❑ Wastewater Service

Wastewater service is available to the Project site under existing conditions via EMWD's existing 15" sewer main located beneath Nandina Avenue. A 6" lateral has already been provided to the Project site during construction of the warehouse building to the immediate west. As part of the proposed Project, subsurface conveyance lines would be installed on the property to connect with the existing system. No wastewater line installations are proposed beyond the boundaries of the Project site.

C. Drainage

Under existing conditions, two (2) water quality/detention basins are located on the southern portion of the Project site, located at the property's southwestern corner and parallel to the site's frontage with Nandina Avenue. These basins were constructed as part of approved Parcel Map No. 35859 (PA07-0165) to facilitate drainage flow from the southern portion of the property to the City's storm drain system. As part of the proposed Project, the existing basins would be modified to accommodate some additional runoff area as a new basin would be installed along Perris Boulevard.

D. Earthwork and Grading

Earthwork and grading would occur on the 17.3-acre Project site and no area of the site would be left undisturbed. According to the Plot Plan, earthwork and grading activities would result in approximately 13,300 cubic yards of cut and 42,000 cubic yards of fill. Depths of grading would extend from approximately 2.0 to 5.0 feet in depth, except in the areas of proposed detention basins that would be excavated to depths of approximately 4.0 to 5.0 feet. Import of between 28,000 and 30,000 cubic yards of earth materials is anticipated. Although the location of the borrow site is not known at this time, this EIR assumes that the borrow site will be located in close proximity to the Project site and have all necessary governmental approvals for disturbance (Cochran, 2012a). The Project site is relatively flat and proposed grading would not create manufactured slopes except around the proposed detention/water quality basins. As shown on the Plot Plan, manufactured slopes that would be created around the on-site basins would be up to approximately 4.0 feet in height with a maximum gradient of 2:1.

E. Construction Characteristics

The proposed Project would be constructed over the course of approximately eight (8) months. First, demolition of the existing parking lot would occur. It is expected that approximately 12,800 cubic yards of demolition debris would be generated, which would be processed and reused during Project construction (Webb, 2012). After demolition, the 17.3 acre parcel would be graded, the underground utility system would be installed and fine grading would occur. Next, surface materials would be poured and the building would be erected, connected to the underground utility system, and painted. Lastly, landscaping and fencing/walls would be installed. The approximate construction schedule provided by the Project Applicant is as follows (Cochran, 2012a).

- Demolition: 2 weeks

- Grading and subsurface improvements: 3 weeks
- Utility installation, building construction: 6 months
- Landscaping and fencing/wall installation: 1 month

Construction equipment is expected to operate on the Project site eight (8) hours per day, five (5) days per week. The types and numbers of heavy equipment expected to be used during construction activities are listed in the air quality technical report attached to this EIR as *Technical Appendix B*. For purposes of evaluation in this EIR, it is assumed that the new building would be operational in late 2013.

F. Operational Characteristics

At the time this EIR was prepared, the future tenant of the proposed building was unknown. For the purpose of analysis in this document, the future uses on site are assumed to be any of those uses permitted by the Moreno Valley Industrial Area Plan's "Industrial" designation and the City of Moreno Valley Municipal Code. Furthermore, this EIR assumes the proposed building would be operational 24 hours per day. The Project Applicant estimates that the building would likely be used as a warehouse for dry goods storage (Cochran, 2012a). The building is not designed to accommodate tenants that require warehouse refrigeration. Business operations would be conducted within enclosed buildings, with the exception of traffic movement, parking, and the loading and unloading of trucks at designated loading bays.

Because the building tenant is not yet known, the number of jobs that the Project would generate cannot be precisely determined; therefore, for purposes of analysis within this EIR, employment estimates are calculated using average employment density factors reported by the Southern California Association of Governments in their publication "Employment Density Study Report," (SCAG 2001). This publication reports that for every one (1) acre of warehouse land use in Riverside County, the median number of jobs supported is 11.69 (SCAG 2001, Table 9A). Thus, the proposed Project's 17.0 net acres is expected to support approximately 191 jobs. (Refer to EIR Subsection 5.3, *Growth-Inducing Impacts*, for more information about the Project's employment estimate calculations.).

3.4 STANDARD REQUIREMENTS AND CONDITIONS OF APPROVAL

The proposed Plot Plan PA12-0023 and its technical aspects were reviewed in detail by various City of Moreno Valley departments and divisions. These departments and divisions are responsible for reviewing land use applications for compliance with City codes and regulations. They also were responsible for reviewing this EIR (P12-064) for technical accuracy and compliance with CEQA. The City of Moreno Valley departments and divisions responsible for technical review include:

- Community & Economic Development Department, Building and Safety Division
- Community & Economic Development Department, Land Development Division
- Community & Economic Development Department, Planning Division
- Public Works Department, Transportation Engineering Division
- Public Works Department, Special Districts Division
- Fire Prevention Bureau
- Moreno Valley Utility

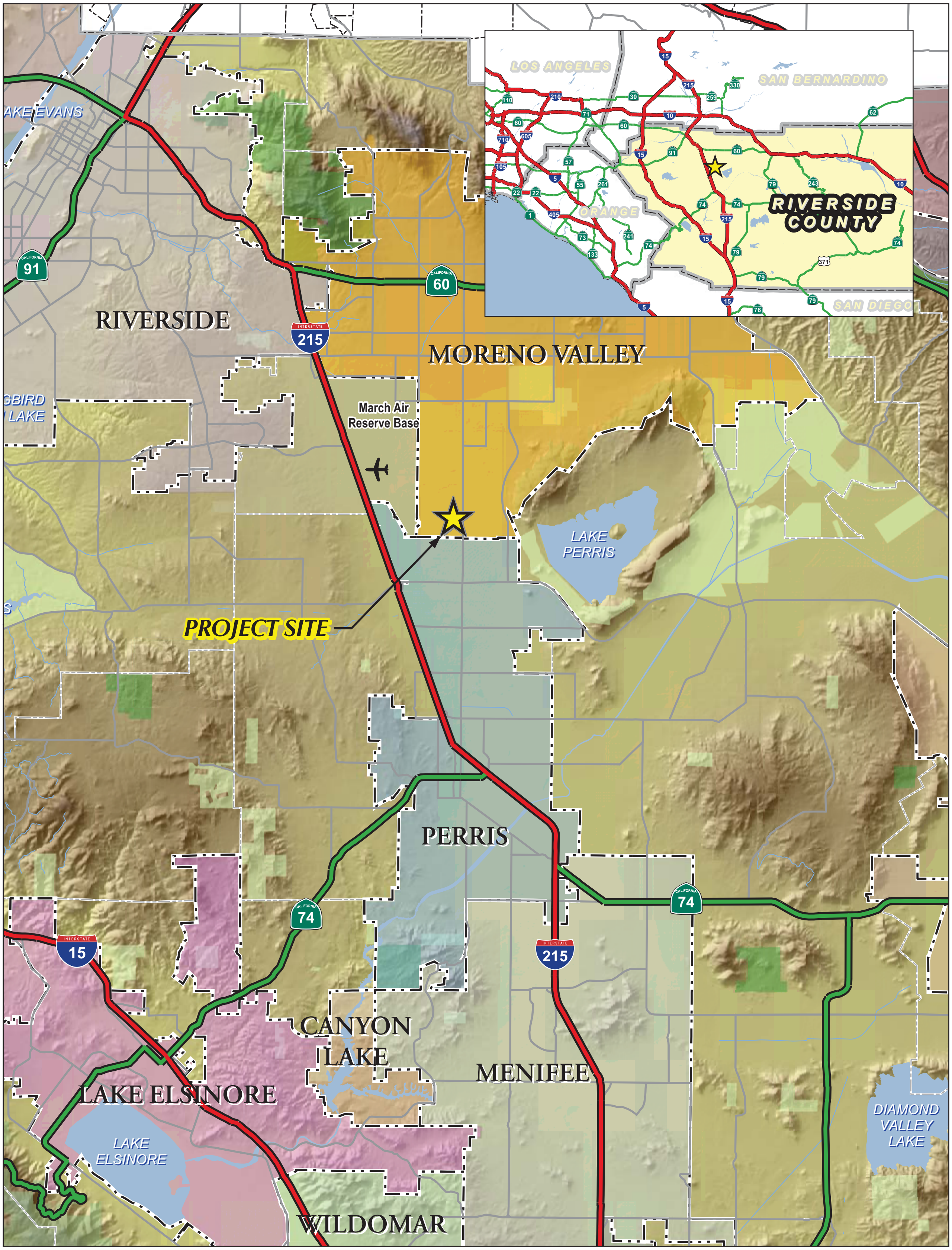
Review of proposed Plot Plan PA12-0023 by the City departments and divisions listed above will result in the production of a comprehensive set of draft Conditions of Approval that will be available for public review prior to consideration of the proposed Project by the Moreno Valley Planning Commission. These conditions will be considered by the Planning Commission in conjunction with their consideration of PA12-0023. If approved, the Project will be required to comply with all imposed Conditions of Approval.

Conditions of Approval and other applicable regulations, codes, and requirements to which the Project is required to comply and that result in the reduction or avoidance of an environmental impact are specified in each subsection of EIR Section 4.0, Environmental Analysis. These are referred to as "Project Requirements" throughout this EIR.

3.5 SUMMARY OF REQUESTED ACTIONS

The City of Moreno Valley has primary approval responsibility for the proposed Project. As such, the City serves as the Lead Agency for this EIR pursuant to CEQA Guidelines §15050. The role of the Lead Agency was previously described in detail in Subsection 1.4 of this EIR). The City Planning Commission will consider the proposed Plot Plan for approval, approval with changes, or denial. The Planning Commission's decision is final unless appealed to the City Council. The City will consider the information contained in this EIR and this EIR's Administrative Record in its decision-making processes. Upon approval of the Project and certification of this EIR, the City would conduct administrative reviews and grant ministerial permits and approvals to implement Project requirements and conditions of approval. A list of the primary actions under City jurisdiction is provided in Table 3-1, *Matrix of Project Approvals/Permits*.

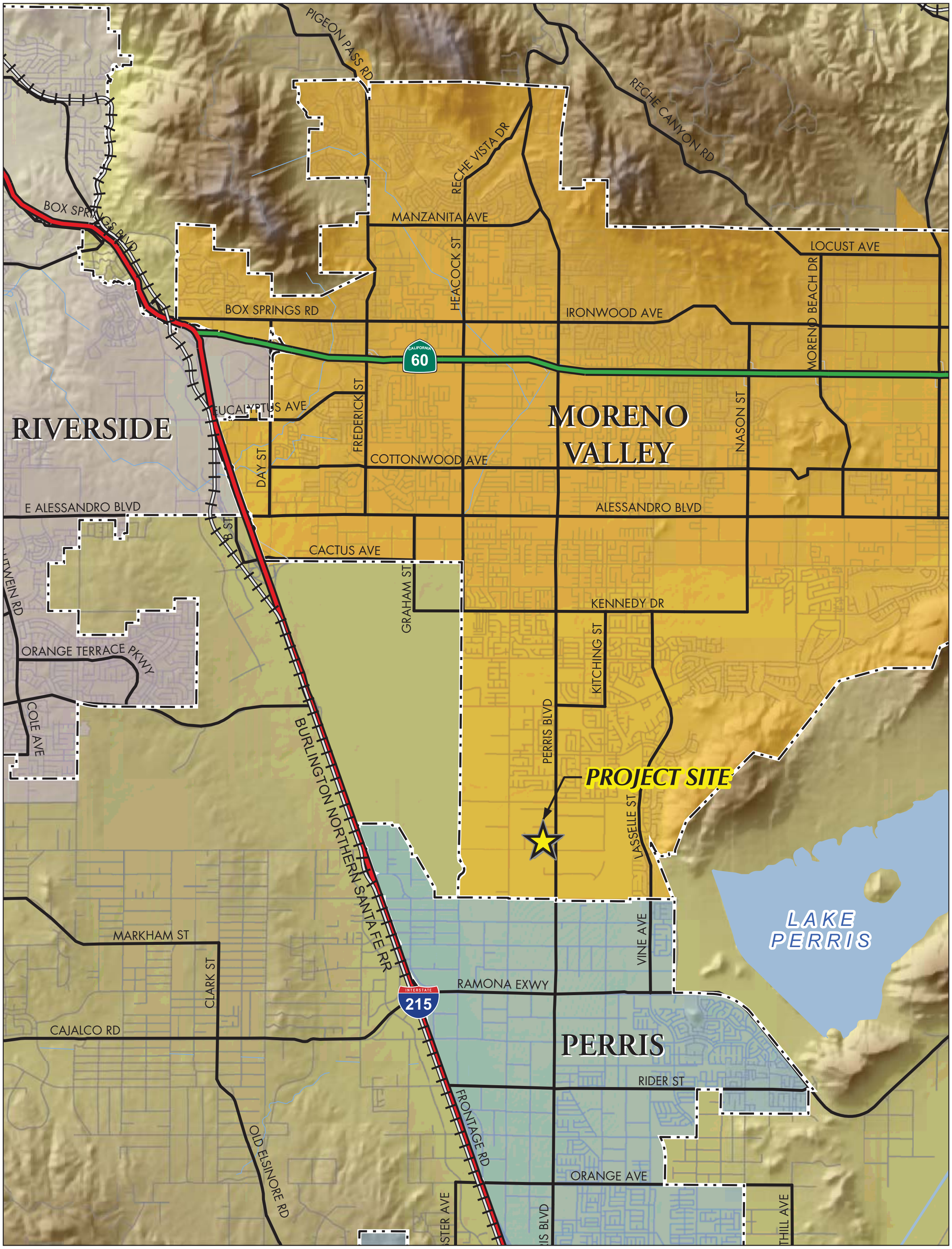
Also provided in Table 3-1 is a list of other authorities that are expected to use this EIR and a summary of the subsequent actions associated with the Project. This EIR covers all federal, state, local government and quasi-government approvals that may be needed to construct or implement the Project, whether or not they are explicitly listed in Table 3-1 or elsewhere in this EIR (CEQA Guidelines Section 15124(d)).



Source: RCTLMA (2012)

Figure 3-1

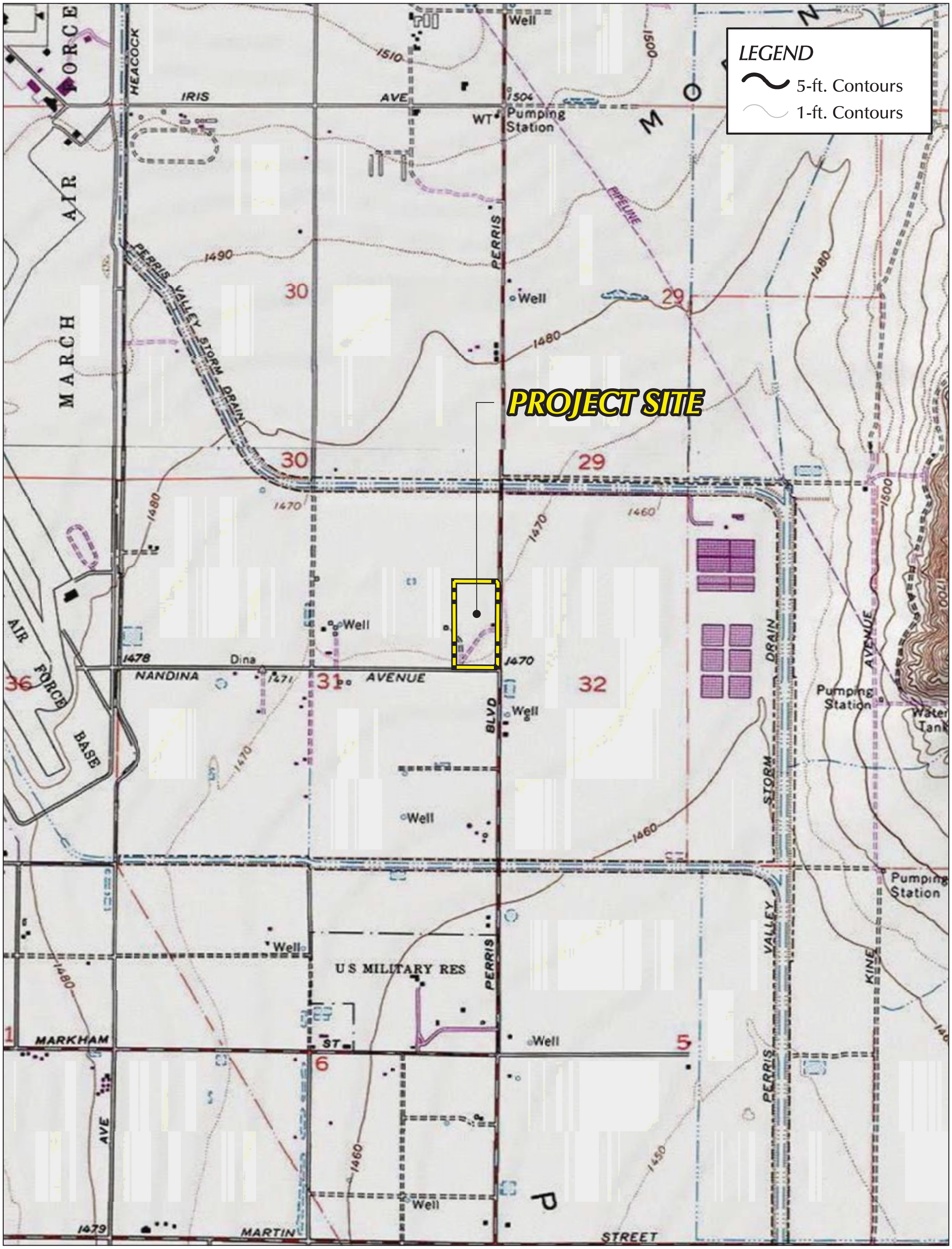
Regional Map



Source: RCTLMA (2012)

Figure 3-2

Vicinity Map

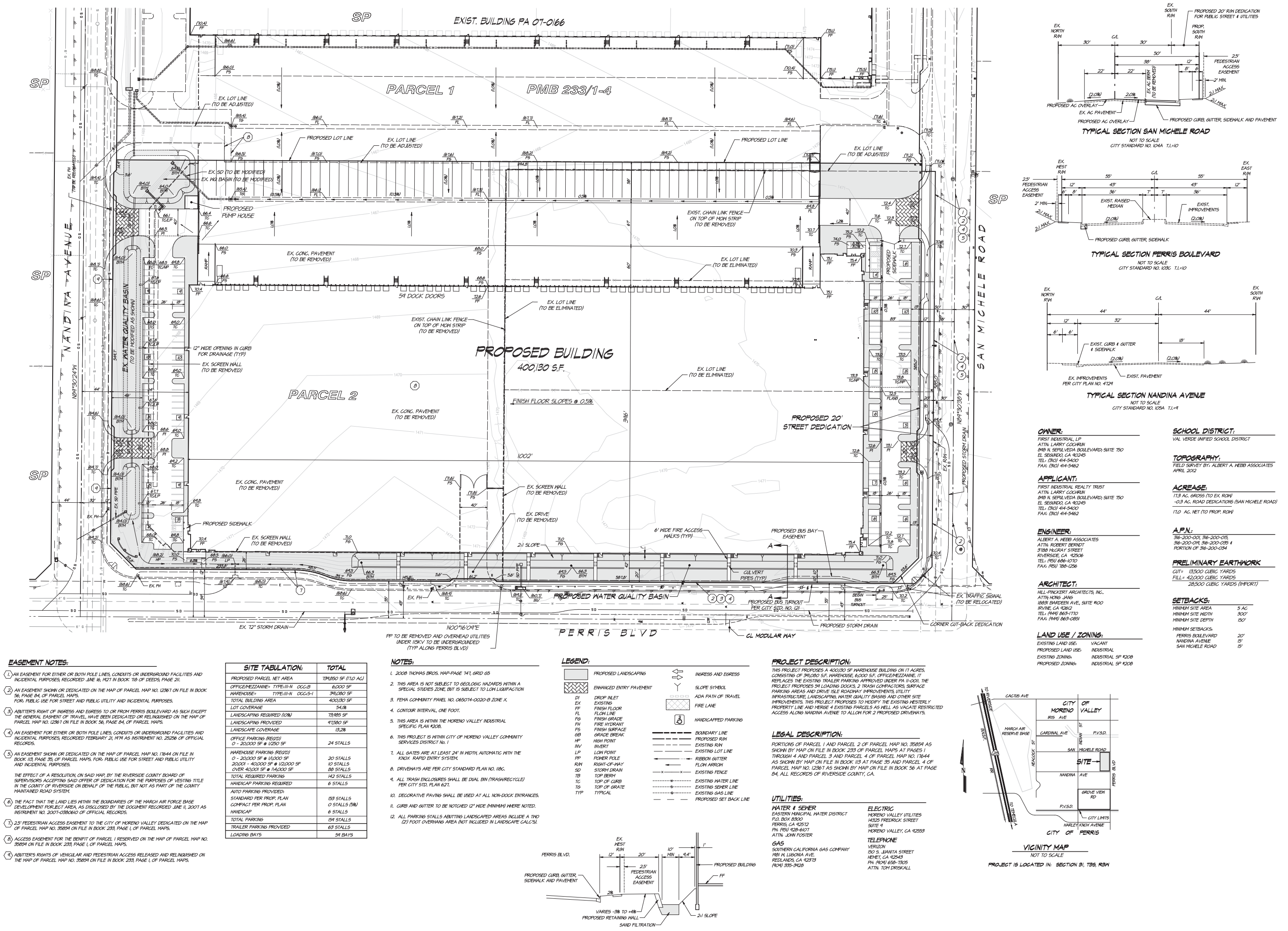


Source: RCTLMA (2012), USGS

0 1,000 2,000 Feet

Figure 3-3

USGS Topographic Map



EASEMENT NOTES:

① AN EASEMENT FOR EITHER OR BOTH POLE LINES, CONDUITS OR UNDERGROUND FACILITIES AND INCIDENTAL PURPOSES, RECORDED JUNE 16, 1927 IN BOOK 718 OF DEEDS, PAGE 211.

② AN EASEMENT SHOWN OR DEDICATED ON THE MAP OF PARCEL MAP NO. 12367 ON FILE IN BOOK 56, PAGE 84, OF PARCEL MAPS.
FOR: PUBLIC USE FOR STREET AND PUBLIC UTILITY AND INCIDENTAL PURPOSES.

③ ABUTTER'S RIGHT OF INGRESS AND EGRESS TO OR FROM PERRIS BOULEVARD AS SUCH EXCEPT THE GENERAL EASMENT OF TRAVEL, HAVE BEEN DEDICATED OR RELINQUISHED ON THE MAP OF PARCEL MAP NO. 12367 ON FILE IN BOOK 56, PAGE 84, OF PARCEL MAPS.

④ AN EASEMENT FOR EITHER OR BOTH POLE LINES, CONDUITS OR UNDERGROUND FACILITIES AND INCIDENTAL PURPOSES, RECORDED FEBRUARY 21, 1979 AS INSTRUMENT NO. 25256 OF OFFICIAL RECORDS.

⑤ AN EASEMENT SHOWN OR DEDICATED ON THE MAP OF PARCEL MAP NO. 17644 ON FILE IN BOOK 113, PAGE 35, OF PARCEL MAPS. FOR: PUBLIC USE FOR STREET AND PUBLIC UTILITY AND INCIDENTAL PURPOSES.

THE EFFECT OF A RESOLUTION, ON SAID MAP, BY THE RIVERSIDE COUNTY BOARD OF SUPERVISORS ACCEPTING SAID OFFER OF DEDICATION FOR THE PURPOSES OF VESTING TITLE IN THE COUNTY OF RIVERSIDE ON BEHALF OF THE PUBLIC, BUT NOT AS PART OF THE COUNTY MAINTAINED ROAD SYSTEM.

⑥ THE FACT THAT THE LAND LIES WITHIN THE BOUNDARIES OF THE MARCH AIR FORCE BASE DEVELOPMENT PORJECT AREA, AS DISCLOSED BY THE DOCUMENT RECORDED JUNE 11, 2007 AS INSTRUMENT NO. 2007-0380610 OF OFFICIAL RECORDS.

⑦ 2.5' PEDESTRIAN ACCESS EASEMENT TO THE CITY OF MORENO VALLEY DEDICATED ON THE MAP OF PARCEL MAP NO. 35859 ON FILE IN BOOK 233, PAGE 1, OF PARCEL MAPS.

⑧ ACCESS EASEMENT FOR THE BENIFIT OF PARCEL 1 RESERVED ON THE MAP OF PARCEL MAP NO. 35859 ON FILE IN BOOK 233, PAGE 1, OF PARCEL MAPS.

⑨ ABUTTER'S RIGHTS OF VEHICULAR AND PEDESTRIAN ACCESS RELEASED AND RELINQUISHED ON THE MAP OF PARCEL MAP NO. 35859 ON FILE IN BOOK 233, PAGE 1, OF PARCEL MAPS.

SITE TABULATION:	TOTAL
PROPOSED PARCEL NET AREA	739,850 SF (17.0 AC)
OFFICE/MEZZANINE= TYPE:III-N OCC:B	6,000 SF
WAREHOUSE= TYPE:III-N OCC:S-1	391,080 SF
TOTAL BUILDING AREA	400,130 SF
LOT COVERAGE	54.1%
LANDSCAPING REQUIRED (10%)	73,985 SF
LANDSCAPING PROVIDED	97,580 SF
LANDSCAPE COVERAGE	13.2%
OFFICE PARKING (REQ'D) 0 - 20,000 SF @ 1/250 SF	24 STALLS
WAREHOUSE PARKING (REQ'D) 0 - 20,000 SF @ 1/1,000 SF 20,001 - 40,000 SF @ 1/2,000 SF OVER 40,001 SF @ 1\4,000 SF	 20 STALLS 10 STALLS 88 STALLS
TOTAL REQUIRED PARKING	142 STALLS
HANDICAP PARKING REQUIRED	6 STALLS
AUTO PARKING PROVIDED: STANDARD PER PROP. PLAN COMPACT PER PROP. PLAN HANDICAP	 153 STALLS 0 STALLS (5%) 6 STALLS
TOTAL PARKING	159 STALLS
TRAILER PARKING PROVIDED	63 STALLS
LOADING BAYS	59 BAYS

NOTES:

1. 2008 THOMAS BROS. MAP-PAGE 747, GRID G5
2. THIS AREA IS NOT SUBJECT TO GEOLOGIC HAZARDS WITHIN A SPECIAL STUDIES ZONE, BUT IS SUBJECT TO LOW LIQUIFACTION
3. FEMA COMMUNITY PANEL NO. 065074-0020-B ZONE X.
4. CONTOUR INTERVAL, ONE FOOT.
5. THIS AREA IS WITHIN THE MORENO VALLEY INDUSTRIAL SPECIFIC PLAN #208.
6. THIS PROJECT IS WITHIN CITY OF MORENO VALLEY COMMUNITY SERVICES DISTRICT No. 1
7. ALL GATES ARE AT LEAST 24' IN WIDTH, AUTOMATIC WITH THE KNOX RAPID ENTRY SYSTEM.
8. DRIVEWAYS ARE PER CITY STANDARD PLAN NO. 118C.
9. ALL TRASH ENCLOSURES SHALL BE DUAL BIN (TRASH/RECYCLE) PER CITY STD. PLAN 627.
10. DECORATIVE PAVING SHALL BE USED AT ALL NON-DOCK ENTRANCES.
11. CURB AND GUTTER TO BE NOTCHED 12" WIDE (MINIMUM) WHERE NOTED.
12. ALL PARKING STALLS ABUTTING LANDSCAPED AREAS INCLUDE A TWO (2') FOOT OVERHANG AREA (NOT INCLUDED IN LANDSCAPE CALC'S).

LEGEND:

▭	PROPOSED LANDSCAPING	⇄	INGRESS AND EGRESS
▨	ENHANCED ENTRY PAVEMENT	Y	SLOPE SYMBOL
DI	DROP INLET	▭▭▭▭	ADA PATH OF TRAVEL
EX	EXISTING	▨	FIRE LANE
FF	FINISH FLOOR	♿	HANDICAPPED PARKING
FL	FLOW LINE	━ ━ ━	BOUNDARY LINE
FG	FINISH GRADE	━ ━ ━	PROPOSED R/W
FH	FIRE HYDRANT	— — —	EXISTING R/W
FS	FINISH SURFACE	— — —	EXISTING LOT LINE
GB	GRADE BREAK	←··←	RIBBON GUTTER
HP	HIGH POINT	←	FLOW ARROW
INV	INVERT	—×—×—	EXISTING FENCE
LP	LOW POINT	---W---	EXISTING WATER LINE
PP	POWER POLE	---S---	EXISTING SEWER LINE
R/W	RIGHT-OF-WAY	---G---	EXISTING GAS LINE
SD	STORM DRAIN	— — —	PROPOSED SET BACK LINE
TB	TOP BERM		
TC	TOP OF CURB		
TG	TOP OF GRATE		
TYP	TYPICAL		

PROJECT DESCRIPTION:

THIS PROJECT PROPOSES A 400,130 SF WAREHOUSE BUILDING ON 17 ACRES. CONSISTING OF 391,080 S.F. WAREHOUSE, 6,000 S.F. OFFICE/MEZZANINE. IT REPLACES THE EXISTING TRAILER PARKING APPROVED UNDER PA 11-0011. THE PROJECT PROPOSES 59 LOADING DOCKS, 2 TRASH COMPACTORS, SURFACE PARKING AREAS AND DRIVE ISLE ROADWAY IMPROVEMENTS, UTILITY INFRASTRUCTURE, LANDSCAPING, WATER QUALITY BASINS AND OTHER SITE IMPROVEMENTS. THIS PROJECT PROPOSES TO MODIFY THE EXISTING WESTERLY PROPERTY LINE AND MERGE 4 EXISTING PARCELS AS WELL AS VACATE RESTRICTED ACCESS ALONG NANDINA AVENUE TO ALLOW FOR 2 PROPOSED DRIVEWAYS.

LEGAL DESCRIPTION:

PORTIONS OF PARCEL 1 AND PARCEL 2 OF PARCEL MAP NO. 35859 AS SHOWN BY MAP ON FILE IN BOOK 233 OF PARCEL MAPS AT PAGES 1 THROUGH 4 AND PARCEL 3 AND PARCEL 4 OF PARCEL MAP NO. 17644 AS SHOWN BY MAP ON FILE IN BOOK 113 AT PAGE 35 AND PARCEL 4 OF PARCEL MAP NO. 12367 AS SHOWN BY MAP ON FILE IN BOOK 56 AT PAGE 84, ALL RECORDS OF RIVERSIDE COUNTY, CA.

UTILITIES:

WATER & SEWER
EASTERN MUNICIPAL WATER DISTRICT
P.O. BOX 8300
PERRIS, CA 92572
PH: (951) 928-6107
ATTN: JOHN FOSTER

GAS
SOUTHERN CALIFORNIA GAS COMPANY
1981 W. LUGONIA AVE.
REDLANDS, CA 92373
(909) 335-3928

ELECTRIC
MORENO VALLEY UTILITIES
14325 FREDRICK STREET
SUITE 9
MORENO VALLEY, CA 92553

TELEPHONE
VERIZON
150 S. JUANITA STREET
HEMET, CA 92543
PH: (909) 658-7305
ATTN: TOM DRISKALL

OWNER:
FIRST INDUSTRIAL, LP
ATTN: LARRY COCHRUN
898 N. SEPULVEDA BOULEVARD; SUITE 750
EL SEGUNDO, CA 90245
TEL: (310) 414-5400
FAX: (310) 414-5462

APPLICANT:
FIRST INDUSTRIAL REALTY TRUST
ATTN: LARRY COCHRUN
898 N. SEPULVEDA BOULEVARD; SUITE 750
EL SEGUNDO, CA 90245
TEL: (310) 414-5400
FAX: (310) 414-5462

ENGINEER:
ALBERT A. WEBB ASSOCIATES
ATTN: ROBERT BERNDT
3788 McCRAY STREET
RIVERSIDE, CA 92506
TEL: (951) 686-1070
FAX: (951) 788-1256

ARCHITECT:
HILL-PINCKERT ARCHITECTS, INC..
ATTN: HONG JANG
18831 BARDEEN AVE., SUITE #100
IRVINE, CA 92612
TEL: (949) 863-1770
FAX: (949) 863-0851

LAND USE / ZONING:

EXISTING LAND USE:	VACANT
PROPOSED LAND USE:	INDUSTRIAL
EXISTING ZONING:	INDUSTRIAL SP #208
PROPOSED ZONING:	INDUSTRIAL SP #208

SCHOOL DISTRICT:
VAL VERDE UNIFIED SCHOOL DISTRICT

TOPOGRAPHY:
FIELD SURVEY BY: ALBERT A. WEBB ASSOCIATES
APRIL 2012

ACREAGE:
17.3 AC. GROSS (TO EX. ROW)
-0.3 AC. ROAD DEDICATIONS (SAN MICHELE ROAD)
17.0 AC. NET (TO PROP. ROW)

A.P.N.:
316-200-001, 316-200-015,
316-200-019, 316-200-035 &
PORTION OF 316-200-034

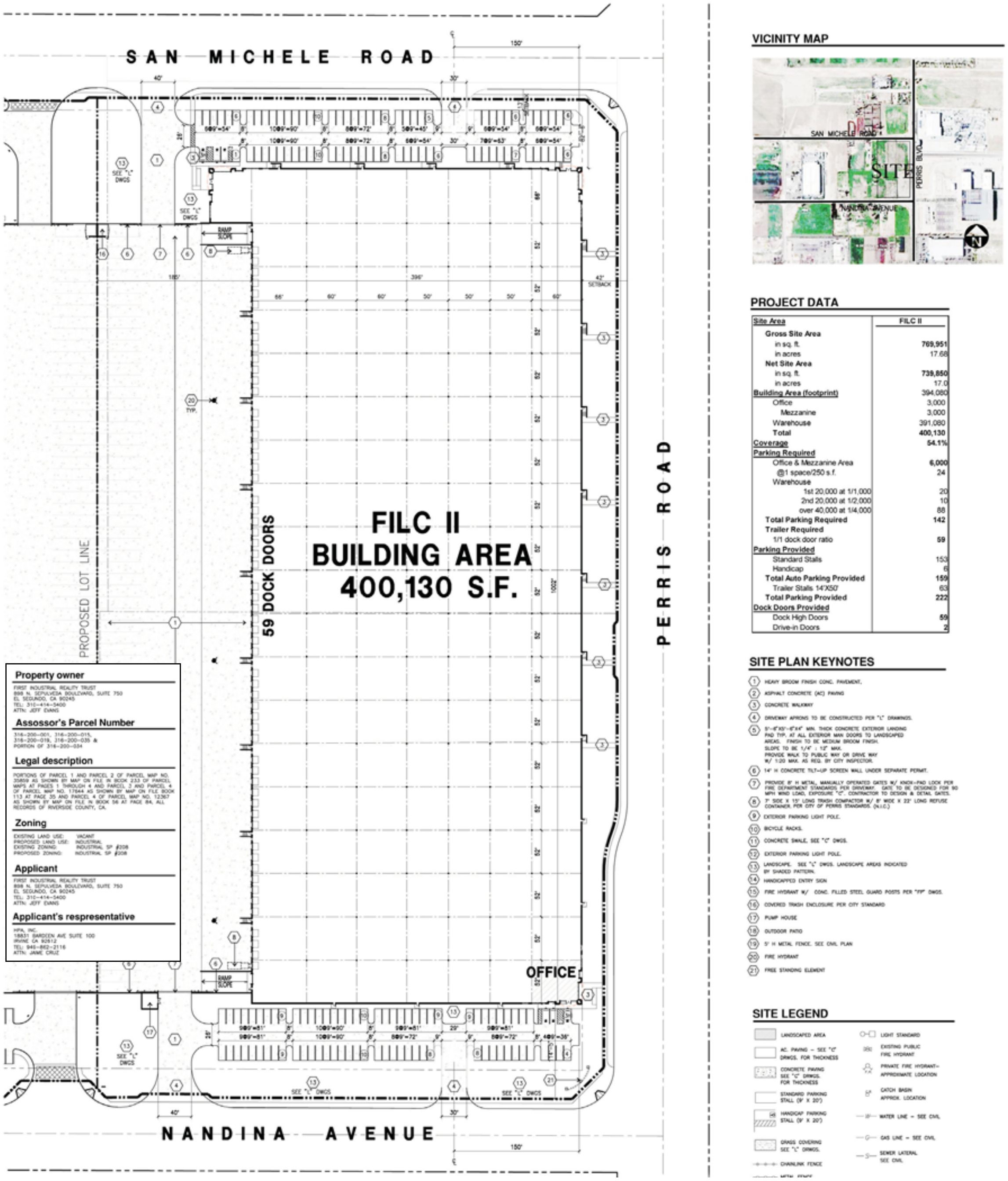
PRELIMINARY EARTHWORK
CUT= 13,500 CUBIC YARDS
FILL= 42,000 CUBIC YARDS
28,500 CUBIC YARDS (IMPORT)

SETBACKS:

MINIMUM SITE AREA	5 AC
MINIMUM SITE WIDTH	300'
MINIMUM SITE DEPTH	150'
MINIMUM SETBACKS:	
PERRIS BOULEVARD	20'
NANDINA AVENUE	15'
SAN MICHELE ROAD	15'

Source: Albert A. Webb Associates (November 2012)

FIGURE 3-4
Plot Plan PA12-0023



Property owner

FIRST INDUSTRIAL REALITY TRUST
898 N. SEPULVEDA BOULEVARD, SUITE 750
EL SEGUNDO, CA 90245
TEL: 310-414-5400
ATTN: JEFF EVANS

Assossor's Parcel Number

316-200-001, 316-200-015,
316-200-019, 316-200-035 &
PORTION OF 316-200-034

Legal description

PORTIONS OF PARCEL 1 AND PARCEL 2 OF PARCEL MAP NO. 35859 AS SHOWN BY MAP ON FILE IN BOOK 233 OF PARCEL MAPS AT PAGES 1 THROUGH 4 AND PARCEL 3 AND PARCEL 4 OF PARCEL MAP NO. 17644 AS SHOWN BY MAP ON FILE BOOK 113 AT PAGE 35 AND PARCEL 4 OF PARCEL MAP NO. 12367 AS SHOWN BY MAP ON FILE IN BOOK 56 AT PAGE 84, ALL RECORDS OF RIVERSIDE COUNTY, CA.

Zoning

EXISTING LAND USE:	VACANT
PROPOSED LAND USE:	INDUSTRIAL
EXISTING ZONING:	INDUSTRIAL SP #208
PROPOSED ZONING:	INDUSTRIAL SP #208

Applicant

FIRST INDUSTRIAL REALITY TRUST
898 N. SEPULVEDA BOULEVARD, SUITE 750
EL SEGUNDO, CA 90245
TEL: 310-414-5400
ATTN: JEFF EVANS

Applicant's respresentative

HPA, INC.
18831 BARDEEN AVE SUITE 100
IRVINE CA 92612
TEL: 949-862-2116
ATTN: JAIME CRUZ

PROJECT DATA

Site Area	FILC II
Gross Site Area	
in sq. ft.	769,951
in acres	17.68
Net Site Area	
in sq. ft.	739,850
in acres	17.0
Building Area (footprint)	394,080
Office	3,000
Mezzanine	3,000
Warehouse	391,080
Total	400,130
Coverage	54.1%
Parking Required	
Office & Mezzanine Area	6,000
@1 space/250 s.f.	24
Warehouse	
1st 20,000 at 1/1,000	20
2nd 20,000 at 1/2,000	10
over 40,000 at 1/4,000	88
Total Parking Required	142
Trailer Required	
1/1 dock door ratio	59
Parking Provided	
Standard Stalls	153
Handicap	6
Total Auto Parking Provided	159
Trailer Stalls 14'X50'	63
Total Parking Provided	222
Dock Doors Provided	
Dock High Doors	59
Drive-in Doors	2

SITE PLAN KEYNOTES

① HEAVY BROOM FINISH CONC. PAVEMENT.
② ASPHALT CONCRETE (AC) PAVING
③ CONCRETE WALKWAY
④ DRIVEWAY APRONS TO BE CONSTRUCTED PER "L" DRAWINGS.
⑤ 5'-6"X5'-6"X4" MIN. THICK CONCRETE EXTERIOR LANDING PAD TYP. AT ALL EXTERIOR MAN DOORS TO LANDSCAPED AREAS. FINISH TO BE MEDIUM BROOM FINISH. SLOPE TO BE 1/4" : 12" MAX. PROVIDE WALK TO PUBLIC WAY OR DRIVE WAY W/ 1:20 MAX. AS REQ. BY CITY INSPECTOR.
⑥ 14' H CONCRETE TILT-UP SCREEN WALL UNDER SEPARATE PERMIT.
⑦ PROVIDE 8' H METAL, MANUALLY OPERATED GATES W/ KNOX-PAD LOCK PER FIRE DEPARTMENT STANDARDS PER DRIVEWAY. GATE TO BE DESIGNED FOR 90 MPH WIND LOAD, EXPOSURE "C". CONTRACTOR TO DESIGN & DETAIL GATES.
⑧ 7' SIDE X 15' LONG TRASH COMPACTOR W/ 8' WIDE X 22' LONG REFUSE CONTAINER. PER CITY OF PERRIS STANDARDS. (N.I.C.)
⑨ EXTERIOR PARKING LIGHT POLE.
⑩ BICYCLE RACKS.
⑪ CONCRETE SWALE. SEE "C" DWGS.
⑫ EXTERIOR PARKING LIGHT POLE.
⑬ LANDSCAPE. SEE "L" DWGS. LANDSCAPE AREAS INDICATED BY SHADED PATTERN.
⑭ HANDICAPPED ENTRY SIGN
⑮ FIRE HYDRANT W/ CONC. FILLED STEEL GUARD POSTS PER "FP" DWGS.
⑯ COVERED TRASH ENCLOSURE PER CITY STANDARD
⑰ PUMP HOUSE
⑱ OUTDOOR PATIO
⑲ 5' H METAL FENCE. SEE CIVIL PLAN
⑳ FIRE HYDRANT
㉑ FREE STANDING ELEMENT

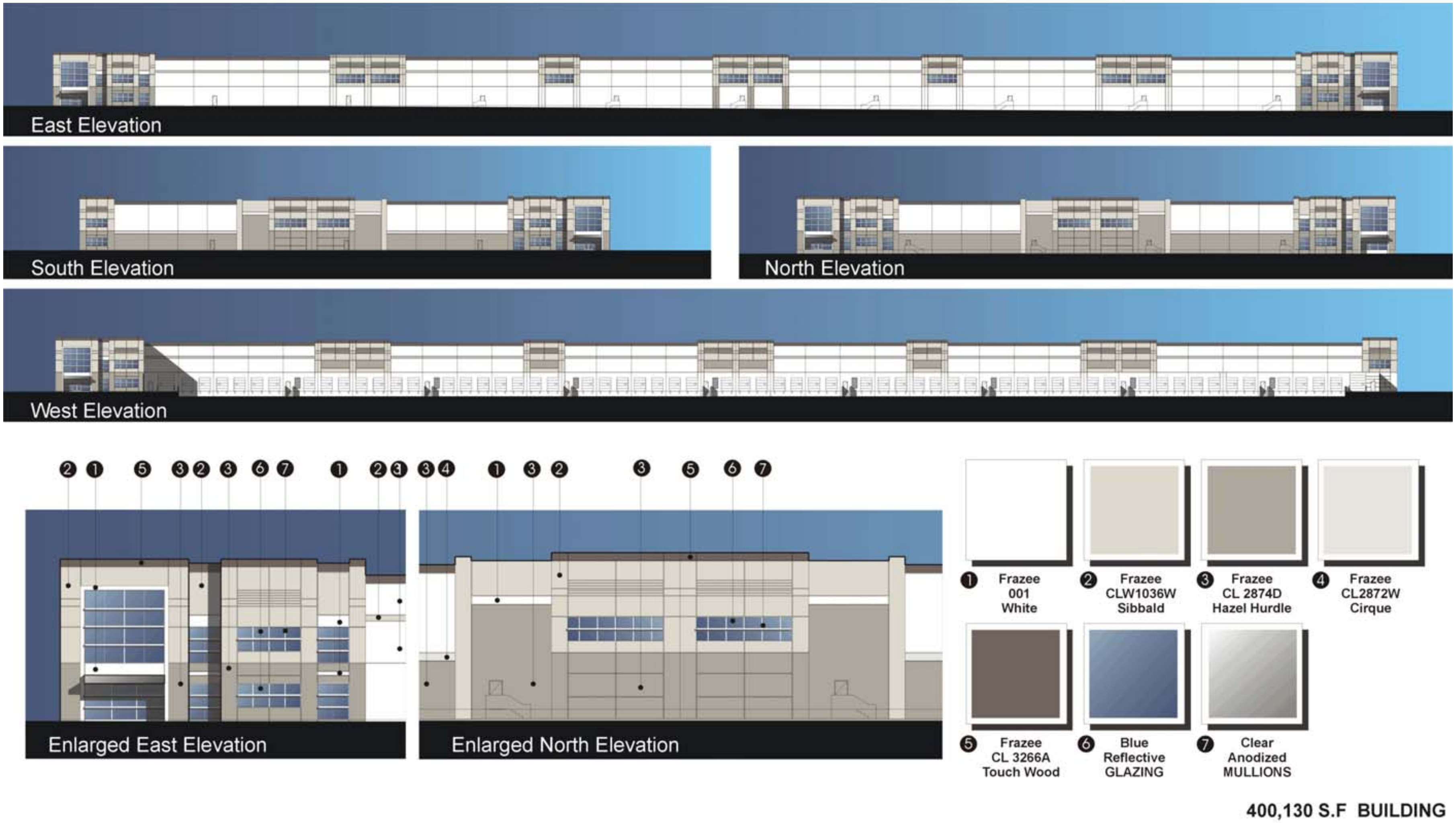
SITE LEGEND

LANDSCAPED AREA
AC. PAVING - SEE "C" DRWGS. FOR THICKNESS
CONCRETE PAVING SEE "C" DRWGS. FOR THICKNESS
STANDARD PARKING STALL (9' X 20')
HANDICAP PARKING STALL (9' X 20')
GRASS COVERING SEE "L" DRWGS.
CHAINLINK FENCE
METAL FENCE
LIGHT STANDARD
EXISTING PUBLIC FIRE HYDRANT
PRIVATE FIRE HYDRANT- APPROXIMATE LOCATION
CATCH BASIN APPROX. LOCATION
WATER LINE - SEE CIVIL
GAS LINE - SEE CIVIL
SEWER LATERAL SEE CIVIL

Source: HPA Architecture (May 2012)

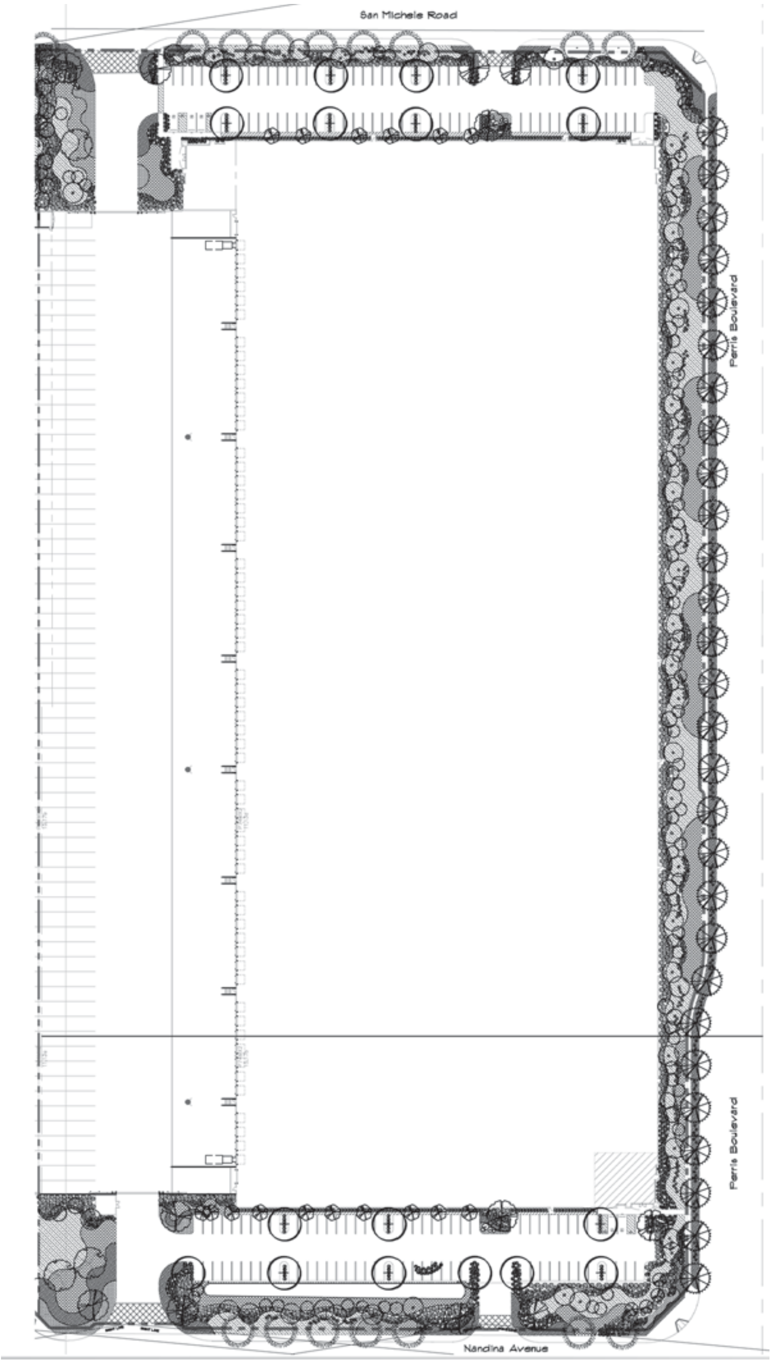
FIGURE 3-5

Plot Plan PA12-0023 Detail



Source: HPA Architecture (May 2012)

FIGURE 3-6
Architectural Elevations



PLANTING LEGEND

TREES

SYMBOL	BOTANICAL/COMMON NAME	SIZE	QTY	WUCOLS	REMARKS
⊕	Chitalpa tashkentensis Chitalpa	24" Box	17	L	Multi
○	Koelreuteria bipinnata Chinese Flame Tree	36" Box	12	M	Multi
○	Lagerstroemia i. 'Muskogee' Crape Myrtle	24" Box	8	M	Multi
○	Liquidambar styraciflua Sweetgum	15 Gal	65	M	Multi
○	Liriodendron tulipifera Tulip Tree	24" Box	28	M	
○	Pinus eldarica Afghan Pine	24" Box	17	L	
○	Platanus acerifolia London Plane	24" Box	16	M	Standard
○	Rhus lancea African Sumac	24" Box	43	L	
○	Schinus molle California Pepper	24" Box	3	L	
○	Tristania conferta Brisbane Box	15 Gal	16	L	
✳	Phoenix dactylifera Date Palm	8' bt.	6	L	Skinned

SHRUBS

SYMBOL	BOTANICAL/COMMON NAME	SIZE	QTY	WUCOLS	REMARKS
⊙	Dietes bicolor Fortnight Lily	5 Gal	328	L	
⊙	Leptospermum s. 'Ruby Glow' New Zealand Tea Tree	5 Gal	34	L	
⊙	Leucophyllum f. 'Green Cloud' Texas Ranger	5 Gal	497	L	
⊙	Perovskia atriplicifolia Russian Sage	5 Gal	6	L	
⊙	Rosmarinus o. 'Tuscan Blue' Rosemary	5 Gal	483	L	
⊖	Salvia greggii Autumn Sage	5 Gal	363	L	
⊙	Senna artemisioides Feathery Cassia	5 Gal	227	L	
⊙	Westringia fruticosa Coast Rosemary	5 Gal	727	L	

ACCENTS

SYMBOL	BOTANICAL/COMMON NAME	SIZE	QTY	WUCOLS	REMARKS
○	Agave vilmoriniana Agave	15 Gal	2	L	
⊙	Dasylirion wheeleri Desert Spoon	15 Gal	3	L	
⊖	Pennisetum s. 'Cupreum' Purple Fountain Grass	5 Gal	221	L	

GROUNDCOVER

SYMBOL	BOTANICAL/COMMON NAME	SIZE	SPACING	WUCOLS	REMARKS
▨	Acacia redolens 'Low Boy' Acacia	1 Gal	6' O.C.	L	
▦	Baccharis pilularis Coyote Bush	1 Gal	24" O.C.	L	
▨	Lantana 'Gold Mound' Gold Mound Lantana	1 Gal	36" O.C.	L	
▨	Lonicera j. 'Halliana' Hall's Honeysuckle	Flats	12" O.C.	L	
▩	Myoporum parvifolium Myoporum	1 Gal	36" O.C.	L	

NOTES:

1. ALL TREES WITHIN 5' OF HARDSCAPE SHALL BE IN A SHAWTOWN OR EQUAL ROOTBARRIER.
2. CONTRACTOR TO INSTALL CONCRETE MOW CURB BETWEEN PLANTERS AND TURF AREAS. SEE PLANTING DETAIL SHEET.
3. ALL PLANTER AREAS TO RECEIVE A 2" LAYER OF MEDIUM WALK ON BARK (3/4" -1/2").

THE ROOTBALL OF ANY PLANT SHALL NOT BE PLANTED AN CLOSER THAN 2' FROM ANY HARDSCAPE, BUILDING OR WALL.

Source: Hunter Landscape (May 2012)

FIGURE 3-7
Conceptual Landscaping Plan

4.0 ENVIRONMENTAL ANALYSIS

4.0.1 SUMMARY OF EIR SCOPE

In accordance with CEQA Guidelines §§15126 - 15126.4, this EIR Section 4.0, *Environmental Analysis*, provides analyses of potential direct, indirect, and cumulative impacts that have the potential to occur from planning, constructing, and/or operating the proposed Project.

In compliance with the procedural requirements of CEQA, an Initial Study was prepared to determine the scope of environmental analysis for this EIR. Public comment on the scope was considered in the form of written comments received by the City of Moreno Valley in response to the NOP issued for this EIR. Taking all known information and public comments into consideration, five (5) primary environmental subject areas are evaluated, as listed below. Each subsection evaluates several specific subject matters related to the general topic of the subsection. The title of each subsection is not limiting; therefore, refer to each subsection for a full account of the subject matters addressed therein.

4.1 Air Quality
4.2 Greenhouse Gas Emissions
4.3 Noise
4.4 Transportation/Traffic
4.5 Biological Resources

Twelve (12) environmental subjects were determined by the City to have no potential to be significantly impacted by the Project with mandatory compliance to regulatory requirements, as concluded by the Project's Initial Study (included in *Technical Appendix A* to this EIR) and after consideration of all comments received by the City on the scope of this EIR. These 12 subjects are discussed in Subsection 5.4, *Effects Found Not to be Significant as Part of the Initial Study Process*, and include: aesthetics, agriculture resources, cultural resources, geology/soils, hazards and hazardous materials, hydrology/water quality, land use/planning, mineral resources, population and housing, public services, recreation, and utilities/service systems.

4.0.2 SCOPE OF CUMULATIVE EFFECTS ANALYSIS

CEQA requires that an EIR contain an assessment of the cumulative impacts that may be associated with a proposed project. As noted in CEQA Guidelines §15130(a), "an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable." "A cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects creating related impacts" (CEQA Guidelines §15130(a)(1)). As defined in CEQA Guidelines §15355:

> 'Cumulative Impacts' refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.
>
> *(a) The individual effects may be changes resulting from a single project or a number of separate projects.*

> *(b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.*

CEQA Guidelines §15130(b) describes two acceptable methods for identifying a study area for purposes of conducting a cumulative impact analysis. These two approaches include: "1) a list of past, present, and probable future projects producing related or cumulative impacts, including if necessary, those projects outside the control of the agency ['the list of projects approach'], or 2) a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact ['the summary of projections approach']."

The summary of projections approach is used in this EIR, except for the evaluation of cumulative traffic and vehicular-related air quality and noise impacts. The analysis of cumulative traffic impacts uses the list of projects approach, as is required to be used by the City of Moreno Valley Transportation Engineering Division's Traffic Impact Analysis Preparation Guide (August 2007). Therefore, the cumulative analysis of vehicular-related air quality and noise impacts which relies on the traffic study, inherently also encapsulates the list of projects approach.

Using the summary of projections approach, the cumulative study area includes the City of Moreno Valley, the City of Perris, the City of Riverside, and the Harvest Valley/Winchester Area Plan (HVWAP), Lakeview/Nuevo Area Plan (LNAP), and the Mead Valley Area Plan (MVAP), all of which are part of the Riverside County General Plan. These three cities and the three Riverside County Area Plans encompass portions of western Riverside County that have similar environmental characteristics as the Project area. The selected study area encompasses the Perris Valley, which is largely bounded by prominent topographic landforms, such as Reche Canyon to the north, the Badlands to the east, and the Lakeview Mountains to the southeast. This study area exhibits similar environmental characteristics as the Project site. This study area also encompasses the service areas of the Project's primary public service and utility providers. Areas outside of this study area either exhibit topographic, climatological, or other environmental circumstances that are different from those of the Project area, or are simply too far from the proposed Project site to be cumulatively considerable.

Environmental impacts associated with the buildout of the Riverside County General Plan were evaluated in a Program-level EIR certified by Riverside County in 2003 (SCH No. 2002051143). The Riverside County General Plan EIR is herein incorporated by reference, and is available for review at the County of Riverside Transportation and Land Management Agency Planning Department, 4080 Lemon Street, 12th Floor, Riverside CA 92502. Likewise, the environmental impacts associated with the buildout of the City of Perris General Plan were evaluated in a Program-level EIR that was certified by the Perris City Council on April 26, 2005 (SCH No. 2004031135). The City of Perris General Plan EIR is also incorporated by reference, and is available for review at the City of Perris Department of Community Development, 135 North "D" Street, Perris CA 92570. Finally, the environmental impacts associated with the buildout of the City of Riverside General Plan were evaluated in a Program-level EIR that was certified by the Riverside City Council in November

2007 (SCH No. 2004021108). The City of Riverside General Plan EIR is also incorporated by reference, and is available for review at the City of Riverside Community Development Department, Planning Division, 3900 Main Street, Riverside, CA 92522.

A specific cumulative study area was established using "the list of projects approach" to assess the cumulative effect of the Project's traffic and transportation impacts, as required by the City of Moreno Valley Transportation Engineering Division's Traffic Impact Analysis Preparation Guide. And, because the Project's traffic report is relied upon to evaluate vehicular-related air quality and noise impacts, the same cumulative study area was applied. The cumulative study area includes approved and pending development projects within an approximate three (3)-mile radius of the Project site, as well as several large, traffic-intensive projects falling beyond a three (3)-mile radius of the Project site. As such, the cumulative impact analysis of traffic impacts and vehicular-related air quality and noise impacts considers 53 other past, present, and reasonably foreseeable projects within this study area. The traffic and vehicular-related effects of projects physically located beyond the geographic area identified in the list of projects approach are captured as part of adding a compounded 2% annual growth rate to the analysis scenarios. This methodology presents a more reasonable approach to cumulative traffic analysis than the General Plan projection approach by recognizing development projects that actually have the potential to contribute traffic and vehicular-related air quality emissions and noise to the same intersections, roadway segments, and/or freeway segments as the proposed Project and have the potential to be made fully operational during a similar timeframe as the proposed Project. Specific development projects included in the traffic impact cumulative analysis are listed in Table 4-3 of the Project's Traffic Impact Analysis (refer to *Technical Appendix F*).

4.0.3 IDENTIFICATION OF IMPACTS

Subsections 4.1 through 4.5 of this EIR evaluate the five (5) environmental subjects warranting detailed analysis, as determined by this EIR's Initial Study. The format of discussion is standardized as much as possible in each section for ease of review. The environmental setting is discussed first, followed by a discussion of the Project's potential environmental impacts based on specified thresholds of significance used as criteria to determine whether potential environmental effects are significant. The thresholds of significance used in this EIR are based on the thresholds presented in CEQA Guidelines Appendix G and as applied by the City of Moreno Valley to create the Project's Initial Study Checklist (included in *Technical Appendix A* to this EIR). The thresholds are intended to assist the reader of this EIR in understanding how and why this EIR reaches a conclusion that an impact would or would not occur, is significant, or is less than significant. As required by CEQA Guidelines §15126.2(a), impacts are identified as direct, indirect, cumulative, short-term, long-term, on-site, and/or off-site impacts of the proposed Project.

A summarized "impact statement" is provided in each subsection following the analysis. The following terms are used to describe the level of significance related to the environmental conditions affected by the proposed Project:

- No Impact: An adverse change in the physical environment would not occur.

- Less Than Significant Impact: An adverse change in the physical environment would occur but the change would not be substantial or potentially substantial and would not exceed the threshold(s) of significance presented in this EIR.

- Significant Impact: A substantial or potentially substantial adverse change in the physical environment would occur and would exceed the threshold(s) of significance presented in this EIR, requiring the consideration of mitigation measures.

Each subsection also includes a listing of the applicable regulatory criteria (laws, policies, regulations, etc.) that the Project is required to comply with (if any) related to the environmental subject area under evaluation. If impacts are identified as significant after the application of regulatory criteria, feasible mitigation measures are listed that could be applied to either avoid the impact or to reduce the magnitude of the impact. The following terms are used to describe the level of significance following the application of recommended mitigation measures:

- Less Than Significant Impact With Mitigation: A substantial or potentially substantial adverse change in the physical environment would occur that would exceed the threshold(s) of significance presented in this EIR; however, the impact can be avoided or reduced to a less than significant level through the application of feasible mitigation measures.

- Significant and Unavoidable Impact: A substantial or potentially substantial adverse change in the physical environment would occur that would exceed the threshold(s) of significance presented in this EIR. Feasible mitigation measures are either not available or would not be fully effective in avoiding or reducing the impact to below a level of significance.

For any impact identified as significant and unavoidable, the City of Moreno Valley would be required to adopt a statement of overriding considerations pursuant to CEQA Guidelines §15093 in order to approve the Project despite its significant impact(s) to the environment. The statement of overriding considerations would list the specific economic, legal, social, technological, and other benefits of the Project, supported by substantial evidence in the Project's administrative record on file at the City of Moreno Valley, that outweigh the unavoidable impacts.

4.1 AIR QUALITY

This subsection is based on two technical studies that were prepared by Urban Crossroads, Inc. to evaluate the Project's potential to adversely affect local and regional air quality. These studies include the following: 1) "First Inland Logistics II Air Quality Impact Analysis" (November 14, 2012), which is included as *Technical Appendix B* to this EIR (Urban Crossroads 2012a); and 2) "First Inland Logistics II Mobile Source Health Risk Assessment" (November 14, 2012), which is included as *Technical Appendix C* to this EIR (Urban Crossroads 2012b). In addition, information used to support the analysis in this subsection was obtained from the City of Moreno Valley General Plan (Moreno Valley 2006a) and California Air Resources Board (CARB 2009).

4.1.1 EXISTING CONDITIONS

A. Atmospheric Setting

The Project site is located in the South Coast Air Basin (SCAB or "Basin") which is within the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD was created by the 1977 Lewis-Presley Air Quality Management Act, which merged four county air pollution control bodies into one regional district. Under the Act, the SCAQMD is responsible for bringing air quality in areas under its jurisdiction into conformity with federal and state air quality standards. The SCAB encompasses approximately 6,745-square miles and includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The SCAB is bound by the Pacific Ocean to the west; the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east; and the San Diego County line to the south. (Urban Crossroads, 2012a, p. 8)

B. Regional Climate and Meteorology

The regional climate has a substantial influence on air quality in the SCAB. In addition, the temperature, wind, humidity, precipitation, and amount of sunshine influence air quality. Although the climate of the SCAB can be characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. This shallow layer of sea air is an important modifier of SCAB climate. Humidity restricts visibility in the SCAB and the conversion of sulfur dioxide to sulfates is heightened in air with high relative humidity. The marine layer provides an environment for that conversion process, especially during the spring and summer months. The annual average relative humidity within the SCAB is 71% along the coast and 59% inland. Because the ocean effect is dominant, periods of heavy early morning fog are frequent and low stratus clouds are a characteristic feature. These effects decrease with distance from the coast. (Urban Crossroads, 2012a, pp. 8-9)

Due to its generally clear weather, about three-quarters of available sunshine is received in the SCAB. The remaining one-quarter is absorbed by clouds. The ultraviolet portion of this abundant radiation is a key factor in photochemical reactions. On the shortest day of the year there are approximately 10 hours of possible sunshine, and on the longest day of the year there are approximately 14-1/2 hours of possible sunshine. (Urban Crossroads, 2012a, p. 9)

The importance of wind to air pollution is considerable. The direction and speed of the wind determines the horizontal dispersion and transport of the air pollutants. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed "Santa Anas" each year. During the dry season, which coincides with the months of maximum photochemical smog concentrations, the wind flow is bimodal, typified by a daytime onshore sea breeze and a nighttime offshore drainage wind. Summer wind flows are created by the pressure differences between the relatively cold ocean and the unevenly heated and cooled land surfaces that modify the general northwesterly wind circulation over southern California. Another characteristic wind regime in the SCAB is the "Catalina Eddy," a low level cyclonic (counterclockwise) flow centered over Santa Catalina Island that results in an offshore flow to the southwest. On most spring and summer days, some indication of an eddy is apparent in coastal sections. (Urban Crossroads, 2012a, p. 9)

In the SCAB, there are two distinct temperature inversion structures that control vertical mixing of air pollution. During the summer, warm high-pressure descending (subsiding) air is undercut by a shallow layer of cool marine air. The boundary between these two layers of air is a persistent marine subsidence/inversion. This boundary prevents vertical mixing which effectively acts as an impervious lid to pollutants over the entire SCAB. The mixing height for the inversion structure is normally situated 1,000 to 1,500 feet above mean sea level. (Urban Crossroads, 2012a, p. 9)

A second inversion-type forms in conjunction with the drainage of cool air off the surrounding mountains at night followed by the seaward drift of this pool of cool air. The top of this layer forms a sharp boundary with the warmer air aloft and creates nocturnal radiation inversions. These inversions occur primarily in the winter, when nights are longer and onshore flow is weakest. They are typically only a few hundred feet above mean sea level. These inversions effectively trap pollutants, such as nitrogen oxides (NO_X) and carbon monoxide (CO) from vehicles, as the pool of cool air drifts seaward. Winter is therefore a period of high levels of primary pollutants along the coastline. (Urban Crossroads, 2012a, p. 10)

C. *Air Quality Pollutants and Associated Health Effects*

The federal government and State of California have established maximum permissible concentrations for common air pollutants that may pose a risk to human health or would otherwise degrade air quality and adversely affect the environment. These regulated air pollutants are referred to as "criteria pollutants." An overview of the common criteria air pollutants in the SCAB, their sources, and associated effects to human health are summarized on the following pages.

- Carbon Monoxide (CO) is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest during the winter morning, when little to no wind and surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone, motor vehicles operating at slow speeds are the primary source of CO in the Basin. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections. (Urban Crossroads, 2012a, p. 14)

  CO combines with hemoglobin to produce carboxyhemoglobin (COHb), which interferes with the transport of oxygen throughout the body. The most common symptoms associated with CO poisoning include headache, nausea, vomiting, dizziness, fatigue, and weakness. Exposure to CO can also result in chest pain. Individuals most at risk to the effects of CO include fetuses, patients with diseases involving heart and blood vessels, and patients with chronic oxygen deficiency. (Urban Crossroads, 2012a, p. 20)

- Sulfur Dioxide (SO_2) is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO_2 oxidizes in the atmosphere, it forms sulfates (SO_4). Collectively, these pollutants are referred to as sulfur oxides (SO_X). (Urban Crossroads, 2012a, p. 18)

- Nitrogen Oxides (NO_x) consist of nitric oxide (NO), nitrogen dioxide (NO_2) and nitrous oxide (N_2O) and are formed when nitrogen (N_2) combines with oxygen (O_2). Their lifespan in the atmosphere ranges from one to seven days for nitric oxide and nitrogen dioxide, to 170 years for nitrous oxide. Nitrogen oxides are typically created during combustion processes, and are major contributors to smog formation and acid deposition. NO_2 is a criteria air pollutant, and may result in numerous adverse health effects; it absorbs blue light, resulting in a brownish-red cast to the atmosphere and reduced visibility. Of the seven types of nitrogen oxide compounds, NO_2 is the most abundant in the atmosphere. As ambient concentrations of NO_2 are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of NO_2 than those indicated by regional monitors. (Urban Crossroads, 2012a, p. 18)

  Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposure to NO_X. Short-term exposure to NO_X can result in resistance to air flow and airway contraction in healthy subjects. Exposure to NO_X can result in larger decreases in lung functions in individuals with asthma or chronic obstructive pulmonary diseases (e.g., chronic bronchitis, emphysema), as these individual are more susceptible to the effects of NO_X than healthy individuals. (Urban Crossroads, 2012a, p. 21)

- Ozone (O_3) is a highly reactive and unstable gas that is formed when volatile organic compounds (VOCs) and nitrogen oxides (NO_X), both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant. (Urban Crossroads, 2012a, p. 18)

  Short-term exposure (lasting for a few hours) to ozone at levels typically observed in southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. People exercising outdoors, children, and people with preexisting lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible sub-groups for ozone effects. An increased risk for asthma has been found in children who participate in multiple sports and live in communities with high ozone levels. (Urban Crossroads, 2012a, pp. 19-20)

- Particulate Matter is a major air pollutant consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols. Particles that are 10 microns or smaller (PM_{10}) easily become airborne and can reduce visibility. Particles that are 2.5 microns or smaller ($PM_{2.5}$) are formed in the atmosphere by sulfates or nitrates, a byproduct of primary gaseous emissions of SO_2 and NO_x. (Urban Crossroads, 2012a, p. 18)

  Elevated ambient concentrations of fine particulate matter (PM_{10} and $PM_{2.5}$) have been linked to respiratory infections, number and severity of asthma attacks, and increased hospital admissions. In recent years, some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in life-span, and an increased mortality from lung cancer. Daily fluctuations in $PM_{2.5}$ concentration levels have also been related to hospital admissions for acute respiratory conditions in children, to a decrease in respiratory lung volumes in normal children, and to increased medication use in children and adults with asthma. Recent studies show lung function growth in children is reduced with long-term exposure to particulate matter. The elderly, people with pre-existing respiratory or cardiovascular disease, and children appear to be more susceptible to the effects of high levels of PM_{10} and $PM_{2.5}$. (Urban Crossroads, 2012a, pp. 20-21)

- Volatile Organic Compounds (VOCs) and Reactive Organic Gasses (ROGs) are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. Both VOCs and ROGs contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. VOCs and ROGs have different levels of reactivity; that is, they do not react at the same speed or do not form ozone to the same extent when exposed to photochemical processes. VOCs and ROGs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints. VOCs and ROGs are criteria pollutants since they are a precursor to O_3, which is a criteria pollutant. The SCAQMD uses the terms VOC and ROG interchangeably. (Urban Crossroads, 2012a, p. 19)

  Odors generated by VOCs and ROGs can irritate the eye, nose, and throat, which can reduce respiratory volume. In addition, studies have shown that the VOCs and ROGs that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system. (Urban Crossroads, 2012a, p. 22)

- Lead (Pb) is a heavy metal that is highly persistent in the environment. In the past, the primary source of lead in the air was emissions from vehicles burning leaded gasoline. As a result of the removal of lead from gasoline, there have been no violations at any of the SCAQMD's regular air monitoring stations since 1982. Currently, emissions of lead are largely limited to stationary sources such as lead smelters. It should be noted that the Project is not anticipated to generate a quantifiable amount of lead emissions. Lead is a criteria air pollutant. (Urban Crossroads, 2012a, p. 19)

  Exposure to low levels of lead can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased lead levels are associated with increased blood pressure. Lead poisoning can cause anemia, lethargy, seizures, and death. Fetuses, infants, and children are more sensitive than others to the adverse effects of lead exposure. (Urban Crossroads, 2012a, pp. 21-22)

D. *Existing Air Quality*

Existing air quality is measured based upon ambient air quality standards. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) currently in effect, as well health effects of each pollutant regulated under these standards are shown in Table 4.1-1, *State and National Criteria Pollutant Standards, Effects, and Sources*.

The determination of whether a region's air quality is healthful or unhealthful is determined by comparing contaminant levels in ambient air samples to the state and federal standards presented in Table 4.1-1. The air quality in a region is considered to be in attainment by the state if the measured ambient air pollutant levels for O_3, CO, SO_2, NO_2, PM_{10}, and $PM_{2.5}$ are not equaled or exceeded at any time in any consecutive three-year period; and the federal standards (other than O_3, PM_{10}, $PM_{2.5}$, and those based on annual averages or arithmetic mean) are not exceeded more than once per year. The O_3 standard is attained when the fourth highest eight-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when 99 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. (Urban Crossroads, 2012a, pp. 10-11)

☐ Regional Air Quality

The SCAQMD monitors levels of various criteria pollutants at 30 monitoring stations throughout the air district. In 2010, the federal and state standards were exceeded on one or more days for O_3, PM_{10}, and $PM_{2.5}$ at most monitoring locations. No areas of the SCAB exceeded federal or state standards for SO_2, CO, or sulfates. Table 4.1-2, *Attainment Status of Criteria Pollutants in the SCAB,* summarizes the attainment designations for the SCAB. (Urban Crossroads, 2012a, p. 14)

☐ Local Air Quality

The nearest long-term air quality monitoring site for O_3 and PM_{10} is the SCAQMD Perris monitoring station, located approximately 5.4 miles south of the Project site. Data for CO, NO_2, and $PM_{2.5}$ was obtained from the Metropolitan Riverside County 2 monitoring station. It should be noted that the Metropolitan Riverside County 2 monitoring station was utilized in lieu of the Perris monitoring station only in instances where data was not available from the Perris station. The three (3) years of most recent available data presented in Table 4.1-3, *Project Area Air Quality Monitoring Summary (2008-2010)*, shows the number of days that standards were exceeded for the study area, which was chosen to be representative of the local air quality at the Project site. Additionally, data for SO_2 has been omitted because attainment is regularly met in the SCAB and few monitoring stations measure SO_2 concentrations. (Urban Crossroads, 2012a, p. 14)

Table 4.1-1 State and National Criteria Pollutant Standards, Effects, and Sources

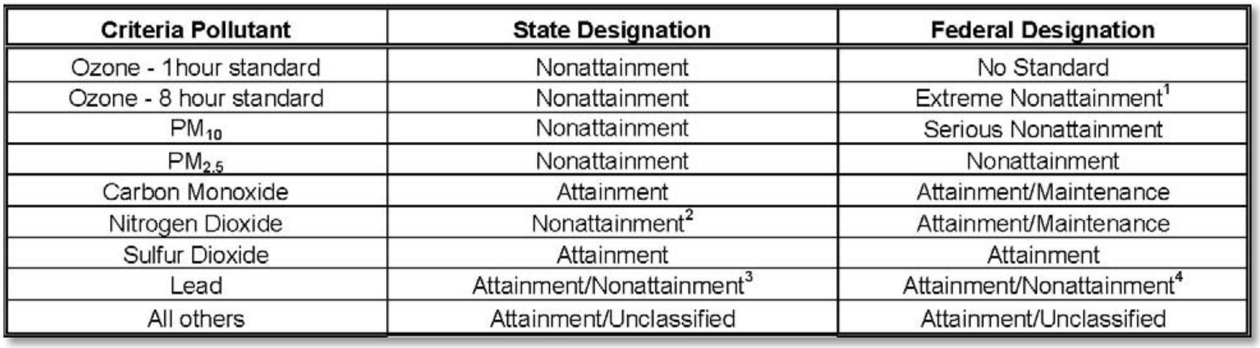
Pollutant	Averaging Time	State Standard	National Standard	Health and Atmospheric Effects	Major Sources
Ozone	1 hour 8 hours	0.09 ppm 0.07 ppm1	--- 0.075 ppm	High concentrations can directly affect lungs, causing irritation. Long-term exposure may cause damage to lung tissue.	Formed when reactive organic gases (ROG) and nitrogen oxides (NOx) react in the presence of sunlight. Major sources include on-road motor vehicles, solvent evaporation, and commercial / industrial mobile equipment.
Carbon Monoxide	1 hour 8 hours	20 ppm 9.0 ppm	35 ppm 9 ppm	Classified as a chemical asphyxiant, carbon monoxide interferes with the transfer of fresh oxygen to the blood and deprives sensitive tissues of oxygen.	Internal combustion engines, primarily gasoline-powered motor vehicles.
Nitrogen Dioxide	1 hour Annual Avg.	0.18 ppm 0.030	--- 0.053 ppm	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown.	Motor vehicles, petroleum refining operations, industrial sources, aircraft, ships, and railroads.
Sulfur Dioxide	1 hour 3 hours 24 hours	0.25 ppm --- 0.04 ppm	75 ppb --- ---	Irritates upper respiratory tract; injurious to lung tissue. Can yellow the leaves of plants, destructive to marble, iron, and steel. Limits visibility and reduces sunlight.	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
Particulate Matter ≤ 10 Microns (PM-10)	24 hours Annual Avg.	50 µg/m3 20 µg/m3	150 µg/m3 ---	May irritate eyes and respiratory tract, decreases in lung capacity, cancer and increased mortality. Produces haze and limits visibility.	Dust and fume-producing industrial and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
Particulate Matter ≤ 2.5 Microns (PM-2.5)	24 hours Annual Avg.	--- 12 µg/m3	35 µg/m3 15 µg/m3	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and results in surface soiling.	Fuel combustion in motor vehicles, equipment, and industrial sources; residential and agricultural burning; Also, formed from photochemical reactions of other pollutants, including NOx, sulfur oxides, and organics.
Lead	Monthly Ave. Quarterly Rolling 3-Month Avg.	1.5 µg/m3 --- ---	--- 1.5 µg/m3 0.15 µg/m3	Disturbs gastrointestinal system, and causes anemia, kidney disease, and neuromuscular and neurological dysfunction.	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
Hydrogen Sulfide	1 hour	0.03 ppm	No National Standard	Nuisance odor (rotten egg smell), headache and breathing difficulties (higher concentrations)	Geothermal Power Plants, Petroleum Production and refining
Sulfates	24 hour	25 µg/m3	No National Standard	Breathing difficulties, aggravates asthma, reduced visibility	Produced by the reaction in the air of SO2.
Visibility Reducing Particles	8 hour	Light extinction of 0.23/km; visibility of 10 miles or more	No National Standard	Reduces visibility, reduced airport safety, lower real estate value, discourages tourism.	See PM10/PM2.5.

NOTE: ppm = parts per million; µg/m^3 = micrograms per cubic meter.

[1] This concentration was approved by the Air Resources Board on April 28, 2005 and became effective May 17, 2006.

SOURCE: California Air Resources Board, 09/08/2010 (http://www.arb.ca.gov/research/aaqs/aaqs2.pdf). *Ambient Air Quality Standards*, available at http://www.arb.ca.gov/research/aaqs/aaqs2.pdf Standards last updated November 17, 2008. California Air Resources Board, 2001. *CARB Fact Sheet: Air Pollution Sources, Effects and Control*, http://www.arb.ca.gov/research/health/fs/fs2/fs2.htm, page last updated December 2005.

Table 4.1-2 Attainment Status of Criteria Pollutants in the SCAB



Criteria Pollutant	State Designation	Federal Designation
Ozone - 1hour standard	Nonattainment	No Standard
Ozone - 8 hour standard	Nonattainment	Extreme Nonattainment[1]
PM_{10}	Nonattainment	Serious Nonattainment
$PM_{2.5}$	Nonattainment	Nonattainment
Carbon Monoxide	Attainment	Attainment/Maintenance
Nitrogen Dioxide	Nonattainment[2]	Attainment/Maintenance
Sulfur Dioxide	Attainment	Attainment
Lead	Attainment/Nonattainment[3]	Attainment/Nonattainment[4]
All others	Attainment/Unclassified	Attainment/Unclassified

Source: California Air Resources Board 2010 (http://www.arb.ca.gov/regact/2010/area10/area10.htm, http://www.arb.ca.gov/desig/feddesig.htm)

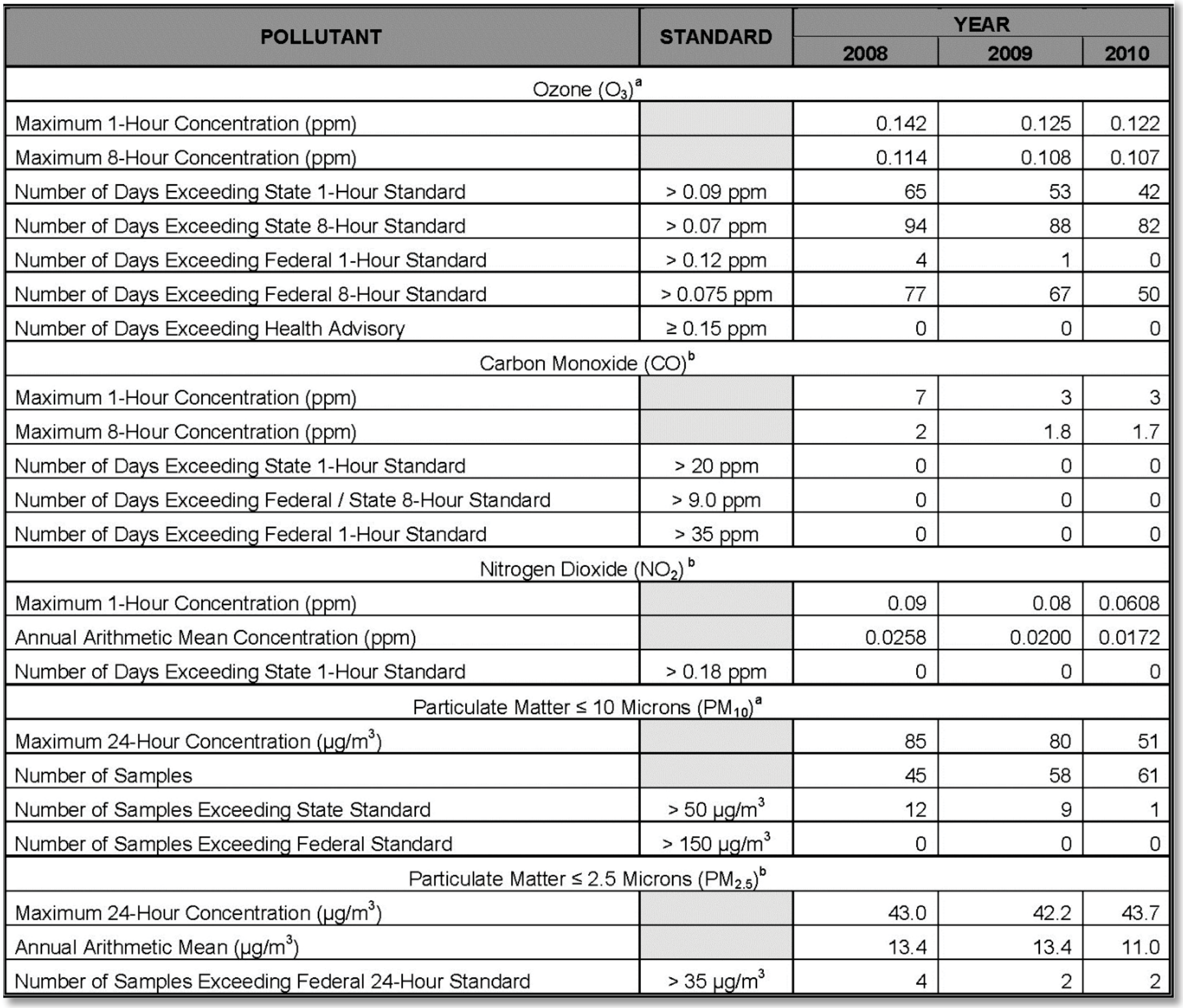
1 The USEPA approved redesignation from Severe 17 to Extreme Nonattainment on May 5, 2010 to be effective June 4, 2010.

2 The SCAB was reclassified from attainment to nonattainment for nitrogen dioxide on March 25, 2010.

3 Los Angeles County was reclassified from attainment to nonattainment for lead on March 25, 2010; the remainder of the SCAB is in attainment of the State Standard.

4 The Los Angeles County portion of the SCAB is classified as nonattainment; the remainder of the SCAB is in attainment of the State Standard.

Table 4.1-3 Project Area Air Quality Monitoring Summary (2008-2010)



POLLUTANT	STANDARD	YEAR		
		2008	2009	2010
Ozone (O_3)[a]				
Maximum 1-Hour Concentration (ppm)		0.142	0.125	0.122
Maximum 8-Hour Concentration (ppm)		0.114	0.108	0.107
Number of Days Exceeding State 1-Hour Standard	> 0.09 ppm	65	53	42
Number of Days Exceeding State 8-Hour Standard	> 0.07 ppm	94	88	82
Number of Days Exceeding Federal 1-Hour Standard	> 0.12 ppm	4	1	0
Number of Days Exceeding Federal 8-Hour Standard	> 0.075 ppm	77	67	50
Number of Days Exceeding Health Advisory	≥ 0.15 ppm	0	0	0
Carbon Monoxide (CO)[b]				
Maximum 1-Hour Concentration (ppm)		7	3	3
Maximum 8-Hour Concentration (ppm)		2	1.8	1.7
Number of Days Exceeding State 1-Hour Standard	> 20 ppm	0	0	0
Number of Days Exceeding Federal / State 8-Hour Standard	> 9.0 ppm	0	0	0
Number of Days Exceeding Federal 1-Hour Standard	> 35 ppm	0	0	0
Nitrogen Dioxide (NO_2) [b]				
Maximum 1-Hour Concentration (ppm)		0.09	0.08	0.0608
Annual Arithmetic Mean Concentration (ppm)		0.0258	0.0200	0.0172
Number of Days Exceeding State 1-Hour Standard	> 0.18 ppm	0	0	0
Particulate Matter ≤ 10 Microns (PM_{10})[a]				
Maximum 24-Hour Concentration (μg/m^3)		85	80	51
Number of Samples		45	58	61
Number of Samples Exceeding State Standard	> 50 μg/m^3	12	9	1
Number of Samples Exceeding Federal Standard	> 150 μg/m^3	0	0	0
Particulate Matter ≤ 2.5 Microns ($PM_{2.5}$)[b]				
Maximum 24-Hour Concentration (μg/m^3)		43.0	42.2	43.7
Annual Arithmetic Mean (μg/m^3)		13.4	13.4	11.0
Number of Samples Exceeding Federal 24-Hour Standard	> 35 μg/m^3	4	2	2

a. Perris Monitoring Station (SRA 24) data.
b. Metropolitan Riverside County 2 (SRA 23/Magnolia) data.
Source: SCAQMD (www.aqmd.gov)

☐ Air Quality Conditions at Project Site

The Project site consists of an existing truck trailer parking lot and vacant land. While the southern portion of the site (developed as a parking lot) generates air emissions under existing conditions, such emissions are primarily associated with operation of the adjacent warehouse building to the west that was previously evaluated in an MND and Addenda prepared in accordance with CEQA (SCH No. 2008101041). According to the MND and its Addenda, operation of the parking lot does not exceed applicable SCAQMD regional and localized significance thresholds (Moreno Valley 2010, pp. 68-71).

The northern portion of the property is vacant under existing conditions and does not generate quantifiable air emissions. Maintenance activities for fire fuel management (i.e., discing) may generate temporary fugitive dust emissions of PM_{10} and $PM_{2.5}$; however, because detailed information is not available and given the infrequent and intermittent nature of site maintenance activities, temporary fugitive dust emissions that may be generated during discing cannot be accurately calculated and would be speculative in nature.

Absent additional information, existing air quality conditions at the Project site are assumed to be similar to local ambient conditions (presented in Table 4.1-3).

E. Applicable Environmental Regulations

The following is a brief description of the federal, state, and local environmental laws and related regulations governing air quality emissions.

☐ Federal Regulations

The U.S. Environmental Protection Agency (EPA) is responsible for setting and enforcing the National Ambient Air Quality Standards (NAAQS) for O_3, CO, NO_x, SO_2, PM_{10}, and lead. The U.S. EPA has jurisdiction over emissions sources that are under the authority of the federal government including aircraft, locomotives, and emissions sources outside state waters (Outer Continental Shelf). The U.S. EPA also establishes emission standards for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission requirements of the CARB.

The Federal Clean Air Act (CAA) was first enacted in 1955 and was amended numerous times in subsequent years (1963, 1965, 1967, 1970, 1977, and 1990). The CAA establishes the federal air quality standards, the NAAQS, and specifies future dates for achieving compliance. The CAA also mandates that states submit and implement State Implementation Plans (SIPs) for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards will be met.

The 1990 amendments to the CAA that identify specific emission reduction goals for areas not meeting the NAAQS require a demonstration of reasonable further progress toward attainment and incorporate additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA most directly applicable to the development of the Project site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions).

Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants: O_3, NO_2, SO_2, PM_{10}, CO, $PM_{2.5}$, and lead. The NAAQS were amended in July 1997 to include an additional standard for O_3 and to adopt a NAAQS for $PM_{2.5}$. Table 4.1-1 (previously presented) provides the NAAQS within the SCAB.

Mobile source emissions are regulated in accordance with Title II provisions. These provisions require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas. Automobile manufacturers are also required to reduce tailpipe emissions of hydrocarbons and NOx, which is a collective term that includes all forms of nitrogen oxides (NO, NO_2, NO_3) emitted as byproducts of the combustion process.

❑ California Regulations

The CARB, which became part of the California EPA in 1991, is responsible for ensuring implementation of the California CAA (AB 2595), responding to the federal CAA, and for regulating emissions from consumer products and motor vehicles. The California CAA mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources in order to attain the state ambient air quality standards by the earliest practical date. The CARB established the California Ambient Air Quality Standards (CAAQS) for all pollutants for which the federal government has NAAQS and, in addition, establishes standards for sulfates, visibility, hydrogen sulfide, and vinyl chloride. However at this time, hydrogen sulfide and vinyl chloride are not measured at any monitoring stations in the SCAB because they are not considered to be a regional air quality problem. Generally, the CAAQS are more stringent than the NAAQS.

All air pollution control districts have been formally designated as attainment or non-attainment for each CAAQS. Serious non-attainment areas are required to prepare air quality management plans that include specified emission reduction strategies in an effort to meet clean air goals.

❑ Air Quality Management Planning

Currently, the NAAQS and CAAQS are exceeded in most parts of the SCAB. In response, and in conformance with California Health & Safety Code §40702 et seq. and the California CAA, the SCAQMD has adopted an Air Quality Management Plan (AQMP) to plan for the regional improvement of air quality. AQMPs are updated regularly in order to more effectively reduce emissions and accommodate growth. Each version of the plan is an update of the previous plan and has a 20-year horizon with a revised baseline. The SCAQMD Governing Board adopted the AQMP applicable to evaluation in this EIR on June 1, 2007. On the date the NOP for this EIR was released for public review (December 3, 2012), SCAQMD's 2012 AQMP was not yet adopted, so the 2007 AQMP is applicable for evaluation. The 2012 AQMP was adopted by the SCAQMD's Governing Board on December 7, 2012.

As reported in the Executive Summary of the 2012 AQMP, air quality in the Basin is improving. "Over the years, the air quality in the Basin has improved significantly, thanks to the comprehensive control strategies implemented to reduce pollution from mobile and stationary sources." (SCAQMD, 2012, p ES-2). However, the 2012 AQMP also reports that the Basin exceeds the federal 8-hour ozone standard more frequently than any other location in the United States. In response, the 2012 AQMP recommends a strategy to reduce NOx emissions in the Basin.

4.1.2 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to air quality if the Project or any Project-related component would:

1. *Conflict with or obstruct implementation of the applicable air quality plan;*
2. *Violate any air quality standard or contribute substantially to an existing or projected air quality violation;*
3. *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);*
4. *Expose sensitive receptors to substantial pollutant concentrations; or*
5. *Create objectionable odors affecting a substantial number of people.*

Within the context of the above significance thresholds, emissions generated by a development project would be significant under Thresholds 2 and 3 if they exceeded the regional thresholds established by the SCAQMD for criteria pollutants and would be significant pursuant to Threshold 4 if they exceeded the localized thresholds established by the State of California and the SCAQMD for criteria pollutants. The criteria applicable to the proposed Project are summarized in Table 4.1-4, *Regional and Localized Thresholds for Criteria Pollutants*. Pursuant to SCAQMD guidance, any project in the SCAB with daily emissions that would exceed any of the thresholds summarized in Table 4.1-4 would be considered as having a significant impact to air quality on both a direct (individual) and cumulative basis. (Urban Crossroads, 2012a, pp. 25-26)

In addition, pursuant to the thresholds established by the SCAQMD, any project that would emit toxic air contaminants, like diesel particulate matter, and expose receptor populations to an incremental cancer risk of greater than 10 in one million would be evaluated as having a significant impact to air quality under Threshold 4. (Urban Crossroads, 2012b)

4.1.3 IMPACT ANALYSIS

A. *Methodology for Estimating Project-Related Construction Emissions*

☐ **Maximum Daily Emissions**

The California Emissions Estimator Model™ (CalEEMod™), released by the SCAQMD on February 3, 2011, was used to estimate emissions of criteria pollutants NO_x, VOC, PM_{10}, $PM_{2.5}$, SO_X, and CO, associated with construction activities proposed by the Project. Construction-related emissions would be expected from the following construction activities:

- Demolition
- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coatings (Painting)

- Construction Workers Commuting

Table 4.1-4 Regional and Localized Thresholds for Criteria Pollutants

POLLUTANT	CONSTRUCTION	OPERATIONAL
Maximum Daily Emissions (Regional Thresholds)		
NO_X	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM_{10}	150 lbs/day	150 lbs/day
$PM_{2.5}$	55 lbs/day	55 lbs/day
SO_X	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
Ambient Air Quality for Criteria Pollutants (Localized Thresholds)		
NO_2 (1-hour average)	0.18 ppm	0.18 ppm
PM_{10} (24-hour average)	10.40 $\mu g/m^3$	2.50 $\mu g/m^3$
$PM_{2.5}$ (24-hour average)	10.40 $\mu g/m^3$	2.50 $\mu g/m^3$
CO (1-hour average)	20 ppm	20 ppm
CO (8-hour average)	9 ppm	9 ppm

NOTE: ppm = parts per million; µg/m3 = micrograms per cubic meter.

The southern portion of the Project site is currently occupied with an 8.4-acre truck parking yard. This parking area and associated surface improvements would be demolished to construct the proposed Project. The Project Applicant plans to demolish the asphaltic and concrete surfaces, which would be pulverized and stockpiled onsite for subsequent use in Project construction activities. The Project Applicant estimates that demolition activities would occur over a period of two (2) weeks but the air quality analysis conservatively assumes that demolition activates would occur over three (3) working weeks.

The duration of construction activity and associated equipment was estimated based on construction of similar projects in the City of Moreno Valley[1], CalEEMod™ defaults, and information provided by the Project Applicant. A detailed summary of construction equipment assumptions by phase is provided in Table 4.1-5, *Construction Equipment Assumptions*.

Dust is typically a major concern during rough grading activities. Because such emissions are not amenable to collection and discharge through a controlled source, they are called "fugitive emissions." Emissions rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.). CalEEMod™ was used to calculate fugitive dust emissions resulting from this phase of activity. For purposes of modeling the Project's construction-related air emissions, demolition is expected to occur within the month of January 2013; Site Preparation is expected to occur from January 2013 through February 2013; Grading activities are expected to occur within the month of February 2013; Building

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[1] VIP Moreno Valley Final Environmental Impact Report (June 27, 2012): http://www.moval.org/misc/vip-eir060420.shtml.

Table 4.1-5 Construction Equipment Assumptions

Operation	Crushing/Processing	Water Trucks	Concrete/Industrial Saws	Scraper	Grader	Rubber Tired Dozer	Tractor / Loader / Backhoe	Excavator	Pavers	Paving Equipment	Rollers	Forklift	Cranes	Air Compressor	Generator Set	Welder
Demolition	1		1			2		3								
Site Preparation		3				3	4									
Grading		3		2	1	1	2	2								
Building Construction							3					3	2		1	1
Paving									2	2	2					
Architectural Coating														1		

Construction is expected to occur from February 2013 through October 2013; Paving is expected to occur from October 2013 through November 2013; and Architecture Coatings are expected to occur from November 2013 through December 2013. This construction schedule represents a "worst-case" analysis scenario; should construction occur any time after these respective dates, construction-related emissions would decrease because emission factors for construction equipment decrease as the analysis year increases due to increasingly stringent regulatory requirements.

Construction emissions for construction worker vehicles traveling to and from the Project site, as well as vendor trips (construction and earth materials delivered to the Project site), were estimated based on information from the Project Applicant and the CalEEMod™ defaults. Refer to Appendix A of the Air Quality Impact Analysis (*Technical Appendix B* to this EIR) for more details on the methodology and assumptions utilized to estimate Project-related construction emissions.

☐ Localized Emissions

Localized emissions associated with Project-related construction activities were estimated and evaluated in accordance with SCAQMD's Final Localized Significance Threshold Methodology. For the proposed Project, the Source Receptor Area (SRA) for Perris Valley was utilized as the baseline for ambient air quality. The SCAQMD produced look-up tables for projects that disturb less than or equal to 5 acres in size; however, the tables can be used as screening criteria for larger projects to determine whether or not dispersion modeling may be required. This approach is conservative as it assumes that all on-site emissions would occur within a 5-acre area and would over-predict potential localized impacts (i.e., more pollutant emissions occurring within a smaller area and within closer proximity to potential sensitive receptors). If a project exceeds the LST look-up values, then the SCAQMD recommends that project specific air quality modeling be performed. (Urban Crossroads, 2012a, pp. 38-39)

B. *Methodology for Estimating Project-Related Operational Emissions*

☐ **Maximum Daily Emissions**

SCQAMD's CalEEMod™ was used to estimate emissions of criteria pollutants, NO_X, VOC, PM^{10}, $PM_{2.5}$, SO_X, and CO, associated with long-term operation of the proposed Project. Operational emissions would be expected from the following primary sources:

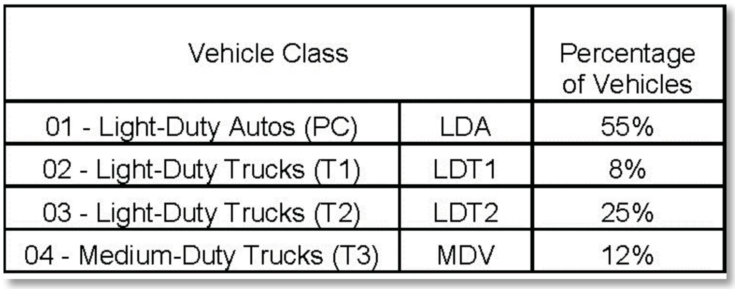
- Vehicles
- Combustion Emissions associated with Natural Gas and Electricity
- Fugitive Dust related to Vehicular Travel
- Landscape Maintenance Equipment
- Architectural Coatings (Painting)

Trip characteristics from the Project's Traffic Impact Analysis (*Technical Appendix E* to this EIR) were used to estimate Project-related operational vehicular emissions. It should be noted that the Project's traffic study presents the total Project vehicle trips in terms of Passenger Car Equivalents (PCEs) in an effort to recognize and acknowledge the effects of heavy vehicles at the study area intersections. For purposes of the air quality study the PCE trips were not used; rather, to be more representative of actual air emissions, the actual number of passenger cars (including light trucks) and heavy trucks are used in the analysis. The vehicle fleet mix, in terms of actual vehicles, as derived from the traffic study for the Project is comprised of approximately 46% passenger cars (265 passenger cars) and approximately 54% total trucks (311 trucks) (Urban Crossroads, 2012a, p. 30). The total traffic generation in vehicles is 576 per day.

The Project's total traffic generation in vehicles was divided by the total number of square feet for the Project to derive the trip generation rate for input into the modeling program. For analysis purposes, the total 576 vehicles is divided by the total square footage for the proposed building (400,130 square feet) to derive an aggregate trip generation rate (1.44 trips per thousand square feet) for input into the model. Similarly, total truck trips (by axle) were summed; the total sum of all trucks was then divided by each category of trucks (by axle) to determine axle-specific truck percentage for the Project as a whole. The distribution of passenger cars was apportioned in accordance with the CalEEMod™ model default distribution and is summarized on Table 4.1-6, *Passenger Car Percentage Breakdown*. The distribution of truck traffic was apportioned in accordance with the CARB's *Assessment of Heavy-Duty Gasoline and Diesel Vehicles in California*, and is summarized on Table 4.1-7, *Heavy Duty Truck Percentage Breakdown*.

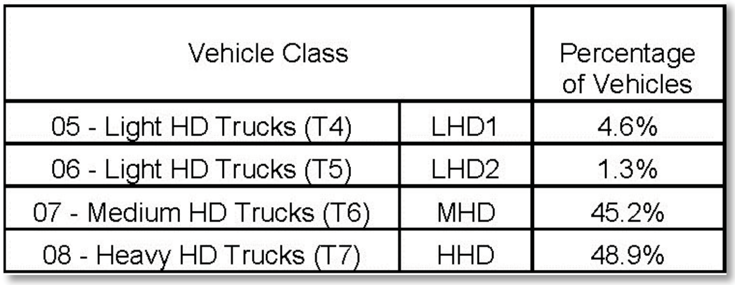
The Project's Air Quality Impact Analysis (*Technical Appendix B* to this EIR) uses a conservative approach for estimating long-term operational emissions associated with vehicle use. Per the SCAQMD 1993 CEQA Handbook, a one-way trip length of 17 miles was assumed for passenger car trips. For heavy duty trucks, the one-way trip length was derived using a formula that assumed that 50% of all Project-related heavy duty trucks would travel to the Port of Los Angeles/Long Beach (approximately 78 miles from the Project site), and the remaining 50% of all Project-related heavy duty trucks would be distributed equally to one of the following locations at far edges of the SCAB: Banning Pass; San Diego County Line; Cajon Pass; and Downtown Los Angeles. Using this formula, the average Project-related one-way heavy duty truck trip would be 61 miles. Weighting the average trip length by the Project's estimated vehicle fleet mix resulted in an average weighted one-way trip length of 40.76 miles. The weighted one-way trip used in the evaluation of the Project's operational emissions is higher than the recommended values of the SCAQMD and Southern California Association of Governments (SCAG) and likely overstates the Project's long-term impact. (Urban Crossroads, 2012a, p. 34)

Table 4.1-6 Passenger Car Percentage Breakdown



Vehicle Class		Percentage of Vehicles
01 - Light-Duty Autos (PC)	LDA	55%
02 - Light-Duty Trucks (T1)	LDT1	8%
03 - Light-Duty Trucks (T2)	LDT2	25%
04 - Medium-Duty Trucks (T3)	MDV	12%

Table 4.1-7 Heavy Duty Truck Percentage Breakdown



Vehicle Class		Percentage of Vehicles
05 - Light HD Trucks (T4)	LHD1	4.6%
06 - Light HD Trucks (T5)	LHD2	1.3%
07 - Medium HD Trucks (T6)	MHD	45.2%
08 - Heavy HD Trucks (T7)	HHD	48.9%

Using the vehicle mix one-way trip length described above, the Project's operational vehicular emissions were derived from vehicle miles traveled (VMT). VMT for a given project is calculated by multiplying the total number of vehicle trips to/from the Project site by the average trip length (in miles). This likely results in the over-estimation and double-counting of emissions for distribution warehouse centers like the proposed Project because the proposed land use is likely to attract (divert) existing vehicle trips that are already on the circulation system as opposed to generating new trips. There are no known methodologies, however, for estimating the net effect of redistributed truck trips on freight truck vehicle miles within the region.

Project-related long-term operational emissions associated with use of natural gas and electricity, fugitive dust related to vehicular travel, operation of landscape maintenance equipment, and the application of architectural coatings were estimated using CalEEMod™ model defaults.

Please refer to Appendix A of the Air Quality Impact Analysis (*Technical Appendix B* to this EIR) for more details on the methodology and assumptions utilized to estimate Project-related operational emissions.

☐ Localized Emissions

The LST analysis includes on-site sources only; however, the CalEEMod™ outputs do not separate on-site and off-site emissions from mobile sources. In an effort to establish a maximum potential impact scenario for analytic purposes, the emission inputs represent all on-site Project-related stationary (area) sources and five percent (5%) of the Project-related mobile sources. Considering that the weighted trip length used in CalEEMod™ for the Project is approximately 40.76 miles, 5% of this total would represent an on-site travel distance for each car and truck of approximately two (2.0) miles or 10,560 feet; thus the 5% assumption is conservative and would tend to overstate the actual impact. (Urban Crossroads, 2012a, p. 41)

A CO "Hot Spot" Analysis was not performed to evaluate the effect of Project-related vehicular emissions on localized concentrations of CO at intersections in the vicinity of the Project site. CO attainment was thoroughly analyzed as part of the SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan). As discussed in the 2003 AQMP, CO "Hot Spots" are typically associated with idling vehicles at extremely busy intersections (i.e., intersections with an excess of 100,000 vehicle trips per day) in areas with unusual meteorological and topographical conditions. In the 1992 CO Plan, a CO hot spot analysis was conducted for four busy intersections in Los Angeles at the peak morning and afternoon time periods. As a result of this analysis, the SCAB has been designated as attainment for CO since 2007 (SCAQMD 2007) and even very busy intersections do not result in exceedances of the CO standard. Based on an analysis of the busiest intersections within the Project's vicinity, it was determined that none of the intersections in the vicinity of the Project would have peak hourly traffic volumes exceeding those at the intersections modeled in the 1992 CO Plan/2003 AQMP analysis. Therefore, Project-related vehicular emissions would not result in a substantial contribution of CO concentrations at intersections in the vicinity of the Project site and a CO "Hot Spot" analysis is not warranted. (Urban Crossroads, 2012a, pp. 42-44)

The nearest sensitive receptor land use (defined as a place where an individual could remain for 24-hours) would be the residence approximately 656 feet/200 meters north of the Project boundary, south of Rivard Road and west of Perris Boulevard. Accordingly, LSTs for receptors at 656 feet/200 meters are utilized in the analysis and provide for a conservative (i.e. "health protective") standard of care, as any receptors located further away would be exposed to a lesser impact. (Urban Crossroads, 2012a, p. 40)

C. Methodology for Estimating Project-Related Diesel Particulate Emissions

Diesel particulate emissions were estimated using the 2011 version of the Emission FACtor model (EMFAC) developed by the CARB. EMFAC 2011 is a mathematical model that calculates emission rates from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB for projections of changes in future emissions from on-road mobile sources. The EMFAC 2011 model quantifies annual diesel particulate exposure for different receptor populations using a variety of factors including vehicle activity, vehicle speed, temperature and relative humidity. Refer to Pages 9 through 13 of the Project's Mobile Source Health Risk Assessment (*Technical Appendix C* to this EIR) for a detailed description of the model inputs and equations used in the estimation of Project-related diesel particulate emissions. (Urban Crossroads, 2012b, pp. 9-13)

The effect of Project-related diesel particulate emissions was quantified in accordance with the SCAQMD's *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*. Pursuant to SCAQMD's recommendations, the AEROMOD model was used (Urban Crossroads, 2012b, p. 13). Refer to Pages 13 through 17 of the Project's Mobile Source Health Risk Assessment (*Technical Appendix C* to this EIR) for a detailed description of the model inputs and equations used in the estimation of average particulate concentrations associated with operations at the Project site.

Health risks associated with exposure to diesel particulate emissions are defined in terms of the probability of developing cancer as a result of exposure to a chemical at a given concentration. The cancer risk probability is determined through a series of equations to calculate unit risk factor, cancer potency factor, and chronic daily intake. The equations and input factors utilized in the Project analysis were obtained from the California EPA, Office of Environmental Health Hazard (Urban Crossroads, 2012b, p. 17). Refer to Pages 17 through 19 of the Project's Mobile Source Health Risk Assessment (*Technical Appendix C* to this EIR) for a detailed description of the variable inputs and equations used in the estimation of receptor population health risks associated with operations at the Project site.

The project level threshold of significance for toxic air contaminants is 10 in one million for both direct and cumulative impacts, which is consistent with AQMD guidance. The AQMD published a report on how to address direct and cumulative impacts from air pollution: *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution* (August 2003). In this report the AQMD states (Page D-3):

> *"…the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR. The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for toxic air contaminant (TAC) emissions. The project specific (project increment) significance threshold is HI > 1.0 while the cumulative (facility-wide) is HI > 3.0. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.*
>
> *Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."*

Threshold 1: Would the proposed Project conflict with or obstruct implementation of the applicable air quality plan?

Because the 2012 AQMP was not adopted at the time the NOP for this EIR was distributed for public on December 3, 2012, the applicable air quality plan for the Project's evaluation in this EIR is the

2007 AQMP. The 2007 AQMP projects long-term air quality conditions for the SCAB. The air quality conditions presented in the 2007 AQMP are based in part on the growth forecasts that were used as inputs for SCAG's regional transportation model. The growth forecasts utilized in the 2007 AQMP are based on the growth projections identified by SCAG in its 2004 Regional Transportation Plan (RTP). The RTP assumed that development in the various incorporated and unincorporated areas within the SCAB would occur in accordance with the adopted general plans for these areas. In addition, the air quality conditions presented in the 2007 AQMP are based on the assumption that future development projects would implement strategies to reduce emissions generated during the construction and operational phases of development. Accordingly, if a proposed project is consistent with these growth forecasts, and if available emissions reduction strategies are implemented as effectively as possible on a project-specific basis, then the project would be considered to be consistent with the AQMP.

The SCAQMD has established criteria for determining consistency with the 2007 AQMP. These criteria are defined in Chapter 12, Sections 12.2 and 12.3 of the SCAQMD CEQA Air Quality Handbook and are discussed below. These are the same consistency criteria that are used to determine consistency with the 2012 AQMP as well. Because the City of Moreno Valley's General Plan designates the Project site as "Industrial" and that land use designation did not change between the time of the 2007 AQMP and 2012 AQMP, the growth forecast used for the Project site in both the 2007 and 2012 AQMPs is the same.

- ***Consistency Criterion No. 1****: The proposed project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.*

The violations to which Consistency Criterion No. 1 refers are the CAAQS and NAAQS. Violations of the CAAQS and NAAQS would occur if localized significance thresholds (LSTs) were exceeded. As evaluated as part of the Project LST analysis (refer to Threshold 4, below), the Project's mitigated localized construction-source emissions would not exceed applicable LSTs; therefore, a violation would not occur. Similarly, the Project LST analysis demonstrates that Project operational-source emissions would not exceed applicable LSTs.

However, as discussed under the analysis of Thresholds 2 and 3 (below), Project operations would result in or cause exceedances of certain SCAQMD regional thresholds. Although operational emissions would be generated in excess of SCAQMD's regional threshold criteria, these emissions are accounted for in the AQMP and the AQMP air quality attainment goals. That is, land uses and development proposed by the Project are consistent with land uses and development intensities reflected in the currently adopted City of Moreno Valley General Plan, and are therefore within the scope of air quality considerations reflected in the AQMP. Moreover, the Project's urban location and proximity to local and regional transportation facilities acts to reduce vehicle miles traveled and associated mobile-source (vehicular) emissions. Additionally, Project incorporation of mandatory energy-efficient technologies as required by the California Building Standards Code, and mandatory compliance with SCAQMD emissions reduction rules and control requirements, act to reduce stationary-source air emissions. These Project attributes and features are consistent with and support AQMP air pollution reduction strategies and promote timely attainment of AQMP air quality standards.

On the basis of the preceding discussion, the Project is determined to be consistent with the first criterion.

- ***Consistency Criterion No. 2****: The proposed project will not exceed the assumptions in the AQMP in 2011 or increments based on the years of project buildout phase.*

Assumptions of the AQMP used in projecting future emissions levels are based in part on land use data provided by lead agency general plan documentation. Projects that propose general plan amendments and changes of zone may increase the intensity of use and/or result in higher traffic volumes, thereby resulting in increased stationary area source emissions and/or vehicle source emissions when compared to the AQMP assumptions. If however, a project does not exceed the growth projections in the applicable general plan, then the project is considered to be consistent with the growth assumptions in the AQMP.

The Project site is designated as “Industrial” by the Moreno Valley General Plan and uses proposed by the Project are consistent with this designation. The Project also does not plan to increase the development intensity beyond that currently anticipated for the subject site as reflected in Moreno Valley’s Specific Plan 208. Because the land use proposed by the Project is consistent with the adopted General Plan, the Project is in compliance with Consistency Criterion No. 2.

In summary, because the proposed Project satisfies both of the two aforementioned criteria for determining consistency, the Project is deemed consistent with the AQMP and an impact due to a conflict with or obstruction of the applicable air quality management plan would not occur.

Threshold 2:	***Would the proposed Project violate any air quality standard or contribute substantially to an existing or projected air quality violation?***
Threshold 3:	***Would the proposed Project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?***

❑ Construction Emissions

Applying the methodology presented previously in Subsection 4.1.3A, the estimated maximum daily construction emissions are summarized on Table 4.1-8, *Emissions Summary of Construction Activities (Without Mitigation)*. As shown, emissions resulting from Project construction would exceed criteria pollutant thresholds established by the SCAQMD for emissions of VOCs and NO_x (before mitigation). In addition, the SCAB does not attain state criteria for NO_x concentrations, as previously presented in Table 4.1-2. Furthermore, NO_x and VOCs are precursors for O_3, and the SCAB is identified as a federal and state non-attainment area for O_3 (see Table 4.1-2). As such, near-term construction activities would violate the air quality standard for VOCs and NO_x, would contribute to an existing regional air quality violation, and would cumulatively contribute to the net increase of two criteria pollutants (O_3 and NO_x) for which the region is non-attainment. Accordingly, construction-related emissions of VOCs and NOx are therefore considered a significant direct and cumulative impact for which mitigation would be required.

Table 4.1-8 Emissions Summary of Construction Activities (Without Mitigation)

Year	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions	**81.55**	**111.99**	**63.63**	**0.14**	**68.68**	**12.64**
SCAQMD Regional Threshold	75	100	550	150	150	55
Significant?	**YES**	**YES**	**NO**	**NO**	**NO**	**NO**

Note: Please refer to Appendix A of the Project's Air Quality Impact Analysis (*Technical Appendix B* to this EIR) for the CalEEMod™ output files and additional hand calculations for the estimated emissions.

❑ Operational Emissions

The Project-related operations emissions, along with a comparison of SCAQMD significance thresholds, are shown on Table 4.1-9, *Summary of Peak Operational Emissions (Without Mitigation).* As shown, the Project's long-term operational emissions would exceed the SCAQMD threshold of significance for NO_x. In addition, the SCAB does not attain state criteria for NO_x concentrations, as previously presented above. Furthermore, NO_x is a precursor for O_3, and the SCAB is identified as a federal and state non-attainment area for O_3 (see Table 4.1-2). As such, the Project's long-term operational activities would violate the air quality standard for NO_x, would contribute to an existing regional air quality violation, and would cumulatively contribute to the net increase of a criteria pollutant (NO_x) for which the region is non-attainment. These impacts are concluded to be significant on a direct and cumulative basis and mitigation would be required.

Regarding area source emissions, the proposed Project is designed to meet or surpass California Building Code Title 24 energy efficiency requirements, thereby acting to reduce area-source emissions to the extent feasible. However, emissions of NO_x are primarily the result of mobile source emissions (vehicles traveling to and from the Project site). The Project's location proximate to major local roadways and regional freeway facilities (namely Harley Knox Boulevard (a designated truck route) and the I-215 Freeway) acts to reduce vehicle miles traveled with correlating reductions in vehicle source emissions. (Urban Crossroads, 2012a, p. 38)

Federal and state agencies regulate and enforce vehicle emission standards. CARB's Diesel Risk Reduction Plan (DRRP) led to the adoption of new state regulatory standards for all new on-road, off-road, and stationary diesel-fueled engines and vehicles to reduce diesel particulate matter (DPM) emissions by about 90 percent overall from year 2000 levels. Specifically, the operation of diesel fueled vehicles are currently subject to the California Code of Regulations Title 13, Division 3, Chapter 1, Article 4.5, Section 2025, "Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles" and to California Code of Regulations Title 13, Division 3, Chapter 10, Article 1, Section 2485, "Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling." Reductions in pollutant emissions are anticipated to continue to accrue for the foreseeable future as current and more stringent state and federal regulations are implemented and older, less controlled vehicles and equipment are retired or retrofitted with required pollution control devices. The City of Moreno Valley does not have the resources to impose and enforce restrictions on engine use and vehicle emissions above and beyond the requirements of state and federal law. And, even if the City were to apply more stringent emission restrictions on individual projects, such a restriction would merely entice the vehicles fleet operators that do not meet the stricter restriction to operate at another

Table 4.1-9 Summary of Peak Operational Emissions (Without Mitigation)

SUMMER MONTHS

Operational Activities	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Area Source Emissions-Maintenance/Other [a]	10.46	--	--	--	--	--
Energy Source Emissions [b]	0.03	0.23	0.19	--	0.02	0.02
Mobile Source Emissions [c]	21.60	221.09	161.80	0.36	35.44	8.54
Maximum Daily Emissions	**32.09**	**221.32**	**161.99**	**0.36**	**35.46**	**8.56**
SCAQMD Regional Threshold	55	55	550	150	150	55
Significant?	**NO**	**YES**	**NO**	**NO**	**NO**	**NO**

WINTER MONTHS

Operational Activities	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Area Source Emissions-Maintenance [a]	10.46	--	--	--	--	--
Energy Source Emissions [b]	0.03	0.23	0.19	--	0.02	0.02
Mobile Source Emissions [c]	22.23	235.90	159.25	0.35	35.48	8.57
Maximum Daily Emissions	**32.72**	**236.13**	**159.44**	**0.35**	**35.50**	**8.59**
SCAQMD Regional Threshold	55	55	550	150	150	55
Significant?	**NO**	**YES**	**NO**	**NO**	**NO**	**NO**

building or in another location in the SCAB where the mobile source restriction does not apply, thereby resulting in no improvement to regional air quality.

Threshold 4: Would the proposed Project expose sensitive receptors to substantial pollutant concentrations?

During construction and long-term operation, the Project has the potential to expose nearby sensitive receptors to pollutant concentrations. The following provides an analysis based on the applicable localized significance thresholds established by the State of California and SCAQMD.

☐ Construction-Related Localized Emissions

Table 4.1-10, *Localized Significance Summary for Construction Activities (Without Mitigation)*, presents the results of the localized significance analysis for construction-related emissions. Detailed localized emissions model outputs are presented in Attachment A to the Air Quality Impact Analysis (*Technical Appendix B* to this EIR). As shown, during site preparation and grading activities, Project-related construction emissions would not exceed the SCAQMD Localized Threshold for NO_x, CO, PM_{10}, or $PM_{2.5}$. Localized emission levels would be further reduced with the incorporation of the construction-related mitigation measures presented below in Subsection 4.1.7. (Refer to Tables 3-9 and 3-11 of the Project's Air Quality Impact Analysis (*Technical Appendix B* to this EIR) for a summary of construction-related localized emissions following the incorporation of mitigation). Accordingly, construction of the proposed Project would not result in the exposure of any sensitive receptors to substantial pollutant concentrations, and impacts would be less than significant.

Table 4.1-10 Localized Significance Summary for Construction Activities (Without Mitigation)

SITE PREPARATION

Activity	NO_x	CO	PM_{10}	$PM_{2.5}$
Site Preparation	**54.15**	**30.68**	**22.53**	**12.59**
SCAQMD Localized Threshold	434	5,998	86	27
Significant?	**NO**	**NO**	**NO**	**NO**

GRADING

Activity	NO_x	CO	PM_{10}	$PM_{2.5}$
Grading	**65.32**	**35.42**	**10.29**	**6.38**
SCAQMD Localized Threshold	452	6,285	89	28
Significant?	**NO**	**NO**	**NO**	**NO**

❑ Operational-Related Localized Emissions

○ *Criteria Pollutant Emissions*

Table 4.1-11, *Localized Significance Summary for Operational Activities (Without Mitigation)*, presents the results of the long-term localized significance threshold analysis. Detailed operational localized emissions model outputs are presented in Attachment A to the Air Quality Impact Analysis (*Technical Appendix B* to this EIR).

Results of the analysis indicate that estimated Project-related long-term operational emissions would not exceed localized emissions thresholds established by the SCAQMD. In addition, the proposed Project has no potential to cause or contribute to any CO "hotspots." (Urban Crossroads, 2012a, p. 47) Accordingly, under long-term operating conditions, the proposed Project would not expose any sensitive receptors to substantial Project-related pollutant concentrations, and impacts would be less than significant.

Table 4.1-11 Localized Significance Summary for Operational Activities (Without Mitigation)

Operational Activity	NO_x	CO	PM_{10}	$PM_{2.5}$
On-Site Emissions	**11.28**	**8.28**	**1.79**	**0.45**
SCAQMD Localized Threshold	488	6,860	23	8
Significant?	**NO**	**NO**	**NO**	**NO**

Source Receptor Area: 24, 5 acres, 200 meter distance, on-site traffic 5% of total.

○ *Diesel Particulate Emissions*

The SCAQMD has conducted an in-depth analysis of the toxic air contaminants and their resulting health risks for all of Southern California. This study, entitled, *Multiple Air Toxics Exposure Study in the South Coast Air Basin, MATES III*, predicted an excess cancer risk of 566 in one million for the Project area. Project-related Diesel Particulate Matter (DPM) cancer risks were evaluated under three

(3) operational scenarios as part of the Project's Mobile Health Risk Assessment (*Technical Appendix C* to this EIR), which are discussed below.

For the Residential Exposure Scenario, results indicate that particulate emissions generated from the Project would not create a significant health risk to residential land uses in the Project area. At the maximally exposed individual receptor (MEIR), the maximum risk is estimated to be 4.64 in one million, which does not exceed the SCAQMD DPM-source cancer risk (risk) threshold of 10 in one million. (Urban Crossroads, 2012b, p. 19) Accordingly, diesel particulate emissions would result in a less than significant impact to residential receptors.

For the Worker Exposure Scenario, results indicate that particulate emissions generated from the Project would not pose a significant health risk to workers in the project area. At the maximally exposed individual worker (MEIW), the maximum risk is estimated to be 1.23 in one million, which does not exceed the risk threshold of 10 in one million. (Urban Crossroads, 2012b, pp. 19-20) Accordingly, diesel particulate emissions would result in a less than significant impact to future Project site workers and other workers in the area.

For the School Child Exposure Scenario, results indicate that particulate emissions generated from the Project would not create a significant health risk to school children in the Project area. At the maximally exposed individual school child (MEISC), the maximum risk is estimated to be 0.08 in one million, which does not exceed the SCAQMD risk threshold of 10 in one million. (Urban Crossroads, 2012b, p. 20) Accordingly, diesel particulate emissions would result in a less than significant impact to school children.

An evaluation of the potential noncarcinogenic effects of chronic exposures also was conducted. For purposes of this analysis the hazard index for the respiratory endpoint totaled less than one for all receptors in the Project vicinity, and thus is less than significant. (Urban Crossroads, 2012b, p. 20) Refer to Page 20 of the Project's Mobile Source Health Risk Assessment (*Technical Appendix C* to this EIR) for a detailed description of the variable inputs and equations used in the estimation of potential noncarcinogenic effects.

Threshold 5: Would the proposed Project create objectionable odors affecting a substantial number of people?

The potential for the Project to generate objectionable odors has also been considered. Land uses generally associated with odor complaints include:

- Agricultural uses (livestock, farming)
- Wastewater treatment plants
- Food processing plants
- Chemical plants
- Composting operations
- Refineries
- Landfills
- Dairies
- Fiberglass molding facilities

The Project does not propose land uses typically associated with emitting objectionable odors. Potential odor sources associated with the Project may result from construction equipment exhaust and the application of asphalt and architectural coatings during construction activities (which are not typically objectionable), and the temporary storage of typical solid waste (refuse) associated with the Project's long-term operational uses.

Standard construction procedures would minimize odor impacts resulting from construction activity. Additionally, any construction odor emissions generated would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction activity; and, a substantial number of people are not concentrated around the Project site and could thus not be affected. For these reasons, it is concluded that construction-related odors would be less than significant because odors would be short term, not objectionable, and not affect a substantial population. For long-term operational conditions, Project-generated refuse would be required to be stored in covered containers and removed at regular intervals in compliance with the City of Moreno Valley's solid waste regulations. The Project would also be required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisances. Therefore, impacts due to odors associated with the Project construction and long-term operation would be less than significant.

4.1.4 CUMULATIVE IMPACT ANALYSIS

The proposed Project would implement the Moreno Valley General Plan and Moreno Valley Industrial Area Plan land use designations applied to the Project site. As such, the Project would be consistent with the growth forecasts used in the SCAQMD's 2007 AQMP to predict future air quality conditions in the SCAB. Accordingly, emissions that would be generated by the Project are assumed to be accounted for in the AQMP, and the Project would not conflict with or obstruct the implementation of the SCAQMD AQMP on a cumulative basis.

The Project area is designated as an extreme non-attainment area for O_3, and a non-attainment area for PM_{10} and $PM_{2.5}$. The Project-specific evaluation of emissions demonstrates that the proposed Project would exceed the SCAQMD regional thresholds for VOCs and NO_x during construction activities, and would exceed the SCAQMD regional threshold for NO_x under long-term operating conditions. Because NO_x and VOCs are a precursor for O_3, the Project's near- and long-term emissions would cumulatively contribute to criteria pollutants for which the Project region is in non-attainment (i.e., NO_x and O_3) and would violate the SCAQMD air quality standards for VOCs and NO_x during construction and NO_x during long-term operation. These impacts are concluded to be cumulatively significant, the Project's contribution would be cumulatively considerable, and mitigation would be required.

As demonstrated in the analysis of Threshold 4, above, air emissions generated by the Project during construction and operation would not violate the SCAQMD Localized Thresholds for NO_x, CO, PM_{10}, or $PM_{2.5}$. In addition, Project-related operational emissions of diesel particulates would not result in significant mobile-source health risks to any nearby sensitive receptors. There are currently no proposals for new construction adjacent to the proposed Project site; accordingly, there is no potential for cumulatively significant localized impacts during construction. Under long-term operating conditions, Project operations also would be far below the SCAQMD Localized Significance Thresholds. Therefore, it is reasonable to conclude that even when combined with localized emissions from future developments within close proximity to the Project site, such emissions would not exceed SCAQMD thresholds. Accordingly, long-term operation of the Project would not expose nearby sensitive receptors to substantial localized pollutant concentrations, and a cumulative considerable impact would not occur.

The SCAQMD has conducted an in-depth analysis of the toxic air contaminants and their resulting health risks for all of Southern California. This study, entitled, *Multiple Air Toxics Exposure Study in the South Coast Air Basin, MATES III*, predicted an excess cancer risk of 566 in one million for the Project area. DPM is included in this cancer risk along with all other toxic air contaminant (TAC) sources. DPM accounts for 83.6% of the total risk shown in MATES-III. The total risk derived by the MATES-III study was added to the Project source risks to determine the cumulative risks in the Project area, which is summarized in Table 4.1-12, *Cumulative Cancer Risk*. As shown in Table 4.1-12, the highest cumulative with Project cancer risks for residential receptors would be 570.64 in one million (or an increase of 4.64 in one million over background conditions). For workers, the highest cumulative with Project risk would be 567.23 in one million (or an increase of 1.23 in one million over background conditions). The highest cumulative with Project cancer risks for school children would be 566.08 in one million (or an increase of 0.08 in one million over background conditions). In all cases, the Project's incremental contribution to cancer risk would be below the 10 in one million threshold set by SCAQMD; accordingly, the proposed Project would result in a less than significant cumulative impact due to DPM emissions and their attendant cancer risk. (Urban Crossroads, 2012b, pp. 21-22)

Table 4.1-12 Cumulative Cancer Risk

	Cancer Risk as Maximum Sensitive Receptor (risk in one million)		
	Background	**Project Site**	**Total Cumulative Risk**
Maximum Impact to All Receptors Without Project	566	N/A	566
Maximum Impact to Nearest Residential With Project	566	4.64	570.64
Maximum Impact to Nearest Worker With Project	566	1.23	567.23
Maximum Impact to Nearest School With Project	566	0.08	566.08

Source: (Urban Crossroads, 2012b, Table 2-7)

The proposed Project would not involve a land use that is associated with the generation of odors, and construction odors would occur only in the near-term and would be short-term and intermittent in nature. There also are no odor emitters in the Project's cumulative study area which, when combined with Project-related odors, could affect a substantial number of people. Since the Project has no potential to create substantial amounts of odor during long-term operation, and since it is reasonable to conclude that no adjacent properties would be under development simultaneously with the proposed Project, the Project would not result in a significant odor-related impact under near- or long-term conditions.

4.1.5 APPLICABLE PROJECT REQUIREMENTS

The following is a list of requirements and/or conditions to which the Project would be required to adhere. Compliance with these measures was assumed throughout the above analysis of air quality impacts.

PR 4.2-1 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 402, "Nuisance."

PR 4.2-2 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 403, "Fugitive Dust." Rule 403 requires implementation of best available dust control measures during construction activities that generate fugitive dust, such as earth moving activities, grading, and equipment travel on unpaved roads.

PR 4.2-3 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 431.2, "Sulfur Content of Liquid Fuels."

PR 4.2-4 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 1113, "Architectural Coatings."

PR 4.2-5 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 1186, "PM_{10} Emissions from Paved and Unpaved Roads, and Livestock Operations."

PR 4.2-6 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 1186.1, "Less-Polluting Street Sweepers."

PR 4.2-7 The Project is required to comply with California Code of Regulations Title 13, Division 3, Chapter 1, Article 4.5, Section 2025, "Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles."

PR 4.2-8 The Project is required to comply with California Code of Regulations Title 13, Division 3, Chapter 10, Article 1, Section 2485, "Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling."

PR 4.2-9 The Project is required to comply with California Code of Regulations Title 24, "California Building Standards Code" and the "California Green Building Code."

4.1.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold 1: No Impact. The proposed Project would not conflict with or obstruct implementation of the SCAQMD's AQMP.

Thresholds 2 and 3: Significant Direct and Cumulative Impact (Near- and Long-Term). Emissions during Project construction (near-term) would violate the SCAQMD regional thresholds for VOCs and NO_x. In addition, emissions during Project operation (long term) are projected to exceed the SCAQMD regional threshold for NO_x. Near-term emissions of VOCs and near- and long-term emissions of NO_x also would contribute to an existing air quality violation in the SCAB (i.e., non-attainment status for O_3) because both VOCs and NO_x are precursors for O_3. As such, Project-related air emissions would violate SCAQMD air quality standards and contribute to the non-attainment status of a criteria pollutant (i.e., O_3). These Project-related air emissions are concluded to be a significant impact on a direct and cumulative basis.

Threshold 4: Less than Significant Impact. Near-term construction and long-term operation of the proposed Project would not expose nearby sensitive receptors to substantial pollutant concentrations of any criteria pollutant or diesel particulate matter. As such, a less than significant impact would occur.

Threshold 5: Less than Significant Impact. The Project does not propose land uses or operational activities associated with emitting objectionable odors. Any odor emissions generated during Project construction would be short term, not objectionable, and not affect a substantial population. Therefore, impacts due to odors would be less than significant.

4.1.7 MITIGATION MEASURES

Although Project-related particulate matter emissions (PM_{10} and $PM_{2.5}$) would be less than significant, the following mitigation measures are recommended to further reduce the Project's less than significant impact.

MM 4.1-1 Prior to grading permit issuance, the City shall verify that the following notes are specified on the grading plan to ensure implementation of SCAQMD Rule 403. It should be noted that the following list is non-exclusive, and identifies only key provisions of the SCAQMD Rule 403 requirements; regardless the Project shall be required to comply with all applicable provisions of SCAQMD Rule 403, whether listed below or not. Specifically, Project contractors shall be required to comply with the following notes and all other applicable SCAQMD Rule 403 requirements, and shall maintain written records of such compliance that can be inspected by the City of Moreno Valley upon request.

a) All clearing, grading, earth-moving, and excavation activities shall cease when winds exceed 25 miles per hour.

b) All unpaved roads and disturbed areas shall be watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day.

c) The contractor shall ensure that traffic speeds on unpaved roads and areas where soil is exposed are reduced to 15 miles per hour or less.

d) Public streets shall be swept at the end of each workday using a street sweeper meeting SCAQMD Rule 1186.1 if visible soil is carried onto paved public roads.

e) The cargo area of all vehicles hauling soil, sand, or other loose earth materials shall be covered.

MM 4.1-2 Prior to the start of grading, the construction contractor shall post legible, durable, weather-proof signs at the property's frontage with Perris Boulevard, San Michelle Road, and Nandina Avenue stating the name and phone number of an authorized individual to be contacted to resolve dust complaints. Proof of sign posting in the form of photographs shall be placed on file with the City of Moreno Valley. These signs shall remain posted on the property until grading is complete. All legitimate dust complaints shall be resolved in 24 hours.

The following measure is recommended to reduce the Project's significant near-term construction-related impact associated with the emission of NO_X and NO_X contributions to the SCAB's non-attainment status for O_3. This measure also would further reduce the Project's less than significant impact associated with near-term diesel particulate matter emissions.

MM 4.1-3 Prior to grading permit and building permit issuance, the City shall verify that the following notes are specified on all grading and building plans. Project contractors shall be required to comply with these notes and permit periodic inspection of the construction site by City of Moreno Valley staff to confirm compliance.

a) Mass grading shall be limited to no more than 4.0 acres per day.

b) During construction activity, diesel engines shall not idle in excess of three (3) minutes.

c) All construction-related equipment shall be CARB Certified.

d) Temporary traffic control for construction vehicles entering and exiting the site shall be implemented pursuant to the requirements of the California Manual on Uniform Traffic Control Devices.

e) During construction activity, the operating time of all pieces of off-road diesel-powered equipment shall not exceed a combined total of 75 operating hours per day.

f) Construction-related haul trips entering and existing the site shall occur during non-peak traffic hours.

g) The construction contractor shall encourage construction site employees to rideshare by offering incentives or other inducements.

h) High pressure injectors shall be used on all diesel powered construction equipment over 100 horsepower.

i) All construction-related on-road diesel-powered haul trucks shall be 2007 or newer model year or 2010 engine compliant vehicles.

j) On all construction-related equipment that has a particulate trap, the trap shall be Level 3 CARB certified.

k) Electric-powered construction equipment and tools shall be used when technically feasible.

l) Biodiesel fuel or other alternatives to diesel fuel shall be used to power construction equipment when technically feasible.

m) Construction vehicles shall use the City's designated truck route.

n) Construction parking shall be located and configured to minimize traffic interference on public streets.

o) Import of earth materials and on-site grading activities shall not occur on the same day. No more than 66 loads of earth material (about 2,000 cubic yards) shall be brought to the site in any given day.

The following measure is recommended to reduce the Project's significant near-term construction-related impact associated with the emission of VOCs and VOC contributions to the SCAB's non-attainment status for O_3.

MM 4.1-4 Prior to building permit issuance, the City shall verify that the following note is specified on all building plans. Project contractors shall be required to comply with these notes and maintain written records of such compliance that can be inspected by the City of Moreno Valley upon request.

a) All surface coatings shall consist of Zero-Volatile Organic Compound paints (no more than 150 gram/liter of VOC) and/or be applied with High Pressure Low Volume (HPLV) applications consistent with SCAQMD Rule 1113. Alternatively, building materials may be used that do not require painting or are delivered to the construction site pre-painted.

The following measures are recommended to reduce the Project's significant long-term operational-related impact associated with the emission of NO_X and NO_X contributions to the SCAB's non-attainment status for O_3. These measures also would further reduce the Project's less than significant impact associated with long-term diesel particulate matter emissions.

MM 4.1-5 Legible, durable, weather-proof signs shall be placed at truck access gates, loading docks, and truck parking areas that identify applicable California Air Resources Board (CARB) anti-idling regulations. At a minimum each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) instructions for drivers of diesel trucks to restrict idling to no more than three (3) minutes; and 3) telephone numbers of the building facilities manager and the CARB to report violations. Prior to occupancy permit issuance, the City shall conduct a site inspection to ensure that the signs are in place.

MM 4.1-6 Prior to the issuance of building permits, the City shall verify that the parking lot striping and security gating plan allows for adequate truck stacking at gates to prevent queuing of trucks outside the property.

MM 4.1-7 Prior to the issuance of occupancy permits, the Project's property owner shall provide documentation to the Planning Division verifying that provisions are included in the building's lease agreement that inform tenants about the availability of: 1) alternatively fueled cargo handling equipment; 2) grant programs for diesel fueled vehicle engine retrofit and/or replacement; 3) designated truck parking locations in the City of Moreno Valley; 4) access to alternative fueling stations in the City of Moreno Valley that supply compressed natural gas (closest station is located on Indian Street, south of Nanina Avenue); and 5) the United States Environmental Protection Agency's SmartWay program.

MM 4.1-8 In the event that the building design is modified to accommodate refrigeration, all loading docks shall be equipped with an electrical hookup to power refrigerated tractor trailers.

4.1.8 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Thresholds 2 and 3: Significant Direct and Cumulative Impact (Long-Term). As shown in Table 4.1-13, *Emissions Summary of Construction Activities (With Mitigation)*, with incorporation of the mandatory and applicable Project Requirements listed in Subsection 4.1.5 and Mitigation Measures MM 4.1-3 and MM 4.1-4, the Project's near-term construction-related emissions of NO_x and VOCs would be reduced to below the SCAQMD regional thresholds of significance. Accordingly, construction-related emissions would not violate any applicable air quality standard, would not substantially contribute to an existing regional air quality violation, and would not result in a cumulatively considerable contribution to the net increase of any criteria pollutants for which the region is non-attainment. Therefore, near-term construction-related air quality impacts would be reduced to a level below significant.

Table 4.1-13 Emissions Summary of Construction Activities (With Mitigation)

Year	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions	**51.81**	**89.48**	**62.37**	**0.14**	**53.44**	**5.88**
SCAQMD Regional Threshold	75	100	550	150	150	55
Significant?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

Note: Please refer to Appendix A of the Project's Air Quality Impact Analysis (*Technical Appendix B* to this EIR) for the CalEEMod™ output files and additional hand calculations for the estimated emissions.

Although implementation of mandatory and applicable Regulatory Requirements and Mitigation Measures MM 4.1-5 and MM 4.1-6 would reduce long-term operational emissions of NO_x, Project-related operational emissions of NO_x would remain above regional significance thresholds, primarily from mobile source emissions. No other mitigation measures are available that are feasible for the Project Applicant to implement and the City of Moreno Valley to enforce given the City's human and financial capacities. As such, it is concluded that the Project's long-term emissions of NO_x would directly violate SCAQMD air quality standards. In addition, the Project's long-term emissions of NO_x would cumulatively contribute to an existing air quality violation in the SCAB (i.e., O_3 concentrations), as well as cumulatively contribute to the net increase of a criteria pollutant for which the SCAB is non-attainment (i.e., federal and state O_3 concentrations). Accordingly, the Project's long-term emissions of NO_x are concluded to result in a significant and unavoidable impact on both a direct and cumulative basis.

4.2 GREENHOUSE GAS EMISSIONS

This subsection assesses the Project's potential to generate GHG emissions that could contribute to GCC and its associated environmental effects. The analysis in this subsection is based in part on information contained in the report titled, "First Inland Logistics II GHG Analysis," prepared by Urban Crossroads, Inc. and dated November 14, 2012, and included as *Technical Appendix D* to this EIR (Urban Crossroads, 2012c).

4.2.1 EXISTING CONDITIONS

A. Introduction to Global Climate Change

Global climate change (GCC) is defined as the change in average meteorological conditions on the Earth with respect to temperature, precipitation, and storms. GCC is a controversial environmental issue in the United States, and much debate exists within the scientific community about whether or not GCC is occurring naturally or as a result of human activity. Some data suggests that GCC has occurred over the course of thousands or millions of years. These historical changes to the Earth's climate have occurred naturally without human influence, as in the case of an ice age. However, many scientists believe that the climate shift taking place since the industrial revolution (1900) is occurring at a quicker rate and magnitude than in the past. Scientific evidence suggests that GCC is the result of increased concentrations of greenhouse gasses (GHGs) in the Earth's atmosphere, including carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated gases. Many scientists believe that this increased rate of climate change is the result of GHGs resulting from human activity and industrialization over the past 200 years. (Urban Crossroads, 2012c, p. 6)

Man-made global warming, if it does exist, cannot be solved by the actions of California or the actions of the industrialized world alone due to the serious and undeniable projected increases in emissions in the developing world. Regardless, an individual project like the proposed Project evaluated in this EIR cannot generate enough GHG emissions to effect a discernible change in global climate. The proposed Project may participate in the potential for GCC by its incremental contribution of GHG emissions combined with all other sources of GHGs, which when taken together constitute potential influences on the global climate. (Urban Crossroads, 2012c, p. 6)

B. Greenhouse Gases

Emissions of CO_2, CH_4, and N_2O are the focus of evaluation in this subsection because these gases are the primary contributors to GCC from development projects. Although other substances such as fluorinated gases also contribute to GCC, sources of fluorinated gases are not well defined and no accepted emissions factors or methodology exist to accurately calculate these gases. (Urban Crossroads, 2012c, p. 9)

GHGs have varying global warming potential (GWP) values; GWP values represent the potential of a gas to trap heat in the atmosphere. CO_2 is utilized as the reference gas for GWP, and thus has a GWP of 1. The atmospheric lifetime and GWP of selected GHGs are summarized in Table 4.2-1, *Global Warming Potentials and Atmospheric Lifetime of Select GHGs*. As shown in the table below, GWPs range from 1 for CO_2 to 23,900 for sulfur hexafluoride (SF_6).

Table 4.2-1 Global Warming Potentials and Atmospheric Lifetime of Select GHGs

Gas	Atmospheric Lifetime (years)	Global Warming Potential (100 year time horizon)
Carbon Dioxide	50-200	1
Methane	12 ± 3	21
Nitrous Oxide	120	310
HFC-23	264	11,700
HFC-134a	14.6	1,300
HFC-152a	1.5	140
PFC: Tetrafluoromethane (CH_4)	50,000	6,500
PFC: Hexafluoroethane (C_2F_6)	10,000	9,200
Sulfur Hexafluoride (SF_6)	3,200	23,900

Source: U.S. EPA 2006 (http://www.epa.gov/nonco2/econ-inv/table.html)

Provided below is a description of the various gases that contribute to GCC. For more information about these gasses and their associated human health effects, refer to *Technical Appendix D,* pages 10-13 and the reference sources cited therein.

- Water Vapor: Water vapor (H_20) is the most abundant, important, and variable GHG in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. A climate feedback is an indirect, or secondary, change, either positive or negative, that occurs within the climate system in response to a forcing mechanism. The feedback loop in which water is involved is critically important to projecting future climate change.

  As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to 'hold' more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a "positive feedback loop." The extent to which this positive feedback loop will continue is unknown in the scientific community because there are also dynamics that hold the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it will eventually also condense into clouds, which are more able to reflect incoming solar radiation (thus allowing less energy to reach the Earth's surface and heat it up). There are no human health effects from water vapor itself; however, when some pollutants come in contact with water vapor, they can dissolve and the water vapor can then act as a pollutant-carrying agent.

- Carbon Dioxide: Carbon dioxide (CO_2) is an odorless and colorless GHG that is emitted from natural and manmade sources. Natural sources include: the decomposition of dead organic matter; respiration of bacteria, plants, animals and fungus; evaporation from oceans; and volcanic outgassing. Manmade sources include: the burning of coal, oil, natural gas, and wood. Since the industrial revolution began in the mid-1700s, the sort of human activity that increases CO_2 emissions has increased dramatically in scale and distribution. As an example, prior to the industrial revolution, CO_2 concentrations were fairly stable at 280 parts per million (ppm). Today, they are around 370 ppm, an increase of more than 30%. Left unchecked, the concentration of CO_2 in the atmosphere is projected to increase to a minimum of 540 ppm by 2100 as a direct result of manmade sources. Exposure to CO_2 in high concentrations can cause human health effects, but outdoor levels are not high enough to adversely affect human health.

- Methane: Methane (CH_4) is an extremely effective absorber of radiation, though its atmospheric concentration is less than CO_2 and its lifetime in the atmosphere is brief (10-12 years), compared to other GHGs. Methane has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of methane. Other anthropocentric sources include fossil-fuel combustion and biomass burning. No health effects are known to occur from exposure to methane.

- Nitrous Oxide: Nitrous oxide (N_2O), also known as laughing gas, is a colorless GHG. Nitrous oxide can cause dizziness, euphoria, and sometimes slight hallucinations. In small doses, it is considered harmless. However, in some cases, heavy and extended use can cause Olney's Lesions (brain damage). Concentrations of nitrous oxide also began to rise at the beginning of the industrial revolution. In 1998, the global concentration was 314 parts per billion (ppb). Nitrous oxide is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used as an aerosol spray propellant (i.e., in whipped cream bottles). It is also used in potato chip bags to keep chips fresh. It is used in rocket engines and in race cars. Nitrous oxide can be transported into the stratosphere, be deposited on the Earth's surface, and be converted to other compounds by chemical reaction.

- Chlorofluorocarbons: Chlorofluorocarbons (CFCs) are gases formed synthetically by replacing all hydrogen atoms in methane or ethane (C_2H_6) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble and chemically unreactive in the troposphere (the level of air at the Earth's surface). CFCs have no natural source, but were first synthesized in 1928. They were used for refrigerants, aerosol propellants and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and was extremely successful, so much so that levels of the major CFCs are now remaining steady or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.

- Hydrofluorocarbons: Hydrofluorocarbons (HFCs) are synthetic, man-made chemicals that are used as a substitute for CFCs. Out of all the GHGs, they are one of three groups with the highest global warming potential. The HFCs with the largest measured atmospheric abundances are (in order), HFC-23 (CHF_3), HFC-134a (CF_3CH_2F), and HFC-152a (CH_3CHF_2). Prior to 1990, the only substantial emissions were of HFC-23. HFC-134a emissions are increasing due to its use as a refrigerant. The U.S. Environmental Protection Agency (EPA) estimates that concentrations of HFC-23 and HFC-134a are now about 10 parts per trillion (ppt) each; and that concentrations of HFC-152a are about 1 ppt. No health effects are known to result from exposure to HFCs, which are manmade for applications such as automobile air conditioners and refrigerants.

- Perfluorocarbons: The two primary sources of perfluorocarbons (PFCs) are aluminum production and semiconductor manufacture. PFCs have stable molecular structures and do not break down through chemical processes in the lower atmosphere. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6). The U.S. EPA estimates that concentrations of CF_4 in the atmosphere are over 70 ppt. No health effects are known to result from exposure to PFCs.

- Sulfur Hexafluoride: Sulfur hexafluoride (SF_6) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It also has the highest GWP of any gas evaluated (23,900). The U.S. EPA indicates that concentrations in the 1990s were about 4 ppt. In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing. Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

C. GHG Emissions Inventories

☐ Global

Worldwide anthropogenic (man-made) GHG emissions are tracked by the Intergovernmental Panel on Climate Chang (IPPC) for industrialized nations (referred to as Annex I) and developing nations (referred to as Non-Annex I). Man-made GHG emissions data for Annex I nations are available through 2009. Man-made GHG emissions data for Non-Annex I nations are available through 2007. For the Year 2009 the sum of these emissions totaled approximately 40,084 million metric tons of CO_2 equivalent ($MMTCO_2e$). Emissions from the top five countries and the European Union accounted for approximately 65 percent of the total global GHG emissions, according to the most recently available data (see Table 4.2-2, *Top GHG Producer Countries and the European Union*). The GHG emissions in more recent years may differ from the inventories presented in Table 4.2-2; however, the data is representative of currently available inventory data. (Urban Crossroads, 2012c, pp. 6-7)

☐ United States

As noted in Table 4.2-2, the United States, as a single country, was the number two producer of GHG emissions in 2009. The primary GHG emitted by human activities in the United States was CO_2, representing approximately 83% of total GHG emissions. Carbon dioxide from fossil fuel combustion, the largest source of US GHG emissions, accounted for approximately 78% of the GHG emissions. (Urban Crossroads, 2012c, p. 7)

Table 4.2-2 Top GHG Producer Countries and the European Union

Emitting Countries	GHG Emissions (MMT CO_2e)
China	6,703
United States	6,608
European Union (27 member countries)	8,338
Russian Federation	2,159
India	1,410
Japan	1,209
Total	**26,427**

Source: (Urban Crossroads, 2012c, Table 2-1)

❑ State of California

CARB compiles GHG inventories for the State of California. Based upon the 2008 GHG inventory data (i.e., the latest year for which data are available) for the 2000-2008 GHG emissions inventory, California emitted 474 $MMTCO_2e$ including emissions resulting from imported electrical power in 2008. Based on the CARB inventory data and GHG inventories compiled by the World Resources Institute, California's total statewide GHG emissions rank second in the United States (Texas is number one) with emissions of 417 $MMTCO_2e$ excluding emissions related to imported power.

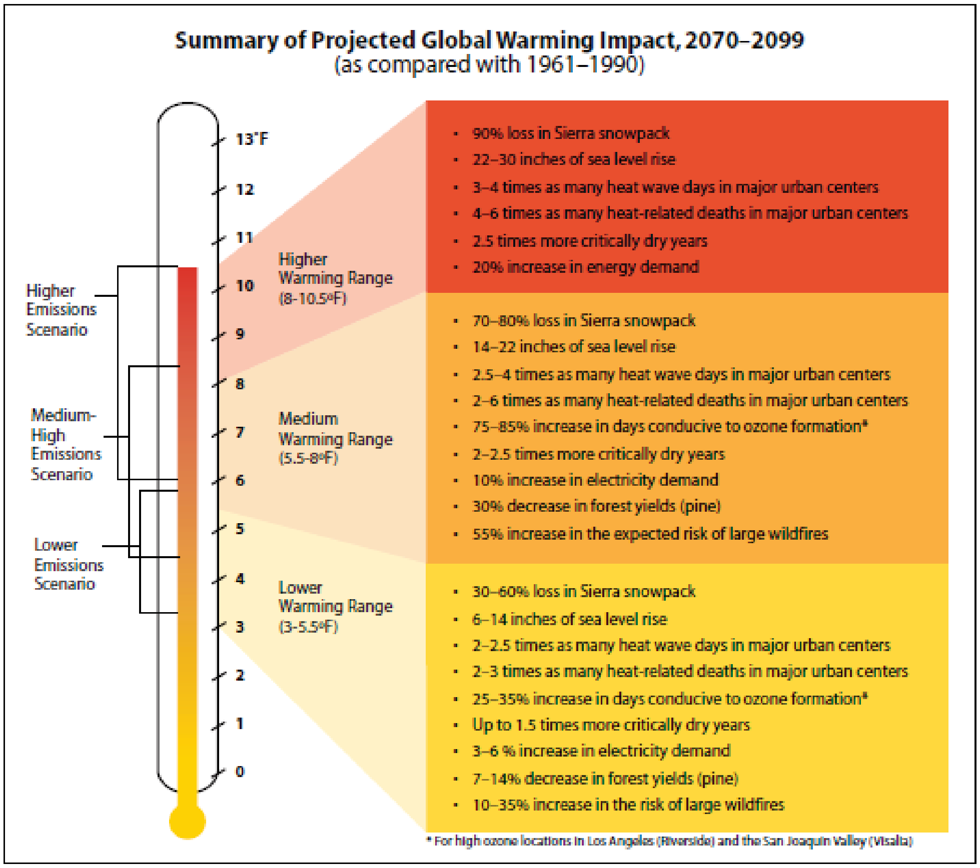
D. Effects of Climate Change in California

The California Environmental Protection Agency (CalEPA) published a report titled "Scenarios of Climate Change in California: An Overview" (Climate Scenarios report) in February 2006 (California Climate Change Center 2006), that is generally instructive about the statewide impacts of global warming. The Climate Scenarios report uses a range of emissions scenarios developed by the Intergovernmental Panel on Climate Change (IPCC) to project a series of potential warming ranges (i.e., temperature increases) that may occur in California during the 21st century: lower warming range (3.0-5.5°F); medium warming range (5.5-8.0°F); and higher warming range (8.0-10.5°F). The Climate Scenarios report then presents an analysis of future climate in California under each warming range, that while uncertain, present a picture of the impacts of GCC trends in California. (Urban Crossroads, 2012c, p. 13)

In addition, most recently on August 5, 2009, the State's Natural Resources Agency released a public review draft of its "California Climate Adaptation Strategy" report that details many vulnerabilities arising from climate change with respect to matters such as temperature extremes, sea level rise, wildfires, floods and droughts and precipitation changes. This report responds to the Governor's Executive Order S-13-2008 that called on state agencies to develop California's strategy to identify and prepare for expected climate impacts. (Urban Crossroads, 2012c, p. 14)

According to the reports, substantial temperature increases arising from increased GHG emissions potentially could result in a variety of impacts to the people, economy, and environment of California associated with a projected increase in extreme conditions, with the severity of the impacts depending on the actual future emissions of GHGs and associated warming. Figure 4.2-1, *Summary of Projected Global Warming Impact (2070-2099)*, presents the potential impacts of global warming.

Figure 4.2-1 Summary of Projected Global Warming Impact (2070-2099)



Source: (Urban Crossroads, 2012c, Figure 1)

Under the emissions scenarios of the Climate Scenarios and California Climate Adaption Strategy reports, the impacts of global warming in California have the potential to include, but are not limited to, the following areas. For more information, refer to *Technical Appendix D*, pages 13-17 and the reference sources cited therein.

❑ Public Health

The potential health effects related directly to the emissions of CO_2, CH_4, and N_2O as they relate to development projects such as the proposed Project are still being debated in the scientific community. Their cumulative effects to GCC have the potential to cause adverse effects to human health. Increases in Earth's ambient temperatures would result in more intense heat waves, causing more heat-related deaths. Scientists also purport that higher ambient temperatures would increase disease survival rates and result in more widespread disease. Climate change will likely cause shifts in weather patterns, potentially resulting in droughts and food shortages in some areas. (Urban Crossroads, 2012c, p. 17)

☐ Air Quality/General Thermal Effects

According to CalEPA, higher temperatures may increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation could increase from 25% to 35% under the lower warming range to 75% to 85% under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become difficult to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances, depending on wind conditions. The Climate Scenarios report indicates that large wildfires could become more frequent if GHG emissions are not substantially reduced. (Urban Crossroads, 2012c, p. 14)

In addition, under the higher warming range scenario, there could be up to 100 more days per year with temperatures above 90°F in Los Angeles and 95°F in Sacramento by 2100. This is a large increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures could increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat. (Urban Crossroads, 2012c, p. 14)

☐ Water Resources

A vast network of man-made reservoirs and aqueducts captures and transports water throughout the state from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages. Additionally, if temperatures continue to increase, more precipitation could fall as rain instead of snow, and the snow that does fall could melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70% to 90%. The loss of snowpack could pose challenges to water managers and hamper hydropower generation. It could also adversely affect winter tourism. The State's water supplies are also at risk from rising sea levels. An influx of saltwater could degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta – a major fresh water supply. (Urban Crossroads, 2012c, p. 15)

☐ Agriculture

Increased temperatures could cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. California farmers could possibly lose as much as 25% of the water supply they need. Although higher CO_2 levels can stimulate plant production and increase plant water-use efficiency, California's farmers could face greater water demand for crops and a less reliable water supply as temperatures rise. Crop growth and development could change, as could the intensity and frequency of pest and disease outbreaks. Rising temperatures could aggravate ozone (O_3) pollution, which makes plants more susceptible to disease and pests and interferes with plant growth. Faster growth can result in less-than-optimal development for many crops, so rising temperatures could worsen the quantity and quality of yield for a number of California's agricultural products. In addition, continued GCC could shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Continued

GCC could alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates. (Urban Crossroads, 2012c, pp. 15-16)

❑ Forests and Landscapes

Climate change has the potential to intensify the current threat to forests and landscapes by increasing the risk of wildfire and altering the distribution and character of natural vegetation. However, because wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks would not be uniform throughout the state. In contrast, wildfires in northern California could increase by up to 90 percent due to decreased precipitation. Moreover, continued GCC has the potential to alter natural ecosystems and biological diversity within the state. For example, alpine and subalpine ecosystems could decline by as much as 60% to 80% by the end of the century as a result of increasing temperatures. The productivity of the state's forests has the potential to decrease as a result of GCC. (Urban Crossroads, 2012c, p. 16)

❑ Rising Sea Levels

Rising sea levels, more intense coastal storms, and warmer water temperatures could increasingly threaten the state's coastal regions. Under the higher warming range scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate low-lying coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats. Under the lower warming range scenario, sea level could rise 12-14 inches. (Urban Crossroads, 2012c, pp. 16-17)

E. Regulatory Setting

Below is an account of the regulatory programs, policies, laws, and regulations that are applicable to GHG emissions and GCC in California. For more information, refer to *Technical Appendix D*, pages 19-30 and the reference sources cited therein.

❑ International Regulation and the Kyoto Protocol

In 1988, the United Nations created the IPCC to provide scientific information regarding climate change to policymakers. The IPCC does not conduct research itself, but rather compiles information from a variety of sources into reports regarding climate change and its impacts. The IPCC has thereafter periodically released reports on climate change, and in 2007 released its Fourth Assessment Report ("AR4"), which concluded that "[w]arming of the climate system is unequivocal," and that "[m]ost of the observed increase in global average temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic GHG concentrations." However, since 2007, AR4 has been the subject of a variety of reports and studies which have discredited its findings. Flaws have been identified and show that the IPCC was careless in the ways in which it compiled the report and the methods in which it continues to promote the theory of man-made or anthropogenic climate change. As a result, the report lacks scientific reliability and does not provide credible evidence to support the theory that GCC is occurring a result of human activity. Also, a scientific consensus does not exist on whether the Earth is even warming, in part due to defective data collection methods and recent reports of stabilization or cooling. Although most scientists and researchers acknowledge that there may have been some warming in the past 100 years, this does not confirm the anthropogenic theory promoted by the IPCC. Rather, there are other theories that may better explain what the Earth is experiencing, such as solar activity.

Regardless, in 1992, the United States joined other countries around the world in signing the United Nations' Framework Convention on Climate Change (UNFCCC) agreement with the goal of controlling GHG emissions. As a result, the Climate Change Action Plan was developed to address the reduction of GHGs in the United States. The Plan currently consists of more than 50 voluntary programs for member nations to adopt.

The Kyoto protocol is a treaty made under the UNFCCC and was the first international agreement to regulate GHG emissions. Some have estimated that if the commitments outlined in the Kyoto protocol are met, global GHG emissions could be reduced an estimated five (5) percent from 1990 levels during the first commitment period of 2008-2012. Notably, while the United States is a signatory to the Kyoto protocol, Congress has not ratified the Protocol and the United States is not bound by the Protocol's commitments. Since the United States declined to ratify the Kyoto Protocol, it has become increasingly clear that global climate change, if it exists and is anthropogenic, cannot be addressed without limiting greenhouse gas emissions from developing, as well as developed countries. According to many sources, China has already surpassed the United States as the world's largest GHG emitter.

❑ Federal Regulation and the Clean Air Act

Coinciding with a 2009 meeting in Copenhagen, on December 7, 2009, the U.S. EPA issued an Endangerment Finding under Section 202(a) of the Clean Air Act, opening the door to federal regulation of GHGs. The Endangerment Finding notes that GHGs threaten public health and welfare and are subject to regulation under the Clean Air Act. To date, the U.S. EPA has not promulgated regulations on GHG emissions, but it has already begun to develop them.

Previously the EPA had not regulated GHGs under the Clean Air Act because it asserted that the Act did not authorize it to issue mandatory regulations to address GCC and that such regulation would be unwise without an unequivocally established causal link between GHGs and the increase in global surface air temperatures. In Massachusetts v. Environmental Protection Agency et al. (127 S. Ct. 1438 (2007)), however, the U.S. Supreme Court held that GHGs are pollutants under the Clean Air Act and directed the U.S. EPA to decide whether the gases endangered public health or welfare. The EPA had also not moved aggressively to regulate GHGs because it expected Congress to make progress on GHG legislation, primarily from the standpoint of a cap-and-trade system. However, proposals circulated in both the House of Representative and Senate have been controversial and it may be some time before the U.S. Congress adopts major climate change legislation. The U.S. EPA's Endangerment Finding paves the way for federal regulation of GHGs with or without Congress.

❑ Title 24 Standards

Although GCC did not become an international concern until the 1980s, efforts to reduce energy consumption began in California in response to the oil crisis in the 1970s, resulting in the incidental reduction of GHG emissions. In order to manage the state's energy needs and promote energy efficiency, Assembly Bill (AB) 1575 created the California Energy Commission (CEC) in 1975.

The CEC first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods. The latest revisions were adopted in 2008 and became effective on January 1, 2010.

Part 11 of the Title 24 Building Standards Code is referred to as the California Green Building Standards Code (CALGreen Code). The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality." The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC). Unless otherwise noted in the regulation, all newly constructed buildings in California are subject of the requirements of the CALGreen Code.

❑ California Assembly Bill No. 1493 (AB 1493)

AB 1493 required the California Air Resources Board (CARB) to develop and adopt GHG emission standards for automobiles. The Legislature declared in AB 1493 that global warming was a matter of increasing concern for public health and environment in California. Further, the legislature stated that technological solutions to reduce GHG emissions would stimulate the California economy and provide jobs.

To meet the requirements of AB 1493, CARB approved amendments to the California Code of Regulations (CCR) adding GHG emission standards to California's existing motor vehicle emission standards in 2004. Amendments to CCR Title 13 Sections 1900 (CCR 13 1900) and 1961 (CCR 13 1961) and adoption of Section 1961.1 (CCR 13 1961.1) require automobile manufacturers to meet fleet average GHG emission limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes beginning with the 2009 model year. Emission limits are further reduced each model year through 2016.

In December 2004 a group of car dealerships, automobile manufacturers, and trade groups representing automobile manufacturers filed suit against CARB to prevent enforcement of CCR 13 1900 and CCR 13 1961 as amended by AB 1493 and CCR 13 1961.1 (*Central Valley Chrysler-Jeep et al. v. Catherine E. Witherspoon, in her official capacity as Executive Director of the California Air Resources Board, et al.*). The suit, heard in the U.S. District Court for the Eastern District of California, contended that California's implementation of regulations that in effect regulate vehicle fuel economy violates various federal laws, regulations, and policies. In January 2007, the judge hearing the case accepted a request from the State Attorney General's office that the trial be postponed until a decision is reached by the U.S. Supreme Court on a separate case addressing GHGs. In the Supreme Court Case, *Massachusetts vs. EPA*, the primary issue in question is whether the federal CAA provides authority for U.S. EPA to regulate CO_2 emissions. In April 2007, the U.S. Supreme Court ruled in Massachusetts' favor, holding that GHGs are air pollutants under the CAA. On December 11, 2007, the judge in the Central Valley Chrysler-Jeep case rejected each plaintiff's arguments and ruled in California's favor. On December 19, 2007, the U.S. EPA denied California's waiver request. California filed a petition with the Ninth Circuit Court of Appeals challenging USEPA's denial on January 2, 2008.

President Obama's administration subsequently directed the U.S. EPA to re-examine their decision. On May 19, 2009, challenging parties, automakers, the State of California, and the federal government reached an agreement on a series of actions that would resolve these current and potential future disputes over the standards through model year 2016. In summary, the U.S. EPA and the U.S. Department of Transportation agreed to adopt a federal program to reduce GHGs and improve fuel economy, respectively, from passenger vehicles in order to achieve equivalent or greater GHG benefits as the AB 1493 regulations for the 2012-2016 model years. Manufacturers agreed to ultimately drop current and forego similar future legal challenges, including challenging a waiver grant, which occurred on June 30, 2009. The State of California committed to (1) revise its standards to allow manufacturers to demonstrate compliance with the fleet-average GHG emission standard by "pooling" California and specified State vehicle sales; (2) revise its standards for 2012–2016 model year vehicles so that compliance with U.S. EPA-adopted GHG standards would also comply with California's standards; and (3) revise its standards, as necessary, to allow manufacturers to use emissions data from the federal Corporate Average Fuel Economy (CAFE) program to demonstrate compliance with the AB 1493 regulations. Both of these programs are aimed at light-duty auto and light-duty trucks.

☐ Executive Order S-3-05

Executive Order S-3-05, which was signed by Governor Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra Nevada's snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the Executive Order established total GHG emission targets. Specifically, emissions are to be reduced to the 1990 level by 2020, and to 80% below the 1990 level by 2050. The Executive Order directed the Secretary of CalEPA to coordinate a multi-agency effort to reduce GHG emissions to the target levels. The Secretary also is required to submit biannual reports to the Governor and state Legislature describing: (1) progress made toward reaching the emission targets; (2) impacts of global warming on California's resources; and (3) mitigation and adaptation plans to combat these impacts. To comply with the Executive Order, the Secretary of the CalEPA created a Climate Action Team (CAT) made up of members from various state agencies and commission. CAT released its first report in March 2006. The report proposed to achieve the targets by building on voluntary actions of California businesses, local government and community actions, as well as through state incentive and regulatory programs.

☐ California Assembly Bill 32 (AB 32)

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Climate Solutions Act of 2006. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by the year 2020. This reduction will be accomplished through an enforceable statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires that CARB adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrives at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state achieves reductions in GHG emissions necessary to meet the cap. AB 32 also includes guidance to institute emissions reductions in an economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions.

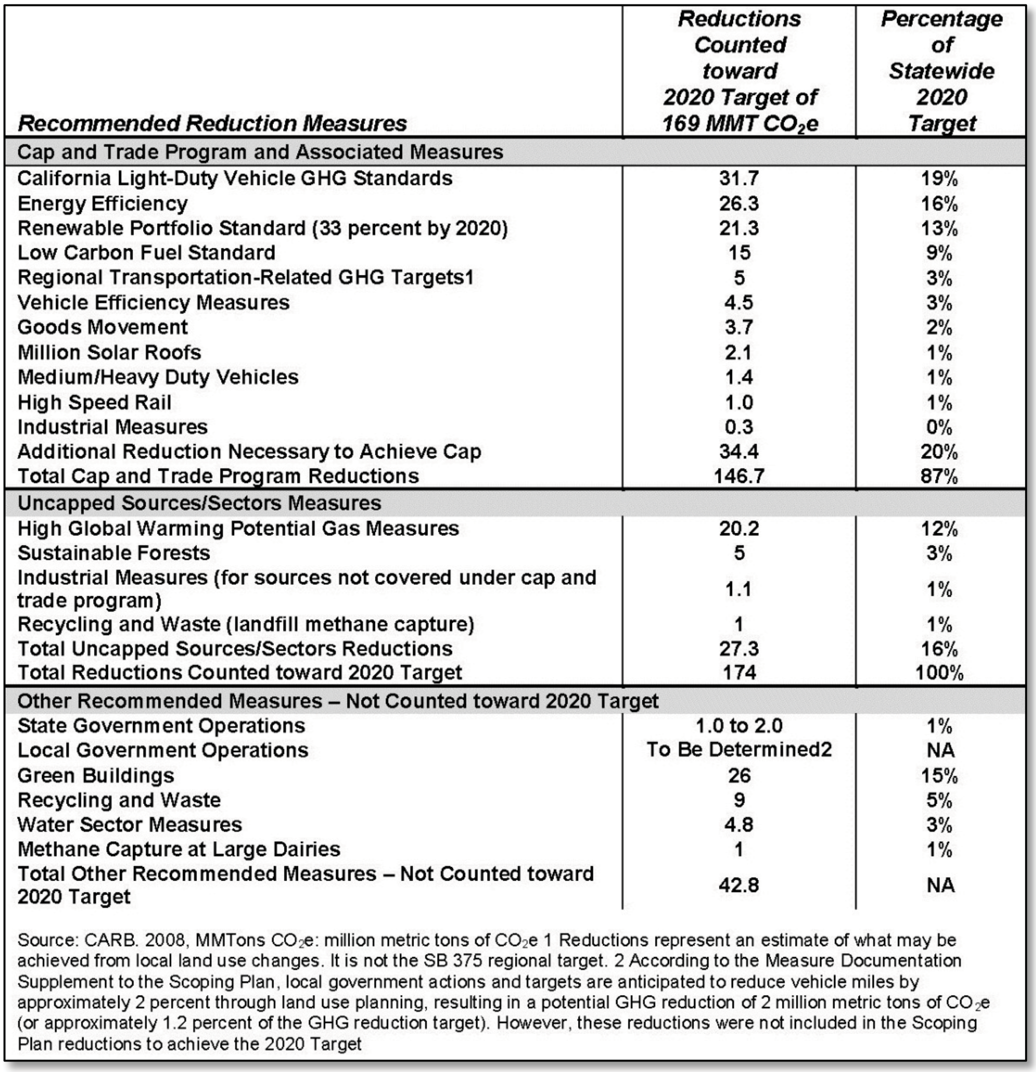
In November 2007, CARB completed its estimates of 1990 GHG levels. Net emission 1990 levels were estimated at 427 million metric tons (MMTs) (emission sources by sector were: transportation – 35%; electricity generation – 26%; industrial – 24%; residential – 7%; agriculture – 5%; and commercial – 3%). Accordingly, 427 MMTs of CO_2 equivalent was established as the emissions limit for 2020. For comparison, CARB's estimate for baseline GHG emissions was 473 MMT for 2000 and 532 MMT for 2010. "Business as usual" conditions (without the 30% reduction to be implemented by CARB regulations) for 2020 were projected to be 596 MMTs.

On December 11, 2008, CARB adopted a scoping plan to reduce GHG emissions to 1990 levels. Table 4.2-3, *Scoping Plan GHG Reduction Measures Toward 2020 Target*, shows the proposed reductions from regulations and programs outlined in the Scoping Plan. While local government operations were not accounted for in achieving the 2020 emissions reduction, local land use changes are estimated to result in a reduction of 5 MMTs of CO_2e, which is approximately 3% of the 2020 GHG emissions reduction goal. In recognition of the critical role local governments will play in successful implementation of AB 32, CARB is recommending GHG reduction goals of 15% of 2006 levels by 2020 to ensure that municipal and community-wide emissions match the state's reduction target. According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2% through land use planning, resulting in a potential GHG reduction of 2 MMTs of CO_2e (or approximately 1.2 percent of the GHG reduction target).

☐ California Senate Bill No. 1368 (SB 1368)

In 2006, the State Legislature adopted Senate Bill 1368 (SB 1368), which was subsequently signed into law by the Governor. SB 1368 directs the California Public Utilities Commission (CPUC) to adopt a GHG emission performance standard (EPS) for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than five years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. Due to the carbon content of its fuel source, a coal-fired plant cannot meet this standard because such plants emit roughly twice as much carbon as natural gas, combined cycle plants. Accordingly, the new law will effectively prevent California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. Thus, SB 1368 will lead to

Table 4.2-3 Scoping Plan GHG Reduction Measures Toward 2020 Target



Recommended Reduction Measures	*Reductions Counted toward 2020 Target of 169 MMT CO_2e*	*Percentage of Statewide 2020 Target*
Cap and Trade Program and Associated Measures		
California Light-Duty Vehicle GHG Standards	31.7	19%
Energy Efficiency	26.3	16%
Renewable Portfolio Standard (33 percent by 2020)	21.3	13%
Low Carbon Fuel Standard	15	9%
Regional Transportation-Related GHG Targets1	5	3%
Vehicle Efficiency Measures	4.5	3%
Goods Movement	3.7	2%
Million Solar Roofs	2.1	1%
Medium/Heavy Duty Vehicles	1.4	1%
High Speed Rail	1.0	1%
Industrial Measures	0.3	0%
Additional Reduction Necessary to Achieve Cap	34.4	20%
Total Cap and Trade Program Reductions	146.7	87%
Uncapped Sources/Sectors Measures		
High Global Warming Potential Gas Measures	20.2	12%
Sustainable Forests	5	3%
Industrial Measures (for sources not covered under cap and trade program)	1.1	1%
Recycling and Waste (landfill methane capture)	1	1%
Total Uncapped Sources/Sectors Reductions	27.3	16%
Total Reductions Counted toward 2020 Target	174	100%
Other Recommended Measures – Not Counted toward 2020 Target		
State Government Operations	1.0 to 2.0	1%
Local Government Operations	To Be Determined2	NA
Green Buildings	26	15%
Recycling and Waste	9	5%
Water Sector Measures	4.8	3%
Methane Capture at Large Dairies	1	1%
Total Other Recommended Measures – Not Counted toward 2020 Target	42.8	NA

Source: CARB. 2008, MMTons CO_2e: million metric tons of CO_2e 1 Reductions represent an estimate of what may be achieved from local land use changes. It is not the SB 375 regional target. 2 According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 million metric tons of CO_2e (or approximately 1.2 percent of the GHG reduction target). However, these reductions were not included in the Scoping Plan reductions to achieve the 2020 Target

dramatically lower GHG emissions associated with California energy demand, as SB 1368 will effectively prohibit California utilities from purchasing power from out of state producers that cannot satisfy the EPS standard required by SB 1368.

❑ Senate Bill 97 (SB 97)

Pursuant to the direction of SB 97, the California Office of Planning and Research (OPR) released preliminary draft CEQA Guideline amendments for GHG emissions on January 8, 2009, and submitted its final proposed guidelines to the Secretary for Natural Resources on April 13, 2009. The Natural Resources Agency adopted the Guideline amendments and they became effective on March 18, 2010.

The adopted CEQA Guidelines specify that a lead agency shall have discretion to determine whether to use a quantitative model or methodology, or in the alternative, rely on a qualitative analysis or performance based standards. CEQA Guideline §15064.4(a) specifically states that "a lead agency shall have discretion to determine, in the context of a particular project, whether to: (1) use a model or methodology to quantify GHG emissions resulting from a project, and which model or methodology to use…; or (2) rely on a qualitative analysis or performance based standards."

CEQA emphasizes that the effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impacts (see CEQA Guidelines §15130[f]). CEQA Guidelines §15064.4(b) provides direction for lead agencies for assessing the significance of impacts of GHG emissions. The CEQA Guidelines do not identify a threshold of significance for GHG emissions, nor do they prescribe assessment methodologies or specific mitigation measures. Instead, they call for a "good-faith effort, based on available information, to describe, calculate or estimate the amount of GHG emissions resulting from a project." The Guidelines encourage lead agencies to consider many factors in performing a CEQA analysis and preserve lead agencies' discretion to make their own determinations based upon substantial evidence.

☐ Executive Order S-01-07

On January 18, 2007 California Governor Arnold Schwarzenegger, through Executive Order S-01-07, mandated a statewide goal to reduce the carbon intensity of California's transportation fuel by at least ten percent by 2020. The order also requires that a California-specific Low Carbon Fuel Standard (LCFS) be established for transportation fuels.

☐ Senate Bills 1078 and 107 and Executive Order S-14-08

SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20% of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010. In November 2008 Governor Schwarzenegger signed Executive Order S-14-08, which expands the state's Renewable Energy Standard to 33% renewable power by 2020.

☐ Senate Bill 375 (SB 375)

SB 375, signed in September 2008 (Chapter 728, Statutes of 2008), aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 requires metropolitan planning organizations (MPOs) to adopt a sustainable communities strategy (SCS) or alternative planning strategy (APS) that will prescribe land use allocation in that MPO's regional transportation plan. CARB, in consultation with MPOs, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight (8) years but can be updated every four (4) years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB also is charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, transportation projects are not be eligible to received programmed funding.

☐ CARB's Preliminary Draft Staff Proposal for Interim Significance Thresholds

Separate from its Scoping Plan approved in December of 2008, CARB issued a Staff Proposal in October 2008, as its first step toward developing recommended statewide interim thresholds of significance for GHGs that may be adopted by local agencies for their own use. CARB staff's objective in this proposal is to develop a threshold of significance that will result in the vast majority (approximately 90% statewide) of GHG emissions from new industrial projects being subject to CEQA's requirement to impose feasible mitigation. The proposal does not attempt to address every type of project that may be subject to CEQA, but instead focuses on common project types that, collectively, are responsible for substantial GHG emissions – specifically, industrial, residential, and commercial projects. CARB is developing these thresholds in these sectors to advance climate objectives, streamline project review, and encourage consistency and uniformity in the CEQA analysis of GHG emissions throughout the state. These draft thresholds are under revision in response to comments. There is currently no timetable for finalized thresholds at this time.

As currently proposed by CARB, the threshold consists of a quantitative threshold of 7,000 metric tons (MT) of CO_2e per year for operational emissions (excluding transportation), and performance standards for construction and transportation emissions. These performance standards have not yet been adopted and do not apply to projects in which CARB is not the lead agency. Further, CARB's proposal sets forth draft thresholds for industrial projects that have high operational stationary GHG emissions, such as manufacturing plants, or uses that utilize combustion engines. The proposed Project evaluated in this EIR does not propose or require these types of uses.

☐ South Coast Air Quality Management District Recommendations for Significance Thresholds

In April 2008, the South Coast Air Quality Management District (SCAQMD), in order to provide guidance to local lead agencies on determining the significance of GHG emissions identified in CEQA documents, convened a "GHG CEQA Significance Threshold Working Group." The goal of the working group is to develop and reach consensus on an acceptable CEQA significance threshold for GHG emissions that would be utilized on an interim basis until CARB (or some other state agency) develops statewide guidance on assessing the significance of GHG emissions under CEQA.

Initially, SCAQMD staff presented the working group with a significance threshold that could be applied to various types of projects—residential; non-residential; industrial; etc. However, the threshold is still under development. In December 2008, staff presented the SCAQMD Governing Board with a significance threshold for stationary source projects where it is the lead agency. This threshold uses a tiered approach to determine a project's significance, with 10,000 metric tons of carbon dioxide equivalent ($MTCO_2e$) as a screening numerical threshold for stationary sources.

In September 2010, the Working Group released additional revisions that recommended a threshold of 3,500 $MTCO_2e$ for residential projects, 1,400 $MTCO_2e$ for commercial projects, and 3,000 $MTCO_2e$ for mixed use projects. Additionally the working group identified project-level efficiency target of 4.8 $MTCO_2e$ per service population as a 2020 target and 3.0 $MTCO_2e$ per service population as a 2035 target. The recommended area-wide or plan-level target for 2020 was 6.6 $MTCO_2e$ and the plan-level target for 2035 was 4.1 $MTCO_2e$. The SCAQMD has not established a timeline for formal consideration of these thresholds.

The SCAQMD also adopted Rules 2700, 2701, and 2702 that address GHG reductions. However, these rules address boilers and process heaters, forestry, and manure management projects, none of which are proposed or required by the proposed Project.

❑ City of Moreno Valley

On October 9, 2012, the Moreno Valley City Council approved an Energy Efficiency and Climate Action Strategy and related Greenhouse Gas Analysis. The Energy Efficiency and Climate Action Strategy document identifies potential programs and policies to reduce overall City energy consumption and increase the use of renewable energy. The majority of the policies are directed at municipal operations of the City, but the document also contains recommended policies for the community at large (including private development projects). These recommended policies include but are not limited to: energy efficiency, water use reduction, trip reduction, solid waste diversion, and educational policies.

The proposed Project is required to comply with several Project Requirements as outlined in Subsection 4.2.5, below. As such, the Project would not impede or conflict with implementation of the City's Energy Efficiency and Climate Action Strategy and would have a less than significant impact.

4.2.2 BASIS FOR DETERMINING SIGNIFICANCE

In order to assess the significance of a proposed Project's environmental impacts it is necessary to identify quantitative or qualitative thresholds which, if exceeded, would constitute a finding of significance. As discussed above in Subsection 4.2.1, while Project-related GHG emissions can be estimated, the direct impacts of such emissions on GCC cannot be determined on the basis of available science. There is no evidence at this time that would indicate that the emissions from a project the size of the proposed Project would directly or indirectly affect global climate.

AB 32 states, in part, that "[g]lobal warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California." Because global warming is the result of GHG emissions, and GHGs are emitted by innumerable sources worldwide, the proposed Project would not result in a direct impact to global warming; rather, Project-related impacts to GCC only could be potentially significant on a cumulative basis. Therefore, the analysis below focuses on the Project's potential to contribute to GCC in a cumulatively considerable way.

The CEQA Guidelines indicate that a project would result in a significant impact on climate change if a project were to:

1. *Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or*

2. *Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.*

AB 32 is the primary plan, policy or regulation adopted in the State of California to reduce GHG emissions; thus, the proposed Project would have a significant cumulative impact associated with GHG emissions if it does not comply with the regulations developed under AB 32. For purposes of analysis within this subsection, the significance of the proposed Project's GHG emissions impacts is based upon whether or not the Project can demonstrate compliance with the CARB Scoping Plan prepared in response to California Assembly Bill 32 (AB 32) and the State of California's Climate

Action Team Report (2006), prepared in response to the California Governor's Executive Order S-3-05. This approach is consistent with past practice in the City of Moreno Valley.

4.2.3 IMPACT ANALYSIS

A. Methodology for Estimating Project-Related GHG Emissions

CEQA Guidelines §15064.4(b)(1) states that a lead agency may use a model or methodology to quantify GHG emissions associated with a project. On February 3, 2011, the SCAQMD released the California Emissions Estimator Model (CalEEMod™). The purpose of this model is to estimate air quality and GHG emissions from direct and indirect sources and quantify applicable air quality and GHG reductions achieved from mitigation measures. As such, the February 2011 CalEEMod™ was used for estimating Project-related emissions. The CalEEMod™ model includes GHG emissions from the following source categories: construction, area, energy, mobile, waste, water. (Urban Crossroads, 2012c, p. 33)

A full life-cycle analysis (LCA) is not included in the Project's GHG Analysis (*Technical Appendix D*) due to the lack of consensus guidance on LCA methodology. Life-cycle analysis (i.e., assessing economy-wide GHG emissions from the processes in manufacturing and transporting all raw materials used in the project development and infrastructure) depends on emission factors or econometric factors that are not well established for all processes. At this time a LCA, would be extremely speculative and thus was not prepared. (Urban Crossroads, 2012c, p. 33)

B. Methodology for Estimating Project-Related Construction Emissions

Construction activities associated with the proposed Project would result in emissions of CO_2 and CH_4 from the following construction activities:

- Demolition
- Site Preparation
- Grading
- Paving
- Building Construction
- Architectural Coatings (Painting)
- Construction Workers Commuting

Based on information about the Project's anticipated construction characteristics and schedule as supplied by the Project Engineer and Project Applicant (Cochran, 2012a), the approximate construction scheduling for each phase of construction was input into the CalEEMod™ model and defaults for all other assumptions were utilized. A summary of the assumptions used in the construction modeling is provided below.

The Project site is currently occupied with an 8.4-acre truck parking yard. This parking area and associated surface improvements would be demolished to construct the proposed Project. The Project Applicant plans to demolish the asphaltic and concrete surfaces, which would be pulverized and stockpiled onsite for subsequent use in Project construction activities. The Project Applicant estimates that demolition activities would occur over a period of two (2) weeks but the air quality analysis conservatively assumes that demolition activates would occur over three (3) working weeks.

The duration of construction activity and associated equipment was estimated based on construction of similar projects in the City of Moreno Valley, CalEEMod™ model defaults, and information provided by the Project Applicant. Refer to specific detailed modeling inputs/outputs contained in Appendix "A" of *Technical Appendix D* to this EIR. A detailed summary of construction equipment assumptions by phase is provided in Table 4.1-5 of Subsection 4.1, Air Quality.

In accordance with SCAQMD recommendations, the Project's construction phase GHG emissions were quantified and amortized over the life of the Project. To amortize the emissions over the life of the Project, the SCAQMD recommends calculating the total GHG emissions for the construction activities, dividing it by the Project life (i.e., 30 years) then adding that number to the annual operational phase GHG emissions. Accordingly, within this analysis construction-source emissions were amortized over a 30 year period and added to the annual operational phase GHG emissions. (Urban Crossroads, 2012c, p. 34)

For purposes of modeling the Project's GHG emissions, demolition is expected to occur within the month of January 2013; Site Preparation is expected to occur from January 2013 through February 2013; Grading activities are expected to occur within the month of February 2013; Building Construction is expected to occur from February 2013 through October 2013; Paving is expected to occur from October 2013 through November 2013; and Architecture Coatings are expected to occur from November 2013 through December 2013. This construction schedule represents a "worst-case" analysis scenario; should construction occur any time after these respective dates, construction-related emissions would decrease because emission factors for construction equipment decrease as the analysis year increases due to increasingly stringent regulatory requirements. (Urban Crossroads, 2012c, p. 34)

Construction emissions for construction worker vehicles traveling to and from the Project site, as well as vendor trips (construction and earth materials delivered to the Project site), were estimated based on information from the Project Applicant and the CalEEMod™ defaults. (Urban Crossroads, 2012c, p. 34)

C. *Methodology for Estimating Project-Related Operational Emissions*

Operational activities associated with the proposed Project would result in emissions of CO_2, CH_4, and N_2O from the following primary sources, which are discussed below:

- Building Energy Use (Combustion Emissions Associated with Natural Gas and Electricity)
- Water Supply, Treatment and Distribution
- Solid Waste
- Vehicles

o *Building Energy Use*

GHGs are emitted from buildings as a result of activities for which electricity and natural gas are typically used as energy sources. Combustion of any type of fuel emits CO_2 and other GHGs directly into the atmosphere; these emissions are considered direct emissions associated with a building. GHGs are also emitted during the off-site generation of electricity from fossil fuels; these emissions are considered to be indirect emissions. Unless otherwise noted, CalEEMod™ default parameters were used. (Urban Crossroads, 2012c, pp. 35-36)

- *Water Supply, Treatment and Distribution*

Indirect GHG emissions result from the off-site production of electricity used to convey, treat and distribute water and wastewater. The amount of electricity required to convey, treat and distribute water depends on the volume of water as well as the sources of the water. The Project's water demand was estimated based on data available from the Eastern Municipal Water District (EMWD) for similar developments projects. The Project is estimated to result in a demand for approximately 12,110 gallons of potable water per day (or approximately 13.6 acre-feet per year). (Urban Crossroads, 2012c, p. 36)

- *Solid Waste*

The Project would result in the generation and disposal of solid waste. A large percentage of this waste would be diverted from landfills by a variety of means, such as reducing the amount of waste generated, recycling, and/or composting. The remainder of the waste not diverted will be disposed of at a landfill. GHG emissions from landfills are associated with the anaerobic breakdown of material. Using solid waste generation rates for light industrial/warehouse uses reported by CalRecycle24, GHG emissions associated with the disposal of solid waste associated with the proposed Project were calculated by the CalEEMod™. (Urban Crossroads, 2012c, p. 36)

- *Vehicles*

GHG emissions also would result from mobile sources associated with the Project. These mobile source GHG emissions are generated by typical daily operation of motor vehicles by visitors, employees, and customers. For detailed information about the assumptions and methodology used to estimate GHG emission, refer to *Technical Appendix D*, pp. 6-41, and the reference sources cited therein.

Trip characteristics from the Project's Traffic Impact Analysis (*Technical Appendix E* to this EIR) were used to estimate Project-related operational vehicular emissions. The same methodology was applied as described in EIR Subsection 4.1, Air Quality. In summary, the actual number of passenger cars (including light trucks) and heavy trucks are used in the analysis instead of PCEs as used in the traffic report. The vehicle fleet mix, in terms of actual vehicles, was derived from the traffic study with the total traffic generation in vehicles calculated at 576 per day. The operational emissions evaluation is based on a conservative analysis year of 2013 (Project buildout). This analysis year was selected as it is the most conservative from an emissions generating standpoint because GHG emissions from vehicles would decrease as the analysis year increases due to implementation of regulatory requirements and vehicle fleet turnover contained in the EMFAC model. (Urban Crossroads, 2012c, p. 39)

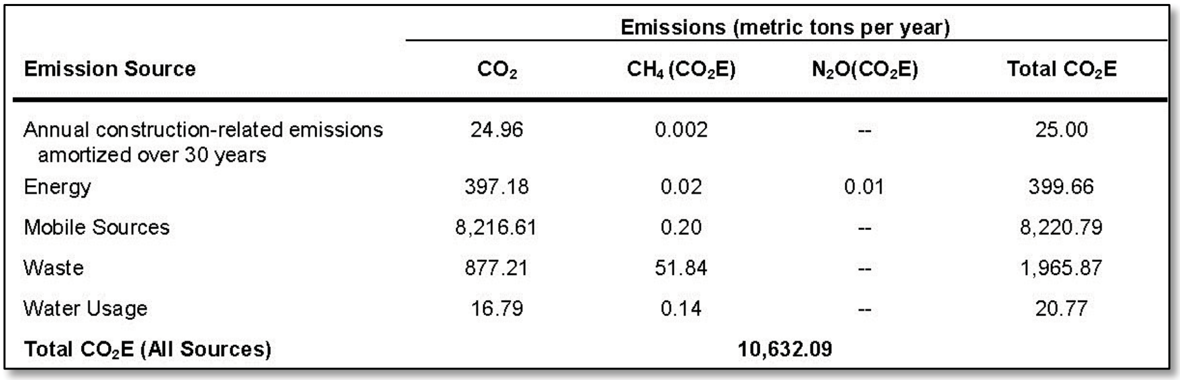
As discussed in EIR Subsection 4.1, Air Quality, air emissions (including GHG emissions) calculated for the proposed Project and disclosed in this EIR is likely overstated because no credit for, or reduction in, emissions is assumed based on diversion of existing trips. (Urban Crossroads, 2012c, p. 39). For passenger car trips, a one-way trip length of 17 miles was assumed as contained in the SCAQMD CEQA Handbook (SCAQMD 1993) for Riverside County for the year 2010 (this trip length was used in lieu of the CalEEMod™ model defaults because it is more conservative). For heavy duty trucks, an average trip length of 61 miles is used. The resulting weighted average trip length of 40.76 miles was entered into the CalEEMod™ model calculations. (Urban Crossroads, 2012c, p. 41). For more information, tables calculating percentage of trips by vehicle class are shown in *Technical Appendix D*.

Threshold 1: Would the proposed Project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Threshold 2: Would the proposed Project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?

A summary of the proposed Project's projected annual operational GHG emissions, including the amortized construction emissions, is provided in Table 4.2-4, *Total Annual Project GHG Emissions*. The operational GHG emissions for the Project, including the amortized construction emissions, are estimated to be 10,632.09 MT per year. (Urban Crossroads, 2012c, p. 42)

Table 4.2-4 Total Annual Project GHG Emissions



	Emissions (metric tons per year)			
Emission Source	**CO_2**	**CH_4 (CO_2E)**	**N_2O(CO_2E)**	**Total CO_2E**
Annual construction-related emissions amortized over 30 years	24.96	0.002	--	25.00
Energy	397.18	0.02	0.01	399.66
Mobile Sources	8,216.61	0.20	--	8,220.79
Waste	877.21	51.84	--	1,965.87
Water Usage	16.79	0.14	--	20.77
Total CO_2E (All Sources)		**10,632.09**		

Source: CalEEMod™ model output, See Appendix "A" of EIR *Technical Appendix D* for detailed model outputs.
Note: Totals obtained from CalEEMod™ and may not total 100% due to rounding.

As indicated in §15064(b) of the State CEQA Guidelines, the determination of significance of GHGs is not "ironclad;" rather, the "determination of whether a project may have a significant effect on the environment calls for a "careful judgment" by the lead agency (City of Moreno Valley) "based on the extent possible on scientific and factual data." The City of Moreno Valley has not adopted a numeric threshold of significance for emissions of GHGs.

As previously noted, CARB does not have an adopted numerical threshold of significance for projects like the proposed Project. Further, CARB's current proposal sets forth draft thresholds for industrial projects that have high operational stationary GHG emissions, such as manufacturing plants or uses that utilize combustion engines, and does not address mobile source emissions. Similarly, the SCAQMD thresholds are currently in draft form and are not adopted. Nevertheless, comparison of the GHG emissions from the Project's area sources (construction, energy, waste, and water usage) indicates that the Project's emissions from such sources would be well below the proposed CARB and SCAQMD thresholds for stationary sources. With regard to GHG emissions from mobile sources, as discussed above, the estimation of the Project's impact on mobile source GHG emissions is highly speculative, because the methodology to quantify mobile source GHG emissions assumes that all of the vehicle trips to and from the Project site would be new, rather than redistributed vehicle trips from other areas. No methods or models exist to estimate the Project's net contribution to regional or global vehicle miles traveled. Because the estimation of the Project's contribution to mobile source GHG emissions is highly speculative, and based on the absence of applicable thresholds for mobile source GHG emissions, use of a quantitative threshold of significance is not meaningful. Accordingly, a qualitative analysis is used to determine significance, based on consistency with regional and state GHG plans.

As previously indicated and consistent with past practice in the City of Moreno Valley, the significance of the Project's GCC impacts is based upon whether or not the Project can demonstrate compliance with the CARB Scoping Plan and the State of California's Climate Action Team Report (2006). The analysis below sets out the factual basis for the City's determination regarding the effect of Project-related GHGs. The analysis is specific to this Project, and may not necessarily apply to other projects within the City of Moreno Valley.

❑ Consistency with the CARB Scoping Plan

AB 32 requires California to reduce its GHG emissions by approximately 29% below business as usual. CARB identified reduction measures to achieve this goal as set forth in the CARB Scoping Plan. Thus, projects that are consistent with the CARB Scoping Plan are also consistent with the 29% reduction below business as usual required by AB 32.

The proposed Project would generate GHG emissions from a variety of sources which would all emit CO_2, CH_4 and N_2O. GHGs could also be indirectly generated by incremental electricity consumption and waste generation from the proposed Project.

Table 4.2-5, *Recommended Actions for Climate Change Proposed Scoping Plan*, presents the 39 Recommended Actions (qualitative measures) identified to date by CARB in its Climate Change Proposed Scoping Plan. Of the 39 measures identified, those that would be considered to be applicable to the Project would primarily be those actions related to transportation, electricity and natural gas use, green building design and industrial uses. Table 4.2-5 identifies which CARB Recommended Actions apply to the Project, and of those, whether the Project is consistent therewith.

Consistency of the Project with the Scoping Plan measures is discussed below by each source-type. It also should be noted that certain measures and enforcement actions listed below are beyond the control of the Project Applicant and the City of Moreno Valley. Notwithstanding, implementation and enforcement of these measures by the State or other responsible entity will act to reduce area-wide GHG emissions.

o *Transportation*

CARB's Scoping Plan identifies nine transportation-related recommended actions. Action T-1 concerns improvements to light-duty vehicle technology for the purposes of reducing GHG emissions. This action focuses on legislating improved controls for vehicle manufacturers and would not generally be considered applicable to the proposed Project. Implementation of the Pavley

Table 4.2-5 Recommended Actions for Climate Change Proposed Scoping Plan

ID #	Sector	Strategy Name	Applicable to Project?	Will Project Conflict With Implementation?
T-1	Transportation	Pavley I and II – Light-Duty Vehicle GHG Standards	NO	NO
T-2	Transportation	Low Carbon Fuel Standard (Discrete Early Action)	NO	NO
T-3	Transportation	Regional Transportation-Related GHG Targets	NO	NO
T-4	Transportation	Vehicle Efficiency Measures	NO	NO
T-5	Transportation	Ship Electrification at Ports (Discrete Early Action)	NO	NO
T-6	Transportation	Goods-movement Efficiency Measures	NO	NO
T-7	Transportation	Heavy Duty Vehicle Greenhouse Gas Emission Reduction Measure – Aerodynamic Efficiency (Discrete Early Action)	NO	NO
T-8	Transportation	Medium and Heavy-Duty Vehicle Hybridization	NO	NO
T-9	Transportation	High Speed Rail	NO	NO
E-1	Electricity and Natural Gas	Increased Utility Energy efficiency programs More stringent Building and Appliance Standards	YES	NO
E-2	Electricity and Natural Gas	Increase Combined Heat and Power Use by 30,000GWh	NO	NO
E-3	Electricity and Natural Gas	Renewable Portfolio Standard	NO	NO
E-4	Electricity and Natural Gas	Million Solar Roofs	YES	NO
CR-1	Electricity and Natural Gas	Energy Efficiency	YES	NO
CR-2	Electricity and Natural Gas	Solar Water Heating	NO	NO
GB-1	Green Buildings	Green Buildings	YES	NO
W-1	Water	Water Use Efficiency	YES	NO
W-2	Water	Water Recycling	NO	NO
W-3	Water	Water System Energy Efficiency	YES	NO
W-4	Water	Reuse Urban Runoff	NO	NO
W-5	Water	Increase Renewable Energy Production	NO	NO
W-6	Water	Public Goods Charge (Water)	NO	NO
I-1	Industry	Energy Efficiency and Co-benefits Audits for Large Industrial Sources	YES	NO
I-2	Industry	Oil and Gas Extraction GHG Emission Reduction	NO	NO
I-3	Industry	GHG Leak Reduction from Oil and Gas Transmission	NO	NO
I-4	Industry	Refinery Flare Recovery Process Improvements	NO	NO
I-5	Industry	Removal of Methane Exemption from Existing Refinery Regulations	NO	NO
RW-1	Recycling and Waste Management	Landfill Methane Control (Discrete Early Action)	NO	NO
RW-2	Recycling and Waste Management	Additional Reductions in Landfill Methane – Capture Improvements	NO	NO
RW-3	Recycling and Waste Management	High Recycling/Zero Waste	NO	NO
F-1	Forestry	Sustainable Forest Target	NO	NO
H-1	High Global Warming Potential Gases	Motor Vehicle Air Conditioning Systems (Discrete Early Action)	NO	NO
H-2	High Global Warming Potential Gases	SF_6 Limits in Non-Utility and Non-Semiconductor Applications (Discrete Early Action)	NO	NO
H-3	High Global Warming Potential Gases	Reduction in Perflourocarbons in Semiconductor Manufacturing (Discrete Early Action)	NO	NO
H-4	High Global Warming Potential Gases	Limit High GWP Use in Consumer Products (Discrete Early Action, Adopted June 2008)	NO	NO
H-5	High Global Warming Potential Gases	High GWP Reductions from Mobile Sources	NO	NO
H-6	High Global Warming Potential Gases	High GWP Reductions from Stationary Sources	NO	NO
H-7	High Global Warming Potential Gases	Mitigation Fee on High GWP Gases	NO	NO
A-1	Agriculture	Methane Capture at Large Dairies	NO	NO

Source: (Urban Crossroads, 2012c, Table 3-5) standards is dependent on implementation by the State on vehicle fuel economy standards. Implementation of such a standard is not within the purview of this Project. Therefore, the proposed Project would not conflict with measures concerning the Pavley standards.

Action T-2 concerns implementation of a low carbon fuel standard. To reduce the carbon intensity of transportation fuels, CARB is developing a Low Carbon Fuel Standard (LCFS), which would reduce the carbon intensity of California's transportation fuels by at least ten percent by 2020 as called for by Governor Schwarzenegger in Executive Order S-01-07. LCFS will incorporate compliance mechanisms that provide flexibility to fuel providers in how they meet the requirements to reduce GHG emissions. Implementation of such a standard is not within the purview of this Project. Therefore, the proposed Project would not conflict with measures concerning the use of low carbon fuels.

Action T-3 addressees regional transportation targets for reducing GHG emissions. SB 375 requires CARB to develop, in consultation with MPOs, passenger vehicle GHG emissions reduction targets for 2020 and 2035. It sets forth a collaborative process to establish these targets, including the appointment by CARB of a Regional Targets Advisory Committee to recommend factors to be considered and methodologies for setting GHG emissions reduction targets. SB 375 also provides incentives – relief from certain California Environmental Quality Act (CEQA) requirements for development projects that are consistent with regional plans that achieve the targets. Implementation of such a standard is not within the purview of this Project. Therefore, the proposed Project would not conflict with measures concerning SB 375.

Action T-4 is concerned with vehicle efficiency measures. The California Integrated Waste Management Board (CIWMB) with various partners continues to conduct a public awareness campaign to promote sustainable tire practices. CARB is pursuing a regulation to ensure that tires are properly inflated when vehicles are serviced. In addition, CEC in consultation with CIWMB is developing an efficient tire program focusing first on data gathering and outreach, then on potential adoption of minimum fuel-efficient tire standards, and lastly on the development of consumer information requirements for replacing tires. CARB is also pursuing ways to reduce engine load via lower friction oil and reducing the need for air conditioner use. CARB is actively engaged in the regulatory development process for the tire inflation component of this measure. Implementation of such a standard is not within the purview of this Project. Therefore, the proposed Project would not conflict with applicable measures.

Action T-5 addresses electrification of ships at ports and is not applicable to the proposed Project.

Action T-6 also primarily addresses port operations and is not applicable to the proposed Project.

Action T-7 requires existing trucks/trailers to be retrofitted with the best available technology and/or CARB-approved technology. Implementation of such a standard is not within the purview of the proposed Project because various trucks fleets from numerous commercial entities may access the site and cannot be feasibly monitored or controlled by the Project Applicant, City of Moreno Valley, or future Project tenant. Therefore, this measure is not applicable to the proposed Project.

Action T-8 focuses on hybridization of medium- and heavy-duty vehicles. The implementation approach to Action T-8 is to adopt a regulation and/or incentive program that reduces GHG emissions by encouraging hybrid technology as applied to vocational applications that have significant urban, stop-and-go driving, idling, and power take-off operations in their duty cycle. Such applications include parcel delivery trucks and vans. Implementation of such a standard is not within the purview of the proposed Project since various trucks fleets from numerous commercial entities may access the site. Therefore, the proposed Project would not conflict with this measure.

Action T-9 concerns implementation of a high speed rail system. This measure is not applicable to the Project.

- *Electricity and Natural Gas*

Action E-1 and CR-1, together with Action GB-1 (Green Building), aims to reduce electricity demand by increased efficiency of Utility Energy Programs and adoption of more stringent building and appliance standards. The Project will comply with or surpass mandatory Title 24 Energy Efficiency Standards in effect at the time of Project construction. Therefore, the proposed Project would not conflict with this measure.

Action E-2 encourages an increase in the use of combined heat and power (CHP) use, or co-generation, facilities. California has supported CHP for many years, but market and other barriers continue to keep CHP from reaching its full market potential. Increasing the deployment of efficient CHP will require a multi-pronged approach that includes addressing significant barriers and instituting incentives or mandates where appropriate. Implementation of such a standard is not within the purview of the proposed Project; therefore, the proposed Project would not conflict with this measure.

Action E-3 concerns Renewable Portfolio Standards for utilities and does not apply to development projects.

Action E-4 strives to promote solar generated electricity. Because the proposed building would be designed to accommodate renewable energy sources, such as photovoltaic solar electricity systems, appropriate to the architectural design, the proposed Project would not conflict with the recommended measure.

Action CR-2 strives to promote solar water heaters (SWH). The ARB recommends that California pursue approaches with the goal of developing a viable SWH industry for 2020 and beyond. Implementation of such a standard is not within the purview of the Project; therefore, the proposed Project would not conflict with this measure.

- *Water Use*

Implementation of all but two of the Recommended Actions related to water use are not within the purview of the proposed Project. The two measures that apply are measures W-1 (Water Use Efficiency) and W-3 (Water System Energy Efficiency). However, because the proposed Project would not exceed the audit threshold of 25,000 MT CO_2 from on-site combustion and related activities, the proposed Project is consistent with and would not obstruct the recommended actions.

- *Industrial Use*

All but one of the Recommended Actions related to industrial use are specific to oil and gas extraction, refining and transmission and are not applicable to the proposed Project. The one other Action I-1 targets large emitters of GHGs (in excess of 0.5 million metric tons (MMT)/year of CO_2e (equivalent)) for auditing. Because the proposed Project would not exceed the audit threshold, the proposed Project is consistent with and would not obstruct the recommended actions.

❑ Consistency with GHG Emission Reduction Strategies Set Forth in the 2006 Climate Action Team (CAT) Report

Table 4.2-6, *Project Compliance with Applicable 2006 CAT Report GHG Emissions Reduction Strategies*, sets forth the emission reduction strategies set forth in the 2006 CAT Report along with an explanation as to how the Project is consistent therewith. Table 4.2-6 also notes whether the strategy is applicable to the Project.

As indicated in Table 4.2-6, the proposed Project would be consistent with or would not conflict with any of the identified CAT strategies. Although implementation of the CAT strategies would reduce GHG emissions to the extent possible, it is not possible to specifically quantify the reduction in GHG that will result from implementation of CAT strategies and programs. However, a project that is consistent with CAT strategies is consistent with the strategies suggested to reduce California's emissions to the levels proposed by Executive Order S-3-05 and AB 32, and therefore would result in a less than significant impact on GCC.

❑ Conclusion

As indicated previously in EIR Subsection 4.2.2, in the absence of an adopted quantitative threshold of significance, and for purposes of analysis within this Subsection, the applicable threshold of significance is whether or not the Project would be consistent with the CARB Scoping Plan and the 2006 CAT Report.

As indicated in the above discussion and analysis, the proposed Project would be consistent with, or otherwise not in conflict with, the CARB Scoping Plan recommended measures and actions and the GHG emission reduction strategies set forth in the 2006 CAT Report. Because the proposed Project would be consistent with both the CARB Scoping Plan and the 2006 CAT Report, Project-related GHG emissions would not be substantial and would not directly or indirectly result in a significant impact on the environment. This conclusion reflects a conservative analysis of Project-related impacts as the analysis presented previously in this subsection does not credit the Project for a reduction of GHG emissions that would result from implementation of Project design features or the mitigation measures specified in EIR Section 4.1, *Air Quality* (which also would serve to reduce Project-related GHG emissions). Therefore, the proposed Project would not result in a significant impact to the environment as a result of Project-related GHG emissions.

In addition, there are currently no plans, policies, or regulations that are applicable to the proposed Project and that have been adopted for the purpose of reducing the emissions of GHGs. Although there are no applicable plans, policies, or regulations that are applicable to the proposed Project, the

Table 4.2-6 Project Compliance with Applicable 2006 CAT Report GHG Emissions Reduction Strategies

Strategy	Remarks
California Air Resource Board	
Vehicle Climate Change Standards AB 1493 (Pavley) required the state to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of climate change emissions emitted by passenger vehicles and light duty trucks. Regulations were adopted by the ARB in September 2004.	The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Other Light Duty Vehicle Technology New standards would be adopted to phase in beginning in the 2017 model.	
Heavy-Duty Vehicle Emission Reduction Measures Increased efficiency in the design of heavy-duty vehicles and an education program for the heavy-duty vehicle sector.	
Diesel Anti-Idling In July 2004, the CARB adopted a measure to limit diesel-fueled commercial motor vehicle idling.	Compliant. Heavy-duty diesel trucks that access the project site will be required to limit idling to no more than five minutes.
Hydrofluorocarbon Reduction 1) Ban retail sale of HFC in small cans; 2) Require that only low GWP refrigerants be used in new vehicular systems; 3) Adopt specifications for new commercial refrigeration; 4) Add refrigerant leak-tightness to the pass criteria for vehicular Inspection and Maintenance programs; 5) Enforce federal ban on releasing HFCs.	The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Transportation Refrigeration Units (TRUs), Off-Road Electrification, Port Electrification Strategies to reduce emissions from TRUs, increase off-road electrification, and increase use of shore-side/port electrification.	The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions. Further, no refrigerated truck units will access the Project site, nor does the Project proposed refrigerated warehousing.
Alternative Fuels: Biodiesel Blends CARB would develop regulations to require the use of 1 to 4 percent biodiesel displacement of California diesel fuel.	The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Reduced Venting and Leaks in Oil and Gas Systems Rule considered for adoption by the Air Pollution Control Districts for improved management practices.	The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Hydrogen Highway The California Hydrogen Highway Network (CA H_2 Net) is a State initiative to promote the use of hydrogen as a means of diversifying the sources of transportation energy.	The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Integrated Waste Management Board	
Achieve 50 percent Statewide Recycling Goal Achieving the State's 50 percent waste diversion mandate as established by the Integrated Waste Management Act of 1989, (AB 939, Sher, Chapter	Compliant. The project is required to comply with the City's Source Reduction and Recycling Element (SRRE). To this end, the Project design includes provisions for tenants

Table 4.2-6 Project Compliance with Applicable 2006 CAT Report GHG Emissions Reduction Strategies (Cont'd)

1095, Statutes of 1989), will reduce climate change emissions associated with energy intensive material extraction and production as well as methane emission from landfills. A diversion rate of 48 percent has been achieved on a statewide basis. Therefore, a 2 percent additional reduction is needed.	to recycle. In accordance with the California Solid Waste Reuse and Recycling Act of 1991 (Cal Pub Res. Code § 42911), the Project would provide adequate areas for collecting and loading recyclable materials where solid waste is collected. The collection areas are required to be shown on construction drawings and be in place before occupancy permits are issued.
Zero Waste - High Recycling Additional recycling beyond the State's 50 percent recycling goal.	
Department of Forestry	
Forest Management Strategies for storing more carbon through forest management activities can involve a range of management activities such as increasing either the growth of individual trees, the overall age of trees prior to harvest, or dedicating land to older age trees.	The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Forest Conservation Conservation projects are designed to minimize/prevent the climate change emissions that are associated with the conversion of forestland to non-forest uses by adding incentives to maintain an undeveloped forest landscape.	The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Fuels Management/Biomass Large, episodic, unnaturally hot fires are an increasing trend on California's wild lands because of decades of fire suppression activities, sustained drought, and increasing insect, disease, and invasive plans infestations. Actions taken to reduce wildfire severity through fuel reduction and biomass development would reduce climate change emissions from wildfire, increase carbon sequestration, replace fossil fuels, and provide significant economic development opportunities.	The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Urban Forestry A new statewide goal of planting 5 million trees in urban areas by 2020 would be achieved through the expansion of local urban forestry programs.	The Project does not involve or propose a formal urban forestry program. Nor has the City adopted or implemented an urban forestry program. Notwithstanding, the Project will construct landscaping improvements, including tree plantings, consistent with the City's landscape design guidelines.
Afforestation/Reforestation Projects Reforestation projects focus on restoring native tree cover on lands that were previously forested and are now covered with other vegetative types.	The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Department of Water Resources	
Water Use Efficiency Approximately 19 percent of all electricity, 30 percent of all natural gas, and 88 million gallons of diesel are used to convey, treat, distribute and use water and wastewater. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions.	Compliant. The Project shall implement U.S. EPA Certified WaterSense labeled or equivalent faucets and high-efficiency toilets (HETs), and implement water-conserving shower heads where applicable.
California Energy Commission (CEC)	
Building Energy Efficiency Standards in Place and in Progress	Compliant. Project will be compliant with incumbent California

Table 4.2-6 Project Compliance with Applicable 2006 CAT Report GHG Emissions Reduction Strategies (Cont'd)

Public Resources Code 25402 authorizes the CEC to adopt and periodically update its building energy efficiency standards (that apply to newly constructed buildings and additions to and alterations to existing buildings).	Code of Regulations, Title 24 (Energy Efficiency Standards for Residential and Nonresidential Buildings).
Appliance Energy Efficiency Standards in Place and in Progress Public Resources Code 25402 authorizes the Energy Commission to adopt and periodically update its appliance energy efficiency standards (that apply to devices and equipment using energy that are sold or offered for sale in California).	Compliant. Appliances purchased for use in the Project will be consistent with all applicable energy efficiency standards.
Fuel-Efficient Replacement Tires & Inflation Programs State legislation (Chapter 912, Statues of 2001) directed the Energy Commission to investigate and to recommend ways to improve fuel efficiency of vehicle tires. The bill established a statewide program to encourage the production and use of more fuel efficient tires.	Not Applicable. The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Cement Manufacturing Cost-effective reductions to reduce energy consumption and to lower carbon dioxide emissions in the cement industry.	Not Applicable. The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Municipal Utility Strategies Includes energy efficiency programs, renewable portfolio standard, combined heat and power, and transitioning away from carbon-intensive generation.	Not Applicable. The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Alternative Fuels: non-Petroleum Fuels Increasing the use of non-petroleum fuels in California's transportation sector, as recommended in the CEC=s 2003 and 2005 Integrated Energy Policy Reports.	Not Applicable. The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Business Transportation and Housing	
Smart Land Use and Intelligent Transportation Systems (ITS) Smart land use strategies encourage jobs/housing proximity, promote transit-oriented development, and encourage high-density residential/commercial development along transit corridors. ITS is the application of advanced technology systems and management strategies to improve operational efficiency of transportation systems and movement of people, goods and services. Governor Schwarzenegger is finalizing a comprehensive 10-year strategic growth plan with the intent of developing ways to promote, through state investments, incentives and technical assistance, land use, and technology strategies that provide for a prosperous economy, social equity, and a quality environment.	Compliant. The Project is proximate to serving transportation corridors, thereby promoting operational efficiencies.

Table 4.2-6 Project Compliance with Applicable 2006 CAT Report GHG Emissions Reduction Strategies (Cont'd)

Measures to Improve Transportation Energy Efficiency Builds on current efforts to provide a framework for expanded and new initiatives including incentives, tools and information that advance cleaner transportation and reduce climate change emissions.	Compliant. The Project promotes transportation efficiencies through its location proximate to serving transportation corridors. Moreover, distribution warehouse uses such as those proposed by the Project act to consolidate regional transport and delivery of goods, thereby reducing VMT within the region, further improving transportation efficiencies. trips
Department of Food and Agriculture	
Conservation tillage/cover crops Conservation tillage and cover crops practices are increasingly being used by California farmers for a variety of reasons, including improved soil tilth, improved water use efficiency, reduced tillage requirements, saving labor and fuel, and reduced fertilizer inputs.	The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Enteric Fermentation Cattle emit methane from digestion processes. Changes in diet could result in a reduction in emissions.	Not Applicable. The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
State and Consumer Services Agency	Not Applicable.
Green Buildings Initiative Green Building Executive Order, S-20-04 (CA 2004), sets a goal of reducing energy use in public and private buildings by 20 percent by the year 2015, as compared with 2003 levels.	Compliant. The Project will meet or surpass Title 24 Energy Efficiency standards, acting to reduce area source GHG emissions. Further, State mandated programs (Pavely et al.) will act to substantively reduce mobile-source GHG emissions. Additionally, the Project is required to comply with the mandatory provisions of the California Green Building Standards Code (CALGreen) pursuant to the California Code of Regulations, Title 24, which became effective on January 1, 2011.
Public Utilities Commission (PUC)	
Accelerated Renewable Portfolio Standard The Governor has set a goal of achieving 33 percent renewables in the State's resource mix by 2020. The joint PUC/Energy Commission September 2005 Energy Action Plan II (EAP II) adopts the 33 percent goal.	Not Applicable. The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
California Solar Initiative Installation of 1 million solar roofs or an equivalent 3,000 MW by 2017 on homes and businesses; increased use of solar thermal systems to offset the increasing demand for natural gas; use of advanced metering in solar applications; and creation of a funding source that can provide rebates over 10 years through a declining incentive schedule.	Compliant. Project buildings will be designed to accommodate renewable energy sources, such as photovoltaic solar energy systems as is economically and physically feasible.
Investor-Owned Utility This strategy includes energy efficiency programs, combined heat and power initiative, and electricity sector carbon policy for investor owned utility.	Not Applicable. The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.

Source: State of California, Environmental Protection Agency, Climate Action Team, 2006.

Project would nonetheless be consistent with the CARB Scoping Plan and the 2006 CAT Report strategies for reducing GHG emissions. Therefore, the proposed Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and a significant impact would not occur.

4.2.4 CUMULATIVE IMPACT ANALYSIS

GCC occurs as the result of global emissions of GHGs. An individual project proposal does not have the potential to result in significant GCC-related effects in the absence of cumulative sources of GHGs. The CEQA Guidelines also emphasize that the effects of GHG emissions are cumulative, and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis (See CEQA Guidelines §15130[f]).

Accordingly, the Project-specific impact analysis provided above in Subsection 4.2.3 reflects a cumulative impact analysis of the Project's GHG emissions, and concludes that because the proposed Project would comply with all applicable GHG-reduction strategies set forth by the CARB Scoping Plan and 2006 CAT Report, the proposed Project's GHG emissions would not be cumulatively considerable. In addition, the analysis in EIR Subsection 4.2.3 demonstrates that the proposed Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHGs. Therefore, Project-related emissions of GHGs would be less than significant on both a direct and cumulative basis.

4.2.5 APPLICABLE PROJECT REQUIREMENTS

PR 4.2-1 The Project is required to comply with mandatory regulatory requirements imposed by the State of California and the SCAQMD aimed at the reduction of air quality emissions. Those that are applicable to the Project and that would assist in the reduction of Project-related GHG emissions include, but are not limited to the following:

a) Global Warming Solutions Act of 2006 (AB32).

b) Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies (SB 375).

c) Pavely Fuel Efficiency Standards (AB1493), which establishes fuel efficiency ratings for new vehicles.

d) California Code of Regulations Title 13, Division 3 addressing diesel exhaust emissions. Specifically, Chapter 1, Article 4.5, §2025, "Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles" and Chapter 10, Article 1, §2485, "Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling."

e) California Code of Regulations Title 24 (California Building Code), which establishes energy efficiency requirements for new construction.

f) California Code of Regulations Title 20 (Appliance Energy Efficiency Standards), which establishes energy efficiency requirements for appliances.

g) Title 17 California Code of Regulations (Low Carbon Fuel Standard). Requires carbon content of fuel sold in California to be 10% less by 2020.

h) California Water Conservation in Landscaping Act of 2006 (AB1881), which requires local agencies to adopt the Department of Water Resources updated Water Efficient Landscape Ordinance or equivalent by January 1, 2010 to ensure efficient landscapes in new development and reduced water waste in existing landscapes.

i) Statewide Retail Provider Emissions Performance Standards (SB 1368), requiring energy generators to achieve performance standards for GHG emissions.

j) Renewable Portfolio Standards (SB 1078). Requires electric corporations to increase the amount of energy obtained from eligible renewable energy resources to 20 percent by 2010 and 33 percent by 2020

k) South Coast Air Quality Management District Rule 1118 "PM10 Emissions from Paved and Unpaved Roads, and Livestock Operations," and Rule 1186.1 "Less Polluting Street Sweepers."

PR 4.2-2 The Project will provide on-site bicycle storage pursuant to City of Moreno Valley Municipal Code §9.11.060.B, Off-Street Bicycle Parking Requirements.

PR 4.2-3 The Project will comply with all applicable provisions of the City of Moreno Valley Municipal Code Chapter 6.02 "Refuse Collection, Transfer and Disposal" and Chapter 8.80 "Recycling and Diversion of Construction and Demolition Waste."

4.2.6 SIGNIFICANCE OF IMPACTS PRIOR TO MITIGATION

Thresholds 1 and 2: Less than Significant Impact. The proposed Project would not generate GHG emissions, either directly or indirectly, in quantities that may have a direct or cumulatively considerable significant impact on the environment. In addition, the proposed Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

4.2.7 MITIGATION MEASURES

Impacts would not be significant; therefore, mitigation measures are not required. Regardless, to ensure that the Project will comply with applicable GHG emission reduction strategies specified in California's 2006 Climate Action Team report, the following mitigation measures are recommended.

MM 4.2-1	Prior to the approval of building permits, the City shall review the building plans to ensure that the building's mechanical/electrical/plumbing (MEP) plans specify the installation of U.S. EPA Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and water-conserving shower heads (if showers are proposed).
MM 4.2-2	Prior to the approval of building permits, the City shall review the building plans to ensure that the building's roof is structurally designed to accommodate the future addition of photovoltaic solar panels.

4.3 NOISE

The following analysis is based on a technical noise study prepared by Urban Crossroads, Inc. entitled "First Industrial Logistics II Noise Impact Analysis, City of Moreno Valley, California," dated October 31, 2012, and included as *Technical Appendix E* to this EIR. The report considers potential noise impacts associated with construction and operation of the proposed Project.

4.3.1 EXISTING CONDITIONS

A. *Study Area Description*

The Project site is located in the City of Moreno Valley. The Project Applicant is proposing a high cube industrial warehouse building containing 400,130 square feet of interior building space located on the northwest corner of Perris Boulevard and Nandina Avenue. Existing development near the Project site contains a mix of single-family residential, industrial, office, and warehouse land uses as previously described in EIR Section 2.0, *Environmental Setting*. The March Air Reserve Base is located approximately 0.9-mile west of the Project site. The locations of the nearest sensitive receptors to the Project site are depicted on Figure 4.3-1, *Off-Site Noise Sensitive Receptors.*

B. *Noise Fundamentals*

☐ Noise Definitions

Noise is simply defined as "unwanted sound." Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm, or when it has adverse effects on health. Because the range of sound that the human ear can detect is so large, the scale used to measure sound intensity is based on multiples of 10, the logarithmic scale. The unit of measure in which a sound intensity is described is the decibel (dB). Each interval of 10 dB indicates a sound energy 10 times greater than before, which is perceived by the human ear as being roughly twice as loud. A-weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise sources by discriminating against very low and very high frequencies of the audible spectrum; dBA is adjusted to reflect only those frequencies which are audible to the human ear. (Urban Crossroads, 2012d, p. 4)

The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at three feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA at approximately 100 feet (Urban Crossroads, 2012d, p. 4). Figure 4.3-2, *Typical Noise Levels and Their Subjective Loudness and Effects,* presents a summary of typical noise levels and their subjective loudness and effects.

Environmental noise descriptors are generally based on averages, rather than instantaneous noise levels. The most commonly used figure is the equivalent level (Leq.). Leq. represents a steady sound level containing the same total energy as a time-varying level over a given measurement interval. Leq. may represent any desired length of time; however, one hour is the most commonly used in environmental work. (Urban Crossroads, 2012d, p. 4).

Peak hour noise levels, while useful, do not completely describe a given noise environment. Noise levels lower than peak hour levels may be disturbing if they occur during times when quiet is most desirable, namely evening and nighttime (sleeping) hours. To account for this, the Community Noise Equivalent Level (CNEL), representing a composite 24 hour noise level, is utilized (Urban Crossroads, 2012d, p. 4).

The CNEL is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time of day corrections require the addition of five (5) dB to sound levels in the evening from 7 p.m. to 10 p.m., and the addition of 10 dB to sound levels at night between 10 p.m. and 7 a.m. These additions are made to account for the noise sensitive time periods during the evening and nighttime hours when sound appears louder. CNEL does not represent the actual sound level heard at any particular time, but rather represents the total sound exposure (Urban Crossroads, 2012d, p. 4).

❑ Effects of Noise

Harmful effects of noise can include speech interference, sleep disruption, and loss of hearing. High background noise levels can affect performance and learning processes through: distraction; reduced accuracy; increased fatigue, annoyance, and irritability; the inability to concentrate; and sleep prevention. Several factors determine whether a particular noise will interfere with sleep. These factors include the noise level and characteristics, the stage of sleep, the individual's age, and motivation to waken.

Approximately 10% of the population has a very low tolerance for noise and will object to any noise not of their own making. Consequently, even in the quietest environment, some complaints will occur. Another 25% of the population will not complain even in very severe noise environments. Thus, a variety of reactions can be expected from people exposed to any given noise environment. Despite this variability in behavior on an individual level, the population as a whole can be expected to exhibit the following responses to changes in noise levels. An increase or decrease of 1.0 dBA cannot be perceived except in carefully controlled laboratory experiments, a change of 3.0 dBA may be perceptible, and a change of 5 dBA is often necessary before any noticeable change in community response (i.e. complaints) would be expected (Urban Crossroads, 2012d, p. 7).

❑ Traffic Noise Prediction

According to the *Highway Traffic Noise Analysis and Abatement Policy and Guidance* provided by the Federal Highway Administration, the level of traffic noise depends on three primary factors: (1) the volume of the traffic, (2) the speed of the traffic, and (3) the vehicle mix within the flow of traffic. Generally, the loudness of traffic noise is increased by heavier traffic volumes, higher speeds, and a greater number of trucks. A doubling of the traffic volume, assuming that the speed and vehicle mix do not change, results in a noise level increase of 3 dBA. The vehicle mix on a given roadway may also have an effect on community noise levels. As the number of medium and heavy trucks increases and becomes a larger percentage of the vehicle mix, adjacent noise level impacts will increase. Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires on the roadway (Urban Crossroads, 2012d, p. 6).

❑ Ground Absorption of Noise

To account for the ground-effect attenuation (absorption) of noise, two types of site conditions are commonly used in traffic noise models: soft site and hard site conditions. Soft site conditions account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation. A drop-off rate of 4.5 dBA per doubling of distance is typically observed over soft ground with landscaping, as compared with a 3.0 dBA drop-off rate over hard ground such as asphalt, concrete, stone, and very hard packed earth. Caltrans research has shown that the use of soft site conditions is more appropriate for the application of the FHWA traffic noise prediction model used in this analysis (Urban Crossroads, 2012d, p. 6).

❑ Noise Control and Noise Barrier Attenuation

Noise control is the process of obtaining an acceptable noise environment for a particular observation point or receptor by controlling the noise source, transmission path, receptor, or all three. This concept is known as the source-path-receptor concept. In general, noise control measures can be applied to any and all of these three elements (Urban Crossroads, 2012d, p. 6).

Effective noise barriers can reduce noise levels by 10 to 15 dBA, cutting the loudness of traffic noise in half. A noise barrier is most effective when placed close to the noise source or receptor. Noise barriers, however, do have limitations. For a noise barrier to work, it must be high enough and long enough to block the view of the noise source (Urban Crossroads, 2012d, p. 6).

❑ Land Use Compatibility

Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches, and residences are considered to be more sensitive to noise intrusion than are commercial or industrial activities. Ambient noise levels can also affect the perceived desirability or livability of a development. For these reasons, land use compatibility with the noise environment is an important consideration in the planning and design process (Urban Crossroads, 2012d, p. 7).

C. Noise Analysis Methodology

❑ 24-Hour Noise Readings

Mobile, or transportation-related noise impacts, are measured using the 24-hour CNEL to assess the land use compatibility for community noise exposure. 24-hour noise readings for the Project were recorded by Urban Crossroads, Inc. on Thursday, October 25th, 2012 using five (5) Quest DL Pro data logging Type 2 noise dosimeters. All noise meters were programmed in "fast" mode to record noise levels in A-weighted form. The sound level meters and microphone were equipped with a widescreen during all measurements (Urban Crossroads, 2012d, p. 12).

❑ Construction Equipment Reference Noise Levels

In January 2006, the Federal Highway Administration (FHWA) published a national database of construction equipment reference noise emission levels. The database provides a comprehensive list of the noise generating characteristics for specific types of construction equipment. In addition, the database provides an acoustical usage factor to estimate the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation (Urban Crossroads, 2012d, p. 33).

Noise levels generated by heavy construction equipment can range from approximately 70 dBA to noise levels in excess of 100 dBA when measured at 50 feet. These noise levels diminish with distance from the construction site at a rate of 6 dBA per doubling of distance. For example, a noise level of 78 dBA measured at 50 feet from the noise source to the receptor would be reduced to 72 dBA at 100 feet from the source to the receptor, and would be further reduced to 66 dBA at 200 feet from the source to the receptor (Urban Crossroads, 2012d, pp. 33-34).

☐ FHWA Traffic Noise Prediction Model and Model Inputs

Future roadway noise impacts from vehicular traffic were projected using a computer program that replicates the FHWA and Model Inputs Traffic Noise Prediction Model- FHWA-RD-77-108 (the "FHWA Model"). The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). Adjustments are then made to the REMEL to account for the roadway classification (e.g., collector, secondary, major, or arterial), the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), the total average daily traffic (ADT), the travel speed, the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume, the roadway grade, the angle of view (e.g., whether the roadway view is blocked), the site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping), and the percentage of total ADT which flows each hour throughout a 24-hour period (Urban Crossroads, 2012d, p. 16)

Table 4.3-1, *Off –Site Road Parameters*, presents the FHWA Model roadway parameters used by Urban Crossroads, Inc. in the noise analysis. Per the recommendation of Caltrans, soft site conditions were used to develop the noise contours to analyze the traffic noise conditions in the study area. The Existing average daily traffic (ADT) volumes are derived from the First Inland Logistics II Traffic Impact Analysis (*Technical Appendix F*).

Table 4.3-2, Hourly Traffic Flow Distribution1, presents the hourly traffic flow distributions (vehicle mix) used for the noise analysis (which is reflective of the vehicle mix required by the California Department of Public Health). The vehicle mix provides the hourly distribution percentages of automobile, medium trucks, and heavy trucks for input into the FHWA Model (Urban Crossroads, 2012d, p. 16).

D. Existing Noise Conditions

To determine the existing noise level environment, five (5) long-term 24-hour measurements were taken in the Project study area. Figure 4.3-3, *Noise Measurement Locations*, shows the location of the Project site and the noise level measurement locations (locations L1 through L5). The noise level measurements were recorded by Urban Crossroads, Inc. on Thursday, October 25th, 2012, representing the typical ambient noise environment for the study area (Urban Crossroads, 2012d, p. 12). The results of the noise level measurements are presented in Table 4.3-3, *Long-Term (Ambient) Noise Level Measurements*, and are summarized below.

- Site L1 is located near the southern property line of the residential tract to the north of the Project site, approximately 85 feet east of Perris Boulevard and 165 feet north of Rivard Road. The hourly noise levels at Site L1 range from 58.8 to 63.0 dBA Leq and produce a 24-hour CNEL noise level of 64.7 dBA CNEL.

- Site L2 is located next to a house roughly 100 feet north of the Project boundary along San Michele Road and 660 feet west of Perris Boulevard. The hourly noise levels at Site L2 range from 53.5 to 55.9 dBA Leq and produce a 24-hour CNEL noise level of 61.7 dBA CNEL.

- Site L3 is located approximately 140 feet east of the Project boundary on the southeast corner of Perris Boulevard and Modular Way. The hourly noise levels at Site L3 range from 58.8 to 62.3 dBA Leq and produce a 24-hour CNEL noise level of 66.9 dBA CNEL.

- Site L4 is located near a house approximately 100 feet south of the Project boundary along Nandina Avenue and 760 feet west of Perris Boulevard. The hourly noise levels at Site L4 range from 53.6 to 56.1 dBA Leq and produce a 24-hour CNEL noise level of 61.4 dBA CNEL.

- Site L5 is located on the proposed east Project driveway 140 feet west of Perris Boulevard and 325 feet south of Modular Way. The hourly noise levels at Site L5 range from 54.2 to 58.4 dBA Leq and produce a 24-hour CNEL noise level of 62.6 dBA CNEL.

The results of the noise level measurements show that the ambient noise levels in the study area near Perris Boulevard currently exceed the City of Moreno Valley transportation related exterior noise levels of 65 dBA CNEL for noise-sensitive receptors (Urban Crossroads, 2012d, p. 14).

❑ Existing Noise Contours

Existing CNEL noise contours are shown for the 55, 60, 65, and 70 dBA noise levels in Table 4.3-4, *Existing Without Project Conditions Noise Contours*. Noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway. The noise contours do not take into account the effect of any existing noise barriers or topography that may affect ambient noise levels.

❑ Existing Vibration

Groundbourne vibration is usually localized to areas within about 100 feet from the vibration source. There are no existing sources of groundborne vibration (such as a railroad line) on or within 100 feet of the Project site.

E. Existing Noise Standards (Policies and Regulations)

Local noise guidelines are often based on the broader guidelines established by state and federal agencies. Following is a description of the existing noise regulatory setting for the proposed Project because a majority of the Project's traffic distribution (and associated vehicular noise) is projected to route through the City of Moreno Valley and the City of Perris, the noise criteria for the City of Moreno Valley and City of Perris are presented below.

❑ California Office of Planning and Research General Plan Guidelines

The City of Moreno Valley General Plan does not include any standards for measuring impacts associated with traffic noise. Rather, noise is considered in the Environmental Safety section of the General Plan Safety Element. While the General Plan provides background and noise fundamentals, it does not identify criteria to assess the impacts associated with off-site transportation related noise impacts. Therefore, for purposes of evaluating traffic-related noise impacts within the City of Moreno Valley, the analysis in this EIR instead relies on the noise criteria derived from the standards provided in the General Plan Guidelines, a publication of the California Office of Planning and Research. These standards are used by many California cities and counties and specify the maximum noise levels allowable for new developments. A copy of the General Plan Guidelines is provided as Appendix 3.2 to the Project's Noise Impact Analysis (see *Technical Appendix* E) (Urban Crossroads, 2012d, p. 3.2).

The purpose of the transportation noise criteria is to protect, create, and maintain an environment free from noise and vibration that may jeopardize the health or welfare of sensitive receptors, or degrade quality of life. For the nearby noise sensitive areas, the exterior noise levels should remain below 65 dBA CNEL and for interior areas the noise levels should remain below 45 dBA CNEL. For purposes of analysis within this section, the closest noise sensitive uses within the Project's study area are shown on Figure 4.3-1.

☐ City of Moreno Valley Noise Ordinance

The Noise Ordinance included in Chapter 11.80 of the City of Moreno Valley's Municipal Code provides performance standards and noise control guidelines for determining and mitigating non-transportation or stationary noise source impacts.

Section 11.80.030.C, *Nonimpulsive Sound Decibel Limits*, provides the following restriction:

> *No person shall maintain, create, operate or cause to be operated on private property any source of sound in such a manner as to create any nonimpulsive sound which exceeds the limits set forth for the source land use category (as defined in Section 11.80.020) in Table 11.80.030-2 when measured at a distance of two hundred (200) feet or more from the real property line of the source of the sound, if the sound occurs on privately owned property, or from the source of the sound, if the sound occurs on public right-of-way, public space or other publicly owned property. Any source of sound in violation of this subsection shall be deemed prima facie to be a noise disturbance. (Moreno Valley n.d. Section 11.80.030.C)*

Table 11.80.030-2 of the City's Noise Ordinance, Max*imum Sound Levels (in dBA) For Source Land Uses*, shows that the daytime and nighttime standards for commercial uses (including the logistics center/warehouse uses proposed by the Project) are 65 dBA and 60 dBA, respectively (Moreno Valley Municipal Code Table 11.80.030-2).

The City of Moreno Valley also has established exterior noise limits to control noise impacts associated with construction activities. Noise Ordinance Section 11.80.030.D.7, *Construction and Demolitions*, states: "No person shall operate or cause operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between the hours of eight p.m. and seven a.m. the following day such that the sound there from creates a noise disturbance, except for emergency work by public service utilities or for other work approved by the city manager or designee" (Moreno Valley Municipal Code Section 11.80.030.D.7).

❑ City of Perris General Plan Noise Element

The City of Perris General Plan standards also are derived from standards contained in the General Plan Guidelines, a publication of the California Office of Planning and Research. The Noise Element includes standards for land use compatibility for community noise exposure. Goal 1 of the City's Noise Element requires that the State of California Noise/Land Use Compatibility Criteria shall be used in determining land use compatibility for new development. At different exterior noise levels, individual land uses are identified as "normally acceptable," "conditionally acceptable," "normally unacceptable," and "clearly unacceptable." The City of Perris General Plan's Land Use/Noise Compatibility Guidelines, which are presented as General Plan Exhibit N-1, are designed to ensure noise compatibility of proposed land uses with the predicted future noise environment and illustrate the ranges of allowable exterior noise levels for various land uses based on the 2003 State of California General Plan Guidelines (Perris, City of 2005).

The City of Perris utilizes the CNEL scale as the criterion for assessing the compatibility of residential land uses with transportation related noise sources. For noise sensitive uses such as residential uses, the exterior noise level standard is 65 dBA CNEL and the interior noise standard is 45 dBA CNEL. Commercial uses are not considered noise sensitive uses and are evaluated with respect to the Noise/Land Use Compatibility Criteria that defines an ambient noise level ranging from 65 dBA CNEL to 75 dBA CNEL as conditionally acceptable (Perris, City of 2005).

4.3.2 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to noise if the Project or any Project-related component would:

1. *Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;*

2. *Expose persons to or generate excessive groundborne vibration or groundborne noise levels;*

3. *Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;*

4. *Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;*

5. *For a project located within an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels; or*

6. *For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.*

❑ Community Noise Assessment Criteria

While the CEQA Guidelines, City of Moreno Valley and City of Perris noise standards provide direction on noise compatibility and establish noise standards by land use type, they do not define the levels at which increases above the ambient noise levels are considered substantial. However, the

FHWA and Caltrans both identify changes in noise levels of greater than 3 dBA as "barely perceptible," while changes of 5 dBA are considered "readily perceptible" (Urban Crossroads, 2012d, p. 10).

In a community situation, the noise exposure is extended over a long time period, and changes in noise levels occur over years rather than the immediate comparison made in a laboratory situation. The level at which changes in community noise levels become discernible is likely to be some value greater than 1 dBA, and 3 dBA appears to be appropriate for most people (Urban Crossroads, 2012d, p. 10). On this basis, and for the purposes of the proposed Project's noise analysis, a substantial increase in noise levels attributable to operations of the Project would occur:

- If ambient conditions are below applicable standards, and Project-generated noise at receptor land uses would result in:
    - An exceedance of the suggested land uses/noise compatibility guidelines for surface transportation sources presented in the long range plans of the City of Moreno Valley or City of Perris (mobile sources); or
    - An exceedance of the exterior noise standards defined in the City of Moreno Valley Noise Ordinance (area/stationary sources);
- If ambient noise conditions exceed applicable Noise Ordinance Standards and Project-generated noise would create a "barely perceptible" 3 dBA or greater permanent increase in ambient exterior noise levels.
- If noise resulting from Project-related construction activities exceeds the City of Moreno Valley Noise Ordinance.

4.3.3 IMPACT ANALYSIS

Threshold 1: ***Would the proposed Project expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?***

Threshold 3: ***Would the proposed Project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?***

Threshold 4: ***Would the proposed Project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?***

A. Short-Term Construction Noise Impacts

Construction activities associated with the Project, especially those involving heavy equipment, would initially create short-term noise increases in the vicinity of the Project site, representing a short-term effect on ambient noise levels. Noise generated by construction equipment, including trucks, power tools, concrete mixers and portable generators can reach high levels. Project construction is expected to occur in six (6) stages: demolition, site preparation, grading, building construction, paving, and architectural coating. Grading activities typically represent one of the highest potential sources for noise impacts.

Table 4.3-5, *Demolition Construction Noise Levels1*, shows that during the short-term demolition stage of construction, the exterior noise levels at a distance of 200 feet are estimated at 74.4 dBA Leq. Table 4.3-6, *Site Preparation Noise Levels1*, shows that during the short-term site preparation stage of construction, exterior noise levels at a distance of 200 feet are estimated at 87.1 dBA Leq. Noise level impacts associated with the grading work would result in construction related noise levels of 87.8 dBA Leq. at a distance of 200 feet as shown on Table 4.3-7, *Grading Construction Noise Levels1*. Building construction activity would result in noise level impacts from heavy equipment that would be operational during the physical building construction. Table 4.3-8, *Building Construction Noise Levels1*, shows that during the short-tern building construction stage of construction, noise levels are estimated at 83.3 dBA Leq. at a distance of 200 feet. Paving activities include the movement of any remaining material as well as necessary curb and gutter work, road base material placement and blacktop. Table 4.3-9, *Paving Construction Noise Levels1*, shows that during the short-term paving stage of construction, noise levels at nearby noise sensitive uses are estimated at 80.9 dBA Leq. at a distance of 200 feet. Table 4.3-10, *Architectural Coating Noise Levels1*, shows that during the short-term architectural coating stage of construction, noise levels at a distance of 200 feet are estimated at 74.0 dBA Leq.

The City of Moreno Valley Municipal Code does not specifically address construction noise; however, it does provide noise level limits for the source land use category when measured at a distance of 200 feet. Because the source land use is other than residential, the 65 dBA Leq. at a distance of 200 feet is used as the limit for this analysis to assess the Project construction noise level impacts. As shown in Table 4.3-5 through Table 4.3-10, the six (6) phases of construction related noise levels, the noise impacts associated with the proposed Project are expected to create temporary noise impacts at receptors surrounding the Project site when certain activities occur near the Project property line. Though construction noise is temporary, intermittent and of short duration, the Project's construction would create a significant noise impact because noise levels in excess of 65dBA Leq would occur beyond 200 feet of the property line.

B. Long-Term Operational Noise Impacts

☐ Transportation-Related Noise Impacts

Generally, traffic noise impacts are analyzed both to ensure that a project would not adversely impact the acoustic environment of the surrounding community and also to ensure that a project site is not exposed to an unacceptable level of noise resulting from the ambient noise environment acting upon the property. The proposed Project would consist of a high cube industrial warehouse building and is not considered to be sensitive to noise exposure.

To assess the off-site long-term transportation CNEL noise level impacts associated with development of the proposed Project, noise contours were developed based on the First Inland Logistics II Traffic Impact Analysis (*Technical Appendix F* to this EIR). Noise contour boundaries represent the equal levels of noise exposure and are measured in CNEL from the center of the roadway. Traffic noise contour boundaries are typically measured at distances of 100 feet from a roadway centerline. Noise contours were developed for four (4) scenarios: Existing Without Project, Existing With Project, Year (2017) Without Project, and Year (2017) With Project.

Noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway for the 70, 65, 60 and 55 dBA noise levels. The distance from the centerline of the roadway to the CNEL contour boundaries for roadways in the proposed Project's vicinity are presented in Table 4.3-4, Table 4.3-11, *Existing With Project Conditions Noise Contours*, Table 4.3-12, *Year 2017 Without Project Conditions Noise Contours*, and Table 4.3-13, *Year 2017 With Project Conditions Noise Contours*. Noise contours do not take into account the effect of any existing noise barriers or topography that may affect ambient noise levels.

Table 4.3-14, *Existing Off-Site Project Related Traffic Noise Impacts*, presents a comparison of existing without and with Project conditions CNEL noise levels. Table 4.3-11 identifies that the unattenuated exterior noise levels range from 41.9 to 67.3 dBA CNEL at 100 feet from each roadway’s centerline. As shown on Table 4.3-14, the Project would generate an unmitigated exterior noise level increase ranging from 0.0 dBA CNEL to 1.6 dBA CNEL. Based on the thresholds of significance, the proposed Project would have a less than significant off-site traffic noise level impact on the study area roadway segments for existing conditions.

Table 4.3-15, *Year 2017 Off-Site Project Related Traffic Noise Impacts*, presents a comparison of the Year 2017 without and with Project conditions CNEL noise levels. Table 4.3-12 identifies the unattenuated exterior noise levels range from 42.5 to 69.4 dBA CNEL at 100 feet from each roadway’s centerline. As shown on Table 4.3-15 the Project would generate an unmitigated exterior noise level increase ranging from 0.0 dBA CNEL to 0.6 dBA CNEL. Based on the thresholds of significance, the proposed Project would have a less than significant off-site traffic noise level impact on the study area roadway segments for Year 2017 conditions.

In summary, long-term operation of the proposed Project would not cause a temporary or periodic noise impact associated with vehicular noise. Furthermore, applying the thresholds of significance, the Project would generate a less than significant off-site traffic noise level impact on the study area roadway segments; therefore, no mitigation is required.

☐ Stationary Noise Impacts

The proposed Project would include a 400,130 square foot high cube industrial warehouse building. Stationary noise impacts associated with operation of the Project would include idling trucks, delivery truck activities, and roof-top air conditioning units. The projected noise levels used for analysis assume the worst-case noise environment with the idling trucks, delivery truck activities, and roof-top air conditioning units all operating simultaneously. In reality, these noise levels would vary throughout the day.

○ *Loading Dock Activities*

In order to evaluate the noise impacts associated with tractor trailer (truck) unloading/loading activities, reference noise level measurements were taken at a large commercial center located at the intersection of Goldenwest Street and Edinger Avenue in Huntington Beach, CA by Urban Crossroads, Inc. on April 14, 2011. The primary noises generated by tractor trailer unloading is the noise of the truck arriving, backing into the dock area, detaching the cab, attaching the cab to the empty trailer, and exiting the loading dock. The noise level was measured at 77.3 dBA Leq. at a distance of 20 feet from the tractor trailer (Urban Crossroads, 2012d, p. 30).

- *Truck Pass-By*

In order to evaluate the noise impacts associated with truck (tractor trailer) pass-bys, reference noise level measurements were taken at a large commercial center located at the intersection of Goldenwest Street and Edinger Avenue in Huntington Beach, CA by Urban Crossroads, Inc. on April 14, 2011. The measurement included the exiting of the tractor trailer. The noise level was measured at 69.5 dBA Leq. at a distance of 30 feet from the tractor trailer (Urban Crossroads, 2012d, p. 30).

- *Air Condenser Units*

Rooftop mechanical ventilation units are proposed to be installed on the industrial building proposed within the Project site. To assess the mechanical ventilation system (packaged heat pump) noise impacts, typical outdoor sound power levels were provided by Trane (a manufacturer of HVAC systems). The noise ratings provided by Trane indicate that the packaged heat pumps of an air conditioning unit will produce noise levels ranging from 75 to 82 dBA when measured at a distance of three (3) feet (Urban Crossroads, 2012d, p. 30).

To predict the worst-case future noise environment, a continuous noise level of 73 dBA at 10 feet was used to represent the roof-top mechanical ventilation system. The type of air conditioning unit that would be used for the Project's buildings is designed to provide cooling during the peak summer daytime periods, so it is unlikely that all units would operate continuously throughout the noise sensitive nighttime periods. Even though the mechanical ventilation system will cycle on and off throughout the day, this approach presents the worst-case noise condition (Urban Crossroads, 2012d, p. 30).

- *Project-Related Stationary Source Noise Impacts*

Based upon the reference noise levels provided on Table 4.3-16, *Reference Noise Level Measurements1*, it is possible to estimate the stationary source noise levels from the proposed Project at a distance 200 feet from the property line, which allows for a comparison with the noise standards provided in the City of Moreno Valley Noise Ordinance. Noise level projections were calculated based on the Project's site plan (described in EIR Section 3.0) showing the spatial relationship between the potential on-site noise sources and the closest property line. Table 4.3-17, *Project Only Stationary Source Impact Noise Level Projections*, presents the unmitigated exterior noise levels associated with the proposed Project at a distance of 200 feet from the property line. As shown in Table 4.3-17, the unmitigated hourly noise levels are expected to range from 31.4 to 53.0 dBA Leq. The expected operational noise level impacts associated with the Project are below the daytime and nighttime exterior noise level standards for commercial uses of 65 dBA Leq. and 60 dBA Leq., respectively. Therefore, the Project would create a less than significant stationary source noise level impact.

Threshold 2: Would the proposed Project expose persons to or generate excessive groundborne vibration or groundborne noise levels?

The Project would not generate groundborne vibration, except for the potential for vibration to occur during the construction phase from the use of large construction equipment. According to the *Transportation and Construction-Induced Vibration Guidance Manual* prepared for Caltrans, ground-borne vibration from construction activities and equipment such as D-8 and D-9 Caterpillars bulldozers, earthmovers, and haul trucks at distances of 10 feet do not create vibration amplitudes that cause structural damage to nearby structures. The proposed Project is not expected to employ any pile driving or rock blasting equipment during construction activities, and because the nearest receivers are located over 50 feet from the nearest point of construction activities, impacts from groundborne vibration during near-term construction would be less than significant (Urban Crossroads, 2012d, pp. 40-42)

Long-term operational activities at the proposed Project site will not include nor require equipment, facilities, or activities that would result in perceptible groundborne vibrations, thus long-term operation of the Projection would create no groundborne impacts.

Threshold 5: ***For a project located within an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the proposed Project expose people residing or working in the project area to excessive noise levels?***

Threshold 6: ***For a project within the vicinity of a private airstrip, would the proposed Project expose people residing or working in the project area to excessive noise levels?***

The Project site is located approximately 0.9-mile east of March Air Reserve Base. According to the *Air Installation Compatible Use Zone Study for March Air Reserve Base* (Department of the Air Force, 2005), and as presented in Figure 4.3-4, *March Reserve Air Base Noise Contours*, the Project site is located outside of the 60 dBA CNEL noise contour. According to the California Division of Aeronautics Noise Standards (California Code of Regulations, Title 21, Section 5000 et. seq.), a noise level of 65 dBA CNEL is considered the "…level of noise acceptable to a reasonable person residing in the vicinity of an airport." Residential land uses are considered more sensitive to noise than the logistics center/warehouse distribution uses proposed by the Project. Aircraft operations would not, therefore, expose people on the Project site to noise levels in excess of 65 dBA CNEL and impacts would be less than significant.

Although the Project site is located near the March Air Reserve Base, this airfield is not a private airfield and there are no other private airfields or airstrips in the vicinity of the Project site. In addition, a private airstrip is not proposed as part of the Project. Therefore, the proposed Project would not expose people to excessive noise levels associated with operations at a private airstrip or helipad; no impacts would result from excessive noise generated by a private airstrip. There would be no impact.

4.3.4 CUMULATIVE IMPACT ANALYSIS

❑ Substantial Noise Increase or Violations (Thresholds 1, 3, and 4)

A. Near-Term Cumulative Construction-Related Noise Impacts

During Project construction, noise levels produced by construction equipment would exceed the City of Moreno Valley's Noise Ordinance. The peak noise level anticipated during construction activities would occur during mass grading of the site, which would result in Project-related noise levels of 87.8 dBA Leq at a distance of 200 feet from the noise source, whereas the Noise Ordinance specifies 65 dBA Leq at a distance of 200 feet. Sensitive noise receptors located between the Project site boundary and approximately 2,774 feet from boundary would experience noise levels during daytime hours above 65 dBA Leq at some point during construction activities, assuming a clear line-of-site condition. It is not possible to construct the Project and impose any feasible mitigation measures to reduce construction noise to below 65 dBA Leq at a distance of 200 feet from the property boundary.

As indicated previously in EIR Subsection 2.3, some of the properties located in the immediate vicinity of the Project site are vacant or contain non-conforming uses and are anticipated to develop with industrial and warehouse uses consistent with their General Plan land use and zoning designations. In the event that construction activities occur on any properties surrounding the site simultaneous with Project-related construction activities, and that also contribute construction noise to sensitive receptors within 2,774 feet of the Project boundary, a cumulative impact would occur and the Project's construction-related noise contribution to the overall noise level would be cumulatively considerable. Such noise level increases would represent a cumulatively considerable substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project. Because construction noise would be temporary in nature, Project construction activities would not result in a cumulatively considerable substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.

B. Long-Term Cumulative Operational Noise Impacts

Table 4.3-15, *Year 2017 Off-Site Project Related Traffic Noise Impacts*, presents a comparison of the Year 2017 without and with Project conditions CNEL noise levels along roadway segments in the Project's study area. Table 4.3-12 identifies that un-attenuated exterior noise levels range from 42.5 to 69.4 dBA CNEL at 100 feet from each roadway's centerline. Noise levels at 100 feet without the Project that exceed 65 dBA CNEL (the standard for noise-sensitive uses) would occur on Harley Knox Boulevard from west of I-215 to west of Indian Street, on Indian Street between Nandina Avenue and Harley Knox Boulevard, and on Perris Boulevard between San Michelle Road and Nandina Avenue. Along Harley Knox Boulevard, the Project's contribution is 0.1 dBA CNEL. Along Indian Street the Project's contribution is 0.2 dBA CNEL. And, along Perris Boulevard the Project's contribution is 0.0 dBA CNEL. Because there are no sensitive noise receptors located or planned to be located along these road segments and because the Project's noise contribution is well below a level perceptible to the human ear, noise impacts would be less than cumulatively significant and the Project's contribution would be less than cumulatively considerable.

C. Stationary Noise Impacts (Cumulative Conditions)

As indicated previously in Table 4.3-17, *Project Only Stationary Source Impact Noise Level Projections*, noise levels associated with operation of the proposed Project at a distance of 200 feet from the property line is expected to be 54.2 dBA Leq, without attenuation. Walls proposed around the Project's perimeter would attenuate most of this operational noise. The expected operational noise level impacts associated with the Project are below the daytime and nighttime exterior noise level standard of 65 dBA Leq. and 60 dBA Leq., respectively even without the presence of perimeter walls. Therefore, the Project would create a less than significant stationary source noise level impact.

Existing and planned land uses surrounding the Project are similar in operational character to the warehouse building proposed by the Project. The long-term operation of adjacent uses would be expected to produce operational noise levels that are similar to those of the proposed Project (i.e., 48.5 dBA at 200 feet). Due to the internal mechanism of the human ear and how it receives and processes noise, when two sound sources of equal intensity or power are measured together, their combined effect (intensity level) is 3 dBA higher than the level of either separately. Thus, two noise sources that individually produce 52 dBA will measure 55dBA when the noise sources are combined (absent any other sound alerting factor). Therefore, long-term operation of the proposed Project would not result in the exposure of sensitive receptors to cumulative noise levels in excess of the City's Noise Ordinance standards. Long-term operation of the proposed Project also would not result in a substantial cumulative increase in ambient noise levels. Furthermore, there are no components of the Project's long-term operational characteristics that could produce substantial amounts of temporary or periodic ambient noise levels that could impact nearby sensitive receptors. Accordingly, non-transportation related impacts due to long-term operation of the proposed Project under cumulative conditions would have a less than significant cumulative impact and the Project's contribution would be less than cumulatively considerable.

☐ Vibration Impacts (Threshold 2)

There are no existing or projected sources of groundborne vibration immediately surrounding the Project site. Additionally, the types of construction equipment that would be used to build the proposed Project would not create vibration amplitudes that cause structural damage to nearby structures or that generate excessive groundborne vibration or groundborne noise levels. Accordingly, there would be no cumulative groundborne vibration impact during Project construction and the Project's contribution to vibration, if any, would be less than cumulatively considerable. Under long-term operating conditions, the Project would not involve the use of equipment, facilities, or activities that would result in perceptible groundborne vibration. There would be no significant cumulative impact and the Project would have no potential to contribute to a long-term groundborne noise or vibration impact.

☐ Public and Private Airport-Related Noise Levels (Thresholds 5 and 6)

The proposed Project does not involve the construction or operation of any public airports or public use airports. Airport-related noise levels from the March ARB affecting the Project site are not considered excessive; as such, nearby airport operations would not expose future on-site workers to excessive noise levels. There are no conditions associated with the proposed Project that could result in contributing to airport noise or exposure of additional people to unacceptable levels of airport noise. Accordingly, the Project would have no potential to cumulatively contribute to impacts associated with noise from a public airport or public use airport. Additionally, there are no private airfields or airstrips in the vicinity of the proposed Project site, and the Project would not involve the construction or operation of such facilities. Therefore, implementation of the proposed Project would not expose people residing or working in the Project area to cumulatively excessive noise levels associated with private airstrips, and has no potential to cumulatively contribute to impacts associated with noise from a private airstrip.

4.3.5 APPLICABLE PROJECT REQUIREMENTS

The following is a requirement to which the Project would be required to adhere. Compliance with this requirement was assumed throughout the above noise analysis.

PR 4.3-1 The Project will comply with the City of Moreno Valley Noise Ordinance (Moreno Valley Municipal Code Chapter 11.80).

4.3.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Thresholds 1, 3, and 4: Significant Direct and Cumulative Impact (Near-Term). During Project construction, noise levels beyond 200 feet from the property boundary would exceed levels specified in the City of Moreno Valley Noise Ordinance. Existing sensitive receptors (residential) located within 2,774 feet of the Project boundary with a clear line of site to the construction activity would experience noise levels above 65 dBA leq at some point during the construction process. Additionally, in the event that Project construction activities occur simultaneously with other construction activities that affect the same sensitive receptors, cumulative construction-related noise would also be significant.

Under long-term operating conditions, the Project would not generate traffic-related or stationary noise levels above the standards given in the City of Moreno Valley Noise Ordinance or in any adjacent jurisdiction's General Plan. Long-term impacts would be less than significant.

Threshold 2: Less than Significant Impact. Near-term construction activities and long-term operation of the proposed Project would not expose persons to or generate excessive groundborne vibration or groundborne noise levels.

Threshold 5: Less than Significant Impact. The Project would not expose people to excessive noise levels associated with the operation of an airport.

Threshold 6: No Impact. There are no private airstrips in the vicinity of the Project site; as such, the Project has no potential to expose people residing or working in the area to excessive noise levels associated with operation of a private airstrip.

4.3.7 MITIGATION MEASURES

MM 4.3-1 Prior to grading or building permit issuance, the City shall review grading and building plans to ensure that the following notes are included. Project contractors shall be required to comply with these notes and maintain written records of such compliance that can be inspected by the City of Moreno Valley upon request.

a) All construction activities, including but not limited to haul truck deliveries, shall be limited to between the hours of 7:00 a.m. and 8:00 p.m.

b) Construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards.

c) All stationary construction equipment and equipment staging areas shall be placed as close as possible to the center of the western property line.

d) All haul truck deliveries shall use City-approved haul routes. Should alternate routes be necessary, haul trucks shall not use roadways that pass noise-sensitive land uses or residential dwellings unless approved by the City of Moreno Valley.

MM 4.3-2 As a condition of the Project's building permit, the perimeter wall planned along San Michelle Road and at the corner of San Michelle Road and Perris Boulevard shall be installed early in the construction process.

4.3.8 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Thresholds 1, 3, and 4: Significant Direct and Cumulative Impact (Near-Term). Project construction activities would expose off-site properties within 2,274 feet of the Project boundary with direct lines of site to construction activities to daytime noise levels exceeding 65 dBA leq. Mitigation Measures MM 4.3-1 and MM 4.3-2 require construction practices that would minimize noise levels to sensitive receptors, but not to below a level of significance on either a direct or cumulative basis. Additional feasible mitigation measures are not available to further reduce Project-related construction noise levels, resulting in a significant and unavoidable short-term impact.

Table 4.3-1 Off –Site Road Parameters

ID	Roadway	Segment	Roadway Section[1]	Vehicle Speed (MPH)
1	Harley Knox Boulevard	West of I-215 Freeway	4D	55
2	Harley Knox Boulevard	I-215 SB Ramps to I-215 NB Ramps	4D	55
3	Harley Knox Boulevard	I-215 NB Ramps to Western Way	4U	45
4	Harley Knox Boulevard	East of Western Way	4U	45
5	Harley Knox Boulevard	West of Patterson Avenue	4U	45
6	Harley Knox Boulevard	East of Patterson Avenue	2D	45
7	Harley Knox Boulevard	West of Indian Street	4D	55
8	Harley Knox Boulevard	East of Indian Street	4D	55
9	Western Way	North of Harley Knox Boulevard	2U	40
10	Patterson Avenue	North of Harley Knox Boulevard	2U	40
11	Patterson Avenue	South of Harley Knox Boulevard	2U	40
12	Indian Street	North of Nandina Avenue	2D	45
13	Indian Street	South of Nandina Avenue	4D	55
14	Indian Street	North of Harley Knox Boulevard	4D	55
15	Indian Street	South of Harley Knox Boulevard	4D	55
16	Knox Street	North of Nandina Avenue	2D	45
18	Perris Boulevard	South of San Michele Road	4D	55
19	Perris Boulevard	North of Nandina Avenue	4D	55
20	Perris Boulevard	South of Nandina Avenue	4D	55
21	San Michele Road	West of Driveway 1	2D	45
22	San Michele Road	Driveway 1 to Driveway 3	2D	45
23	San Michele Road	Driveway 3 to Perris Boulevard	2D	45
24	Nandina Avenue	West of Indian Street	2U	40
25	Nandina Avenue	Indian Street to Knox Street	2D	45
26	Nandina Avenue	Knox Street to Driveway 2	2D	45
27	Nandina Avenue	Driveway 2 to Driveway 4	2U	40
28	Nandina Avenue	Driveway 4 to Perris Boulevard	2U	40

[1] Source: First Inland Logistics II Traffic Impact Analysis by Urban Crossroads, Inc. in October 2012.

Table 4.3-2 Hourly Traffic Flow Distribution[1]

Motor-Vehicle Type	Daytime (7 am to 7 pm)	Evening (7 pm to 10 pm)	Night (10 pm to 7 am)	Total % Traffic Flow
City Roadways				
Automobiles	77.5%	12.9%	9.6%	97.42%
Medium Trucks	84.8%	4.9%	10.3%	1.84%
Heavy Trucks	86.5%	2.7%	10.8%	0.74%

[1] Typical Southern California Vehicle Mix.

Table 4.3-3 Long-Term (Ambient) Noise Level Measurements

Observer Location[1]	Date	Description	Hourly Noise Level (Leq dBA)[2]		CNEL
			Daytime (7am to 10pm)	Nighttime (10pm to 7am)	
L1	10/25/2012	Located approximately 85 feet east of Perris Boulevard and 165 feet north of Rivard Road. Near the residential tract to the north.	63.0	58.8	67.3
L2	10/25/2012	Located next to a house roughly 100 feet north of the project boundary along San Michele Road and 660 feet west of Perris Boulevard.	55.9	53.5	61.7
L3	10/25/2012	Located approximately 140 feet east of the project boundary on the southeast corner of Perris Boulevard and Modular Way.	62.3	58.8	66.9
L4	10/25/2012	Located near a house approximately 100 feet south of the project boundary along Nandina Avenue and 760 feet west of Perris Boulevard.	56.1	53.6	61.4
L5	10/25/2012	Located on the east project driveway 140 feet west of Perris Boulevard and 325 feet south of Modular Way.	58.4	54.2	62.6

[1] See Exhibit 4-A for the noise measurement locations.

[2] Energy (logarithmic) average hourly noise levels. The long-term noise level measurements printouts are included in Appendix 4.1.

Table 4.3-4 Existing Without Project Conditions Noise Contours

ID	Road	Segment	CNEL at 100 Feet (dBA)	Distance to Contour (Feet)			
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
1	Harley Knox Boulevard	West of I-215 Freeway	63.2	RW	76	164	353
2	Harley Knox Boulevard	I-215 SB Ramps to I-215 NB Ramps	64.6	RW	94	202	436
3	Harley Knox Boulevard	I-215 NB Ramps to Western Way	63.8	RW	83	178	384
4	Harley Knox Boulevard	East of Western Way	63.5	RW	80	172	370
5	Harley Knox Boulevard	West of Patterson Avenue	63.5	RW	80	171	369
6	Harley Knox Boulevard	East of Patterson Avenue	63.2	RW	76	163	351
7	Harley Knox Boulevard	West of Indian Street	64.9	RW	98	212	457
8	Harley Knox Boulevard	East of Indian Street	61.9	RW	62	134	290
9	Western Way	North of Harley Knox Boulevard	51.5	RW	RW	RW	58
10	Patterson Avenue	North of Harley Knox Boulevard	41.9	RW	RW	RW	RW
11	Patterson Avenue	South of Harley Knox Boulevard	51.6	RW	RW	RW	59
12	Indian Street	North of Nandina Avenue	57.6	RW	RW	70	150
13	Indian Street	South of Nandina Avenue	62.2	RW	65	139	300
14	Indian Street	North of Harley Knox Boulevard	63.0	RW	74	160	344
15	Indian Street	South of Harley Knox Boulevard	55.8	RW	RW	RW	113
16	Knox Street	North of Nandina Avenue	47.1	RW	RW	RW	RW
18	Perris Boulevard	South of San Michele Road	66.5	59	127	273	588
19	Perris Boulevard	North of Nandina Avenue	67.3	66	141	304	656
20	Perris Boulevard	South of Nandina Avenue	67.3	66	141	304	656
21	San Michele Road	West of Driveway 1	57.4	RW	RW	67	144
22	San Michele Road	Driveway 1 to Driveway 3	57.4	RW	RW	67	144
23	San Michele Road	Driveway 3 to Perris Boulevard	57.4	RW	RW	67	144
24	Nandina Avenue	West of Indian Street	51.6	RW	RW	RW	59
25	Nandina Avenue	Indian Street to Knox Street	55.7	RW	RW	RW	111
26	Nandina Avenue	Knox Street to Driveway 2	54.1	RW	RW	RW	86
27	Nandina Avenue	Driveway 2 to Driveway 4	51.0	RW	RW	RW	RW
28	Nandina Avenue	Driveway 4 to Perris Boulevard	51.0	RW	RW	RW	RW

[1] "RW" = Location of the respective noise contour falls within the right-of-way of the road

Table 4.3-5 Demolition Construction Noise Levels[1]

Equipment Type	Quantity	Usage Factor[2]	Hours Of Operation[3]	Reference Noise Level @ 50 Feet (Lmax dBA)	Cumulative Level @ 200 Feet (dBA)
Concrete/Industrial Saw	1	20%	1.6	90.0	71.0
Rubber Tired Dozers	2	40%	3.2	79.0	66.0
Excavators	3	40%	3.2	81.0	69.8
Crushing/Processing	1	15%	1.2	83.0	62.7
Cumulative Hourly Noise Levels 200 Feet (Leq dBA)					74.4
Distance to 65 dBA Leq Contour (Feet)					593

[1] Source: FHWA's Roadway Construction Noise Model, January 2006.

[2] Estimates the fraction of time each piece of equipment is operating at full power during a construction operation.

[3] Represents the actual hours of peak construction equipment activity out of a typical 8 hour workday.

Table 4.3-6 Site Preparation Noise Levels[1]

Equipment Type	Quantity	Usage Factor[2]	Hours Of Operation[3]	Reference Noise Level @ 50 Feet (Lmax dBA)	Cumulative Level @ 200 Feet (dBA)
Water Trucks	3	40%	3.2	78.0	78.8
Scrapers	2	40%	3.2	85.0	84.0
Graders	1	40%	3.2	85.0	81.0
Rubber Tired Dozers	1	40%	3.2	79.0	63.0
Tractors/Loaders/Backhoes	2	40%	3.2	78.0	77.0
Cumulative Hourly Noise Levels 200 Feet (Leq dBA)					87.1
Distance to 65 dBA Leq Contour (Feet)					2,534

[1] Source: FHWA's Roadway Construction Noise Model, January 2006.

[2] Estimates the fraction of time each piece of equipment is operating at full power during a construction operation.

[3] Represents the actual hours of peak construction equipment activity out of a typical 8 hour workday.

Table 4.3-7 Grading Construction Noise Levels[1]

Equipment Type	Quantity	Usage Factor[2]	Hours Of Operation[3]	Reference Noise Level @ 50 Feet (Lmax dBA)	Cumulative Level @ 200 Feet (dBA)
Water Trucks	3	40%	3.2	78.0	78.8
Scrapers	2	40%	3.2	85.0	84.0
Graders	1	40%	3.2	85.0	81.0
Rubber Tired Dozers	1	40%	3.2	79.0	63.0
Excavator	2	40%	3.2	81.0	80.0
Tractors/Loaders/Backhoes	2	40%	3.2	78.0	77.0
Cumulative Hourly Noise Levels 200 Feet (Leq dBA)					87.8
Distance to 65 dBA Leq Contour (Feet)					2,774

[1] Source: FHWA's Roadway Construction Noise Model, January 2006.

[2] Estimates the fraction of time each piece of equipment is operating at full power during a construction operation.

[3] Represents the actual hours of peak construction equipment activity out of a typical 8 hour workday.

Table 4.3-8 Building Construction Noise Levels[1]

Equipment Type	Quantity	Usage Factor[2]	Hours Of Operation[3]	Reference Noise Level @ 50 Feet (Lmax dBA)	Cumulative Level @ 200 Feet (dBA)
Tractors/Loaders/Backhoes	3	40%	3.2	78.0	78.8
Forklifts	3	20%	1.6	75.0	72.8
Cranes	2	16%	1.3	81.0	76.1
Generator Sets	1	50%	4.0	81.0	78.0
Welders	1	40%	3.2	74.0	70.0
Cumulative Hourly Noise Levels 200 Feet (Leq dBA)					83.2
Distance to 65 dBA Leq Contour (Feet)					1,622

[1] Source: FHWA's Roadway Construction Noise Model, January 2006.

[2] Estimates the fraction of time each piece of equipment is operating at full power during a construction operation.

[3] Represents the actual hours of peak construction equipment activity out of a typical 8 hour workday.

Table 4.3-9 Paving Construction Noise Levels[1]

Equipment Type	Quantity	Usage Factor[2]	Hours Of Operation[3]	Reference Noise Level @ 50 Feet (Lmax dBA)	Cumulative Level @ 200 Feet (dBA)
Pavers	2	50%	4.0	77.0	77.0
Paving Equipment	2	40%	3.2	76.0	75.0
Rollers	2	20%	1.6	80.0	76.0
Cumulative Hourly Noise Levels 200 Feet (Leq dBA)					80.9
Distance to 65 dBA Leq Contour (Feet)					1,242

[1] Source: FHWA's Roadway Construction Noise Model, January 2006.

[2] Estimates the fraction of time each piece of equipment is operating at full power during a construction operation.

[3] Represents the actual hours of peak construction equipment activity out of a typical 8 hour workday.

Table 4.3-10 Architectural Coating Noise Levels[1]

Equipment Type	Quantity	Usage Factor[2]	Hours Of Operation[3]	Reference Noise Level @ 50 Feet (Lmax dBA)	Cumulative Level @ 200 Feet (dBA)
Air Compressors	1	40%	3.2	78.0	74.0
Cumulative Hourly Noise Levels 200 Feet (Leq dBA)					74.0
Distance to 65 dBA Leq Contour (Feet)					565

[1] Source: FHWA's Roadway Construction Noise Model, January 2006.

[2] Estimates the fraction of time each piece of equipment is operating at full power during a construction operation.

[3] Represents the actual hours of peak construction equipment activity out of a typical 8 hour workday.

Table 4.3-11 Existing With Project Conditions Noise Contours

ID	Road	Segment	CNEL at 100 Feet (dBA)	Distance to Contour (Feet)			
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
1	Harley Knox Boulevard	West of I-215 Freeway	63.2	RW	76	164	353
2	Harley Knox Boulevard	I-215 SB Ramps to I-215 NB Ramps	64.8	RW	97	209	450
3	Harley Knox Boulevard	I-215 NB Ramps to Western Way	64.0	RW	86	185	399
4	Harley Knox Boulevard	East of Western Way	63.8	RW	83	179	386
5	Harley Knox Boulevard	West of Patterson Avenue	63.8	RW	83	179	385
6	Harley Knox Boulevard	East of Patterson Avenue	63.5	RW	79	170	367
7	Harley Knox Boulevard	West of Indian Street	65.2	RW	104	223	480
8	Harley Knox Boulevard	East of Indian Street	61.9	RW	62	134	290
9	Western Way	North of Harley Knox Boulevard	51.5	RW	RW	RW	58
10	Patterson Avenue	North of Harley Knox Boulevard	41.9	RW	RW	RW	RW
11	Patterson Avenue	South of Harley Knox Boulevard	51.7	RW	RW	RW	60
12	Indian Street	North of Nandina Avenue	58.0	RW	RW	73	157
13	Indian Street	South of Nandina Avenue	62.8	RW	71	153	331
14	Indian Street	North of Harley Knox Boulevard	63.6	RW	80	173	373
15	Indian Street	South of Harley Knox Boulevard	56.0	RW	RW	RW	116
16	Knox Street	North of Nandina Avenue	47.1	RW	RW	RW	RW
18	Perris Boulevard	South of San Michele Road	66.6	59	127	274	589
19	Perris Boulevard	North of Nandina Avenue	67.2	65	140	302	651
20	Perris Boulevard	South of Nandina Avenue	67.3	66	141	305	656
21	San Michele Road	West of Driveway 1	57.9	RW	RW	72	156
22	San Michele Road	Driveway 1 to Driveway 3	57.4	RW	RW	66	142
23	San Michele Road	Driveway 3 to Perris Boulevard	57.4	RW	RW	67	145
24	Nandina Avenue	West of Indian Street	51.6	RW	RW	RW	59
25	Nandina Avenue	Indian Street to Knox Street	56.8	RW	RW	61	132
26	Nandina Avenue	Knox Street to Driveway 2	55.6	RW	RW	RW	110
27	Nandina Avenue	Driveway 2 to Driveway 4	51.0	RW	RW	RW	RW
28	Nandina Avenue	Driveway 4 to Perris Boulevard	51.2	RW	RW	RW	56

[1] "RW" = Location of the respective noise contour falls within the right-of-way of the road

Table 4.3-12 Year 2017 Without Project Conditions Noise Contours

ID	Road	Segment	CNEL at 100 Feet (dBA)	Distance to Contour (Feet)			
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
1	Harley Knox Boulevard	West of I-215 Freeway	65.5	RW	108	232	499
2	Harley Knox Boulevard	I-215 SB Ramps to I-215 NB Ramps	68.2	76	163	351	757
3	Harley Knox Boulevard	I-215 NB Ramps to Western Way	67.6	70	150	323	695
4	Harley Knox Boulevard	East of Western Way	67.5	68	147	317	684
5	Harley Knox Boulevard	West of Patterson Avenue	67.5	68	147	317	683
6	Harley Knox Boulevard	East of Patterson Avenue	67.4	67	144	309	666
7	Harley Knox Boulevard	West of Indian Street	69.4	91	196	423	911
8	Harley Knox Boulevard	East of Indian Street	64.6	RW	94	202	436
9	Western Way	North of Harley Knox Boulevard	51.9	RW	RW	RW	62
10	Patterson Avenue	North of Harley Knox Boulevard	42.5	RW	RW	RW	RW
11	Patterson Avenue	South of Harley Knox Boulevard	52.4	RW	RW	RW	67
12	Indian Street	North of Nandina Avenue	63.7	RW	82	177	381
13	Indian Street	South of Nandina Avenue	67.5	68	146	314	676
14	Indian Street	North of Harley Knox Boulevard	67.7	71	152	328	706
15	Indian Street	South of Harley Knox Boulevard	61.5	RW	58	125	270
16	Knox Street	North of Nandina Avenue	51.2	RW	RW	RW	56
18	Perris Boulevard	South of San Michele Road	68.5	80	172	371	800
19	Perris Boulevard	North of Nandina Avenue	69.0	86	185	399	859
20	Perris Boulevard	South of Nandina Avenue	68.9	85	182	392	845
21	San Michele Road	West of Driveway 1	59.6	RW	RW	94	202
22	San Michele Road	Driveway 1 to Driveway 3	59.4	RW	RW	91	196
23	San Michele Road	Driveway 3 to Perris Boulevard	59.4	RW	RW	91	197
24	Nandina Avenue	West of Indian Street	58.6	RW	RW	81	174
25	Nandina Avenue	Indian Street to Knox Street	59.5	RW	RW	92	199
26	Nandina Avenue	Knox Street to Driveway 2	58.4	RW	RW	78	168
27	Nandina Avenue	Driveway 2 to Driveway 4	56.1	RW	RW	55	118
28	Nandina Avenue	Driveway 4 to Perris Boulevard	56.1	RW	RW	55	119

[1] "RW" = Location of the respective noise contour falls within the right-of-way of the road

Table 4.3-13 Year 2017 With Project Conditions Noise Contours

ID	Road	Segment	CNEL at 100 Feet (dBA)	Distance to Contour (Feet)			
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
1	Harley Knox Boulevard	West of I-215 Freeway	65.5	RW	108	232	499
2	Harley Knox Boulevard	I-215 SB Ramps to I-215 NB Ramps	68.3	77	165	356	768
3	Harley Knox Boulevard	I-215 NB Ramps to Western Way	67.7	71	152	328	707
4	Harley Knox Boulevard	East of Western Way	67.6	70	150	323	696
5	Harley Knox Boulevard	West of Patterson Avenue	67.6	69	150	323	695
6	Harley Knox Boulevard	East of Patterson Avenue	67.5	68	146	315	678
7	Harley Knox Boulevard	West of Indian Street	69.5	93	200	431	928
8	Harley Knox Boulevard	East of Indian Street	64.6	RW	94	202	436
9	Western Way	North of Harley Knox Boulevard	51.9	RW	RW	RW	62
10	Patterson Avenue	North of Harley Knox Boulevard	42.5	RW	RW	RW	RW
11	Patterson Avenue	South of Harley Knox Boulevard	52.4	RW	RW	RW	67
12	Indian Street	North of Nandina Avenue	63.8	RW	83	179	385
13	Indian Street	South of Nandina Avenue	67.6	70	150	324	697
14	Indian Street	North of Harley Knox Boulevard	67.9	73	157	337	727
15	Indian Street	South of Harley Knox Boulevard	61.5	RW	59	126	272
16	Knox Street	North of Nandina Avenue	51.2	RW	RW	RW	56
18	Perris Boulevard	South of San Michele Road	68.6	80	173	372	801
19	Perris Boulevard	North of Nandina Avenue	69.0	86	185	399	860
20	Perris Boulevard	South of Nandina Avenue	68.9	85	182	393	846
21	San Michele Road	West of Driveway 1	59.8	RW	RW	97	208
22	San Michele Road	Driveway 1 to Driveway 3	59.4	RW	RW	91	196
23	San Michele Road	Driveway 3 to Perris Boulevard	59.5	RW	RW	92	198
24	Nandina Avenue	West of Indian Street	58.6	RW	RW	81	174
25	Nandina Avenue	Indian Street to Knox Street	60.0	RW	RW	100	215
26	Nandina Avenue	Knox Street to Driveway 2	59.0	RW	RW	86	185
27	Nandina Avenue	Driveway 2 to Driveway 4	56.1	RW	RW	55	119
28	Nandina Avenue	Driveway 4 to Perris Boulevard	56.2	RW	RW	56	120

[1] "RW" = Location of the respective noise contour falls within the right-of-way of the road

Table 4.3-14 Existing Off-Site Project Related Traffic Noise Impacts

ID	Road	Segment	CNEL at 100 Feet (dBA)			Potential Significant Impact?[1]
			No Project	With Project	Project Addition	
1	Harley Knox Boulevard	West of I-215 Freeway	63.2	63.2	0.0	No
2	Harley Knox Boulevard	I-215 SB Ramps to I-215 NB Ramps	64.6	64.8	0.2	No
3	Harley Knox Boulevard	I-215 NB Ramps to Western Way	63.8	64.0	0.3	No
4	Harley Knox Boulevard	East of Western Way	63.5	63.8	0.3	No
5	Harley Knox Boulevard	West of Patterson Avenue	63.5	63.8	0.3	No
6	Harley Knox Boulevard	East of Patterson Avenue	63.2	63.5	0.3	No
7	Harley Knox Boulevard	West of Indian Street	64.9	65.2	0.3	No
8	Harley Knox Boulevard	East of Indian Street	61.9	61.9	0.0	No
9	Western Way	North of Harley Knox Boulevard	51.5	51.5	0.0	No
10	Patterson Avenue	North of Harley Knox Boulevard	41.9	41.9	0.0	No
11	Patterson Avenue	South of Harley Knox Boulevard	51.6	51.7	0.0	No
12	Indian Street	North of Nandina Avenue	57.6	58.0	0.3	No
13	Indian Street	South of Nandina Avenue	62.2	62.8	0.6	No
14	Indian Street	North of Harley Knox Boulevard	63.0	63.6	0.5	No
15	Indian Street	South of Harley Knox Boulevard	55.8	56.0	0.2	No
16	Knox Street	North of Nandina Avenue	47.1	47.1	0.0	No
18	Perris Boulevard	South of San Michele Road	66.5	66.6	0.0	No
19	Perris Boulevard	North of Nandina Avenue	67.3	67.2	0.0	No
20	Perris Boulevard	South of Nandina Avenue	67.3	67.3	0.0	No
21	San Michele Road	West of Driveway 1	57.4	57.9	0.5	No
22	San Michele Road	Driveway 1 to Driveway 3	57.4	57.4	0.0	No
23	San Michele Road	Driveway 3 to Perris Boulevard	57.4	57.4	0.1	No
24	Nandina Avenue	West of Indian Street	51.6	51.6	0.0	No
25	Nandina Avenue	Indian Street to Knox Street	55.7	56.8	1.1	No
26	Nandina Avenue	Knox Street to Driveway 2	54.1	55.6	1.6	No
27	Nandina Avenue	Driveway 2 to Driveway 4	51.0	51.0	0.0	No
28	Nandina Avenue	Driveway 4 to Perris Boulevard	51.0	51.2	0.3	No

[1] A significant impact occurs when the noise level exceeds 65 dBA CNEL and the project generates a noise level increase of greater than 3.0 dBA.

Table 4.3-15 Year 2017 Off-Site Project Related Traffic Noise Impacts

ID	Road	Segment	CNEL at 100 Feet (dBA)			Potential Significant Impact?[1]
			No Project	With Project	Project Addition	
1	Harley Knox Boulevard	West of I-215 Freeway	65.5	65.5	0.0	No
2	Harley Knox Boulevard	I-215 SB Ramps to I-215 NB Ramps	68.2	68.3	0.1	No
3	Harley Knox Boulevard	I-215 NB Ramps to Western Way	67.6	67.7	0.1	No
4	Harley Knox Boulevard	East of Western Way	67.5	67.6	0.1	No
5	Harley Knox Boulevard	West of Patterson Avenue	67.5	67.6	0.1	No
6	Harley Knox Boulevard	East of Patterson Avenue	67.4	67.5	0.1	No
7	Harley Knox Boulevard	West of Indian Street	69.4	69.5	0.1	No
8	Harley Knox Boulevard	East of Indian Street	64.6	64.6	0.0	No
9	Western Way	North of Harley Knox Boulevard	51.9	51.9	0.0	No
10	Patterson Avenue	North of Harley Knox Boulevard	42.5	42.5	0.0	No
11	Patterson Avenue	South of Harley Knox Boulevard	52.4	52.4	0.0	No
12	Indian Street	North of Nandina Avenue	63.7	63.8	0.1	No
13	Indian Street	South of Nandina Avenue	67.5	67.6	0.2	No
14	Indian Street	North of Harley Knox Boulevard	67.7	67.9	0.2	No
15	Indian Street	South of Harley Knox Boulevard	61.5	61.5	0.0	No
16	Knox Street	North of Nandina Avenue	51.2	51.2	0.0	No
18	Perris Boulevard	South of San Michele Road	68.5	68.6	0.0	No
19	Perris Boulevard	North of Nandina Avenue	69.0	69.0	0.0	No
20	Perris Boulevard	South of Nandina Avenue	68.9	68.9	0.0	No
21	San Michele Road	West of Driveway 1	59.6	59.8	0.2	No
22	San Michele Road	Driveway 1 to Driveway 3	59.4	59.4	0.0	No
23	San Michele Road	Driveway 3 to Perris Boulevard	59.4	59.5	0.0	No
24	Nandina Avenue	West of Indian Street	58.6	58.6	0.0	No
25	Nandina Avenue	Indian Street to Knox Street	59.5	60.0	0.5	No
26	Nandina Avenue	Knox Street to Driveway 2	58.4	59.0	0.6	No
27	Nandina Avenue	Driveway 2 to Driveway 4	56.1	56.1	0.0	No
28	Nandina Avenue	Driveway 4 to Perris Boulevard	56.1	56.2	0.1	No

[1] A significant impact occurs when the noise level exceeds 65 dBA CNEL and the project generates a noise level increase of greater than 3.0 dBA.

Table 4.3-16 Reference Noise Level Measurements[1]

Noise Source	Duration (mm:ss)[4]	Distance From Source (Feet)	Noise Source Height (Feet)	Drop-Off Rate[5] (Leq dBA)	Noise Level (Leq dBA)
Loading Dock Activities[1]	1:00	20.0	8.0	6.0	77.3
Truck Pass-By[2]	1:00	30.0	8.0	6.0	69.5
Air Condenser Units[3]	-	10.0	5.0	6.0	73.0

[1] As measured by Urban Crossroads, Inc. on 4/14/11.

[2] As measured by Urban Crossroads, Inc. on 4/14/11.

[3] Data provided by the Krack Technical Bulletin: 0607_469 Rev 0509

[4] Noise measurement duration is consistent will approximate time for each event to occur.

[5] Noise level (dBA) drop-off rate per doubling of distance.

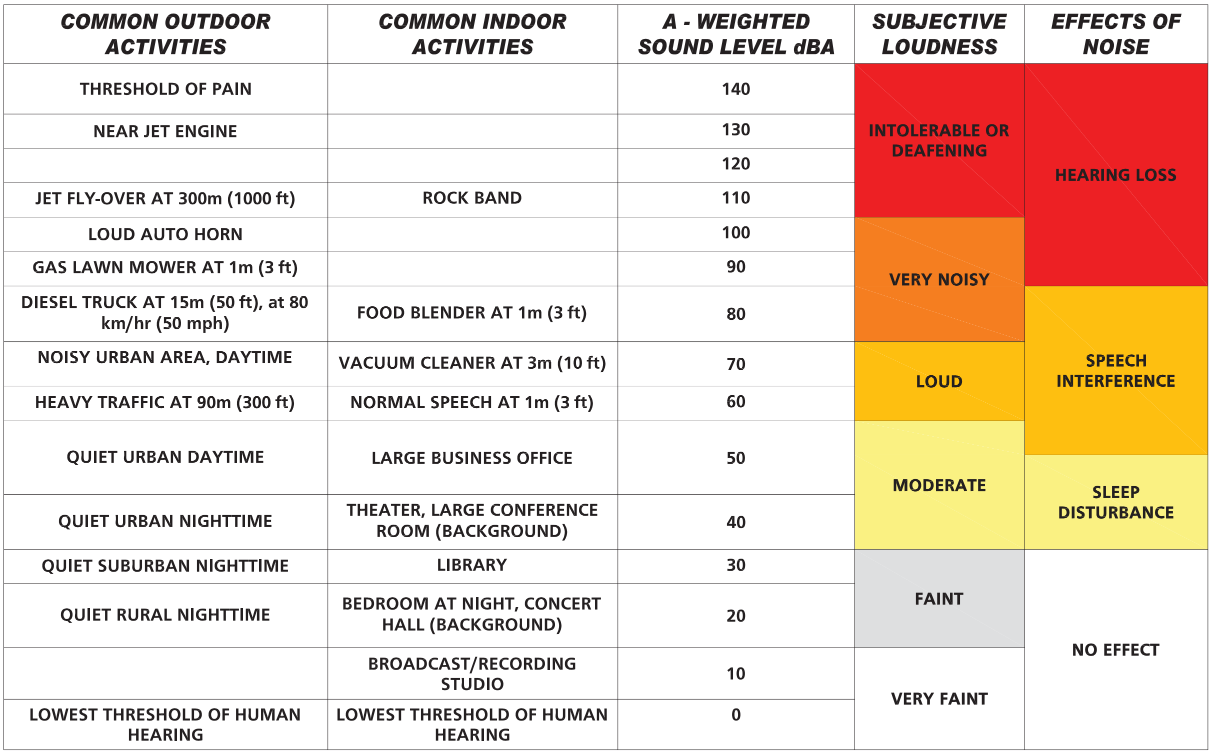
Table 4.3-17 Project Only Stationary Source Impact Noise Level Projections

Noise Source	Reference Noise Level Distance (Feet)	Reference Noise Level (dBA)	Distance From Source To Property Line (Feet)	Source Noise Level At Property Line (dBA)	Reference Noise Level At 200 Feet From Property Line
Loading Dock Activities	20'	77.3	60.0	67.8	47.8
Truck Pass-By	30'	69.5	30.0	69.5	53.0
Air Condenser Units	10'	73.0	60.0	57.4	31.4
Overall Unmittigated Noise Level At 200 Feet From Property Line:					**54.2**

Source: RCTLMA (2012), Google Earth (2012)

Figure 4.3-1

Off-Site Noise Sensitive Receptors



COMMON OUTDOOR ACTIVITIES	*COMMON INDOOR ACTIVITIES*	*A - WEIGHTED SOUND LEVEL dBA*	*SUBJECTIVE LOUDNESS*	*EFFECTS OF NOISE*
THRESHOLD OF PAIN		140	INTOLERABLE OR DEAFENING	HEARING LOSS
NEAR JET ENGINE		130		
		120		
JET FLY-OVER AT 300m (1000 ft)	ROCK BAND	110		
LOUD AUTO HORN		100	VERY NOISY	
GAS LAWN MOWER AT 1m (3 ft)		90		
DIESEL TRUCK AT 15m (50 ft), at 80 km/hr (50 mph)	FOOD BLENDER AT 1m (3 ft)	80		SPEECH INTERFERENCE
NOISY URBAN AREA, DAYTIME	VACUUM CLEANER AT 3m (10 ft)	70	LOUD	
HEAVY TRAFFIC AT 90m (300 ft)	NORMAL SPEECH AT 1m (3 ft)	60		
QUIET URBAN DAYTIME	LARGE BUSINESS OFFICE	50	MODERATE	SLEEP DISTURBANCE
QUIET URBAN NIGHTTIME	THEATER, LARGE CONFERENCE ROOM (BACKGROUND)	40		
QUIET SUBURBAN NIGHTTIME	LIBRARY	30	FAINT	NO EFFECT
QUIET RURAL NIGHTTIME	BEDROOM AT NIGHT, CONCERT HALL (BACKGROUND)	20		
	BROADCAST/RECORDING STUDIO	10	VERY FAINT	
LOWEST THRESHOLD OF HUMAN HEARING	LOWEST THRESHOLD OF HUMAN HEARING	0		

SOURCE: NOISE TECHNICAL SUPPLEMENT BY CALTRANS

Source: Urban Crossroads (10-31-12)

FIGURE 4.3-2

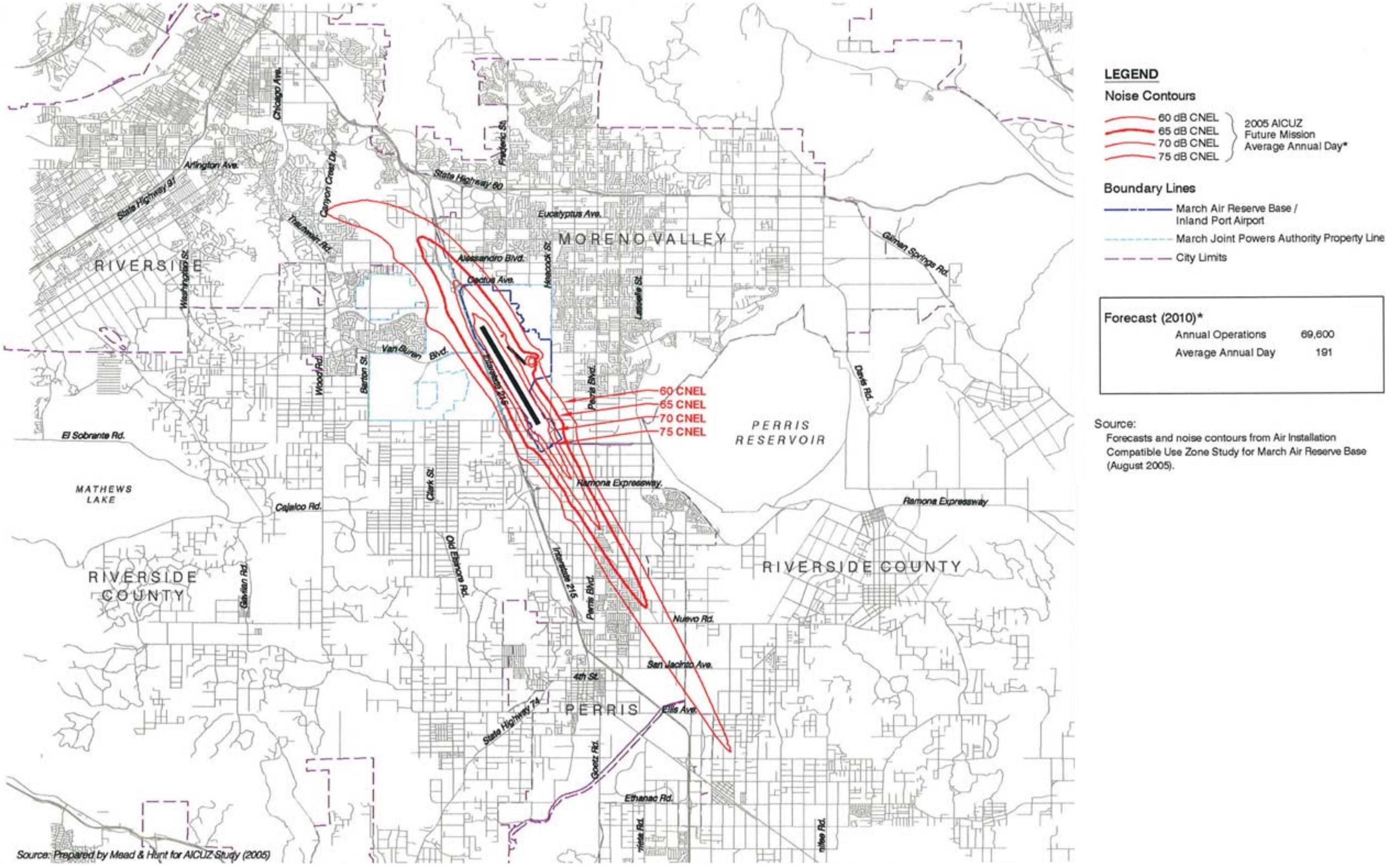
Typical Noise Levels and Their Subjective Loudness and Effects

LEGEND:

(L5) = LONG-TERM, 24-HOUR, NOISE MEASUREMENT LOCATION

Source: Urban Crossroads (10-31-12)

FIGURE 4.3-3
Noise Measurement Locations



Source: Prepared by Mead & Hunt for AICUZ Study (2005)

Source:
Forecasts and noise contours from Air Installation Compatible Use Zone Study for March Air Reserve Base (August 2005).

FIGURE 4.3-4
March Reserve Air Base Noise Contours

4.4 TRANSPORTATION/TRAFFIC

The following analysis is based on a technical traffic study prepared by Urban Crossroads, Inc., titled "First Inland Logistics II Traffic Impact Analysis, City of Moreno Valley, California" and dated January 3, 2013 (*Technical Appendix F*). The report considers potential traffic impacts associated with construction and operation of the proposed Project and recommends improvements to mitigate impacts considered significant in comparison to stated thresholds. The traffic study was prepared in accordance with the City of Moreno Valley Transportation Engineering Division's *Traffic Impact Analysis Preparation Guide* (dated August 2007).

4.4.1 STUDY AREA DESCRIPTION

The study area for purposes of determining traffic impacts, as shown on Figure 4.4-1, *Project Study Area/ Intersection Locations,* is defined in conformance with the requirements of the City of Moreno Valley's Traffic Impact Analysis (TIA) Preparation Guide. Based on these guidelines, the minimum area to be studied shall include any intersection of "Collector" or higher classification street, with "Collector" or higher classification streets, at which the proposed Project would add 50 or more peak hour trips. The "50 peak hour trip" criteria utilized by the City of Moreno Valley is consistent with the methodology employed by other jurisdictions throughout Riverside County and generally represents a threshold of trips at which a typical intersection would have the potential to be impacted. Although each intersection may have unique operating characteristics, this traffic engineering rule of thumb is a valid and proven way to establish a study area (Urban Crossroads, 2013, p. 4). Intersections and connecting roadway segments that would not receive more than 50 peak hour trips from the Project are not included in the study area. Based on a comparison of the trip generation information provided in Table 4.4-1, *Project Trip Generation Summary*, with the trip distribution patterns depicted on Figure 4.4-2, *Project (Passenger Car) Trip Distribution*, and Figure 4.4-3, *Project (Truck) Trip Distribution*, the proposed Project would not contribute more than 50 peak hour trips to any road segments or intersections located within the City of Riverside or unincorporated Riverside County; thus, intersections and roadway segments in those jurisdictions do not warrant analysis.

A. Roadway Segments

A total of 28 roadway segments are identified in the study area for analysis based on a review of the key roadway segments in which the Project is anticipated to contribute 50 or more peak hour trips. Table 4.4-2, *Roadway Segment Analysis Locations,* provides a summary of the study area roadway segments, each with an ID number and jurisdiction noted. There are no future roadway segments that would be constructed as part of the Project. Refer to Figure 4.4-1, *Project Study Area/ Intersection Locations*, for Project study area roadway locations.

B. Intersections

A total of 13 intersections, as shown in Table 4.4-3, *Intersection Analysis Locations* are included in the Project study area based on the City's TIA analysis methodology and input from the City of Moreno Valley Traffic Engineering Division. An ID number is assigned to each intersection and jurisdictional locations are identified in Table 4.4-3. Intersections that would be developed as part of the Project and do not currently exist also are identified in Table 4.4-3.

C. *Freeway Mainline Segments*

Consistent with California Department of Transportation (Caltrans) traffic study guidelines, there are four (4) freeway mainline analysis locations in the Project study area, including segments on Interstate 215 (I-215 Freeway) on either side of the Harley Knox Boulevard interchange where the proposed Project is anticipated to contribute 100 or more two-way peak hour trips. The study area freeway mainline segments are identified in Table 4.4-4, *Freeway Mainline Segments*. All freeway mainline segments are under the jurisdiction of Caltrans.

D. *Freeway Merge/Diverge Ramp Junctions*

There are four (4) merge/diverge ramp junction locations in the Project's study area for the I-215 Freeway for both northbound and southbound directions of flow as shown in Table 4.4-5, *Freeway Merge/Diverge Ramp Junctions*. All freeway ramp junctions are under the jurisdiction of Caltrans.

4.4.2 EXISTING CONDITIONS

Regional access is provided to the Project site via I-215, which is located approximately 1.9 miles west of the site, and State Route 60 (SR-60), located approximately 4.9 miles north of the site. The 17.3-acre Project site is located in the City of Moreno Valley, immediately north of Nandina Avenue, immediately south of San Michele Road, and immediately east of Perris Boulevard. Figure 4.4-4, *City of Moreno Valley General Plan Circulation Element*, and Figure 4.4-5, *City of Moreno Valley General Plan Roadway Cross-Sections*, show the City's roadway designations and cross-sections for the major roads surrounding the Project site in the City of Moreno Valley.

A. *Existing Traffic Counts*

Manual AM and PM peak hour turning movement counts at study area intersections were collected by Urban Crossroads, Inc. in January 2010, March 2011, and October 2011. The counts include the vehicle classifications as shown below, per City of Moreno Valley TIA requirements:

- Passenger Cars
- 2-Axle Trucks
- 3-Axle Trucks
- 4 or More Axle Trucks

To represent the impact that large trucks, buses, and recreational vehicles have on traffic flow, all trucks were converted into Passenger Car Equivalents (PCEs) for the purpose of conducting the traffic analysis. By their size alone, these vehicles occupy the same space as two or more passenger cars. In addition, the time it takes for large vehicles to accelerate and slowdown is also much longer than for passenger cars, and varies depending on the type of vehicle and number of axles. For the purpose of the Project's traffic impact analysis in *Technical Appendix F* and this EIR Subsection, a PCE factor of 1.5 was applied to 2-axle trucks, 2.0 for 3-axle trucks, and 3.0 for 4+-axle trucks to estimate each turning movement.

Existing (2012) average daily traffic (ADT) volumes on arterial highways throughout the study area are shown on Figure 4.4-6, *Existing (2012) Average Daily Traffic (ADT)*. Existing (2012) ADT volumes are based upon factored intersection peak hour counts collected by Urban Crossroads, Inc. using the following formula for each intersection leg:

PM Peak Hour (Approach Volume + Exit Volume) x 12 = Leg Volume

Based on a comparison of PM peak hour traffic count data to 24-hour traffic counts collected along roadway segments in close proximity to the study area, Urban Crossroads determined that the PM peak hour volumes are approximately eight (8) percent of the total 24-hour daily volume on select segments. As such, it was determined that the above equation could be utilized to approximate the ADT volume on the study area segments based on the same relationship (i.e., eight percent PM peak-to-daily relationship). Existing (2012) AM and PM peak hour intersection volumes are shown on Figure 4.4-7, *Existing (2012) AM Peak Hour Intersection Volumes*, and Figure 4.4-8, *Existing (2012) PM Peak Hour Intersection Volumes*, respectively. All of the traffic volumes illustrated on the exhibits and used in the traffic analysis are shown in terms of PCE (Urban Crossroads, 2013, p. 43).

B. Existing Roadway Conditions

Based on the methodology presented below in Subsection 4.4.3B, all 28 existing roadway segments in the study area operate at an acceptable level of service (LOS) (with 26 segments operating at LOS "A"). Existing (2012) ADT is shown on Figure 4.4-6. Table 4.4-6, *Existing (2012) Conditions Roadway Volume/Capacity Analysis*, summarizes the Existing (2012) conditions roadway segment capacity based on the methodology presented in Subsection 4.4.3B. All of the existing study area roadways operate at acceptable LOS during peak hours.

C. Existing Intersection Conditions

Figure 4.4-9, *Existing Number of Through Traffic Lanes and Intersection Controls,* shows the characteristics of each of the existing nine (9) Project study area intersections. (The other four (4) intersections in the study area, as shown in Table 4.4-8, *Intersection Analysis for Existing (2012) Conditions*, are future planned intersections that do not currently exist.) Based on the methodology presented in Subsection 4.4.3B, all of the existing study area intersections operate at acceptable LOS during peak hours. Existing (2012) AM and PM peak hour intersection volumes are shown on Figure 4.4-7 and Figure 4.4-8.

D. Existing Freeway Ramp Conditions

Ramp merge and diverge operations were evaluated for Existing (2012) baseline conditions. The results, as shown in Table 4.4-9, *I-215 Freeway Ramp Junction Merge/Diverge Analysis For Existing (2012) Baseline Conditions,* indicate that the I-215 Freeway ramp merge and diverge areas at Harley Knox Boulevard currently operate at LOS "E" or better during the peak hours under Existing (2012) baseline traffic conditions.

E. Existing Freeway Segment Conditions

Existing (2012) mainline directional volumes for the I-215 Freeway for the AM and PM peak hours are shown on Figure 4.4-10, *Existing (2012) Baseline I-215 Freeway Mainline Volumes*. As shown in

Table 4.4-10, *Existing (2012) Baseline Conditions Basic Freeway Segment Analysis,* I-215 Freeway segments in the study operate at an acceptable LOS during the peak hours for Existing (2012) traffic conditions.

F. *Existing Mass Transit*

The Project study area is served by the Riverside Transit Agency (RTA) with bus services along Perris Boulevard via Route 19. The nearest stops to the Project site for RTA Route 19 are on Perris Boulevard, south of San Michele Road (for southbound direction), north of Nandina Avenue (for the northbound direction) and south of Nandina Avenue (for the southbound direction). (Urban Crossroads, 2013, pp. 29, 38)

G. *Existing Bicycle and Pedestrian Facilities*

Field observations conducted by Urban Crossroads, Inc. in May 2012 indicate nominal pedestrian and bicycle activity within the study area (Urban Crossroads, 2013, p. 35). Figure 4.4-11, *City of Moreno Valley Master Plan of Trails,* shows that there are no trails or planned trails within the study area. Figure 4.4-12, *City of Moreno Valley Bike Plan,* shows planned bikeway routes in the area. A Class III bikeway is planned within the vicinity of the Project site along Indian Street north of San Michele Road and along San Michele Road west of Indian Street (Urban Crossroads, 2013, p. 38).

H. *Existing Truck Routes*

Figure 4.4-13, *City of Moreno Valley Truck Routes,* shows the designated truck route map for the City. Harley Knox Boulevard, Perris Boulevard, Indian Street, San Michele Road and Nandina Avenue are all designated truck routes. The map is used to predict the route of truck traffic under future conditions (Urban Crossroads, 2013, p. 38).

I. *Existing Regional Transportation Programs and Plans*

Provided below is a discussion of existing planning efforts, programs, and policies regarding transportation that have applicability to the proposed Project.

☐ <u>County of Riverside Congestion Management Program (CMP)</u>

The Riverside County CMP was prepared by the Riverside County Transportation Commission (RCTC) in accordance with Proposition 111, passed in June 1990. The CMP was established in the State of California to more directly link land use, transportation, and air quality and to prompt reasonable growth management programs that would more effectively utilize new and existing transportation funds, alleviate traffic congestion and related impacts, and improve air quality. Deficiencies along the CMP system must be identified when they occur so that improvement measures can be identified. Understanding the reason for these deficiencies and identifying ways to reduce the impact of future growth and development along a critical CMP corridor is intended to conserve scarce funding resources and help target those resources appropriately. In the vicinity of the Project site, I-215 is the only CMP Roadway (Riverside County Transportation Commission, 2010, pp. 2-5).

☐ City of Moreno Valley General Plan Circulation Element

The purpose of the City of Moreno Valley's Circulation Element is to ensure a complete, balanced, and well-maintained circulation system that relies on vehicular travel and transit, and incorporates alternative modes including bikeways and pedestrian facilities (City of Moreno Valley, 2006a). A primary objective of the Circulation Element is to ensure that the effects of future new development on the City's transportation system are understood and that the improvements needed to support new growth are planned and properly funded. Refer to Figure 4.4-4 and Figure 4.4-5 for illustrations of the City's Circulation Element exhibits.

☐ Riverside County Integrated Project (RCIP)

The RCIP is Riverside County's comprehensive, three-part, integrated program to determine future habitat conservation, transportation, and housing and economic needs in Riverside County. The RCIP addresses traffic congestion by addressing future traffic and multi-model circulation issues through the Community & Environmental Transportation Acceptability Process (CETAP). This element of RCIP identifies the locations for new transportation facilities that will help benefit commuters and serve Riverside County's growing economy. Selection of new transportation corridors are intended to be integrated with decisions on land use and environmentally sensitive areas (County of Riverside, 2003a).

☐ Regional Transportation Plan (RTP)

The Southern California Association of Governments (SCAG) is a regional agency established pursuant to California Government Code §6500, also referred to as the Joint Powers Authority law. SCAG is designed as a Council of Governments (COG), a Regional Transportation Planning Agency (RTPA), and a Metropolitan Planning Organization (MPO). The Project site is within SCAG's regional authority. In 2012, SCAG prepared a Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) with goals to: 1) align the plan investments and policies with improving regional economic development and competitiveness; 2) maximize mobility and accessibility for all people and goods in the region; 3) ensure travel safety and reliability for all people and goods in the region; 4) preserve and ensure a sustainable regional transportation system; 5) maximize the productivity of the transportation system; 6) protect the environment and health of residents by improving air quality and encouraging active transportation; 7) encourage and incentivize energy efficiency; 8) encourage land use and growth patterns that facilitate transit and non-motorized transportation; and 9) maximize the security of the transportation system (Southern California Association of Governments, 2012, p. 29). Performance measures and funding strategies also are included to ensure that the adopted goals are achieved through implementation.

4.4.3 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to transportation/traffic if the Project or any Project-related component would:

1. *Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation*

system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;

2. *Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;*
3. *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;*
4. *Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment);*
5. *Result in inadequate emergency access; or*
6. *Conflict with adopted policies or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.*

A. Determining Significance of Impacts

❑ Roadway Segments and Intersections

Based on the *City of Moreno Valley TIA Preparation Guide*, a significant direct traffic impact under CEQA occurs when the addition of project traffic causes an intersection that operates at an acceptable level of service (i.e., typically LOS "D" or better) to fall to an unacceptable level of service (i.e., typically LOS "E" or "F"). For purposes of determining the significance of impacts in this Subsection:

- If an intersection is projected to operate at an acceptable level of service without the Project and the addition of Project traffic as measured by 50 or more peak hour trips is expected to cause the intersection to operate at an unacceptable level of service the impact is considered a significant direct impact.
- If an intersection is projected to operate at an unacceptable level of service without the Project, and the Project contributes 50 or more peak hour trips, the impact is considered a significant direct impact.
- A significant cumulative impact is identified when a roadway segment or intersection is projected to operate at an unacceptable LOS with the addition of future traffic and a Project-related traffic increase of 50 or more peak hour trips. Cumulative traffic impacts are created as a result of a combination of the proposed Project together with other future developments contributing to the overall traffic impacts requiring additional improvements to maintain acceptable LOS operations with or without the Project. The Project's contribution to a cumulatively significant impact can be reduced to less-than-significant if the Project is required to implement or fund its fair share of improvements designed to alleviate the potential cumulative impact. If full funding of future cumulative improvements is not reasonably assured, a temporary unmitigated cumulative impact may occur until the needed improvement is fully funded and constructed.

❑ Freeway Segments and Ramp Junctions

RCTC has determined that freeway segments and ramp junctions that operate below LOS "E" should be identified and improved to an acceptable LOS; however, specific criteria to identify project-related impacts are not specified by RCTC or in the Caltrans Traffic Impact Study guidelines.

For the purposes of the analysis in this Subsection and in accordance with the adopted Riverside County CMP, if a freeway segment is projected to operate at an acceptable level of service (i.e., LOS "E" or better) without the Project and the Project is expected to cause the facility to operate at an unacceptable level of service (i.e., LOS "F"), the Project's direct impact is considered significant. If the facility would operate at a deficient LOS without the Project, the addition of 100 ADT or more of Project traffic would be considered a cumulative impact.

B. Methodology

❑ Level of Service

Traffic operations of roadway facilities are described using the term "Level of Service" (LOS). LOS is a qualitative description of traffic flow based on several factors such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined ranging from LOS "A," representing completely free-flow conditions, to LOS "F," representing breakdown in flow resulting in stop-and-go conditions. LOS "E" represents operations at or near capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow.

The definition of an intersection deficiency in the City of Moreno Valley is based on the City of Moreno Valley General Plan Circulation Element. The City of Moreno Valley General Plan states that target LOS "C" or LOS "D" be maintained along City roads (including intersections) wherever possible. Figure 4.4-14, *City of Moreno Valley Level of Service (LOS) Standards,* and Table 4.4-11, *Moreno Valley Roadway Segment Capacity LOS Thresholds,* shows the LOS standards and capacities within the City. Table 4.4-12, *Perris Roadway Segment Capacity LOS Thresholds1,* summarizes the City of Perris daily roadway segment capacities thresholds.

Caltrans, the County of Riverside, and the City of Perris have established explicit LOS performance criteria related to determining the significance of impacts on the roadway system within their jurisdictions. Generally, LOS "D" is considered to be the limit of acceptable traffic operations during the peak hour in these jurisdictions. LOS "D" is therefore used as the significance threshold in this Subsection for these jurisdictions, except for the intersections of I-215 Southbound Ramps/Harley Knox Boulevard and I-215 Northbound Ramps/Harley Knox Boulevard, which allow LOS "E" (per City of Perris General Plan Circulation Element Policy II.A). Daily roadway segment capacities thresholds for the City of Perris are summarized in Table 4.4-12. RCTC has adopted LOS "E" as the minimum standard for intersections and segments along the CMP System of Highways and Roadways. Therefore, for the purposes of the traffic impact analysis, LOS "E" is considered to be the limit of acceptable traffic operations for the I-215 Freeway mainline segments and ramp junctions (Urban Crossroads, 2013, p. 27).

❑ Roadway Segment Capacity Analysis

Roadway segment operations are evaluated using the City of Moreno Valley Daily Roadway Capacity Values provided in the *City of Moreno Valley TIA Preparation Guide*. Per the TIA Preparation Guide, daily roadway segments in the City of Moreno Valley should maintain the LOS capacities illustrated in Figure 4.4-14. Daily roadway segment capacities thresholds for the City of Perris are summarized in Table 4.4-12, *Perris Roadway Segment Capacity LOS Thresholds1*.

The daily roadway segment capacities for each type of roadway are summarized in Table 4.4-11 and Table 4.4-12. Roadway segment capacities are approximate figures only, and are used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet future traffic demands. These roadway capacities are "rule of thumb" estimates for planning purposes. As such, where the ADT-based roadway segment analysis indicates a deficiency (unacceptable LOS), a review of the more detailed peak hour intersection analysis and progression analysis is undertaken. The more detailed peak hour intersection analysis explicitly accounts for factors that affect roadway capacity. Therefore, roadway segment widening is typically only recommended if the peak hour intersection analysis indicates the need for additional through lanes. (Urban Crossroads, 2013, p. 20)

❑ Intersection Capacity Analysis

The intersection LOS analysis is based on the traffic volumes calculated for the peak hour conditions. The following peak hours were selected for analysis because these hours typically experience the most traffic during a 24-hour period:

- Weekday AM Peak Hour (peak hour between 7:00 AM and 9:00 AM)
- Weekday PM Peak Hour (peak hour between 4:00 PM and 6:00 PM)

For signalized intersections, the City of Moreno Valley requires operations analysis based on the methodology described in Chapter 16 of the Highway Capacity Manual (HCM). Intersection LOS operations are based on an intersection's average control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections, LOS is directly related to the average control delay per vehicle and is correlated to a LOS designation as described in Table 4.4-13, *Signalized Intersection LOS Thresholds*. For a more detailed discussion of intersection capacity analysis see Section 2.2 of *Technical Appendix F*.

For unsignalized intersections, the City of Moreno Valley requires that operations be evaluated using the methodology described in Chapter 17 of the HCM. The LOS rating is based on the weighted average control delay expressed in seconds per vehicle, as shown in Table 4.4-7. At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. For all-way stop controlled intersections, LOS is computed for the intersection as a whole. (Urban Crossroads, 2013, p. 19)

☐ Traffic Signal Warrant Analysis

The term "signal warrants" refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or ascertain the potential need for installation of a traffic signal at an otherwise unsignalized intersection. The signal warrant criteria presented in the latest edition of the Federal Highway Administration's (FHWA) *Manual on Uniform Traffic Control Devices* (MUTCD), as amended by the *MUTCD 2003 California Supplement*, is used for all study area intersections.

Traffic signal warrant analyses were performed at the following unsignalized study area intersections: Western Way / Harley Knox Boulevard, Knox Street / Nandina Avenue, Driveway 1 / San Michele Road, Driveway 2 / Nandina Avenue, Driveway 3 / San Michele Road, and Driveway 4 / Nandina Avenue. A signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this threshold condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. Signal warrants do not necessarily correlate with level of service. An intersection may satisfy a signal warrant condition and operate at or above LOS "C" or operate below LOS "C" and not meet a signal warrant. For more information on signal warrant methodology, refer to Section 2.6 of *Technical Appendix F* (Urban Crossroads, 2013, pp. 23, 24).

☐ Freeway Mainline Segment Analysis

The study area includes segments of the I-215 Freeway, from north of and south of Harley Knox Boulevard, and includes the freeway-to-arterial interchanges of the I-215 Freeway with the Harley Knox Boulevard ramps. Consistent with Caltrans requirements, the progression of vehicles has been assessed to determine potential queuing lengths at the freeway ramp intersections on Harley Knox Boulevard and the I-215 Freeway.

The traffic progression analysis tool and HCM intersection analysis program, HCS+ software, was used to assess the potential needs of the intersections with traffic added from the proposed Project. The performance measure preferred by Caltrans to calculate LOS is density. Density is expressed in terms of passenger cars per mile per lane. Table 4.4-11 illustrates the freeway segment LOS thresholds for each density range utilized for this analysis. For more information on queuing analysis methodology, refer to Section 2.4 of *Technical Appendix F*.

The Riverside County Transportation Commission (RCTC) has plans in place for the widening of the I-215 Freeway through the study area; however, a schedule for the widening of I-215 between Nuevo Road in the City of Perris and Box Springs Road in the City of Riverside has not be set, due to the state's ongoing budget challenges. The I-215 North Project will add a carpool lane (high-occupancy vehicle land) in each direction to a 10.75-mile section of the I-215 freeway. As such, the future expansion of the I-215 Freeway has been assumed for "with improvements" conditions only and not assumed as the base condition in the basic freeway segment analysis (Urban Crossroads, 2013, p. 22).

☐ Freeway Merge/Diverge Ramp Junction Analysis

The study area, I-215 from north of and south of Harley Knox Boulevard, was broken into four (4) segments defined by the freeway-to-arterial interchange locations. The merge/diverge analysis is based on the HCM Ramps and Ramp Junctions analysis method and performed using HCS+ software. The results (reported in passenger car/mile/lane) are calculated based on the existing number of travel lanes, number of lanes at the on- and off-ramps both at the analysis junction and at upstream and downstream locations (if applicable), and acceleration/deceleration lengths at each merge/diverge point. Table 4.4-14, *Freeway Mainline LOS Thresholds,* presents the merge/diverge area LOS thresholds for each density range utilized for this analysis (Urban Crossroads, 2013, p. 23). Meters are not installed at the Harley Knox Boulevard/I-215 ramps; therefore, a ramp meter analysis is not required.

☐ Background Traffic

Future year traffic forecasts are based upon five (5) years of background (ambient) growth at 2% per year for 2017 traffic conditions. The ambient growth factor is intended to approximate regional traffic growth. The total ambient growth is 10.4% for 2017 traffic conditions (compounded growth of 2% per year over five years). This ambient growth rate is added to existing traffic volumes to account for area-wide growth not reflected by known cumulative development projects analyzed by *Technical Appendix F*. According to information published by the Riverside County Center for Demographic Research (RCCDR) and used as the basis for completing the *Western Riverside Council of Governments (WRCOG) Transportation Uniform Mitigation Fee (TUMF) Nexus Study – 2009 Program Update*, the population of Western Riverside County is projected to increase by 62% in the period between 2007 and 2035, a compounded rate of approximately 1.73% annually. During the same period, employment in Western Riverside County is expected to increase by 111% or 2.71% annually. Therefore, the use of an annual growth rate of 2.0% is consistent with the anticipated regional growth in traffic volumes (Urban Crossroads, 2013, p. 57).

☐ Cumulative Impact Analysis

CEQA Guidelines §15130 requires that an EIR include the discussion of a Project's cumulative impacts. For the purpose of analyzing the proposed Project's cumulative effects on traffic, and in accordance with the *City of Moreno Valley's TIA Preparation Guide* (dated August 2007), a comprehensive list of 53 other known approved or reasonably foreseeable development projects in the study area was compiled. See Figure 4.4-15, *Cumulative Development Projects Location Map,* for locations of the development projects considered. Information about each development project can be found in Section 4.6 of *Technical Appendix F*. These 52 projects are calculated to generate 248,824 net passenger car equivalent (PCE) trip-ends per day during a typical weekday with approximately 21,484 net PCE vehicle trips during the AM peak hour and 25,545 net PCE vehicle trips during the PM peak hour. For specific projects not listed that fall outside of the study area, the traffic from those projects is captured by the 2.0% compounded annual growth rate.

Based on the identified trip distribution patterns for the cumulative development projects on arterial highways throughout the study area, cumulative development ADT volumes, AM peak hour, and PM peak hour intersection turning movement volumes are shown on Figure 4.4-16, *Cumulative Development Average Daily Traffic (ADT), Figure 4.4-17*, *Cumulative Development AM Peak Hour Intersection Volumes*, and Figure 4.4-18, *Cumulative Development PM Peak Hour Intersection Volumes*, respectively.

4.4.4 IMPACT ANALYSIS

Threshold 1: ***Would the proposed Project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?***

The Project proposes to construct two (2) driveways onto San Michele Road, construct two (2) driveways onto Nandina Avenue, and improve the site-adjacent roadways Nandina Avenue, Perris Boulevard, and San Michele Road. The proposed roadway improvements are described in Section 3.0, *Project Description*, and will be enforced as part of the Project's Conditions of Approval, which will be issued by the City of Moreno Valley prior to consideration of the proposed Project by the City Council. The construction of these roadway improvements is assumed throughout the analyses. The analysis of Threshold 1 focuses on potential impacts to local roadways, based on acceptable LOS standards established by the City of Moreno Valley General Plan and the general plans of surrounding jurisdictions. Refer to Threshold 2 for Analysis of potential impacts to I-215 based on acceptable LOS standards established by the Riverside County Congestion Management Plan.

A. Project Trip Generation and Distribution

Trip generation represents the amount of traffic that is attracted to and produced by a development project. Determining traffic generation for a specific project is therefore based upon forecasting the amount of traffic that is expected to be both attracted to and produced by the specific land uses proposed for a given development. In an effort to accurately estimate the number of vehicle trips that the proposed Project would generate, estimations are based on trip generation rates collected by the Institute of Transportation Engineers (ITE) and presented in ITE's most recent edition of *Trip Generation* (8th Edition, 2008). Detailed information about the methodology used to determine the Project's trip generation is provided in Section 4.1 of *Technical Appendix F*.

Assumed to be built and fully operational by Year 2017, the Project is proposed to consist of 400,130 square feet of high-cube/distribution warehouse use. Using that development potential, the proposed Project would produce an estimated 1,066 daily vehicle trips, including 67 during the AM Peak Hour and 74 during the PM Peak Hour. A summary of the Project's trip generation is provided in Table 4.4-1. The traffic reducing potential of using public transit, walking, or bicycling by employees of the Project has not been considered, which have the potential to reduce the forecasted traffic volumes. Because these factors were not considered in the analysis (and would reduce the volume of Project-related vehicular traffic if considered), the analysis of impacts to transportation/traffic in this subsection represents a conservative analysis of potential impacts.

Trip distribution is the process of identifying the probable destinations, directions, or traffic routes that would be utilized by Project traffic. The potential interaction between the planned land uses and surrounding regional access routes are considered, to identify the routes where Project traffic would distribute. The Project trip distribution was developed based on anticipated travel patterns to and from the Project site for both passenger cars and truck traffic. The truck trip distribution patterns were developed based on the anticipated travel patterns for high-cube warehousing trucks. The total volume on each roadway was divided by the Project's total traffic generation to indicate the percentage of Project traffic that would use each component of the regional roadway system in each relevant direction. The Project passenger car trip distribution pattern is graphically depicted on Figure 4.4-2, and the Project truck trip distribution pattern is graphically depicted on Figure 4.4-3.

The assignment of traffic from the Project area to the adjoining roadway system is based on the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of Project occupancy (2017). Based on the identified Project traffic generation and trip distribution patterns, Project ADT volumes for the weekday are shown on Figure 4.4-19, *Project Only Average Daily Traffic (ADT),* and Project AM and PM peak hour intersection turning movement volumes are shown on Figure 4.4-20, *Project Only AM Peak Hour Intersection Volumes,* and Figure 4.4-21, *Project Only PM Peak Hour Intersection Volumes,* respectively. Detailed information about the methodology used to determine the Project's trip distribution is provided in Section 4.2 of *Technical Appendix F*.

B. Analysis Scenarios

Pursuant to the City of Moreno Valley's *TIA Preparation Guide*, all traffic impact analyses must be "…projected to the year that the project is estimated to be complete (minimum of five years)." (City of Moreno Valley, 2007). The Notice of Preparation for this EIR was distributed for public review on December 3, 2012; thus, the opening year for the proposed Project is assumed to be five years later (Year 2017). Therefore, for the purpose of the traffic impact analysis presented below, potential impacts to traffic and circulation are assessed for each of the following:

- Existing (2012) plus Project Conditions (1 scenario) (E+P)
- Opening Year (2017) without Project and Opening Year (2017) with Project (2 scenarios) – ambient growth only (E+A and E+A+P, respectively).
- Opening Year Cumulative (2017) without Project and Opening Year Cumulative (2017) with Project (2 scenarios) – ambient growth and cumulative development projects (E+A+C and E+A+C+P, respectively).

Information for Existing (2012) conditions is disclosed above in Subsection 4.4.2 and represents the baseline traffic conditions as they existed at the time this analysis was prepared (2012).

The Existing (2012) plus Project (E+P) analysis determines direct Project-related traffic impacts that would occur on the existing roadway system in the theoretical scenario of the Project being placed upon existing conditions. Because the Project would not be fully built and occupied until after 2012, the E+P scenario is presented to disclose direct impacts as required by CEQA.

The Opening Year (2017) analysis determines the Project-related traffic impacts based on a comparison of the Existing plus Ambient Growth plus Project (E+A+P) traffic conditions to the Existing (2012) and Existing plus Ambient Growth (E+A) conditions. The Opening Year (2017) conditions analysis uniquely identifies the specific traffic impacts associated with the development of the proposed Project. To account for background traffic, a total ambient growth from Existing (2012) conditions of 10.4% (2% per year over 5 years, compounded annually) is included for Opening Year (2017) conditions. Cumulative development projects are not included as part of the Opening Year (2017) analysis. The Opening Year (2017) analysis is intended to identify the direct impacts associated solely with the development of the proposed Project based on the expected background growth within the study area.

The Opening Year Cumulative (2017) conditions analysis is utilized to determine if improvements funded through local and regional transportation mitigation fee programs such as the TUMF program, City of Moreno Valley Development Impact Fee (DIF) program, or other approved funding mechanism can accommodate the cumulative traffic at the target LOS identified in the City of Moreno Valley General Plan or planning documents of other jurisdictions. If the funded improvements can provide the target LOS, then the Project's payment into the TUMF and DIF is considered to be adequate cumulative mitigation as imposed through Conditions of Approval applied to the Project by the City of Moreno Valley. If other improvements are needed beyond the funded improvements (such as localized improvements to non-TUMF or non-DIF facilities), they are identified as such.

To account for background traffic in Opening Year Cumulative (2017), 53 other known cumulative development projects in the study area are included in addition to the 10.4% ambient. This comprehensive list of cumulatively projects was compiled from information provided by the City of Moreno Valley Planning Department.

C. *Existing (2012) Plus Project Traffic Analysis (E+P)*

For purposes of full disclosure and in an effort to satisfy CEQA Guidelines §15125(a), this subsection presents an analysis of existing traffic volumes plus traffic generated by the proposed Project (Existing plus Project, or E+P). The reason this particular analysis scenario is provided is to disclose the potential for direct impacts to the existing environment as required by CEQA. The E+P scenario rarely materializes as an actual scenario in the real world. The time period between the date when a Notice of Preparation for an EIR is issued and the date project buildout occurs can often be a period of several years or more. During this time period, conditions are not static. Other projects are being constructed, the transportation network is evolving, and traffic patterns are changing. Therefore, the E+P scenario is very unlikely to materialize in real world conditions and thus does not accurately describe the environment that exists when a particular project is constructed and becomes operational. Regardless, the E+P scenario is analyzed to satisfy CEQA requirements to identify the Project's impacts to the existing environment.

Average daily traffic (ADT) for the E+P conditions is shown on Figure 4.4-22, *Existing Plus Project Average Daily Traffic (ADT),* and AM and PM peak hour intersection turning movement volumes for E+P are shown on Figure 4.4-23, *Existing Plus Project AM Peak Hour Intersection Volumes*, and Figure 4.4-24, *Existing Plus Project PM Peak Hour Intersection Volumes*.

☐ E+P Roadway Segments Analysis

Roadway segment capacities for E+P conditions were analyzed based on the methodology discussed in Subsection 4.4.3B. Out of 28 study area roadway segments (Table 4.4-2), all segments would operate at an acceptable LOS (with 25 segments operating at LOS "A") with the addition of Project traffic to the existing condition. Table 4.4-15, *Existing Plus Project Conditions Roadway Volume/Capacity Analysis,* summarizes the E+P conditions roadway segment capacity analysis based on the LOS thresholds identified in Table 4.4-12 and Table 4.4-11; therefore, impacts to study area roadway segments under the E+P condition would be less than significant.

❑ E+P Intersections Analysis

E+P peak hour traffic operations were evaluated for study area intersections based on the methodologies presented in Subsection 4.4.3B. In the E+P condition, of the 9 existing study area intersections, all intersections would operate at an acceptable LOS D or better during the peak hours. Table 4.4-16, *Intersection Analysis for Existing Plus Project Conditions,* summarizes the AM and PM peak hour study area intersection LOS for the Existing (2012) conditions plus the Project. Therefore, impacts to study area intersections under the E+P scenario would be less than significant.

D. Opening Year Traffic Analysis (Opening Year (2017))

The Opening Year (2017) conditions analysis determines the Project-related traffic impacts based on a comparison of the Existing plus Ambient Growth plus Project (E+A+P) traffic conditions to the Existing (2012) and Existing plus Ambient Growth (E+A) conditions. The Opening Year (2017) conditions analysis uniquely identifies the specific traffic impacts associated with the development of the proposed Project. The Opening Year (2017) analysis is intended to identify the project-specific impacts associated solely with the development of the proposed Project based on the expected background growth within the study area (Urban Crossroads, 2013, p. 81).

The intersection lane configurations and traffic controls assumed to be in place for Opening Year (2017) conditions are consistent with those assumed for existing conditions (see previous Figure 4.4-6) with the following exceptions:

- The analysis for the intersection of Perris Boulevard at San Michele Road assumes the following geometrics, which are anticipated to be in place by Year 2013: one northbound left turn lane, two northbound through lanes, one northbound shared through-right turn lane, one southbound left turn lane, two southbound though lanes, one southbound shared through-right turn lane, one eastbound left turn lane, one eastbound through lane, one eastbound right turn lane, one westbound left turn lane, one westbound through lane and one westbound right turn lane.
- The analysis for the intersection of Perris Boulevard at Nandina Avenue assumes the following geometrics, which are anticipated to be in place by Year 2013: one northbound left turn lane, two northbound through lanes, one northbound shared through-right turn lane, one southbound left turn lane, three southbound through lanes, one southbound right turn lane with overlap phasing, one eastbound left turn lane, one eastbound through lane, one eastbound shared through-right turn lane, one westbound left turn lane, one westbound through lane and one westbound right turn lane.
- At Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for Opening Year (2017) with Project conditions only.

ADT volumes for the Opening Year (2017) Without Project (E+A) conditions are shown on Figure 4.4-25, *Opening Year (2017) Without Project Average Daily Traffic (ADT)*, and AM and PM peak hour intersection turning movement volumes for Opening Year (2017) Without Project (E+A) conditions are shown on Figure 4.4-26, *Opening Year (2017) Without Project AM Peak Hour*

Intersection Volumes, and Figure 4.4-27, *Opening Year (2017) Without Project PM Peak Hour Intersection Volumes.* ADT volumes for the Opening Year (2017) With Project (E+A+P) conditions are shown on Figure 4.4-28, *Opening Year (2017) With Project Average Daily Traffic (ADT)*, and AM and PM peak hour intersection turning movement volumes for Opening Year (2017) With Project (E+A+P) conditions are shown on Figure 4.4-29, *Opening Year (2017) With Project AM Peak Hour Intersection Volumes*, and Figure 4.4-30, *Opening Year (2017) With Project PM Peak Hour Intersection Volumes*.

☐ Opening Year (2017) Roadway Segments Analysis

Roadway segment capacities for Opening Year (2017) Without Project (E+A) and with Project (E+A+P) conditions were determined based on the methodology discussed in Subsection 4.4.3B. Table 4.4-17, *Opening Year (2017) Conditions Roadway Volume/Capacity Analysis1*, summarizes the Opening Year (2017) Without Project (E+A) and With Project (E+A+P) conditions roadway segment capacity analysis based on the LOS thresholds identified in Table 4.4-11. As shown in Table 4.4-17, all 28 roadway segments within the study area would operate at an acceptable LOS under the E+A scenario. With the addition of Project traffic for Opening Year (2017) (E+A+P), all 28 roadway segments would continue to operate at an acceptable LOS; therefore, the proposed Project would result in a less than significant impact to study area road segments under opening year (2017) conditions.

☐ Opening Year (2017) Intersections Analysis

Opening Year (2017) Without Project (E+A) and With Project (E+A+P) peak hour traffic operations were evaluated for study area intersections based on the methodologies presented in Subsection 4.4.3B. Table 4.4-18, *Intersection Analysis for Opening Year (2017) Conditions,* summarizes the Opening Year (2017) Without Project (E+A) peak hour traffic operations. As shown in Table 4.4-18, all 13 study area intersections would operate at an acceptable LOS during peak hours in the E+A condition.

As shown on Table 4.4-18, with the addition of Project traffic (E+A+P) and implementation of improvements to Perris Boulevard by the Project Applicant along the Project site's frontage, all 13 study area intersections would operate at an acceptable LOS D or better. The Project would not contribute to a deficient LOS at any study area intersection; therefore, the Project's impact to intersections is less than significant (Urban Crossroads, 2013, pp. 81-90).

E. Opening Year Cumulative Traffic Analysis (Cumulative (2017))

As discussed in Subsection 4.02, CEQA requires that an EIR contain an assessment of the cumulative impacts that may be associated with a proposed project. The Opening Year Cumulative (2017) analysis determines the Project-related traffic impacts based on a comparison of the traffic volumes expected in 2017 without and with development of the proposed Project, including background traffic from cumulative development projects. To account for background traffic, 53 other known cumulative development projects in the study area were included in addition to 10.4% of ambient growth (refer to Subsection 4.4.3B, for a description of the methodology used for this analysis). The analysis of cumulative traffic impacts for Opening Year (2017) uses the methodology that is required by the *City of Moreno Valley TIA Preparation Guide* (dated August 2007). The lane configurations and traffic controls assumed to be in place for Opening Year Cumulative (2017) conditions are the same as described above for Opening Year (2017) conditions (Urban Crossroads, 2013, p. 99).

ADT volumes for the Opening Year Cumulative (2017) Without Project (E+A+C) conditions are shown on Figure 4.4-31, *Opening Year Cumulative (2017) Without Project Average Daily Traffic (ADT),* and AM and PM peak hour intersection turning movement volumes for Opening Year Cumulative (2017) Without Project (E+A+C) conditions are shown on Figure 4.4-32, *Opening Year Cumulative (2017) Without Project AM Peak Hour Intersection Volumes,* and Figure 4.4-33, *Opening Year Cumulative (2017) Without Project PM Peak Hour Intersection Volumes*.

ADT volumes for the Opening Year Cumulative (2017) With Project (E+A+C+P) conditions are shown on Figure 4.4-34, *Opening Year Cumulative (2017) With Project Average Daily Traffic (ADT),* and AM and PM peak hour intersection turning movement volumes for Opening Year Cumulative (2017) With Project (E+A+C+P) conditions are shown on Figure 4.4-35, *Opening Year Cumulative (2017) With Project AM Peak Hour Intersection Volumes,* and Figure 4.4-36, *Opening Year Cumulative (2017) With Project PM Peak Hour Intersection Volumes*.

☐ Opening Year Cumulative (2017) Roadway Segments Analysis

Roadway segment capacities for Opening Year Cumulative (2017) Without Project (E+A+C) and With Project (E+A+P) conditions were analyzed based on the methodology discussed in Subsection 4.4.3B.

Table 4.4-19, *Opening Year Cumulative (2017) Conditions Roadway Volume/Capacity Analysis*, identifies the LOS of study area roadway segments under Opening Year Cumulative (2017) conditions for both with and without Project traffic. Additionally, Table 4.4-19 summarizes the Opening Year Cumulative (2017) Without Project (E+A+C) and With Project (E+A+C+P) LOS based on the thresholds identified in Table 4.4-13. As shown in Table 4.4-19, under E+A+C conditions, 21 of the 28 study area roadway segments would operate at an acceptable LOS without the addition of Project traffic, while seven (7) roadway segments would operate at an unacceptable LOS. As shown in Table 4.4-19, with the addition of Project traffic, the LOS for all study area roadway segments would remain unchanged. As such, Project traffic would not directly cause any roadway segments to degrade to a deficient LOS under Opening Year Cumulative (2017) conditions. Because the Project would add 50 or more peak hour trips to these seven (7) segments, the impact is considered a significant cumulative impact. The seven (7) cumulatively impacted segments are:

- Harley Knox Boulevard, between I-215 NB Ramps and Western Way;
- Harley Knox Boulevard, East of Western Way;
- Harley Knox Boulevard, West of Patterson Avenue;
- Harley Knox Boulevard, East of Patterson Avenue;
- Harley Knox Boulevard, West of Indian Street;
- Indian Street, South of Nandina Avenue;
- Indian Street, North of Harley Knox Boulevard

An analysis of these roadway segments by Urban Crossroads concluded that all of the roadway segments are anticipated to operate at acceptable LOS with improvements to adjacent study area intersections (including the addition of some through lanes) without the need for additional roadway widening discussed in Subsection 4.4.8 (Urban Crossroads, 2013, p. 106).

☐ Opening Year Cumulative (2017) Intersections Analysis

Opening Year Cumulative (2017) Without Project (E+A+C) and With Project (E+A+C+P) peak hour traffic operations were evaluated for study area intersections based on the methodologies presented in Subsection 4.4.3B. As shown in Table 4.4-20, *Intersection Analysis for Opening Year Cumulative (2017) Conditions,* eight (8) of the 13 study area intersections would operate at an acceptable LOS, while the remaining five (5) intersections would operate at unacceptable LOS "F" during one or both of the peak hours for Opening Year (2017) Without Project (E+A+C) conditions.

Figure 4.4-32 and Figure 4.4-33, summarize the AM and PM peak hour study area intersection LOS for Opening Year (2017) Without Project (E+A+C) conditions. Figure 4.4-35 and Figure 4.4-36 summarize the AM and PM peak hour study area intersection LOS for Opening Year (2017) With Project (E+A+C+P) conditions, consistent with the summary provided in Table 4.4-19.

As shown in Table 4.4-20, the addition of Project traffic would not cause any additional study area intersections to operate at unacceptable peak hour LOS beyond those previously identified under Opening Year Cumulative (2017) Without Project conditions (E+A+C). The intersection of Perris Boulevard at Nandina Avenue is anticipated to operate at acceptable peak hour operations with the site-adjacent Project improvements in place along Perris Boulevard. Because Project traffic would contribute 50 or more peak hour trips to the five (5) remaining intersections that would be impacted under E+A+C+P conditions, Project impacts to these five (5) intersections, listed below, would be cumulatively significant.

- I-215 Southbound Ramps/ Harley Knox Boulevard;
- I-215 Northbound Ramps/ Harley Knox Boulevard;
- Western Way/ Harley Knox Boulevard;
- Patterson Avenue/ Harley Knox Boulevard;
- Indian Street/ Harley Knox Boulevard;

Threshold 2: Would the proposed Project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

The Riverside County Congestion Management Plan (CMP) prepared by the Riverside County Transportation Commission (RCTC) is applicable to the Project because I-215 is a CMP Roadway and occurs within the Project's study area (Riverside County Transportation Commission, 2010, pp. 2-5).

The study area for the mainline analysis includes segments of the I-215 Freeway, from north of and south of Harley Knox Boulevard, and includes the freeway-to-arterial interchanges of the I-215

Freeway with the Harley Knox Boulevard ramps. As shown on Figure 4.4-2, *Project (Passenger Car) Trip Distribution*, it is estimated that 40% of passenger cars accessing the Project site would use I-215. As shown on Figure 4.4-3, *Project (Truck) Trip Distribution*, it is estimated that 100% of trucks accessing the Project site would use I-215.

For the purpose of analysis, I-215 in the study area (from north of Harley Knox Boulevard to south of Harley Knox Boulevard) has been broken into segments defined by the freeway-to-arterial interchange locations. As noted previously, the RCTC has plans in place for the widening of I-215 through the study area; however, a schedule for the widening has not been set due to the state's ongoing budget challenges (Urban Crossroads, 2013, p. 24). As such, the future widening was not assumed as the base condition. Widening of the I-215 Freeway as planned by RCTC is noted in the analysis of future conditions as "with improvements" only. The same analysis scenarios presented above under Threshold 1 (E+P, E+A+P, and E+A+C+P) are analyzed below and in *Technical Appendix F*.

A. Existing (2012) Plus Project CMP Analysis (E+P)

As previously stated, for purposes of full disclosure and in an effort to satisfy CEQA Guidelines §15125(a), this subsection presents an analysis of existing traffic volumes plus traffic generated by the proposed Project (Existing plus Project, or E+P). The E+P scenario rarely materializes as an actual scenario in the real world because conditions are not static. Other projects are being constructed, the transportation network is evolving, and traffic patterns are changing. Regardless, the E+P scenario is analyzed to satisfy CEQA requirements to identify the Project's impacts to the existing environment.

❑ **E+P Freeway Segment Analysis**

E+P mainline directional volumes for I-215 for the AM and PM peak hours are shown on Figure 4.4-37, *Existing Plus Project I-215 Freeway Mainline Volumes*. As shown in Table 4.4-21, *Existing Plus Project Conditions Basic Freeway Segment Analysis*, I-215 Freeway segments in the study area operate at LOS "C" or better during the peak hours for E+P traffic conditions. The addition of Project traffic would not degrade the LOS. Project-related impacts would thus be less than significant.

❑ **E+P Freeway Ramp Analysis**

A traffic progression analysis was performed for the I-215 Freeway ramp merge and diverge areas. As shown in Table 4.4-22, *I-215 Freeway Ramp Junction Merge/Diverge Analysis For Existing Plus Project Conditions*, the ramp merge and diverge areas would operate at acceptable LOS "E" or better during the peak hours under E+P traffic conditions. The addition of Project traffic would not degrade the LOS. Project-related impacts would thus be less than significant.

B. Opening Year CMP Analysis (Opening Year (2017))

The Opening Year (2017) conditions analysis determines the Project-related effects on I-215 based on a comparison of the Existing plus Ambient Growth plus Project (E+A+P) traffic conditions to the Existing (2012) and Existing plus Ambient Growth (E+A) conditions.

❑ Opening Year (2017) Freeway Segment Analysis

Opening Year (2017) mainline directional volumes for I-215 for the AM and PM peak hours (Without and With Project) are shown on Figure 4.4-38, *Opening Year (2017) Without Project I-215 Freeway Mainline Volumes*, and Figure 4.4-39, *Opening Year (2017) With Project I-215 Freeway Mainline Volumes*. As shown in Table 4.4-23, *Opening Year (2017) Conditions Basic Freeway Segment Analysis,* I-215 Freeway segments in the study area would operate at an acceptable LOS during the peak hours for Opening Year (2017) Without and With Project traffic conditions. Project-related impacts would thus be less than significant.

❑ Opening Year (2017) Freeway Ramp Analysis

As shown in Table 4.4-24, *I-215 Freeway Ramp Junction Merge/Diverge Analysis For Opening Year (2017) Conditions,* the I-215 Freeway ramp merge and diverge areas are expected to operate at acceptable service levels for Opening Year (2017) traffic conditions, both Without and With the Project. Project-related impacts would thus be less than significant.

C. Opening Year Cumulative (2017) Traffic Analysis

As discussed in Subsection 4.02, CEQA requires that an EIR contain an assessment of the cumulative impacts that may be associated with a proposed project. The Opening Year Cumulative (2017) analysis determines the Project-related traffic impacts based on a comparison of the traffic volumes expected in 2017 without and with development of the proposed Project, including background traffic from cumulative development projects. Refer to Subsection 4.4.3B, for a description of the methodology used for this analysis.

❑ Opening Year Cumulative (2017) Freeway Segment Analysis

Opening Year Cumulative (2017) mainline directional volumes for I-215 for the AM and PM peak hours (without and with Project) are shown on Figure 4.4-40, *Opening Year Cumulative (2017) Without Project I-215 Freeway Mainline Volumes*, and Figure 4.4-41, *Opening Year Cumulative (2017) With Project I-215 Freeway Mainline Volumes*. As shown in Table 4.4-25, *Opening Year Cumulative (2017) Conditions Basic Freeway Segment Analysis,* the study area mainline segments would operate at acceptable LOS during the peak hours for Opening Year Cumulative (2017) Without and With Project traffic conditions; therefore, the Project would have a less than significant impact to freeway segments.

❑ Opening Year Cumulative (2017) Freeway Ramp Analysis

As shown in Table 4.4-26, *I-215 Freeway Ramp Junction Merge/Diverge Analysis For Opening Year Cumulative (2017) Conditions*, the ramp junctions along the I-215 Freeway are projected to operate at acceptable service levels for both Opening Year (2017) Without and With Project conditions (i.e., LOS “E” or better); therefore, the Project would have a less than significant impact to freeway ramps.

Threshold 3: Would the proposed Project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

The proposed Project does not contain an air travel component; thus, air traffic volumes would not be changed as a result of the Project.

The Project site is located approximately 0.9-mile to the east of the March Air Reserve Base and March Inland Port Airport ARB/IPA. The Riverside County Airport Land Use Commission (RCALUC) is the local airport land use commission for airports within Riverside County, and pursuant to the California State Aeronautics Act (Public Utility Code §21670 et seq.) is tasked with preparing and adopting an airport land use compatibility plan, and for reviewing proposed plans, regulations, and other actions of local agencies and airport operators for consistency with the plan.

The proposed Project site is located within the March ARB Joint Land Use Study Compatibility Zone D. Compatibility Zone D is intended to encompass places where aircraft fly below about 3,000 feet above the airport elevation either on arrival or departure. Additionally, it includes locations near the primary flight paths where aircraft noise may regularly be loud enough to be disruptive. Direct overflights of these areas may occur occasionally. Risk levels in this zone are considered low and Zone D is not subject to significant safety hazards; therefore, the proposed Project would not introduce a safety risk and would not cause a change in traffic patterns. No impacts would occur (March Joint Powers Authority, 2010).

Threshold 4: Would the proposed Project substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?

The proposed Project (described in Section 3.0, Project Description) is consistent with the property's land use designations as applied by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208), as well as the property's zoning designation. As such, there would be no transportation hazards created as a result of an incompatible land use. The Project proposes to construct and operate one warehouse distribution building in an area of the City of Moreno Valley that is planned for such development and is adjacent to the City's designated truck route. To reduce inadvertent wrong turns, signs are proposed to be posted at the Project's exit driveways directing vehicles to the truck route.

The City of Moreno Valley Transportation Engineering Division has reviewed the Project's application materials (refer to Section 3.0, Project Description) and determined that no hazardous transportation design features would be introduced by the Project; therefore, the Project would have a less than significant impact because it would not result in increased hazards from a design feature and/or incompatible uses.

Threshold 5: Would the proposed Project result in inadequate emergency access?

Adequate emergency access would be provided to the Project site. Buildout of the proposed Project would result in one new distribution warehouse building on the Project site, which would increase the need for emergency access to and from the site. During the course of the City of Moreno Valley's required review of the proposed Project (refer to Section 3.0, Project Description), the Project's transportation design was reviewed by the City's Transportation Engineering Division to ensure that adequate access to and from the site would be provided for emergency vehicles. Furthermore, Conditions of Approval will be issued by the City of Moreno Valley prior to consideration of the proposed Project by City Council, and will require that the Project provide adequate paved access to and from the site and its building. With required adherence to City requirements for emergency vehicle access, impacts would be less than significant.

Threshold 6: Would the proposed Project conflict with adopted policies or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

The proposed Project consists of one new distribution warehouse building, which is a land use that is not likely to attract large volumes of pedestrian, bicycle, or transit traffic. (Field observations indicate nominal pedestrian and bicycle activity within the study area (Urban Crossroads, 2013, p. 35)). Regardless, the Project is designed to comply with all applicable transportation policies.

The Project is designed to accommodate pedestrians via sidewalks provided along adjacent public roadways. A Class III bikeway is designated along Indian Street north of San Michele Road and along San Michele Road, west of Indian Street, in conformance with the General Plan's Bikeway Plan. Perris Boulevard and Nandina Avenue are not identified as bikeways per the General Plan Bikeway Plan (as shown on Figure 4.4-12) and pursuant to the policies of the MVIAP, bikeways are not required and not proposed along the proposed Project's frontage with Perris Boulevard and Nandina Avenue. Landscaping is designed to be installed along the Project's perimeter, which would separate the adjacent public roadway rights-of-way (and their associated streetscapes, sidewalks, and bikeways) from the proposed Project's interior, eliminating any conflict between Project operations and the sidewalks and bikeways of perimeter roadways. As required by the City, bike racks would be provided at the building. A transit turnout also is proposed along the Project's frontage with Perris Boulevard, as requested by RTA to implement a transit service stop adjacent to the Project site. All Project driveways would be stop-sign controlled and sight distance at each Project driveway is required to be reviewed by the City of Moreno Valley at the time improvement plans are submitted to ensure that sight distance meets City standards. Off site, trucks accessing the Project are required to use approved truck routes, which would reduce conflicts associated with safety of the multi-model circulation system. The Project would not conflict with adopted policies or programs; therefore, impacts would be less than significant.

4.4.5 CUMULATIVE IMPACT ANALYSIS

The analysis under Threshold 1 determined the Project's potential to affect the transportation network on a direct or cumulative basis. As concluded under Threshold 1, the addition of Project traffic to the existing and planned circulation network would make a cumulatively considerable contribution to seven (7) roadway segments and five (5) intersections in Opening Year Cumulative (2017) Conditions. Table 4.4-20 summarizes the Opening Year Cumulative (2017) intersection conditions.

The analysis under Threshold 2 determined the Project's potential to affect I-215 on a direct or cumulative basis. As concluded under Threshold 2, the addition of Project traffic to the existing and planned circulation network would not contribute to an unacceptable LOS condition on freeway mainlines and ramp junctions; therefore, the Project would make a less than cumulatively considerable impact on the I-215 freeway mainline segments and ramp junctions.

The proposed Project has no potential to contribute to significant cumulative impacts under the topics discussed under Thresholds 3, 4, and 5 because the Project has no potential to cumulatively result in changes to air traffic patterns, to result in cumulatively considerable transportation design safety concerns, or to adversely affect emergency access on a cumulative basis.

Regarding Threshold 6, the Project would not conflict with adopted policies or programs regarding public transit, bicycle, or pedestrian facilities and thus has no potential to contribute to a cumulative impact. The Project incorporates bicycle racks, sidewalks, and a transit turnout into its design to facilitate local and regional plans for a multi-model transportation network. The Project consists of one distribution warehouse building, which is likely to attract passenger cars and trucks and only small volumes of pedestrian, bicycle, or transit traffic. Landscaping is designed to be installed along the Project's perimeter and all Project driveways would be reviewed for adequate sight distance before construction and be stop-sign controlled. Trucks would be directed to the approved truck route by signs posted at Project exit driveways. The Project would have a less than significant cumulatively considerable impact and is consistent with adopted policies and programs regarding public transit, bicycle, and pedestrian facilities.

4.4.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold 1: Significant Cumulative Impact (Near-Term). The proposed Project would result in cumulatively considerable significant impacts to the existing and planned roadway network by contributing traffic to facilities that would operate at deficient levels of service with or without the addition of Project traffic. Project traffic would make a cumulatively considerable contribution to identified cumulative impacts at seven (7) roadway segments and five (5) intersections in Opening Year Cumulative (2017) Conditions. With required payment of City of Moreno Valley DIF fees and TUMF fees (see MM 4.4-4) and implementation of the DIF and TUMF-funded improvements at the cumulatively impacted facilities, all cumulatively impacted roadway segments and intersections in Opening Year Cumulative (2017) Conditions would be reduced to a less than significant impact with the exception of two (2) intersections: Western Way/Harley Knox Boulevard (Project's traffic contribution is 3.3%) and Indian Street/ Harley Knox Boulevard (Project's traffic contribution is 3.5%)). Although improvements are anticipated to relieve these deficiencies in the long-term along Harley Knox Boulevard, funded by the North Perris Road Bridge and Benefit District, there is no assurance that the improvements will be in place at the time of the proposed Project's Opening Year Cumulative (2017) Conditions. Thus, the cumulative impact is considered a near-term impact, until such time as the intersection improvements are in place.

Threshold 2: Less than Significant Impact. The proposed Project would result in less than significant direct and cumulative impacts to CMP facilities.

Threshold 3: No Impact. There is no potential for the Project to change air traffic levels or create substantial air traffic safety risks.

Threshold 4: Less than Significant Impact. No significant transportation safety hazards would be introduced as a result of the proposed Project's design.

Threshold 5: Less than Significant Impact. Adequate emergency access would be provided to the Project site during both near-term construction and long-term operation.

Threshold 6: Less than Significant Impact. The proposed Project is consistent with adopted policies and programs regarding public transit, bicycle, and pedestrian facilities. The Project is designed to reduce all potential transportation mode conflicts. Potential impacts to the performance or safety of transit, bicycle, and pedestrian systems would be less than significant.

4.4.7 MITIGATION MEASURES

The Project Applicant is required to pay TUMF fees (see MM 4.4-4); however, currently programed TUMF improvements will not relieve LOS deficiencies at two (2) study area intersections. The North Perris Road and Bridge Benefit District (RBBD) identifies improvements to Harley Knox Boulevard and the two cumulatively impacted intersections of Harley Knox Boulevard with Western Way and with Indian Avenue. However, because the Project site is not located in the City of Perris and not located in the North Perris RBBD fee area, the Project Applicant is not required to monetarily contribute to the expense of these planned improvements. The following measure is recommended should another funding program be established for these cumulatively impacted intersections by the City of Perris to which projects in other jurisdictions can legally contribute.

MM 4.4-1 In the event that the City of Perris establishes a fair-share funding program for improvements to the following intersections (or immediately adjacent roadways segments that contribute to the intersection's level of service), that applies to projects in the City of Moreno Valley, then prior to the issuance of a building permit for the project, the Project Applicant shall contribute a fair-share payment to the established funding program to address the Project's cumulative impacts to the following facilities:

a) Intersection of Western Way/ Harley Knox Boulevard (Project's fair-share contribution is 3.3%);

b) Intersection of Indian Street/ Harley Knox Boulevard (Project's fair-share contribution is 3.5%)

MM 4.4-2 Prior to the issuance of occupancy permits, the Project shall construct roadway improvements (including but not limited to parkway, landscaping, and sidewalk improvements) along its frontage with Perris Boulevard and San Michele Road as specified in the City of Moreno Valley's Conditions of Approval for Plot Plan PA12-0023.

MM 4.4-3 Prior to the issuance of occupancy permits, the Project shall construct intersection improvements at each Project Driveway as specified in the City of Moreno Valley's Conditions of Approval for Plot Plan PA12-0023.

MM 4.4-4 Prior to the issuance of building or occupancy permits, the Project shall comply with the City of Moreno Valley Development Impact Fee (DIF) program, which requires the payment of a fee to the City to reduce traffic congestion by participating in funding the installation of intersection improvements. Prior to the issuance of occupancy permits, the project also shall comply with the Transportation Uniform Mitigation Fee (TUMF) program, which funds off-site regional transportation improvements. The following study area intersection improvements are currently covered under DIF-funding and/or TUMF-funding:

a) I-215 Southbound Ramps/ Harley Knox Boulevard (ID #1): One (1) southbound lane; one (1) westbound lane; and re-striping for one southbound lane and one southbound right turn.

b) I-215 Northbound Ramps/ Harley Knox Boulevard (ID #2): One westbound free right lane, and re-striping for one (1) northbound right turn lane.

c) Patterson Avenue/ Harley Knox Boulevard (ID #4): One (1) eastbound turn lane, and one (1) westbound turn lane.

d) Indian Street/ Nandina Avenue (ID #5): One (1) northbound turn lane; one (1) southbound turn lane; one (1) southbound right turn lane; one (1) eastbound lane; and protected left-turn on eastbound and westbound approaches.

e) Indian Street/ Harley Knox Boulevard (ID #6): Two (2) southbound right turn lanes with overlapping phasing; one (1) eastbound lane; one (1) eastbound turn lane; and remove cross-walk on north leg (westbound approach).

f) Perris Boulevard/ San Michele Road (ID #12): One southbound turn lane.

MM 4.4-5 On-site direction signing and striping shall be installed in conjunction with detailed construction plans for the Project and as approved by the City of Moreno Valley. The on-site signing and striping plans shall be subject to review and approval by the Planning Division, and shall clearly indicate the location of service area docks and public parking areas.

MM 4.4-6 All final grading, landscaping, and street improvement plans shall provide sight distance standards in accordance with City of Moreno Valley and California Department of Transportation (Caltrans) standards, as appropriate.

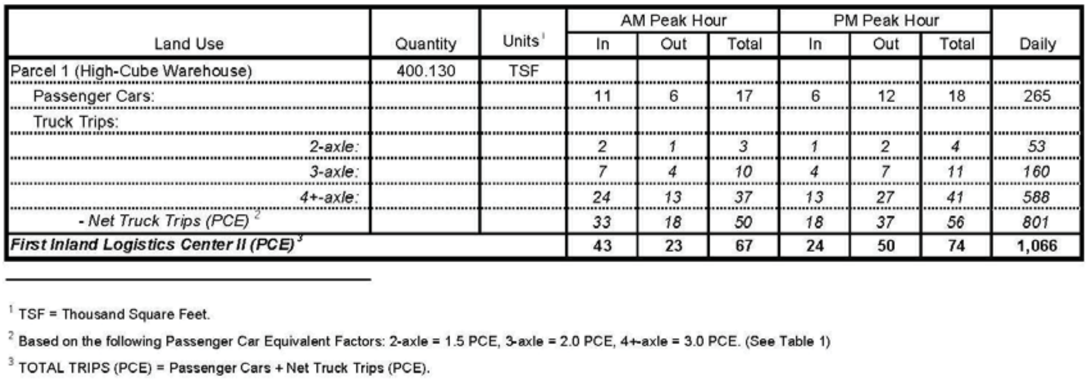
MM 4.4-7 The minimum number of vehicle and bicycle parking spaces specified by the City of Moreno Valley Municipal Code shall be provided.

MM 4.4-8 A future transit stop shall be provided by the Project on the southbound side of Perris Boulevard as specified in the City of Moreno Valley's Conditions of Approval for Plot Plan PA12-0023.

4.4.8 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Threshold 1: Significant Cumulative Impact (Near-Term). With required payment of TUMF fees (see MM 4.4-4), the Project's cumulative impacts at two (2) intersections in the City of Perris (Western Way/Harley Knox Boulevard and Indian Street/Harley Knox Boulevard) would be significant and unavoidable because these intersections fall outside of the City of Moreno Valley's jurisdiction and the City of Moreno Valley has no authority to assure that the needed improvements will be in place prior to the Project's Opening Year Cumulative (2017) condition. Although needed improvements are programmed as part of the North Perris RBBD, the proposed Project is not in the RBBD fee area and as such, has no feasible and legal means to monetarily contribute to the improvements unless another fee program is established by the City of Perris to which the Project Applicant can legally contribute. In conclusion, because there is no assurance that these improvements would be in place prior to the Project's Opening Year Cumulative (2017) condition, the Project's cumulative impact to the intersections of Western Way/ Harley Knox Boulevard and Indian Street/Harley Knox Boulevard is concluded to be significant and unavoidable in the near-term, until such time as the identified improvements are funded and in place. If a funding program is established to which the Project Applicant can participate as specified in Mitigation Measure MM 4.4-1, the Project's impact would be mitigated.

Table 4.4-1 Project Trip Generation Summary



Land Use	Quantity	Units[1]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Parcel 1 (High-Cube Warehouse)	400.130	TSF							
Passenger Cars:			11	6	17	6	12	18	265
Truck Trips:									
2-axle:			*2*	*1*	*3*	*1*	*2*	*4*	*53*
3-axle:			*7*	*4*	*10*	*4*	*7*	*11*	*160*
4+-axle:			*24*	*13*	*37*	*13*	*27*	*41*	*588*
- Net Truck Trips (PCE)[2]			*33*	*18*	*50*	*18*	*37*	*56*	*801*
First Inland Logistics Center II (PCE)[3]			**43**	**23**	**67**	**24**	**50**	**74**	**1,066**

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[1] TSF = Thousand Square Feet.

[2] Based on the following Passenger Car Equivalent Factors: 2-axle = 1.5 PCE, 3-axle = 2.0 PCE, 4+-axle = 3.0 PCE. (See Table 1)

[3] TOTAL TRIPS (PCE) = Passenger Cars + Net Truck Trips (PCE).

Source: (Urban Crossroads, 2013), Section 4.2

Table 4.4-2 Roadway Segment Analysis Locations

ID	Roadway Segments	Jurisdiction
1	Harley Knox Boulevard, West of I-215 Freeway	County of Riverside
2	Harley Knox Boulevard, between I-215 SB and NB Ramps	Perris
3	Harley Knox Boulevard, between I-215 NB Ramps and Western Way	Perris
4	Harley Knox Boulevard, East of Western Way	Perris
5	Harley Knox Boulevard, West of Patterson Avenue	Perris
6	Harley Knox Boulevard, East of Patterson Avenue	Perris
7	Harley Knox Boulevard, West of Indian Street	Perris
8	Harley Knox Boulevard, East of Indian Street	Perris
9	Western Way, North of Harley Knox Boulevard	Perris
10	Patterson Avenue, North of Harley Knox Boulevard	Perris
11	Patterson Avenue, South of Harley Knox Boulevard	Perris
12	Indian Street, North of Nandina Avenue	Moreno Valley
13	Indian Street, South of Nandina Avenue	Moreno Valley
14	Indian Street, North of Harley Knox Boulevard	Moreno Valley
15	Indian Street, South of Harley Knox Boulevard	Perris
16	Knox Street, North of Nandina Avenue	Moreno Valley
17	Perris Boulevard, North of San Michele Road	Moreno Valley
18	Perris Boulevard, South of San Michele Road	Moreno Valley
19	Perris Boulevard, North of Nandina Avenue	Moreno Valley
20	Perris Boulevard, South of Nandina Avenue	Moreno Valley
21	San Michele Road, West of Driveway 1	Moreno Valley
22	San Michele Road, between Driveway 1 and Driveway 3	Moreno Valley
23	San Michele Road, between Driveway 3 and Perris Boulevard	Moreno Valley
24	Nandina Avenue, West of Indian Street	Moreno Valley
25	Nandina Avenue, between Indian Street and Knox Street	Moreno Valley
26	Nandina Avenue, between Knox Street and Driveway 2	Moreno Valley
27	Nandina Avenue, between Driveway 2 and Driveway 4	Moreno Valley
28	Nandina Avenue, between Driveway 4 and Perris Boulevard	Moreno Valley

Source: (Urban Crossroads, 2013), Section 1.3.2

Table 4.4-3 Intersection Analysis Locations

ID	Intersection Location	Jurisdiction
1	I-215 Southbound Ramps / Harley Knox Boulevard	Caltrans
2	I-215 Northbound Ramps / Harley Knox Boulevard	Caltrans
3	Western Way / Harley Knox Boulevard	Perris
4	Patterson Avenue / Harley Knox Boulevard	Perris
5	Indian Street / Nandina Avenue	Moreno Valley
6	Indian Street / Harley Knox Boulevard	Perris
7	Knox Street / Nandina Avenue	Moreno Valley
8	*Driveway 1 / San Michele Road – Future Intersection*	*Moreno Valley*
9	*Driveway 2 / Nandina Avenue – Future Intersection*	*Moreno Valley*
10	*Driveway 3 / San Michele Road – Future Intersection*	*Moreno Valley*
11	*Driveway 4 / Nandina Avenue – Future Intersection*	*Moreno Valley*
12	Perris Boulevard / San Michele Road	Moreno Valley
13	Perris Boulevard / Nandina Avenue	Moreno Valley

Source: (Urban Crossroads, 2013), Section 1.3.1

Table 4.4-4 Freeway Mainline Segments

ID	Freeway Mainline Segments
1	I-215 Freeway – Southbound, north of Harley Knox Boulevard
2	I-215 Freeway – Southbound, south of Harley Knox Boulevard
3	I-215 Freeway – Northbound, north of Harley Knox Boulevard
4	I-215 Freeway – Northbound, south of Harley Knox Boulevard

Source: (Urban Crossroads, 2013). 2012, Section 1.3.3

Table 4.4-5 Freeway Merge/Diverge Ramp Junctions

ID	Freeway Merge/Diverge Ramp Junctions
1	I-215 Freeway – Southbound, Off-Ramp at Harley Knox Boulevard (Diverge)
2	I-215 Freeway – Southbound, On-Ramp at Harley Knox Boulevard (Merge)
3	I-215 Freeway – Northbound, On-Ramp at Harley Knox Boulevard (Merge)
4	I-215 Freeway – Northbound, Off-Ramp at Harley Knox Boulevard (Diverge)

Source: (Urban Crossroads, 2013), Section 1.3.4

Table 4.4-6 Existing (2012) Conditions Roadway Volume/Capacity Analysis

#	Roadway	Segment Limits	Jurisdiction	Roadway Section	LOS Capacity[2,3]	Existing (2012)	V/C	LOS	Acceptable LOS
1	Harley Knox Boulevard	West of I-215 Freeway	Co. of Riv.	4D	35,900	7,884	0.22	A	D
2		I-215 SB Ramps to I-215 NB Ramps	Perris	4D	35,900	10,824	0.30	A	D
3		I-215 NB Ramps to Western Way	Perris	4U	25,900	14,844	0.57	A	D
4		East of Western Way	Perris	4U	25,900	14,052	0.54	A	D
5		West of Patterson Avenue	Perris	4U	25,900	13,992	0.54	A	D
6		East of Patterson Avenue	Perris	2D	18,000	13,152	0.73	C	D
7		West of Indian Street	Perris	4D	35,900	11,592	0.32	A	D
8		East of Indian Street	Perris	4D	35,900	5,856	0.16	A	D
9	Western Way	North of Harley Knox Boulevard	Perris	2U	13,000	1,200	0.09	A	D
10	Patterson Avenue	North of Harley Knox Boulevard	Perris	2U	13,000	132	0.01	A	D
11		South of Harley Knox Boulevard	Perris	2U	13,000	1,236	0.10	A	D
12	Indian Street	North of Nandina Avenue	MV	2D	12,500	3,672	0.29	A	D
13		South of Nandina Avenue	MV	4D	37,500	6,168	0.16	A	D
14		North of Harley Knox Boulevard	MV	4D	37,500	7,572	0.20	A	D
15		South of Harley Knox Boulevard	Perris	4D	35,900	1,428	0.04	A	D
16	Knox Street	North of Nandina Avenue	MV	2D	12,500	324	0.03	A	D
17	Perris Boulevard	North of San Michele Road	MV	3D	25,000	18,960	0.76	C	D
18		South of San Michele Road	MV	4D	37,500	16,932	0.45	A	D
19		North of Nandina Avenue	MV	4D	37,500	19,962	0.53	A	D
20		South of Nandina Avenue	MV	4D	37,500	19,956	0.53	A	D
21	San Michele Road	West of Driveway 1	MV	2D	12,500	3,444	0.28	A	D
22		Driveway 1 to Driveway 3	MV	2D	12,500	3,444	0.28	A	D
23		Driveway 3 to Perris Boulevard	MV	2D	12,500	3,444	0.28	A	D
24	Nandina Avenue	West of Indian Street	MV	2U	12,500	1,236	0.10	A	D
25		Indian Street to Knox Street	MV	2D	12,500	2,340	0.19	A	D
26		Knox Street to Driveway 2	MV	2D	12,500	1,608	0.13	A	D
27		Driveway 2 to Driveway 4	MV	2U	12,500	1,068	0.09	A	D
28		Driveway 4 to Perris Boulevard	MV	2U	12,500	1,068	0.09	A	D

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[1] Per Figure 9-2: City of Moreno Valley Level of Service (LOS) Standards, City of Moreno Valley General Plan Circulation Element. From Table CE-2 of the City of Perris General Plan Circulation Element.

[2] These maximum roadway capacities have been extracted from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007). These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "E" service volumes are estimated maximum daily capacity for respective classifications. Capacity is affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian and bicycle traffic.

[3] The City of Perris roadway standard capacity is LOS "D", with the exception of SR-74 and Cajalco/Ramona Expressway which allows LOS "E" capacity. As such, the volumes shown in the table are based upon LOS "D" capacity with the exception of segments along SR-74 and Cajalco/Ramona Expressway which have been based upon LOS "E" capacity.

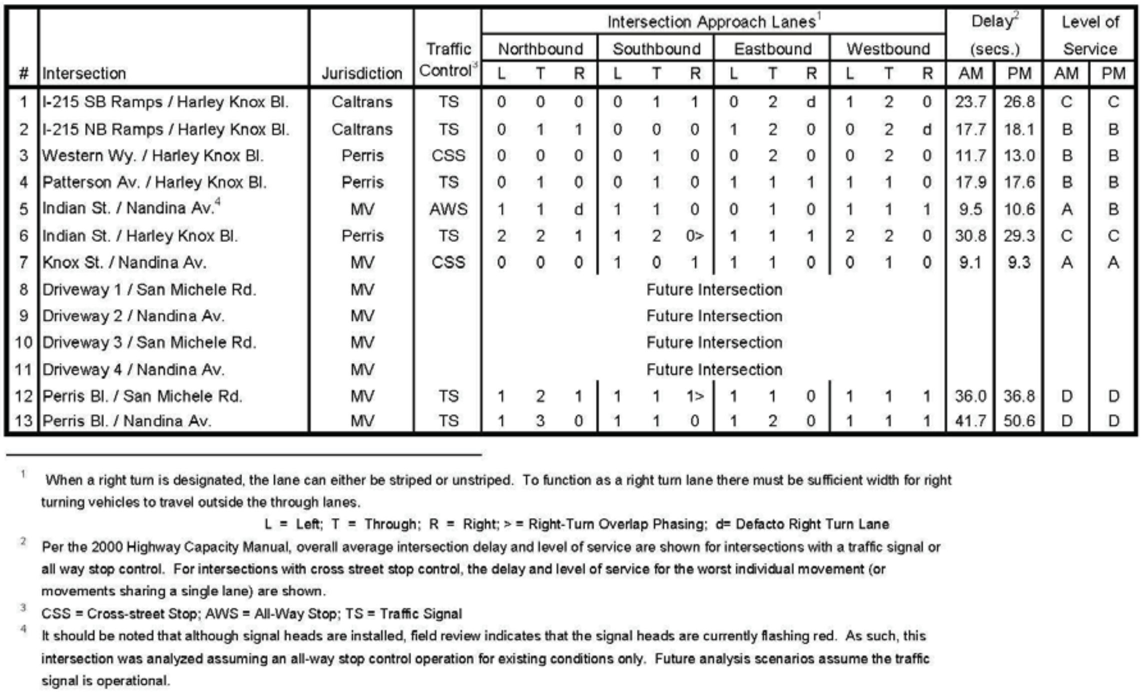
Source: (Urban Crossroads, 2013). 2012, Section 3.11

Table 4.4-7 Unsignalized Intersection LOS Thresholds

Level of Service	Description	Average Control Per Vehicle (Seconds)
A	Little or no delays.	0 to 10.00
B	Short traffic delays.	10.01 to 15.00
C	Average traffic delays.	15.01 to 25.00
D	Long traffic delays.	25.01 to 35.00
E	Very long traffic delays.	35.01 to 50.00
F	Extreme traffic delays with intersection capacity exceeded.	> 50.00

Source: (Urban Crossroads, 2013), Section 2.2.2

Table 4.4-8 Intersection Analysis for Existing (2012) Conditions



#	Intersection	Jurisdiction	Traffic Control[3]	Intersection Approach Lanes[1] Northbound L	T	R	Southbound L	T	R	Eastbound L	T	R	Westbound L	T	R	Delay[2] (secs.) AM	PM	Level of Service AM	PM
1	I-215 SB Ramps / Harley Knox Bl.	Caltrans	TS	0	0	0	0	1	1	0	2	d	1	2	0	23.7	26.8	C	C
2	I-215 NB Ramps / Harley Knox Bl.	Caltrans	TS	0	1	1	0	0	0	1	2	0	0	2	d	17.7	18.1	B	B
3	Western Wy. / Harley Knox Bl.	Perris	CSS	0	0	0	0	1	0	0	2	0	0	2	0	11.7	13.0	B	B
4	Patterson Av. / Harley Knox Bl.	Perris	TS	0	1	0	0	1	0	1	1	1	1	1	0	17.9	17.6	B	B
5	Indian St. / Nandina Av.[4]	MV	AWS	1	1	d	1	1	0	0	1	0	1	1	1	9.5	10.6	A	B
6	Indian St. / Harley Knox Bl.	Perris	TS	2	2	1	1	2	0>	1	1	1	2	2	0	30.8	29.3	C	C
7	Knox St. / Nandina Av.	MV	CSS	0	0	0	1	0	1	1	1	0	0	1	0	9.1	9.3	A	A
8	Driveway 1 / San Michele Rd.	MV		Future Intersection															
9	Driveway 2 / Nandina Av.	MV		Future Intersection															
10	Driveway 3 / San Michele Rd.	MV		Future Intersection															
11	Driveway 4 / Nandina Av.	MV		Future Intersection															
12	Perris Bl. / San Michele Rd.	MV	TS	1	2	1	1	1	1>	1	1	0	1	1	1	36.0	36.8	D	D
13	Perris Bl. / Nandina Av.	MV	TS	1	3	0	1	1	0	1	2	0	1	1	1	41.7	50.6	D	D

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[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; d= Defacto Right Turn Lane

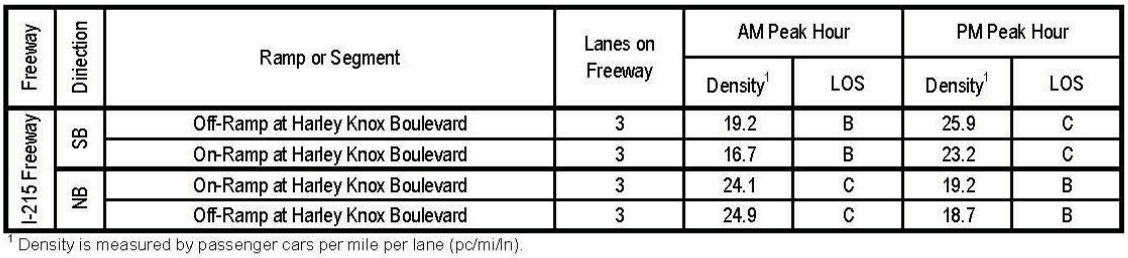
[2] Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal

[4] It should be noted that although signal heads are installed, field review indicates that the signal heads are currently flashing red. As such, this intersection was analyzed assuming an all-way stop control operation for existing conditions only. Future analysis scenarios assume the traffic signal is operational.

Source: (Urban Crossroads, 2013), Section 3.7

Table 4.4-9 I-215 Freeway Ramp Junction Merge/Diverge Analysis For Existing (2012) Baseline Conditions

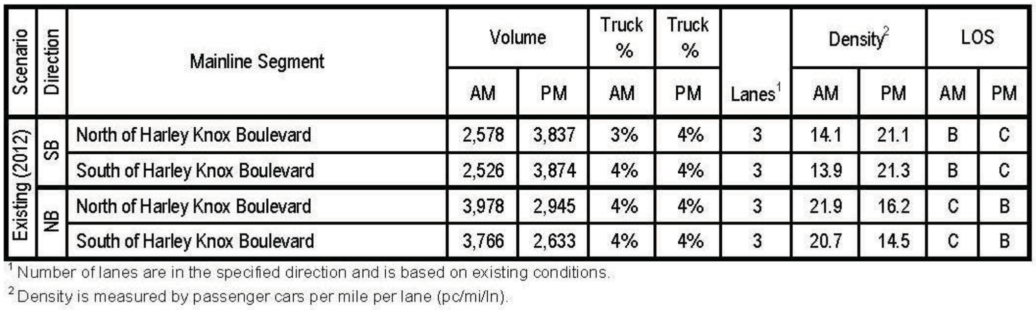


Freeway	Direction	Ramp or Segment	Lanes on Freeway	AM Peak Hour Density[1]	AM Peak Hour LOS	PM Peak Hour Density[1]	PM Peak Hour LOS
I-215 Freeway	SB	Off-Ramp at Harley Knox Boulevard	3	19.2	B	25.9	C
		On-Ramp at Harley Knox Boulevard	3	16.7	B	23.2	C
	NB	On-Ramp at Harley Knox Boulevard	3	24.1	C	19.2	B
		Off-Ramp at Harley Knox Boulevard	3	24.9	C	18.7	B

[1] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Source: (Urban Crossroads, 2013), Section 3.11

Table 4.4-10 Existing (2012) Baseline Conditions Basic Freeway Segment Analysis



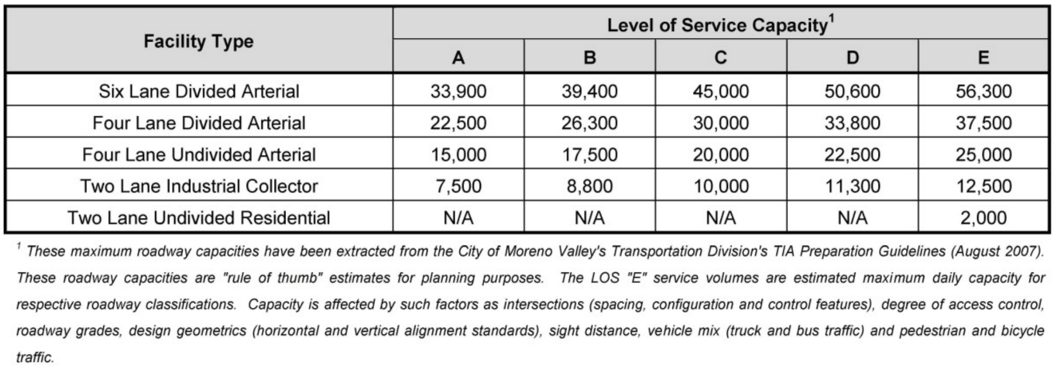
Scenario	Direction	Mainline Segment	Volume		Truck %	Truck %	Lanes[1]	Density[2]		LOS	
			AM	PM	AM	PM		AM	PM	AM	PM
Existing (2012)	SB	North of Harley Knox Boulevard	2,578	3,837	3%	4%	3	14.1	21.1	B	C
		South of Harley Knox Boulevard	2,526	3,874	4%	4%	3	13.9	21.3	B	C
	NB	North of Harley Knox Boulevard	3,978	2,945	4%	4%	3	21.9	16.2	C	B
		South of Harley Knox Boulevard	3,766	2,633	4%	4%	3	20.7	14.5	C	B

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Source: (Urban Crossroads, 2013), Section 3.11

Table 4.4-11 Moreno Valley Roadway Segment Capacity LOS Thresholds

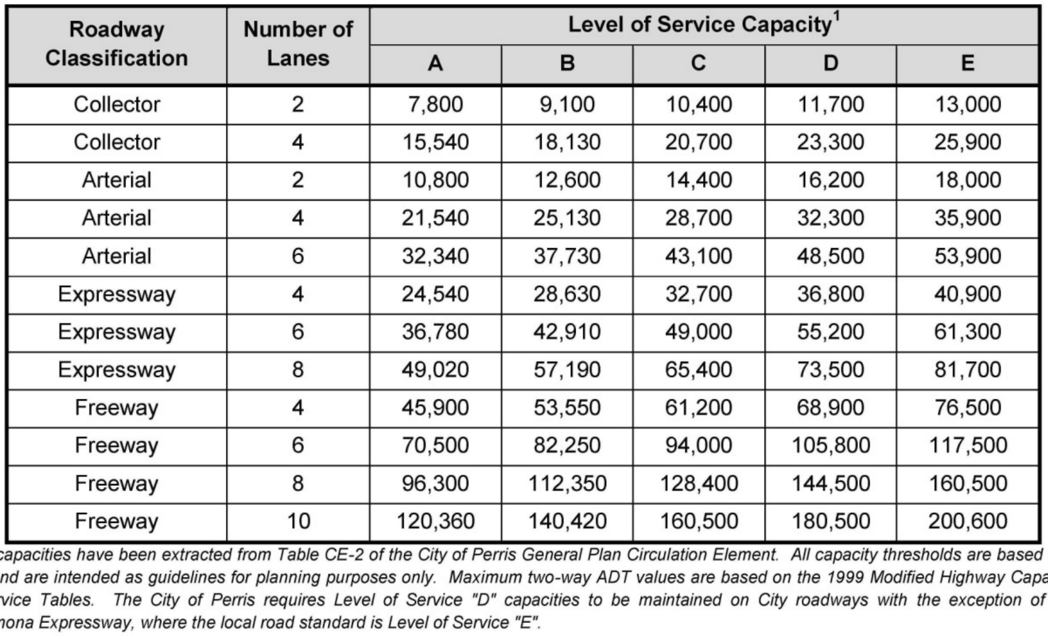


Facility Type	Level of Service Capacity[1]				
	A	B	C	D	E
Six Lane Divided Arterial	33,900	39,400	45,000	50,600	56,300
Four Lane Divided Arterial	22,500	26,300	30,000	33,800	37,500
Four Lane Undivided Arterial	15,000	17,500	20,000	22,500	25,000
Two Lane Industrial Collector	7,500	8,800	10,000	11,300	12,500
Two Lane Undivided Residential	N/A	N/A	N/A	N/A	2,000

[1] These maximum roadway capacities have been extracted from the City of Moreno Valley's Transportation Division's TIA Preparation Guidelines (August 2007). These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "E" service volumes are estimated maximum daily capacity for respective roadway classifications. Capacity is affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian and bicycle traffic.

Source: (Urban Crossroads, 2013), Section 2.3

Table 4.4-12 Perris Roadway Segment Capacity LOS Thresholds[1]

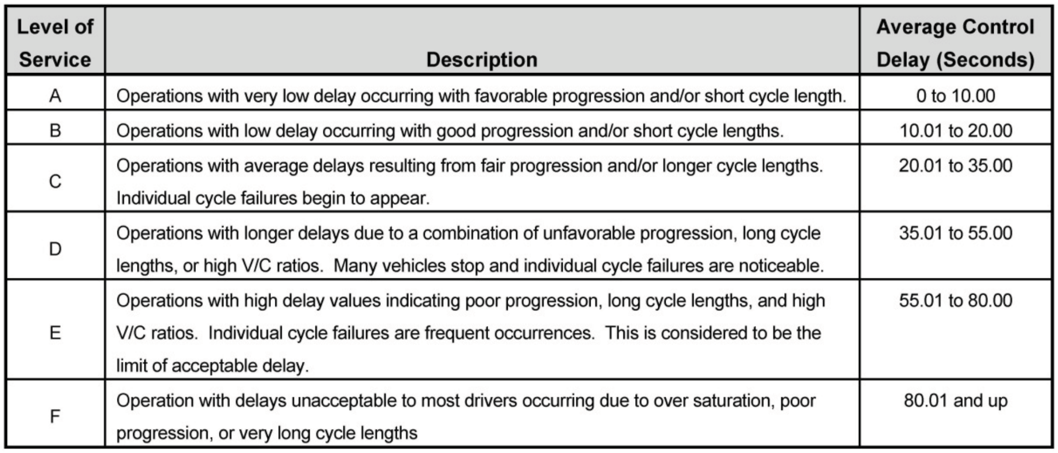


Roadway Classification	Number of Lanes	Level of Service Capacity[1]				
		A	B	C	D	E
Collector	2	7,800	9,100	10,400	11,700	13,000
Collector	4	15,540	18,130	20,700	23,300	25,900
Arterial	2	10,800	12,600	14,400	16,200	18,000
Arterial	4	21,540	25,130	28,700	32,300	35,900
Arterial	6	32,340	37,730	43,100	48,500	53,900
Expressway	4	24,540	28,630	32,700	36,800	40,900
Expressway	6	36,780	42,910	49,000	55,200	61,300
Expressway	8	49,020	57,190	65,400	73,500	81,700
Freeway	4	45,900	53,550	61,200	68,900	76,500
Freeway	6	70,500	82,250	94,000	105,800	117,500
Freeway	8	96,300	112,350	128,400	144,500	160,500
Freeway	10	120,360	140,420	160,500	180,500	200,600

[1] Roadway capacities have been extracted from Table CE-2 of the City of Perris General Plan Circulation Element. All capacity thresholds are based on optimum conditions and are intended as guidelines for planning purposes only. Maximum two-way ADT values are based on the 1999 Modified Highway Capacity Manual level of Service Tables. The City of Perris requires Level of Service "D" capacities to be maintained on City roadways with the exception of SR-74 and Cajalco/Ramona Expressway, where the local road standard is Level of Service "E".

Source: (Urban Crossroads, 2013), Section 2.3

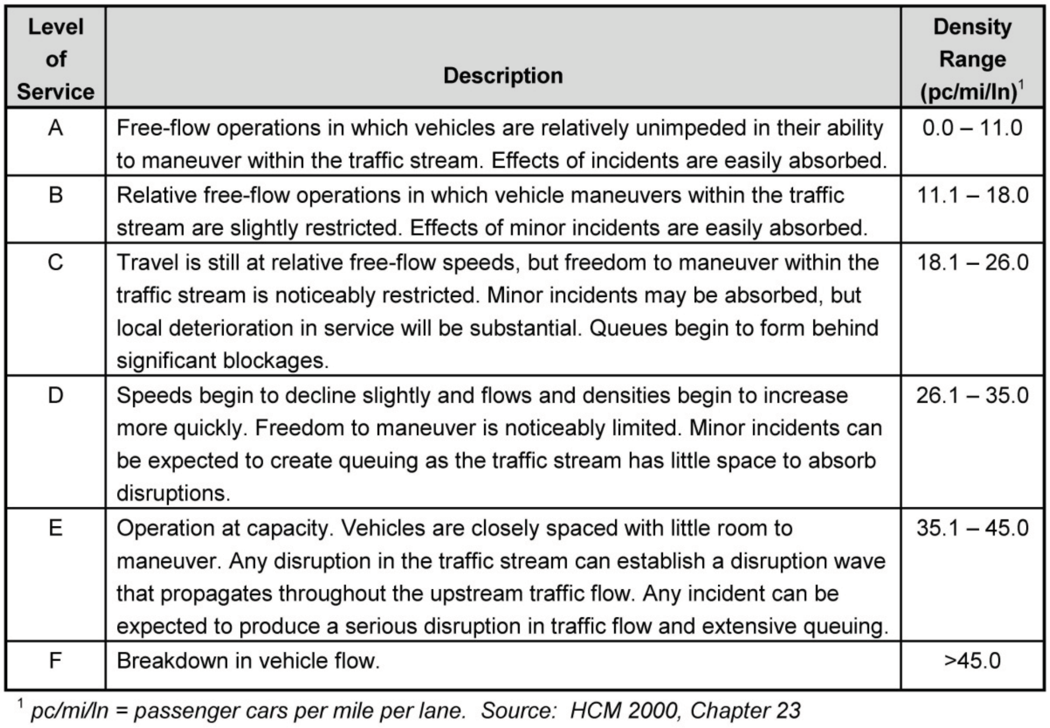
Table 4.4-13 Signalized Intersection LOS Thresholds



Level of Service	Description	Average Control Delay (Seconds)
A	Operations with very low delay occurring with favorable progression and/or short cycle length.	0 to 10.00
B	Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.01 to 35.00
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.01 to 55.00
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.01 to 80.00
F	Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths	80.01 and up

Source: (Urban Crossroads, 2013), Section 2.1

Table 4.4-14 Freeway Mainline LOS Thresholds



Level of Service	Description	Density Range (pc/mi/ln)[1]
A	Free-flow operations in which vehicles are relatively unimpeded in their ability to maneuver within the traffic stream. Effects of incidents are easily absorbed.	0.0 – 11.0
B	Relative free-flow operations in which vehicle maneuvers within the traffic stream are slightly restricted. Effects of minor incidents are easily absorbed.	11.1 – 18.0
C	Travel is still at relative free-flow speeds, but freedom to maneuver within the traffic stream is noticeably restricted. Minor incidents may be absorbed, but local deterioration in service will be substantial. Queues begin to form behind significant blockages.	18.1 – 26.0
D	Speeds begin to decline slightly and flows and densities begin to increase more quickly. Freedom to maneuver is noticeably limited. Minor incidents can be expected to create queuing as the traffic stream has little space to absorb disruptions.	26.1 – 35.0
E	Operation at capacity. Vehicles are closely spaced with little room to maneuver. Any disruption in the traffic stream can establish a disruption wave that propagates throughout the upstream traffic flow. Any incident can be expected to produce a serious disruption in traffic flow and extensive queuing.	35.1 – 45.0
F	Breakdown in vehicle flow.	>45.0

[1] *pc/mi/ln = passenger cars per mile per lane. Source: HCM 2000, Chapter 23*

Source: (Urban Crossroads, 2013), Section 2.4

Table 4.4-15 Existing Plus Project Conditions Roadway Volume/Capacity Analysis[1]

#	Roadway	Segment Limits	Jurisdiction	Roadway Section	LOS Capacity[2,3]	Existing Plus Project	V/C	LOS	Acceptable LOS
1	Harley Knox Boulevard	West of I-215 Freeway	Co. of Riv.	4D	35,900	7,884	0.22	A	D
2		I-215 SB Ramps to I-215 NB Ramps	Perris	4D	35,900	11,358	0.32	A	D
3		I-215 NB Ramps to Western Way	Perris	4U	25,900	15,751	0.61	B	D
4		East of Western Way	Perris	4U	25,900	14,959	0.58	A	D
5		West of Patterson Avenue	Perris	4U	25,900	14,899	0.58	A	D
6		East of Patterson Avenue	Perris	2D	18,000	14,073	0.78	C	D
7		West of Indian Street	Perris	4D	35,900	12,512	0.35	A	D
8		East of Indian Street	Perris	4D	35,900	5,856	0.16	A	D
9	Western Way	North of Harley Knox Boulevard	Perris	2U	13,000	1,200	0.09	A	D
10	Patterson Avenue	North of Harley Knox Boulevard	Perris	2U	13,000	132	0.01	A	D
11		South of Harley Knox Boulevard	Perris	2U	13,000	1,250	0.10	A	D
12	Indian Street	North of Nandina Avenue	MV	2D	12,500	3,950	0.32	A	D
13		South of Nandina Avenue	MV	4D	37,500	7,141	0.19	A	D
14		North of Harley Knox Boulevard	MV	4D	37,500	8,545	0.23	A	D
15		South of Harley Knox Boulevard	Perris	4D	35,900	1,481	0.04	A	D
16	Knox Street	North of Nandina Avenue	MV	2D	12,500	324	0.03	A	D
17	Perris Boulevard	North of San Michele Road	MV	3D	25,000	19,026	0.76	C	D
18		South of San Michele Road	MV	4D	37,500	16,998	0.45	A	D
19		North of Nandina Avenue	MV	4D	37,500	19,759	0.53	A	D
20		South of Nandina Avenue	MV	4D	37,500	19,984	0.53	A	D
21	San Michele Road	West of Driveway 1	MV	2D	12,500	3,902	0.31	A	D
22		Driveway 1 to Driveway 3	MV	2D	12,500	3,396	0.27	A	D
23		Driveway 3 to Perris Boulevard	MV	2D	12,500	3,496	0.28	A	D
24	Nandina Avenue	West of Indian Street	MV	2U	12,500	1,236	0.10	A	D
25		Indian Street to Knox Street	MV	2D	12,500	3,035	0.24	A	D
26		Knox Street to Driveway 2	MV	2D	12,500	2,303	0.18	A	D
27		Driveway 2 to Driveway 4	MV	2U	12,500	1,072	0.09	A	D
28		Driveway 4 to Perris Boulevard	MV	2U	12,500	1,135	0.09	A	D

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[1] Per Figure 9-2: City of Moreno Valley Level of Service (LOS) Standards, City of Moreno Valley General Plan Circulation Element.

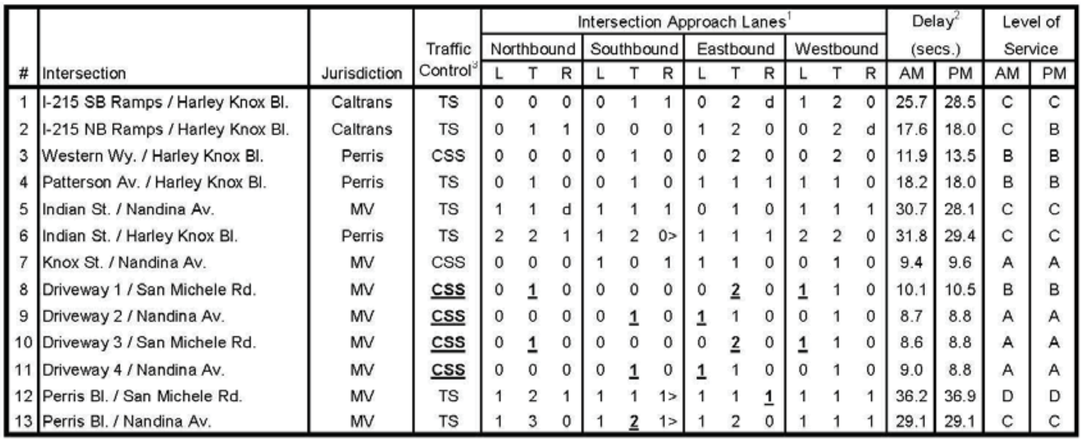
From Table CE-2 of the City of Perris General Plan Circulation Element.

[2] These maximum roadway capacities have been extracted from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007). These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "E" service volumes are estimated maximum daily capacity for respective classifications. Capacity is affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian and bicycle traffic.

[3] The City of Perris roadway standard capacity is LOS "D", with the exception of SR-74 and Cajalco/Ramona Expressway which allows LOS "E" capacity. As such, the volumes shown in the table are based upon LOS "D" capacity with the exception of segments along SR-74 and Cajalco/Ramona Expressway which have been based upon LOS "E" capacity.

Source: (Urban Crossroads, 2013), Section 5.2

Table 4.4-16 Intersection Analysis for Existing Plus Project Conditions



#	Intersection	Jurisdiction	Traffic Control[3]	Intersection Approach Lanes[1] Northbound L	T	R	Southbound L	T	R	Eastbound L	T	R	Westbound L	T	R	Delay[2] (secs.) AM	PM	Level of Service AM	PM
1	I-215 SB Ramps / Harley Knox Bl.	Caltrans	TS	0	0	0	0	1	1	0	2	d	1	2	0	25.7	28.5	C	C
2	I-215 NB Ramps / Harley Knox Bl.	Caltrans	TS	0	1	1	0	0	0	1	2	0	0	2	d	17.6	18.0	C	B
3	Western Wy. / Harley Knox Bl.	Perris	CSS	0	0	0	0	1	0	0	2	0	0	2	0	11.9	13.5	B	B
4	Patterson Av. / Harley Knox Bl.	Perris	TS	0	1	0	0	1	0	1	1	1	1	1	0	18.2	18.0	B	B
5	Indian St. / Nandina Av.	MV	TS	1	1	d	1	1	1	0	1	0	1	1	1	30.7	28.1	C	C
6	Indian St. / Harley Knox Bl.	Perris	TS	2	2	1	1	2	0>	1	1	1	2	2	0	31.8	29.4	C	C
7	Knox St. / Nandina Av.	MV	CSS	0	0	0	1	0	1	1	1	0	0	1	0	9.4	9.6	A	A
8	Driveway 1 / San Michele Rd.	MV	CSS	0	1	0	0	0	0	0	2	0	1	1	0	10.1	10.5	B	B
9	Driveway 2 / Nandina Av.	MV	CSS	0	0	0	0	1	0	1	1	0	0	1	0	8.7	8.8	A	A
10	Driveway 3 / San Michele Rd.	MV	CSS	0	1	0	0	0	0	0	2	0	1	1	0	8.6	8.8	A	A
11	Driveway 4 / Nandina Av.	MV	CSS	0	0	0	0	1	0	1	1	0	0	1	0	9.0	8.8	A	A
12	Perris Bl. / San Michele Rd.	MV	TS	1	2	1	1	1	1>	1	1	1	1	1	1	36.2	36.9	D	D
13	Perris Bl. / Nandina Av.	MV	TS	1	3	0	1	2	1>	1	2	0	1	1	1	29.1	29.1	C	C

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[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; d= Defacto Right Turn Lane

[2] Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal

Source: (Urban Crossroads, 2013), Section 5.2

Table 4.4-17 Opening Year (2017) Conditions Roadway Volume/Capacity Analysis[1]

#	Roadway	Segment Limits	Jurisdiction	Roadway Section	LOS Capacity[2,3]	EA (2017)	V/C	LOS	Acceptable LOS	EAP (2017)	V/C	LOS	Acceptable LOS
1	Harley Knox Boulevard	West of I-215 Freeway	Co. of Riv.	4D	35,900	8,705	0.24	A	D	8,705	0.24	A	D
2		I-215 SB Ramps to I-215 NB Ramps	Perris	4D	35,900	11,951	0.33	A	D	12,485	0.35	A	D
3		I-215 NB Ramps to Western Way	Perris	4U	25,900	16,389	0.63	B	D	17,296	0.67	B	D
4		East of Western Way	Perris	4U	25,900	15,515	0.60	A	D	16,422	0.63	B	D
5		West of Patterson Avenue	Perris	4U	25,900	15,448	0.60	A	D	16,355	0.63	B	D
6		East of Patterson Avenue	Perris	2D	18,000	14,521	0.81	D	D	15,442	0.86	D	D
7		West of Indian Street	Perris	4D	35,900	12,799	0.36	A	D	13,719	0.38	A	D
8		East of Indian Street	Perris	4D	35,900	6,466	0.18	A	D	6,466	0.18	A	D
9	Western Way	North of Harley Knox Boulevard	Perris	2U	13,000	1,325	0.10	A	D	1,325	0.10	A	D
10	Patterson Avenue	North of Harley Knox Boulevard	Perris	2U	13,000	146	0.01	A	D	146	0.01	A	D
11		South of Harley Knox Boulevard	Perris	2U	13,000	1,365	0.11	A	D	1,379	0.11	A	D
12	Indian Street	North of Nandina Avenue	MV	2D	12,500	4,054	0.32	A	D	4,332	0.35	A	D
13		South of Nandina Avenue	MV	4D	37,500	6,810	0.18	A	D	7,783	0.21	A	D
14		North of Harley Knox Boulevard	MV	4D	37,500	8,360	0.22	A	D	9,333	0.25	A	D
15		South of Harley Knox Boulevard	Perris	4D	35,900	1,577	0.04	A	D	1,630	0.05	A	D
16	Knox Street	North of Nandina Avenue	MV	2D	12,500	358	0.03	A	D	358	0.03	A	D
17	Perris Boulevard	North of San Michele Road	MV	3D	25,000	20,933	0.84	D	D	20,999	0.84	D	D
18		South of San Michele Road	MV	4D	37,500	18,694	0.50	A	D	18,760	0.50	A	D
19		North of Nandina Avenue	MV	4D	37,500	21,742	0.58	A	D	21,809	0.58	A	D
20		South of Nandina Avenue	MV	4D	37,500	22,033	0.59	A	D	22,061	0.59	A	D
21	San Michele Road	West of Driveway 1	MV	2D	12,500	4,001	0.32	A	D	4,279	0.34	A	D
22		Driveway 1 to Driveway 3	MV	2D	12,500	3,749	0.30	A	D	3,749	0.30	A	D
23		Driveway 3 to Perris Boulevard	MV	2D	12,500	3,802	0.30	A	D	3,854	0.31	A	D
24	Nandina Avenue	West of Indian Street	MV	2U	12,500	1,365	0.11	A	D	1,365	0.11	A	D
25		Indian Street to Knox Street	MV	2D	12,500	2,584	0.21	A	D	3,279	0.26	A	D
26		Knox Street to Driveway 2	MV	2D	12,500	1,775	0.14	A	D	2,470	0.20	A	D
27		Driveway 2 to Driveway 4	MV	2U	12,500	1,153	0.09	A	D	1,181	0.09	A	D
28		Driveway 4 to Perris Boulevard	MV	2U	12,500	1,179	0.09	A	D	1,246	0.10	A	D

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[1] Per Figure 9-2: City of Moreno Valley Level of Service (LOS) Standards, City of Moreno Valley General Plan Circulation Element.

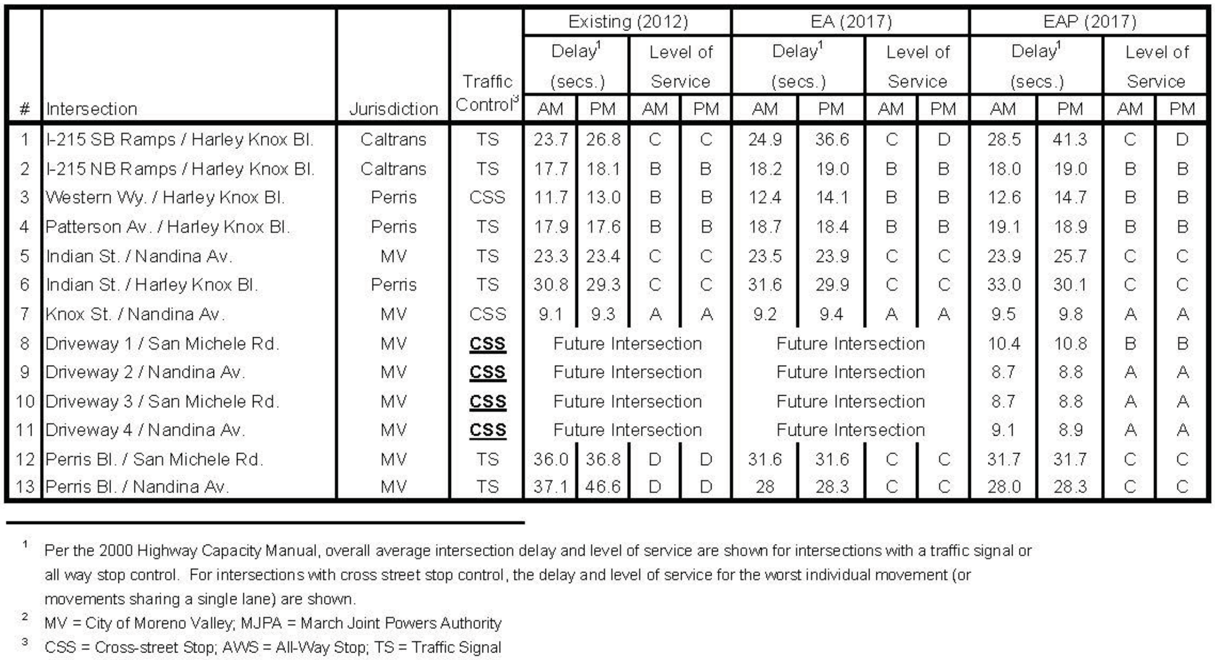
From Table CE-2 of the City of Perris General Plan Circulation Element.

[2] These maximum roadway capacities have been extracted from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007). These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "E" service volumes are estimated maximum daily capacity for respective classifications. Capacity is affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian and bicycle traffic.

[3] The City of Perris roadway standard capacity is LOS "D", with the exception of SR-74 and Cajalco/Ramona Expressway which allows LOS "E" capacity. As such, the volumes shown in the table are based upon LOS "D" capacity with the exception of segments along SR-74 and Cajalco/Ramona Expressway which have been based upon LOS "E" capacity.

Source: (Urban Crossroads, 2013), Section 6.7

Table 4.4-18 Intersection Analysis for Opening Year (2017) Conditions



#	Intersection	Jurisdiction	Traffic Control[3]	Existing (2012) Delay[1] (secs.)		Existing (2012) Level of Service		EA (2017) Delay[1] (secs.)		EA (2017) Level of Service		EAP (2017) Delay[1] (secs.)		EAP (2017) Level of Service	
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1	I-215 SB Ramps / Harley Knox Bl.	Caltrans	TS	23.7	26.8	C	C	24.9	36.6	C	D	28.5	41.3	C	D
2	I-215 NB Ramps / Harley Knox Bl.	Caltrans	TS	17.7	18.1	B	B	18.2	19.0	B	B	18.0	19.0	B	B
3	Western Wy. / Harley Knox Bl.	Perris	CSS	11.7	13.0	B	B	12.4	14.1	B	B	12.6	14.7	B	B
4	Patterson Av. / Harley Knox Bl.	Perris	TS	17.9	17.6	B	B	18.7	18.4	B	B	19.1	18.9	B	B
5	Indian St. / Nandina Av.	MV	TS	23.3	23.4	C	C	23.5	23.9	C	C	23.9	25.7	C	C
6	Indian St. / Harley Knox Bl.	Perris	TS	30.8	29.3	C	C	31.6	29.9	C	C	33.0	30.1	C	C
7	Knox St. / Nandina Av.	MV	CSS	9.1	9.3	A	A	9.2	9.4	A	A	9.5	9.8	A	A
8	Driveway 1 / San Michele Rd.	MV	**CSS**	Future Intersection				Future Intersection				10.4	10.8	B	B
9	Driveway 2 / Nandina Av.	MV	**CSS**	Future Intersection				Future Intersection				8.7	8.8	A	A
10	Driveway 3 / San Michele Rd.	MV	**CSS**	Future Intersection				Future Intersection				8.7	8.8	A	A
11	Driveway 4 / Nandina Av.	MV	**CSS**	Future Intersection				Future Intersection				9.1	8.9	A	A
12	Perris Bl. / San Michele Rd.	MV	TS	36.0	36.8	D	D	31.6	31.6	C	C	31.7	31.7	C	C
13	Perris Bl. / Nandina Av.	MV	TS	37.1	46.6	D	D	28	28.3	C	C	28.0	28.3	C	C

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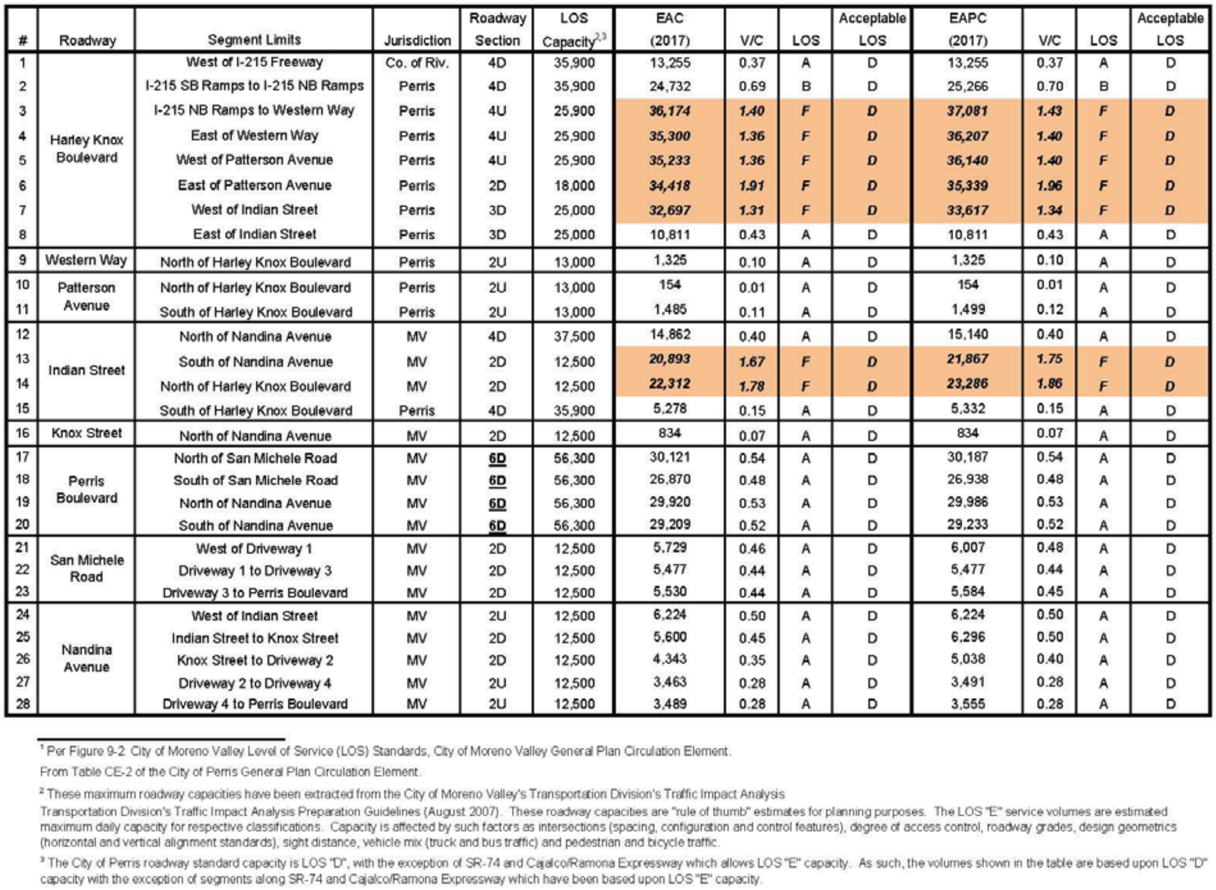
[1] Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] MV = City of Moreno Valley; MJPA = March Joint Powers Authority

[3] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal

Source: (Urban Crossroads, 2013), Section 6.4

Table 4.4-19 Opening Year Cumulative (2017) Conditions Roadway Volume/Capacity Analysis



#	Roadway	Segment Limits	Jurisdiction	Roadway Section	LOS Capacity[2,3]	EAC (2017)	V/C	LOS	Acceptable LOS	EAPC (2017)	V/C	LOS	Acceptable LOS
1	Harley Knox Boulevard	West of I-215 Freeway	Co. of Riv.	4D	35,900	13,255	0.37	A	D	13,255	0.37	A	D
2		I-215 SB Ramps to I-215 NB Ramps	Perris	4D	35,900	24,732	0.69	B	D	25,266	0.70	B	D
3		I-215 NB Ramps to Western Way	Perris	4U	25,900	***36,174***	***1.40***	***F***	***D***	***37,081***	***1.43***	***F***	***D***
4		East of Western Way	Perris	4U	25,900	***35,300***	***1.36***	***F***	***D***	***36,207***	***1.40***	***F***	***D***
5		West of Patterson Avenue	Perris	4U	25,900	***35,233***	***1.36***	***F***	***D***	***36,140***	***1.40***	***F***	***D***
6		East of Patterson Avenue	Perris	2D	18,000	***34,418***	***1.91***	***F***	***D***	***35,339***	***1.96***	***F***	***D***
7		West of Indian Street	Perris	3D	25,000	***32,697***	***1.31***	***F***	***D***	***33,617***	***1.34***	***F***	***D***
8		East of Indian Street	Perris	3D	25,000	10,811	0.43	A	D	10,811	0.43	A	D
9	Western Way	North of Harley Knox Boulevard	Perris	2U	13,000	1,325	0.10	A	D	1,325	0.10	A	D
10	Patterson Avenue	North of Harley Knox Boulevard	Perris	2U	13,000	154	0.01	A	D	154	0.01	A	D
11		South of Harley Knox Boulevard	Perris	2U	13,000	1,485	0.11	A	D	1,499	0.12	A	D
12	Indian Street	North of Nandina Avenue	MV	4D	37,500	14,862	0.40	A	D	15,140	0.40	A	D
13		South of Nandina Avenue	MV	2D	12,500	***20,893***	***1.67***	***F***	***D***	***21,867***	***1.75***	***F***	***D***
14		North of Harley Knox Boulevard	MV	2D	12,500	***22,312***	***1.78***	***F***	***D***	***23,286***	***1.86***	***F***	***D***
15		South of Harley Knox Boulevard	Perris	4D	35,900	5,278	0.15	A	D	5,332	0.15	A	D
16	Knox Street	North of Nandina Avenue	MV	2D	12,500	834	0.07	A	D	834	0.07	A	D
17	Perris Boulevard	North of San Michele Road	MV	**6D**	56,300	30,121	0.54	A	D	30,187	0.54	A	D
18		South of San Michele Road	MV	**6D**	56,300	26,870	0.48	A	D	26,938	0.48	A	D
19		North of Nandina Avenue	MV	**6D**	56,300	29,920	0.53	A	D	29,986	0.53	A	D
20		South of Nandina Avenue	MV	**6D**	56,300	29,209	0.52	A	D	29,233	0.52	A	D
21	San Michele Road	West of Driveway 1	MV	2D	12,500	5,729	0.46	A	D	6,007	0.48	A	D
22		Driveway 1 to Driveway 3	MV	2D	12,500	5,477	0.44	A	D	5,477	0.44	A	D
23		Driveway 3 to Perris Boulevard	MV	2D	12,500	5,530	0.44	A	D	5,584	0.45	A	D
24	Nandina Avenue	West of Indian Street	MV	2U	12,500	6,224	0.50	A	D	6,224	0.50	A	D
25		Indian Street to Knox Street	MV	2D	12,500	5,600	0.45	A	D	6,296	0.50	A	D
26		Knox Street to Driveway 2	MV	2D	12,500	4,343	0.35	A	D	5,038	0.40	A	D
27		Driveway 2 to Driveway 4	MV	2U	12,500	3,463	0.28	A	D	3,491	0.28	A	D
28		Driveway 4 to Perris Boulevard	MV	2U	12,500	3,489	0.28	A	D	3,555	0.28	A	D

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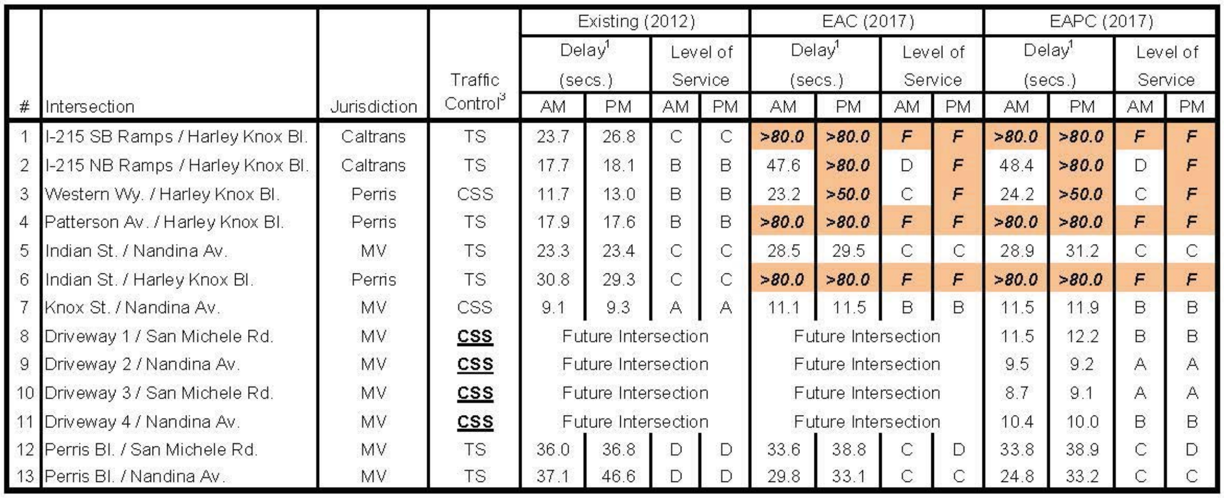
[1] Per Figure 9-2 City of Moreno Valley Level of Service (LOS) Standards, City of Moreno Valley General Plan Circulation Element.
From Table CE-2 of the City of Perris General Plan Circulation Element.

[2] These maximum roadway capacities have been extracted from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis
Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007). These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "E" service volumes are estimated maximum daily capacity for respective classifications. Capacity is affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian and bicycle traffic.

[3] The City of Perris roadway standard capacity is LOS "D", with the exception of SR-74 and Cajalco/Ramona Expressway which allows LOS "E" capacity. As such, the volumes shown in the table are based upon LOS "D" capacity with the exception of segments along SR-74 and Cajalco/Ramona Expressway which have been based upon LOS "E" capacity.

Source: (Urban Crossroads, 2013), Section 7.6

Table 4.4-20 Intersection Analysis for Opening Year Cumulative (2017) Conditions



#	Intersection	Jurisdiction	Traffic Control[3]	Existing (2012)				EAC (2017)				EAPC (2017)			
				Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service	
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1	I-215 SB Ramps / Harley Knox Bl.	Caltrans	TS	23.7	26.8	C	C	***>80.0***	***>80.0***	***F***	***F***	***>80.0***	***>80.0***	***F***	***F***
2	I-215 NB Ramps / Harley Knox Bl.	Caltrans	TS	17.7	18.1	B	B	47.6	***>80.0***	D	***F***	48.4	***>80.0***	D	***F***
3	Western Wy. / Harley Knox Bl.	Perris	CSS	11.7	13.0	B	B	23.2	***>50.0***	C	***F***	24.2	***>50.0***	C	***F***
4	Patterson Av. / Harley Knox Bl.	Perris	TS	17.9	17.6	B	B	***>80.0***	***>80.0***	***F***	***F***	***>80.0***	***>80.0***	***F***	***F***
5	Indian St. / Nandina Av.	MV	TS	23.3	23.4	C	C	28.5	29.5	C	C	28.9	31.2	C	C
6	Indian St. / Harley Knox Bl.	Perris	TS	30.8	29.3	C	C	***>80.0***	***>80.0***	***F***	***F***	***>80.0***	***>80.0***	***F***	***F***
7	Knox St. / Nandina Av.	MV	CSS	9.1	9.3	A	A	11.1	11.5	B	B	11.5	11.9	B	B
8	Driveway 1 / San Michele Rd.	MV	**CSS**	Future Intersection				Future Intersection				11.5	12.2	B	B
9	Driveway 2 / Nandina Av.	MV	**CSS**	Future Intersection				Future Intersection				9.5	9.2	A	A
10	Driveway 3 / San Michele Rd.	MV	**CSS**	Future Intersection				Future Intersection				8.7	9.1	A	A
11	Driveway 4 / Nandina Av.	MV	**CSS**	Future Intersection				Future Intersection				10.4	10.0	B	B
12	Perris Bl. / San Michele Rd.	MV	TS	36.0	36.8	D	D	33.6	38.8	C	D	33.8	38.9	C	D
13	Perris Bl. / Nandina Av.	MV	TS	37.1	46.6	D	D	29.8	33.1	C	C	24.8	33.2	C	C

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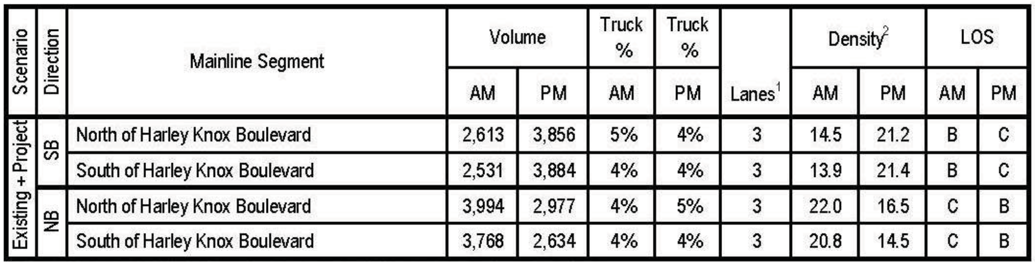
[1] Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] MV = City of Moreno Valley; MJPA = March Joint Powers Authority

[3] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal

Source: (Urban Crossroads, 2013), Section 7.5

Table 4.4-21 Existing Plus Project Conditions Basic Freeway Segment Analysis



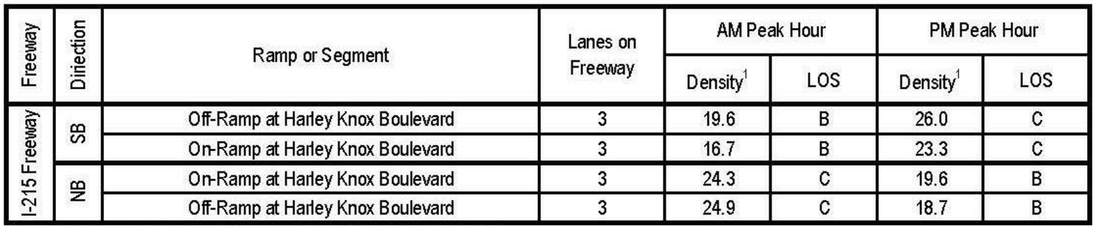
Scenario	Direction	Mainline Segment	Volume		Truck %	Truck %	Lanes[1]	Density[2]		LOS	
			AM	PM	AM	PM		AM	PM	AM	PM
Existing + Project	SB	North of Harley Knox Boulevard	2,613	3,856	5%	4%	3	14.5	21.2	B	C
		South of Harley Knox Boulevard	2,531	3,884	4%	4%	3	13.9	21.4	B	C
	NB	North of Harley Knox Boulevard	3,994	2,977	4%	5%	3	22.0	16.5	C	B
		South of Harley Knox Boulevard	3,768	2,634	4%	4%	3	20.8	14.5	C	B

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Source: (Urban Crossroads, 2013), Section 5.6

Table 4.4-22 I-215 Freeway Ramp Junction Merge/Diverge Analysis For Existing Plus Project Conditions

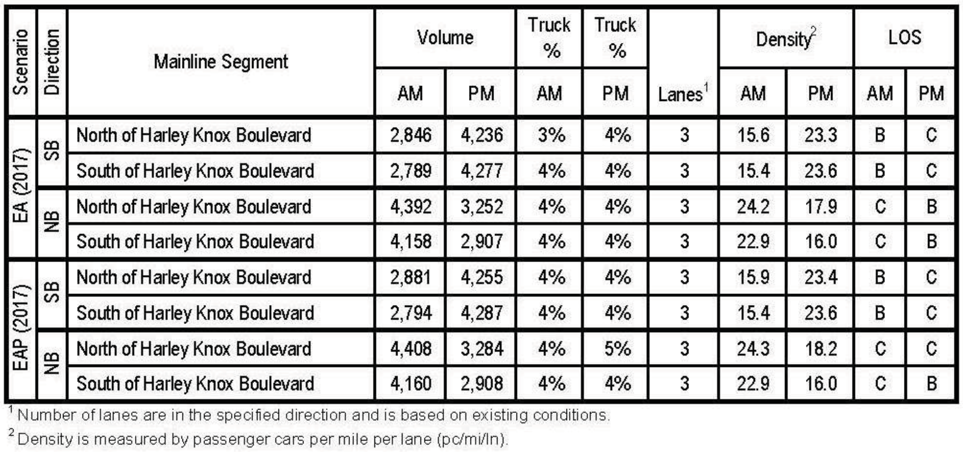


Freeway	Direction	Ramp or Segment	Lanes on Freeway	AM Peak Hour		PM Peak Hour	
				Density[1]	LOS	Density[1]	LOS
I-215 Freeway	SB	Off-Ramp at Harley Knox Boulevard	3	19.6	B	26.0	C
		On-Ramp at Harley Knox Boulevard	3	16.7	B	23.3	C
	NB	On-Ramp at Harley Knox Boulevard	3	24.3	C	19.6	B
		Off-Ramp at Harley Knox Boulevard	3	24.9	C	18.7	B

[1] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Source: (Urban Crossroads, 2013), Section 5.6

Table 4.4-23 Opening Year (2017) Conditions Basic Freeway Segment Analysis



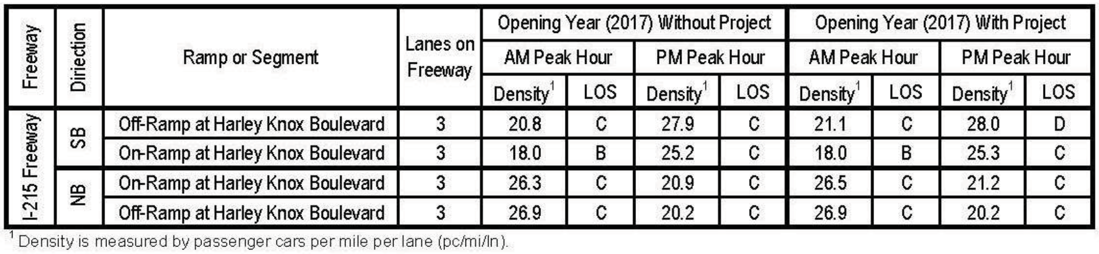
Scenario	Direction	Mainline Segment	Volume AM	Volume PM	Truck % AM	Truck % PM	Lanes[1]	Density[2] AM	Density[2] PM	LOS AM	LOS PM
EA (2017)	SB	North of Harley Knox Boulevard	2,846	4,236	3%	4%	3	15.6	23.3	B	C
		South of Harley Knox Boulevard	2,789	4,277	4%	4%	3	15.4	23.6	B	C
	NB	North of Harley Knox Boulevard	4,392	3,252	4%	4%	3	24.2	17.9	C	B
		South of Harley Knox Boulevard	4,158	2,907	4%	4%	3	22.9	16.0	C	B
EAP (2017)	SB	North of Harley Knox Boulevard	2,881	4,255	4%	4%	3	15.9	23.4	B	C
		South of Harley Knox Boulevard	2,794	4,287	4%	4%	3	15.4	23.6	B	C
	NB	North of Harley Knox Boulevard	4,408	3,284	4%	5%	3	24.3	18.2	C	C
		South of Harley Knox Boulevard	4,160	2,908	4%	4%	3	22.9	16.0	C	B

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Source: (Urban Crossroads, 2013), Section 6.9

Table 4.4-24 I-215 Freeway Ramp Junction Merge/Diverge Analysis For Opening Year (2017) Conditions

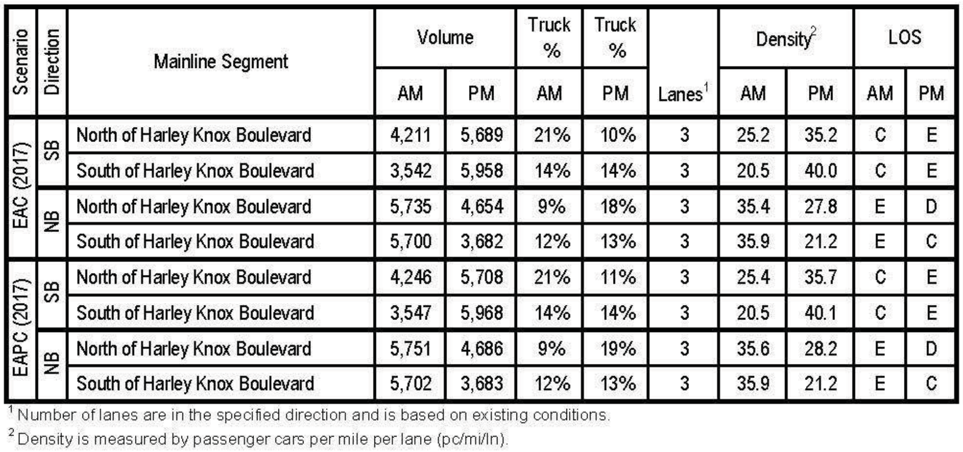


Freeway	Direction	Ramp or Segment	Lanes on Freeway	Opening Year (2017) Without Project				Opening Year (2017) With Project			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Density[1]	LOS	Density[1]	LOS	Density[1]	LOS	Density[1]	LOS
I-215 Freeway	SB	Off-Ramp at Harley Knox Boulevard	3	20.8	C	27.9	C	21.1	C	28.0	D
		On-Ramp at Harley Knox Boulevard	3	18.0	B	25.2	C	18.0	B	25.3	C
	NB	On-Ramp at Harley Knox Boulevard	3	26.3	C	20.9	C	26.5	C	21.2	C
		Off-Ramp at Harley Knox Boulevard	3	26.9	C	20.2	C	26.9	C	20.2	C

[1] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Source: (Urban Crossroads, 2013), Section 6.9

Table 4.4-25 Opening Year Cumulative (2017) Conditions Basic Freeway Segment Analysis



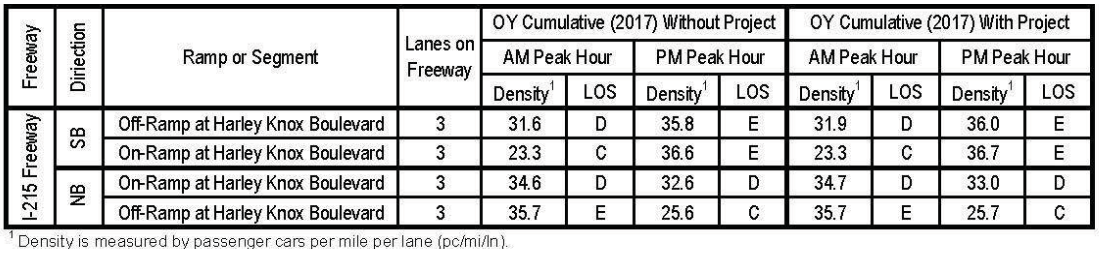
Scenario	Direction	Mainline Segment	Volume AM	Volume PM	Truck % AM	Truck % PM	Lanes[1]	Density[2] AM	Density[2] PM	LOS AM	LOS PM
EAC (2017)	SB	North of Harley Knox Boulevard	4,211	5,689	21%	10%	3	25.2	35.2	C	E
		South of Harley Knox Boulevard	3,542	5,958	14%	14%	3	20.5	40.0	C	E
	NB	North of Harley Knox Boulevard	5,735	4,654	9%	18%	3	35.4	27.8	E	D
		South of Harley Knox Boulevard	5,700	3,682	12%	13%	3	35.9	21.2	E	C
EAPC (2017)	SB	North of Harley Knox Boulevard	4,246	5,708	21%	11%	3	25.4	35.7	C	E
		South of Harley Knox Boulevard	3,547	5,968	14%	14%	3	20.5	40.1	C	E
	NB	North of Harley Knox Boulevard	5,751	4,686	9%	19%	3	35.6	28.2	E	D
		South of Harley Knox Boulevard	5,702	3,683	12%	13%	3	35.9	21.2	E	C

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Source: (Urban Crossroads, 2013), Section 7.8

Table 4.4-26 I-215 Freeway Ramp Junction Merge/Diverge Analysis For Opening Year Cumulative (2017) Conditions



Freeway	Diriection	Ramp or Segment	Lanes on Freeway	OY Cumulative (2017) Without Project				OY Cumulative (2017) With Project			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Density[1]	LOS	Density[1]	LOS	Density[1]	LOS	Density[1]	LOS
I-215 Freeway	SB	Off-Ramp at Harley Knox Boulevard	3	31.6	D	35.8	E	31.9	D	36.0	E
		On-Ramp at Harley Knox Boulevard	3	23.3	C	36.6	E	23.3	C	36.7	E
	NB	On-Ramp at Harley Knox Boulevard	3	34.6	D	32.6	D	34.7	D	33.0	D
		Off-Ramp at Harley Knox Boulevard	3	35.7	E	25.6	C	35.7	E	25.7	C

[1] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Source: Urban Crossroads, Inc. 2012, Section 7.8

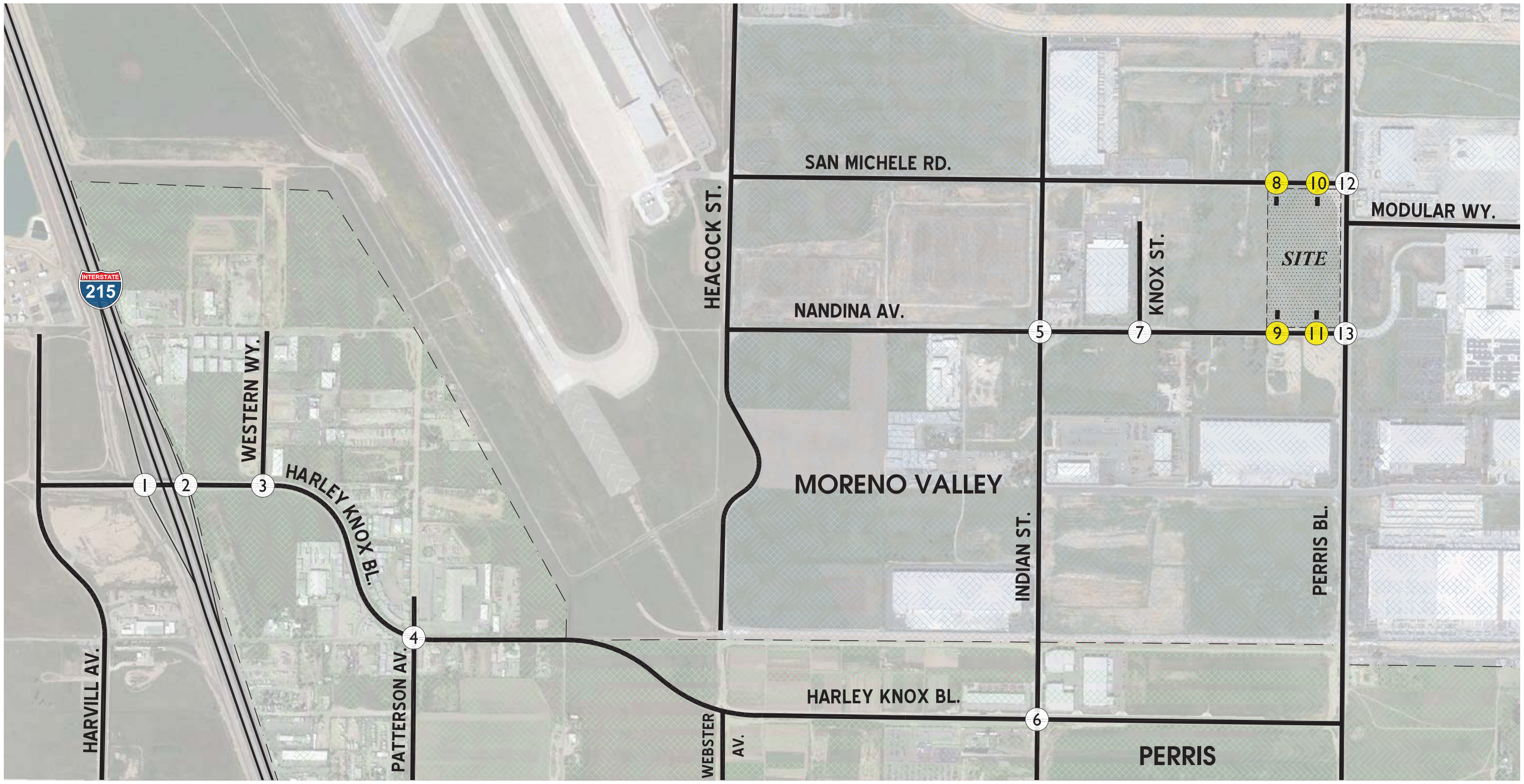
Table 4.4-27 Summary of Transportation Impact Fee Program Improvements for Opening Year Cumulative (2017) Conditions

#	Intersection Location	EAPC (2017) Recommended Improvements	Program Improvements[1]	Non-Program Improvements	Fair Share[2]
1	I-215 SB Ramps / Harley Knox Bl.	1.SBL; 1.WBL; Re-stripe for 1.SBL and 1.SBT/R	1.SBL; 1.WBL; Re-stripe for 1.SBL and 1.SBT/R	None	--
2	I-215 NB Ramps / Harley Knox Bl.	1.WB Free Right; Re-stripe for 1.NBL/T/R	1.WB Free Right; Re-stripe for 1.NBL/T/R	None	--
3	Western Wy. / Harley Knox Bl.	Install Traffic Signal; 1.SBL; 1.EBL	None	Install Traffic Signal; 1.SBL; 1.EBL	3.3%
4	Patterson Av. / Harley Knox Bl.	1.EBT; 1.WBT	1.EBT; 1.WBT	None	--
6	Indian St. / Harley Knox Bl.	2.SBR w/ overlap phasing; 1.EBL; 1.EBT; Remove cross-walk on north leg (WB approach)	1.EBT	2.SBR w/ overlap phasing; 1.EBL; Remove cross-walk on north leg (WB approach)	3.5%

[1] Improvements included in TUMF Nexus (2006) or City of Moreno Valley DIF (2007) programs.

[2] Program improvements constructed by project may be eligible for fee credit. In lieu fee payment is at discretion of City.

Source: Urban Crossroads, Inc. 2012, Section 9.1

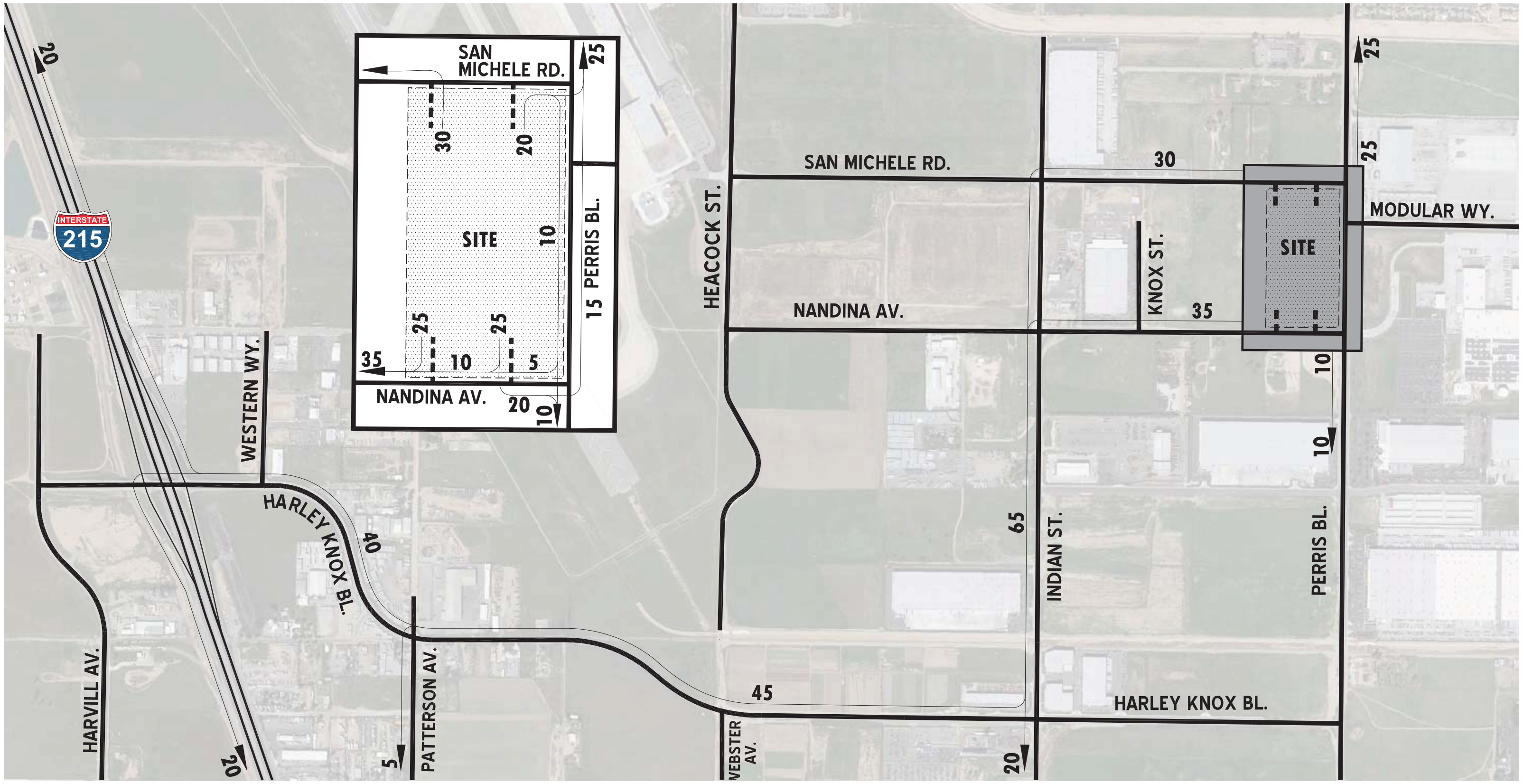


LEGEND:

- ① = EXISTING INTERSECTION ANALYSIS LOCATION
- ● = FUTURE INTERSECTION ANALYSIS LOCATION

Source: Urban Crossroads (07-06-12)

FIGURE 4.4-1
Project Study Area/Intersection Locations



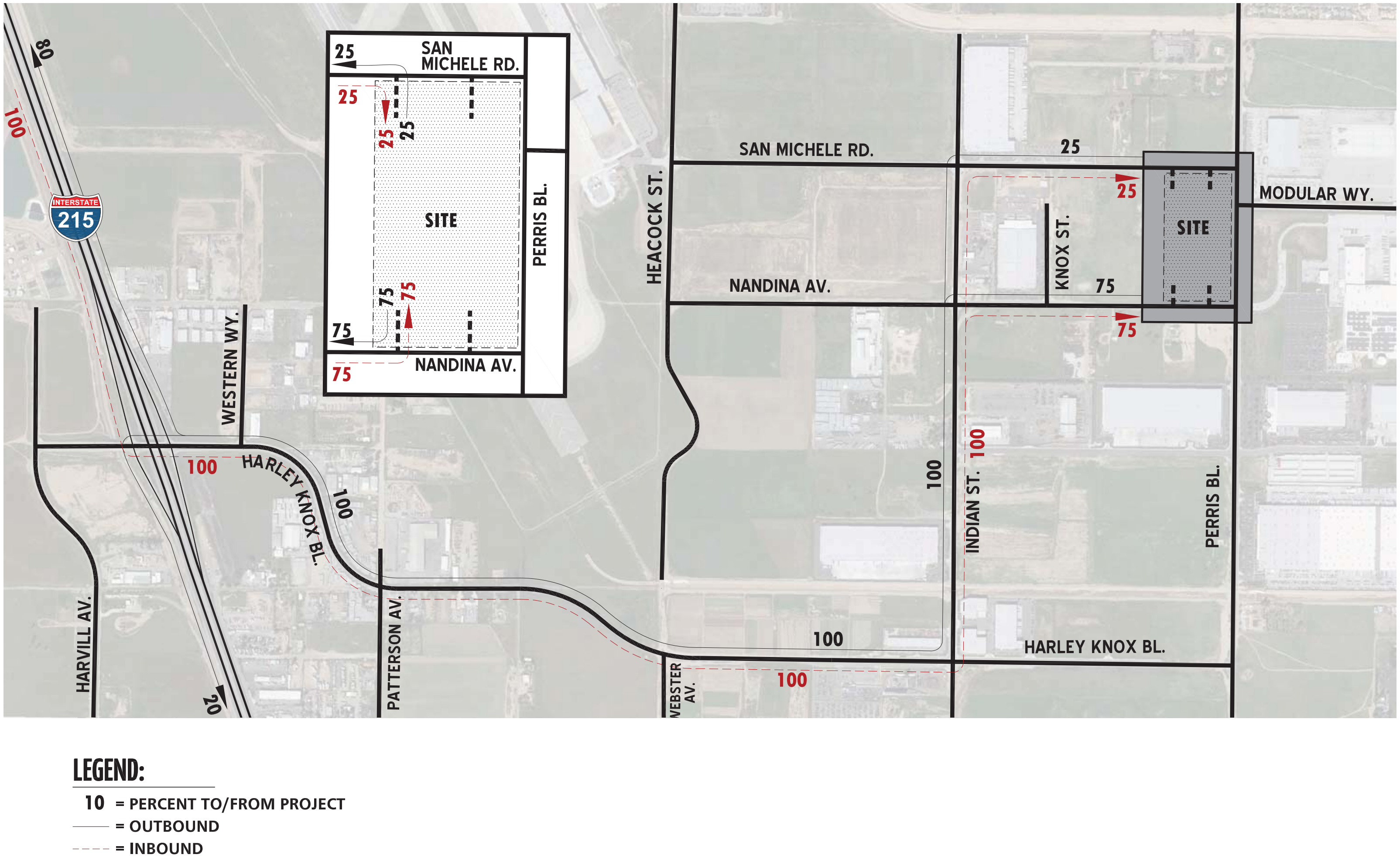
LEGEND:

10 = PERCENT TO/FROM PROJECT

Source: Urban Crossroads (07-06-12)

FIGURE 4.4-2

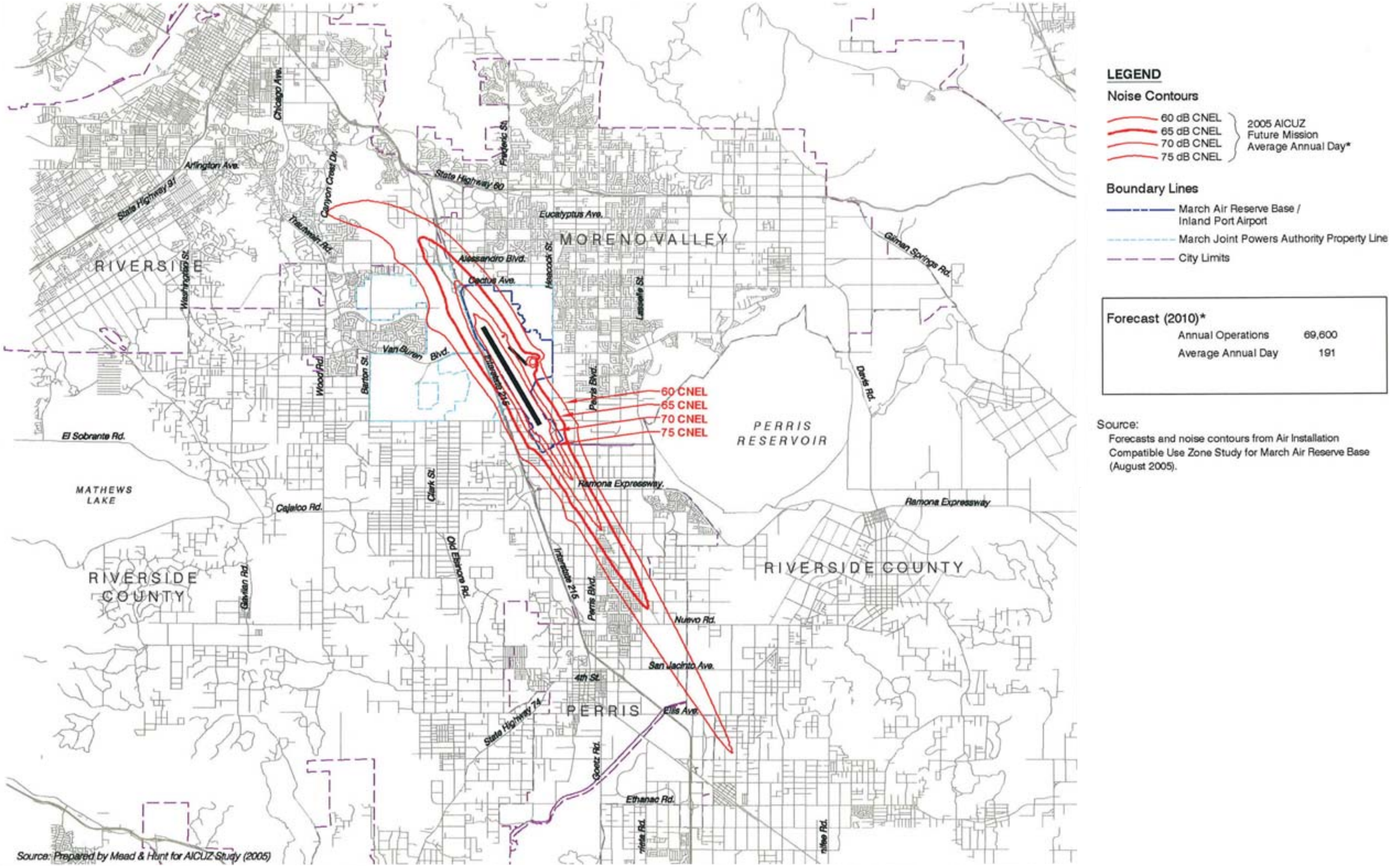
Project (Passenger Car) Trip Distribution



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-3

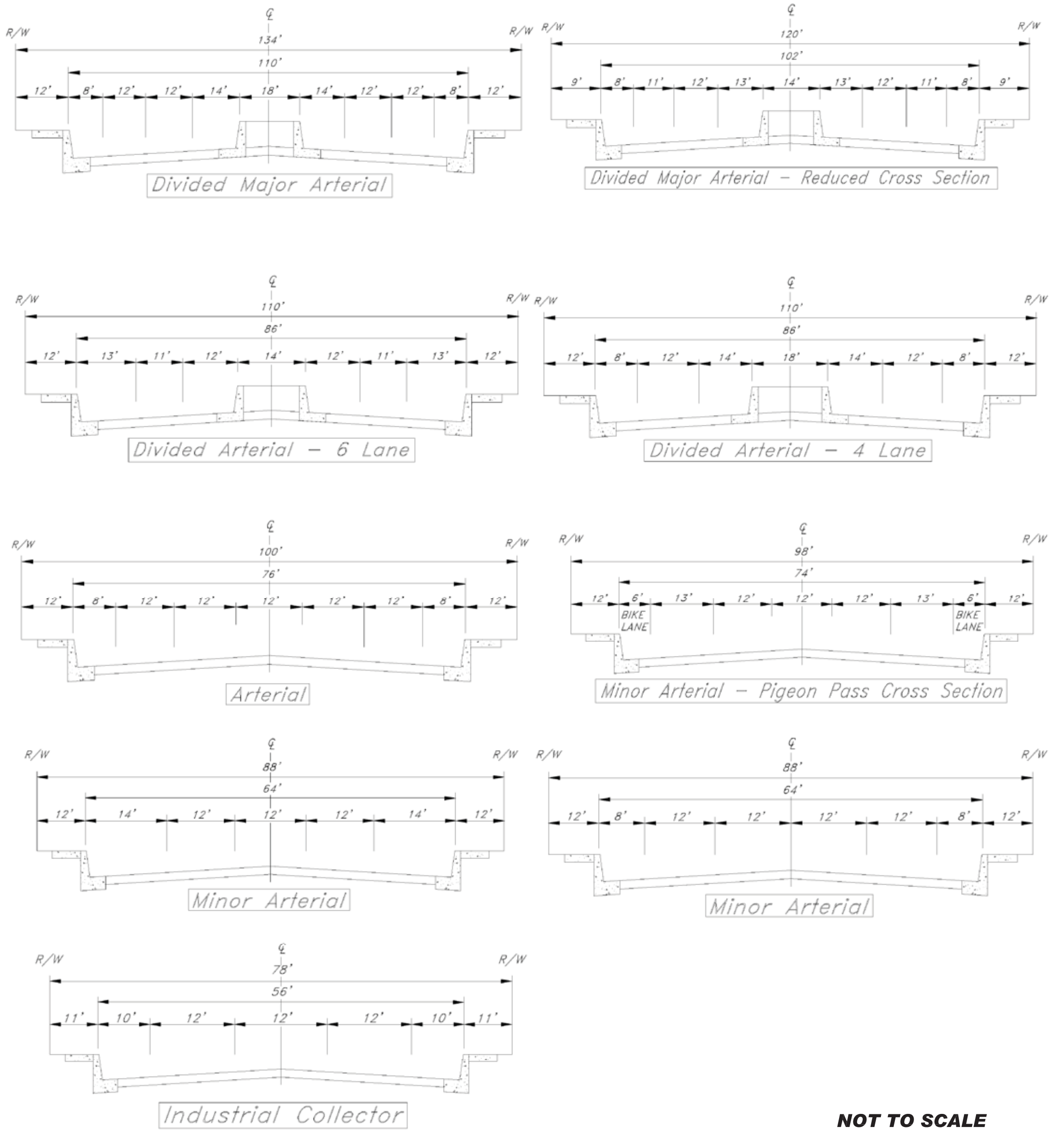
Project (Truck) Trip Distribution



Source: Prepared by Mead & Hunt for AICUZ Study (2005)

Source:
Forecasts and noise contours from Air Installation Compatible Use Zone Study for March Air Reserve Base (August 2005).

FIGURE 4.3-4
March Reserve Air Base Noise Contours

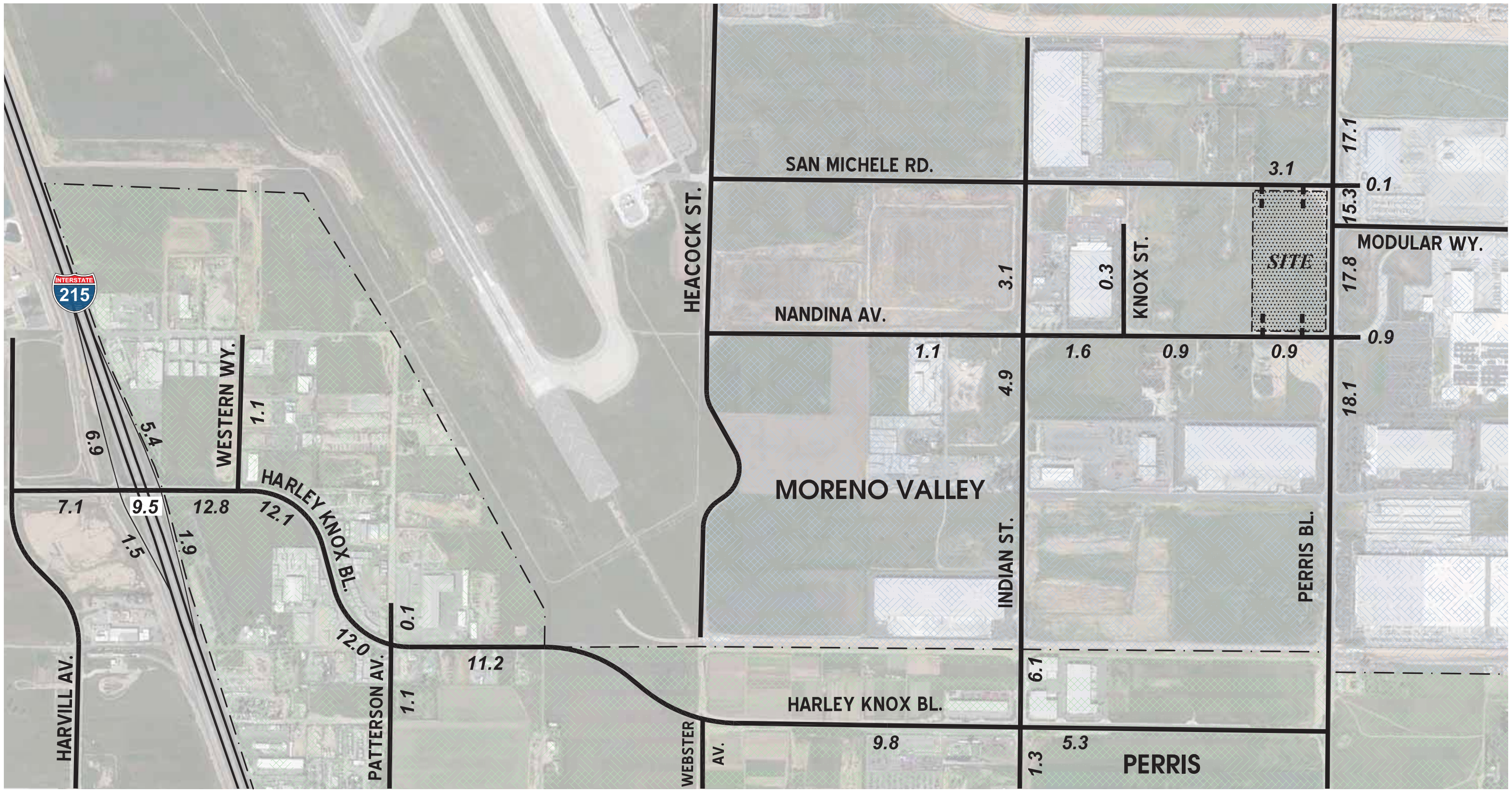


NOT TO SCALE

SOURCE: CITY OF Moreno Valley (July 11, 2006)

Source: Urban Crossroads (07-06-12)

FIGURE 4.4-5
City of Moreno Valley General Plan Roadway Cross-Sections

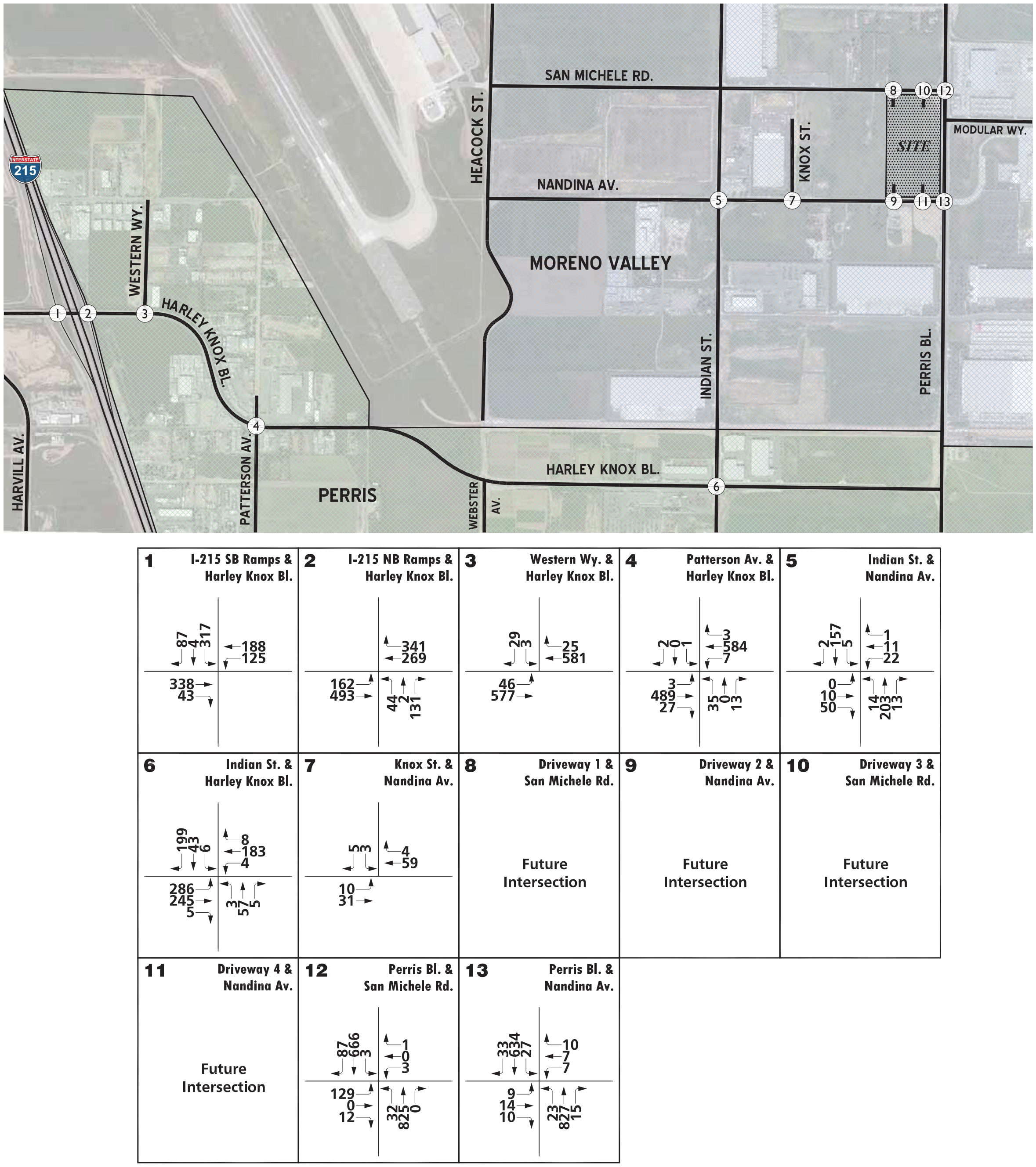


LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

Source: Urban Crossroads (07-06-12)

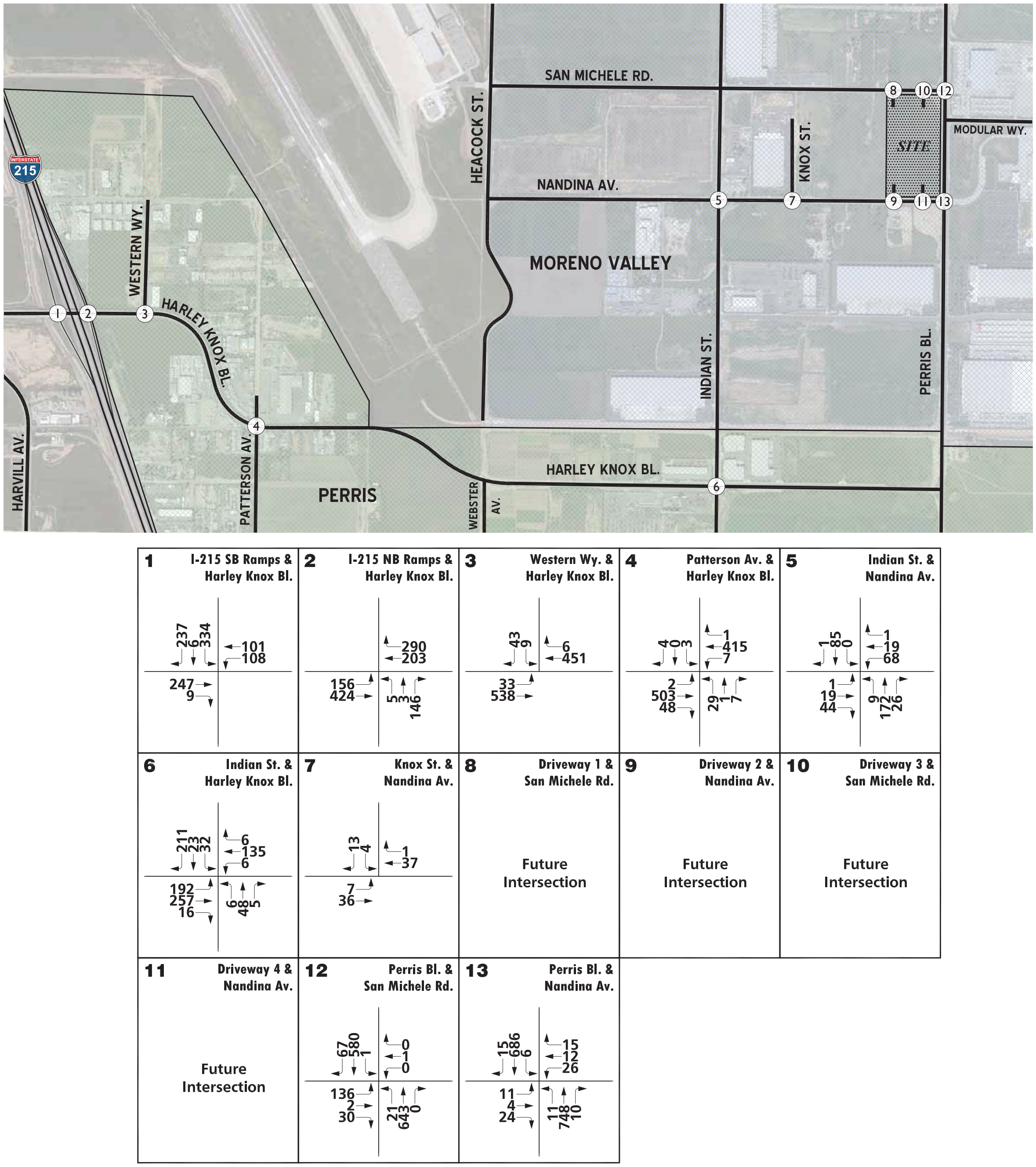
FIGURE 4.4-6
Existing (2012) Average Daily Traffic (ADT)



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-7

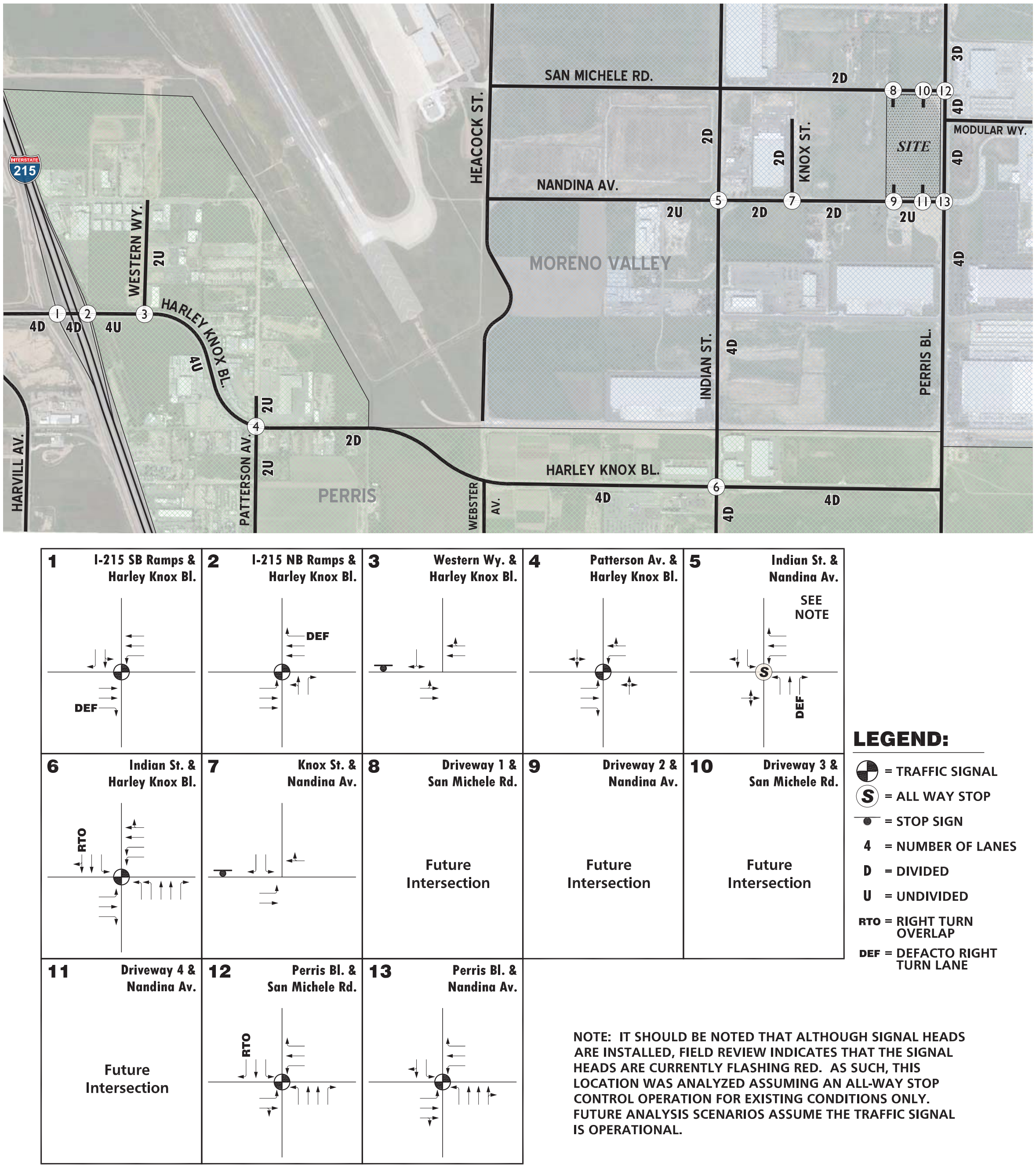
Existing (2012) AM Peak Hour Intersection Volumes



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-8

Existing (2012) PM Peak Hour Intersection Volumes

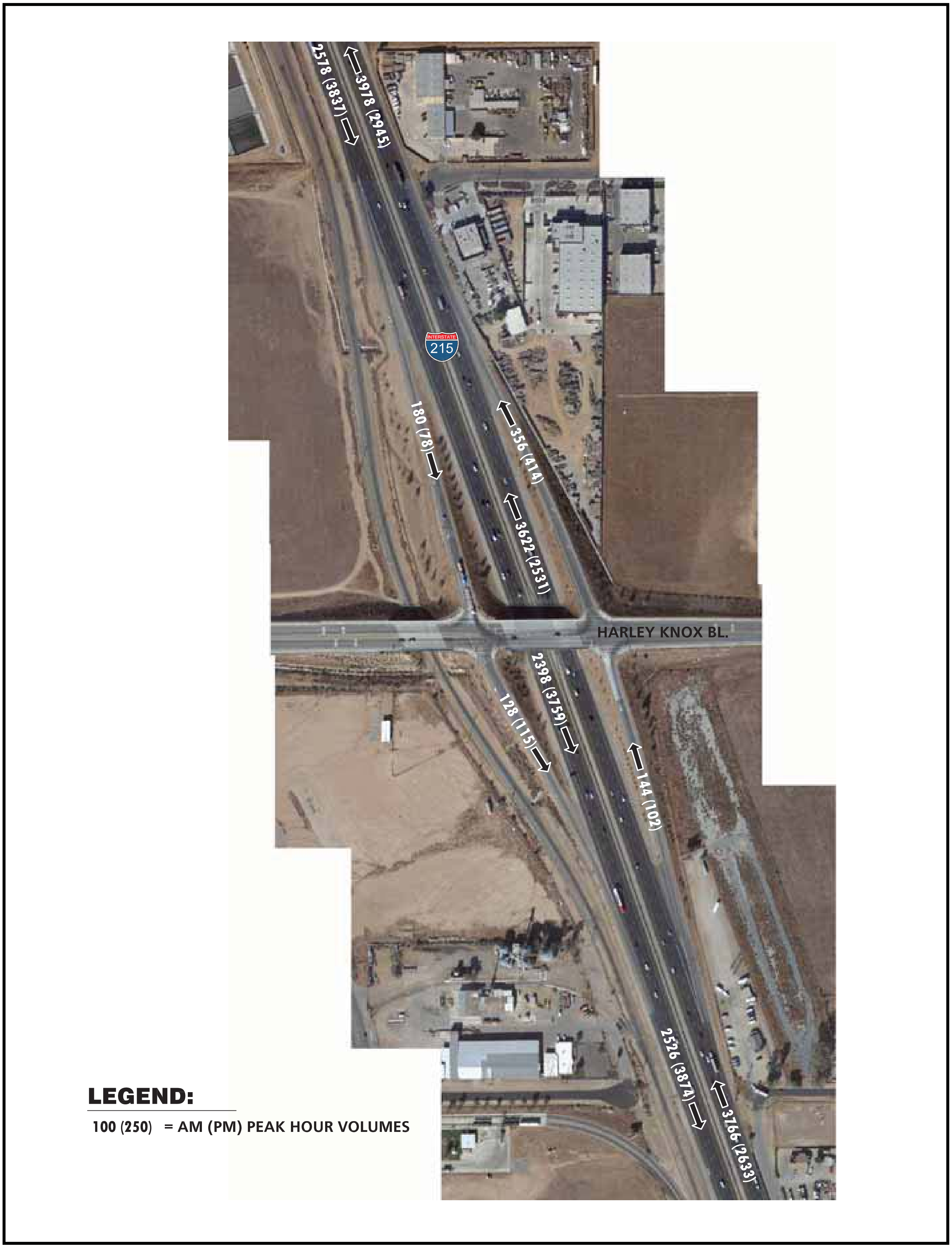


NOTE: IT SHOULD BE NOTED THAT ALTHOUGH SIGNAL HEADS ARE INSTALLED, FIELD REVIEW INDICATES THAT THE SIGNAL HEADS ARE CURRENTLY FLASHING RED. AS SUCH, THIS LOCATION WAS ANALYZED ASSUMING AN ALL-WAY STOP CONTROL OPERATION FOR EXISTING CONDITIONS ONLY. FUTURE ANALYSIS SCENARIOS ASSUME THE TRAFFIC SIGNAL IS OPERATIONAL.

Source: Urban Crossroads (07-06-12)

FIGURE 4.4-9

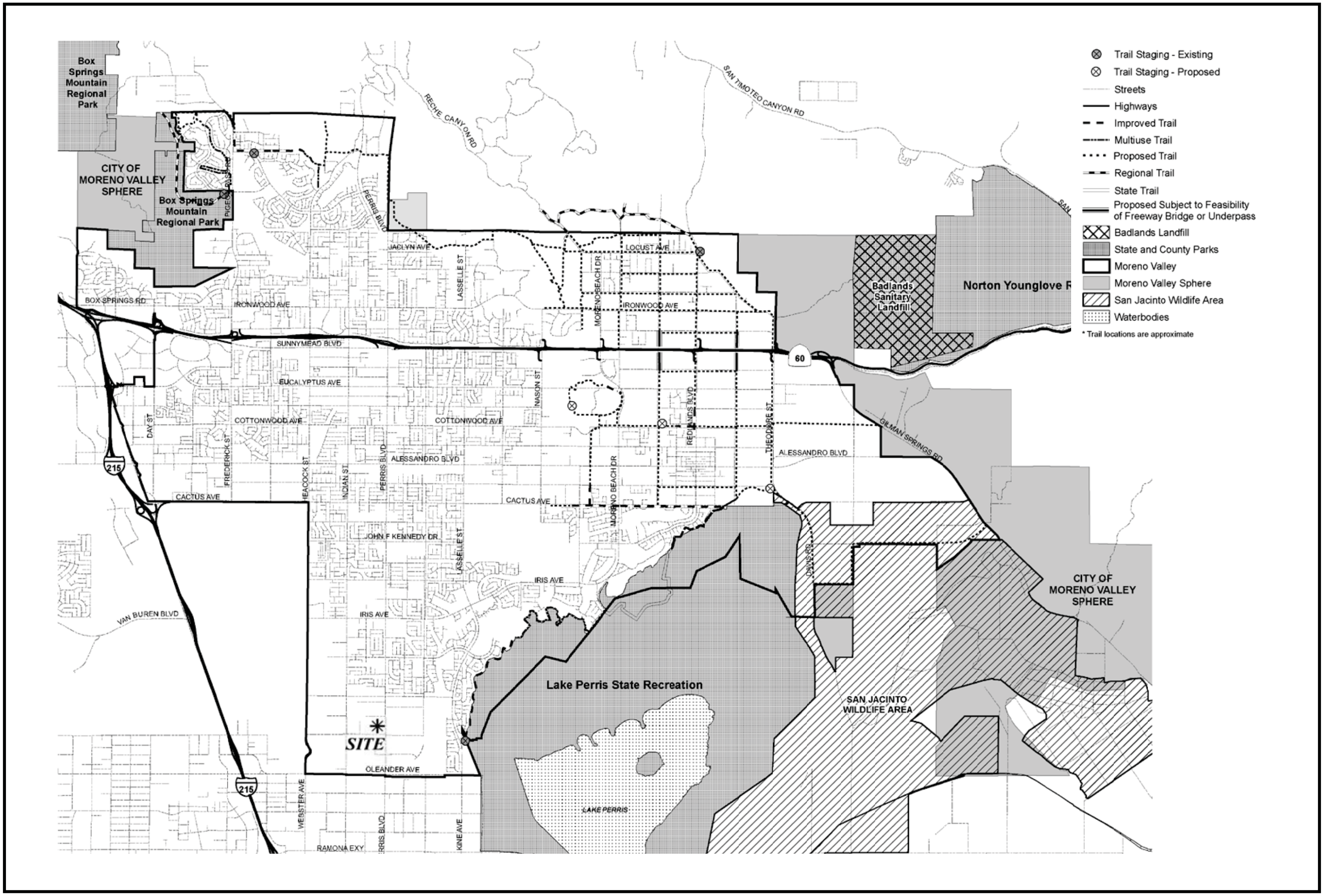
Existing Number of Through Traffic Lanes and Intersection Controls



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-10

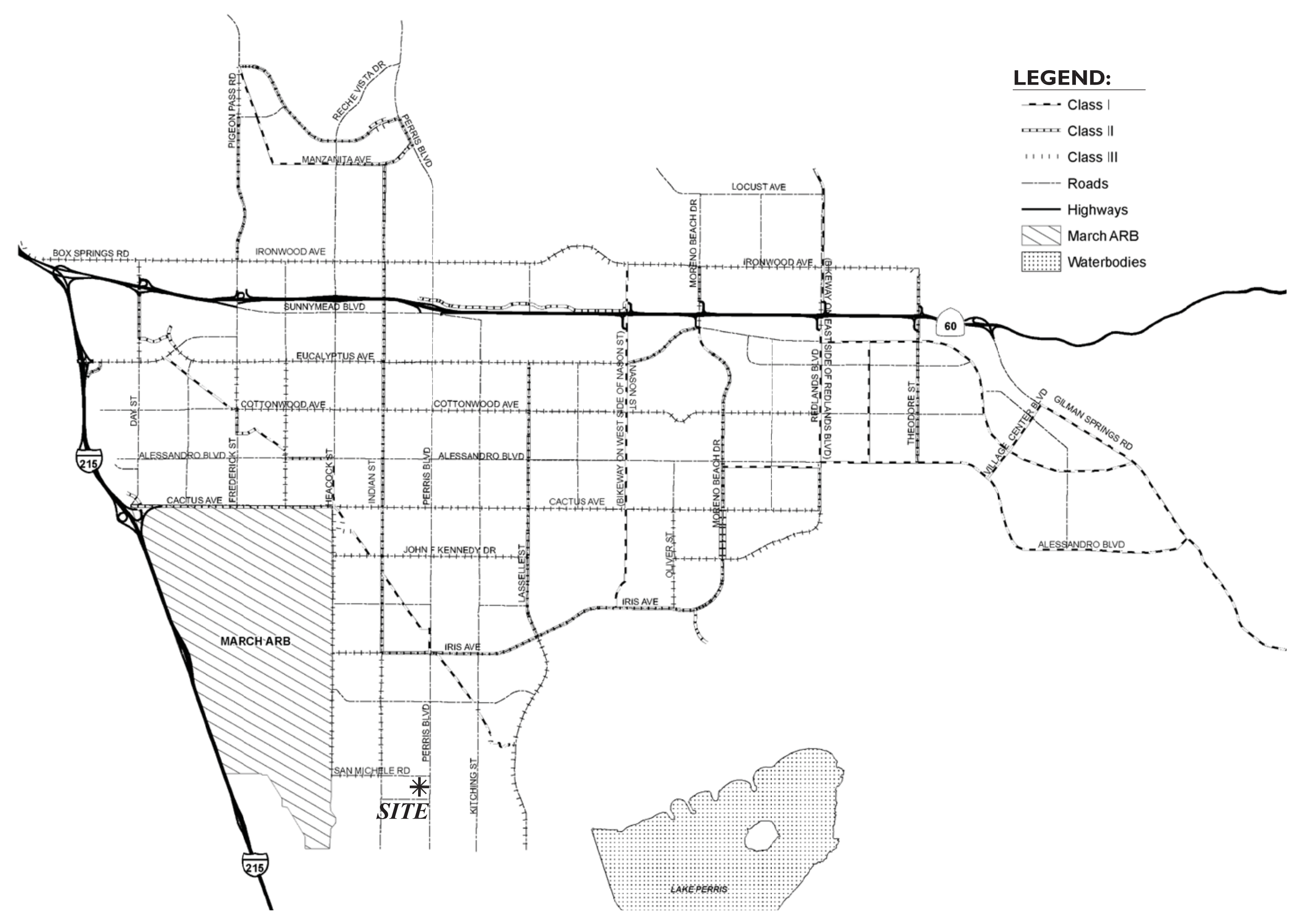
Existing (2012) Baseline I-215 Freeway Mainline Volumes



Source: Urban Crossroads (07-06-12)

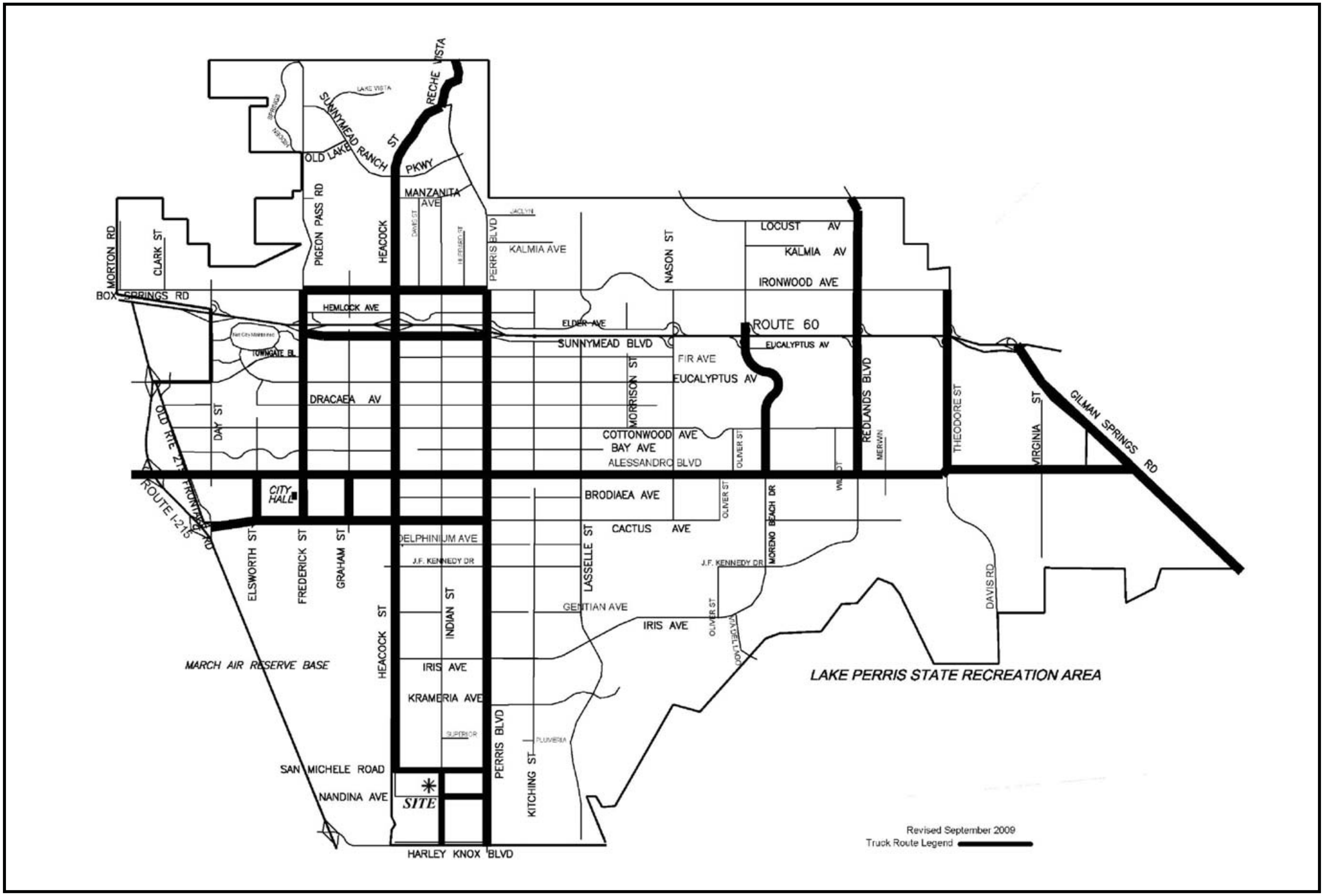
FIGURE 4.4-11

City of Moreno Valley Master Plan of Trails



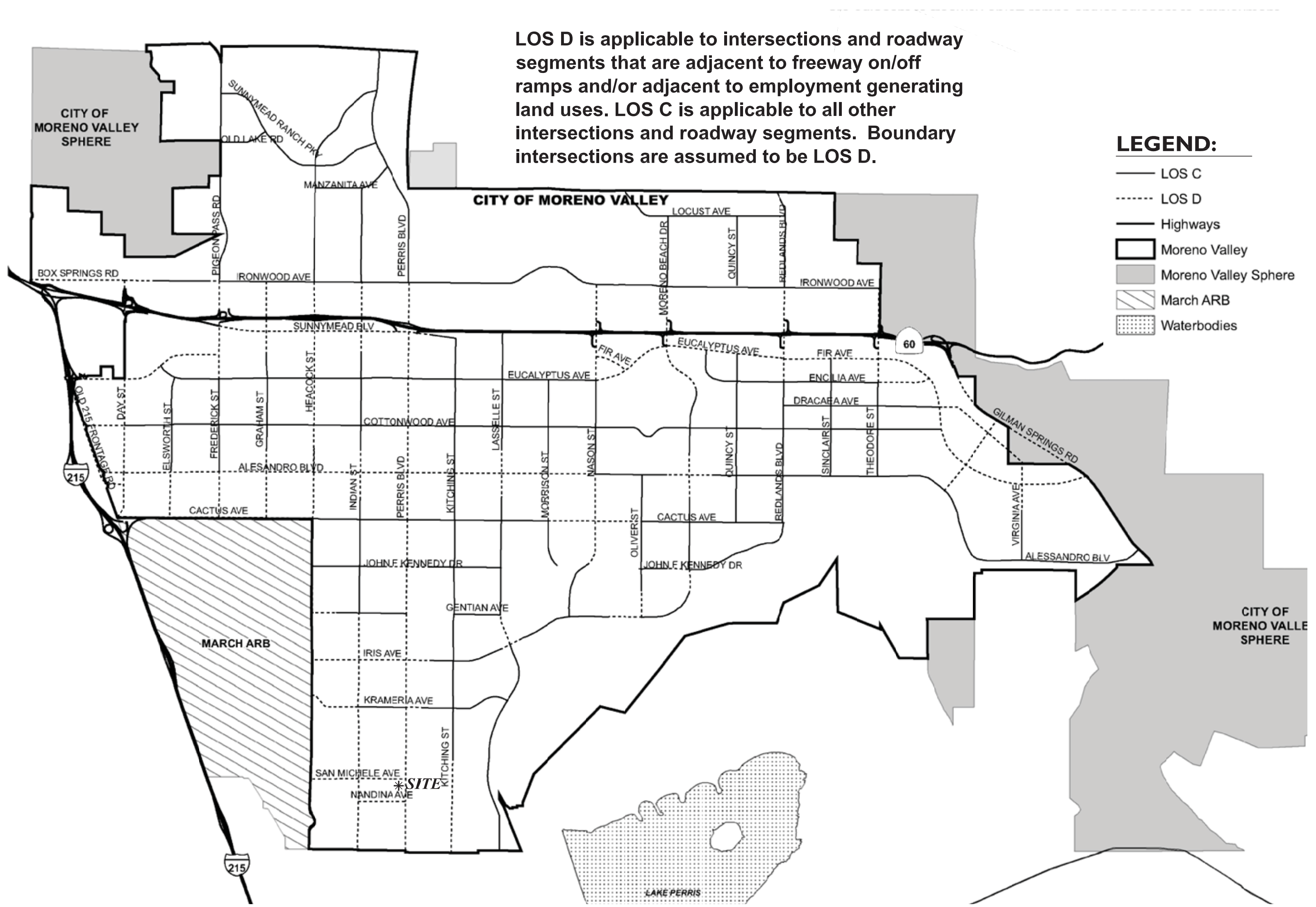
Source: Urban Crossroads (07-06-12)

FIGURE 4.4-12
City of Moreno Valley Bike Plan



Source: Urban Crossroads (07-06-12)

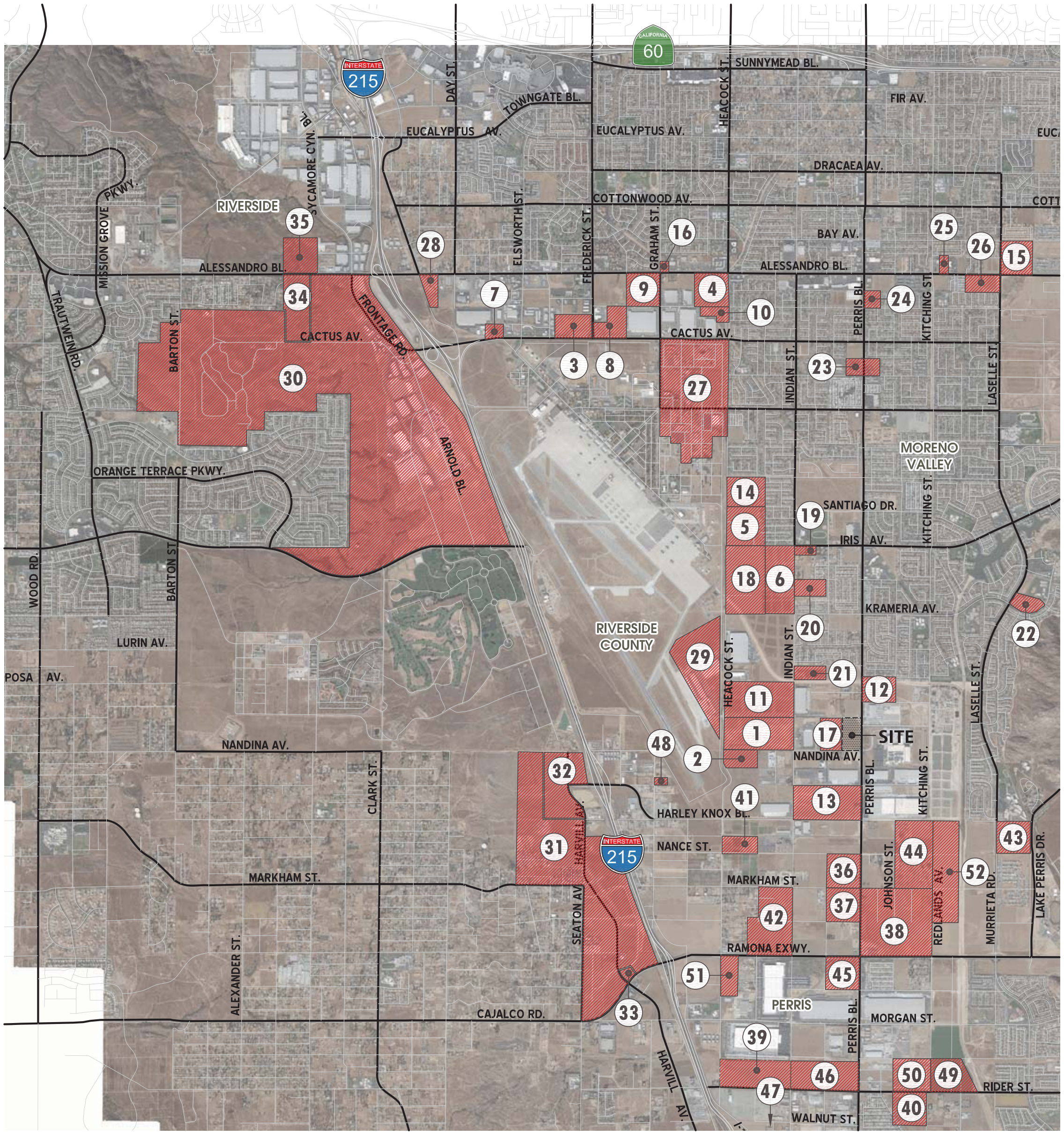
FIGURE 4.4-13
City of Moreno Valley Truck Routes



LOS D is applicable to intersections and roadway segments that are adjacent to freeway on/off ramps and/or adjacent to employment generating land uses. LOS C is applicable to all other intersections and roadway segments. Boundary intersections are assumed to be LOS D.

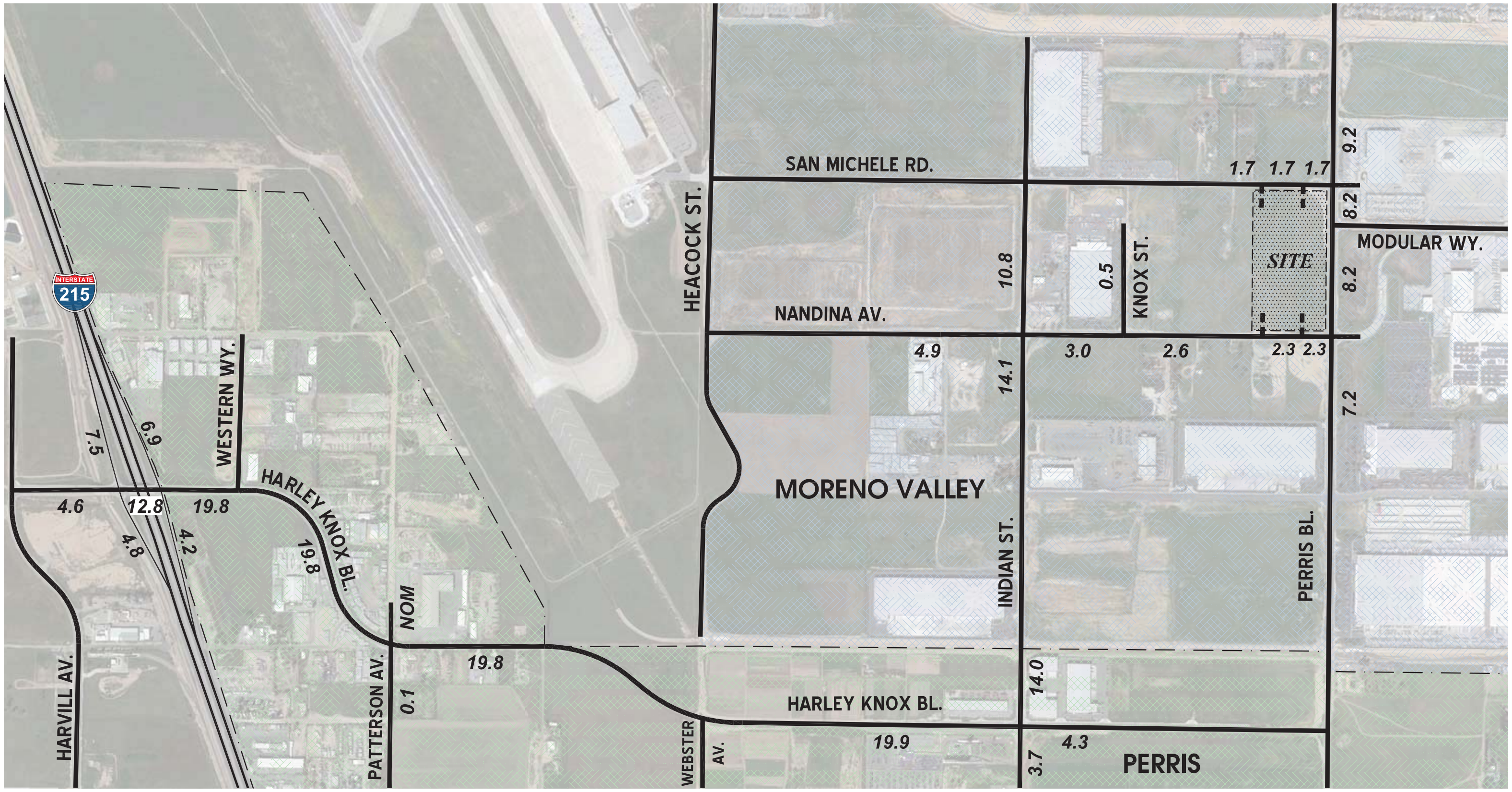
Source: Urban Crossroads (07-06-12)

FIGURE 4.4-14
City of Moreno Valley Level of Service (LOS) Standards



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-15
Cumulative Development Projects Location Map

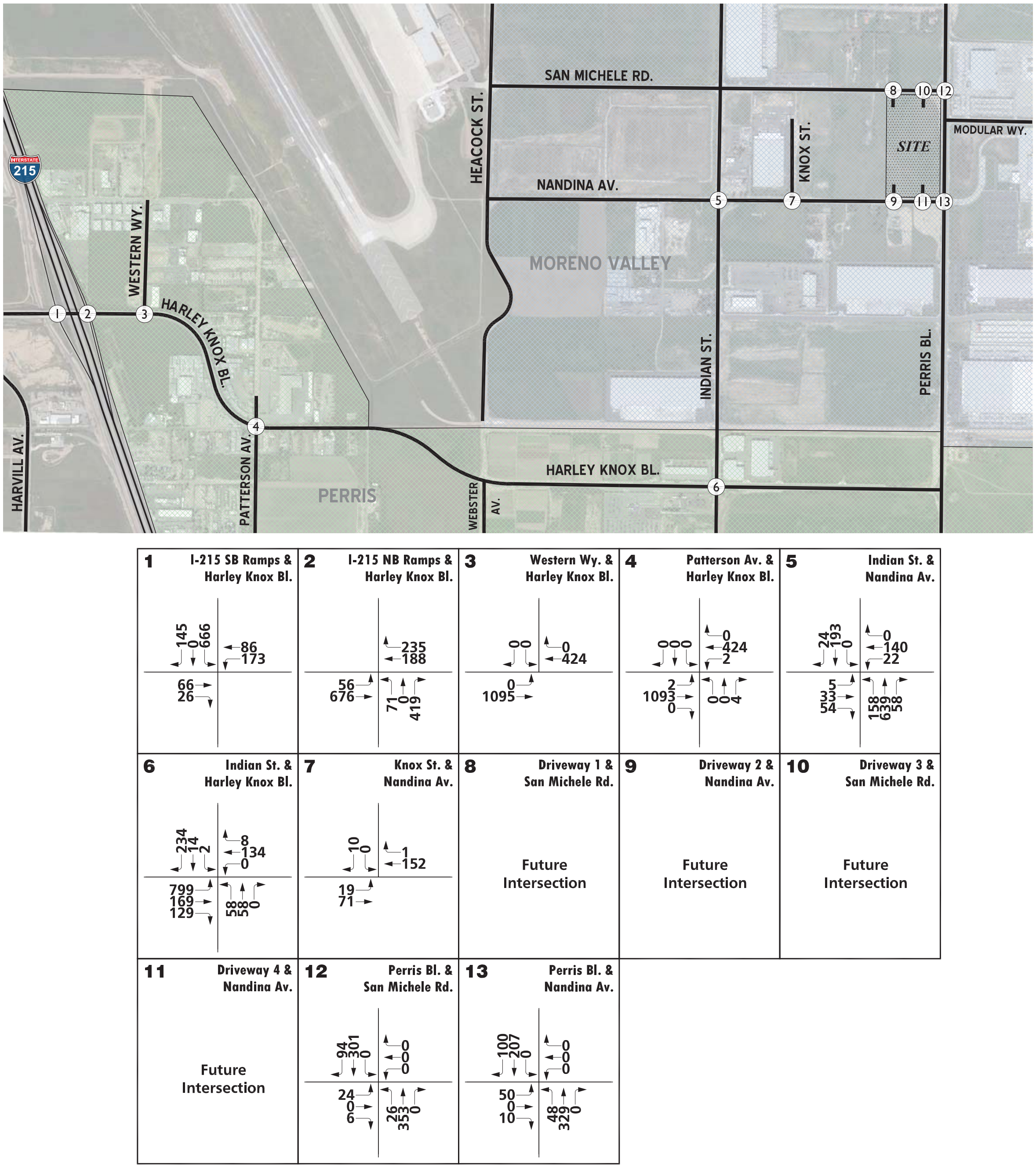


LEGEND:

10.0 = VEHICLES PER DAY (1000'S)
NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

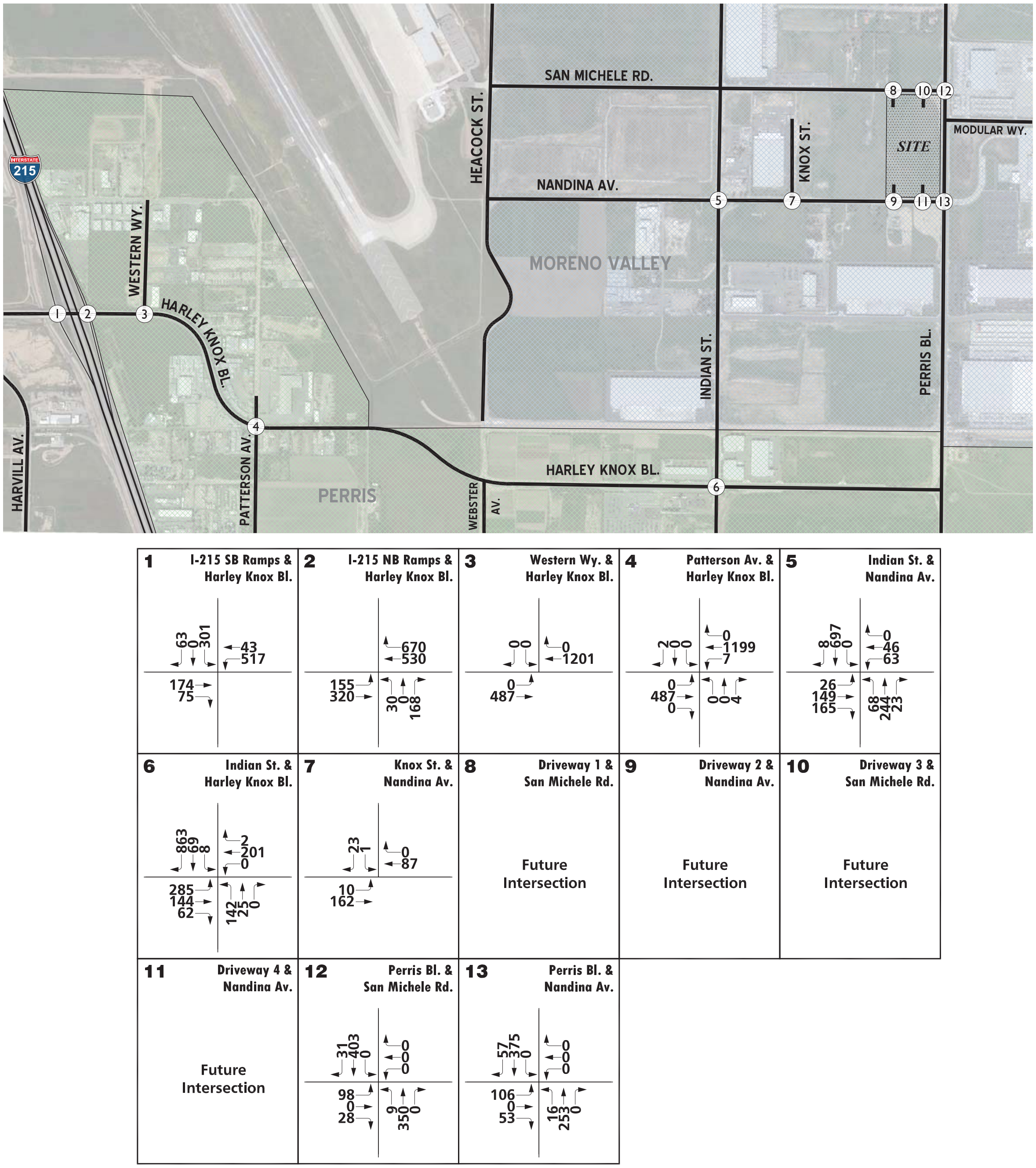
Source: Urban Crossroads (07-06-12)

FIGURE 4.4-16
Cumulative Development Average Daily Traffic (ADT)



Source: Urban Crossroads (07-06-12)

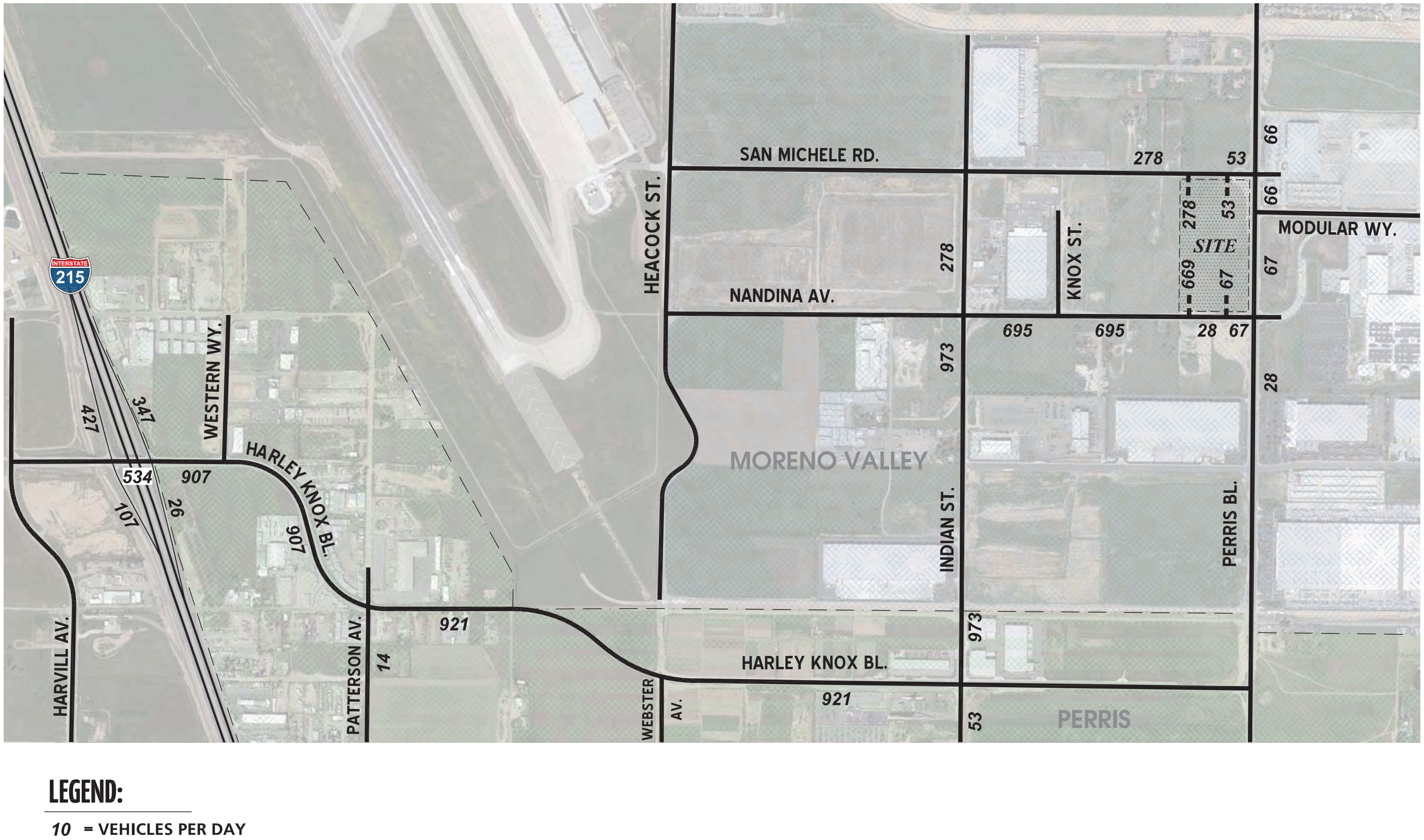
FIGURE 4.4-17
Cumulative Development AM Peak Hour Intersection Volumes



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-18

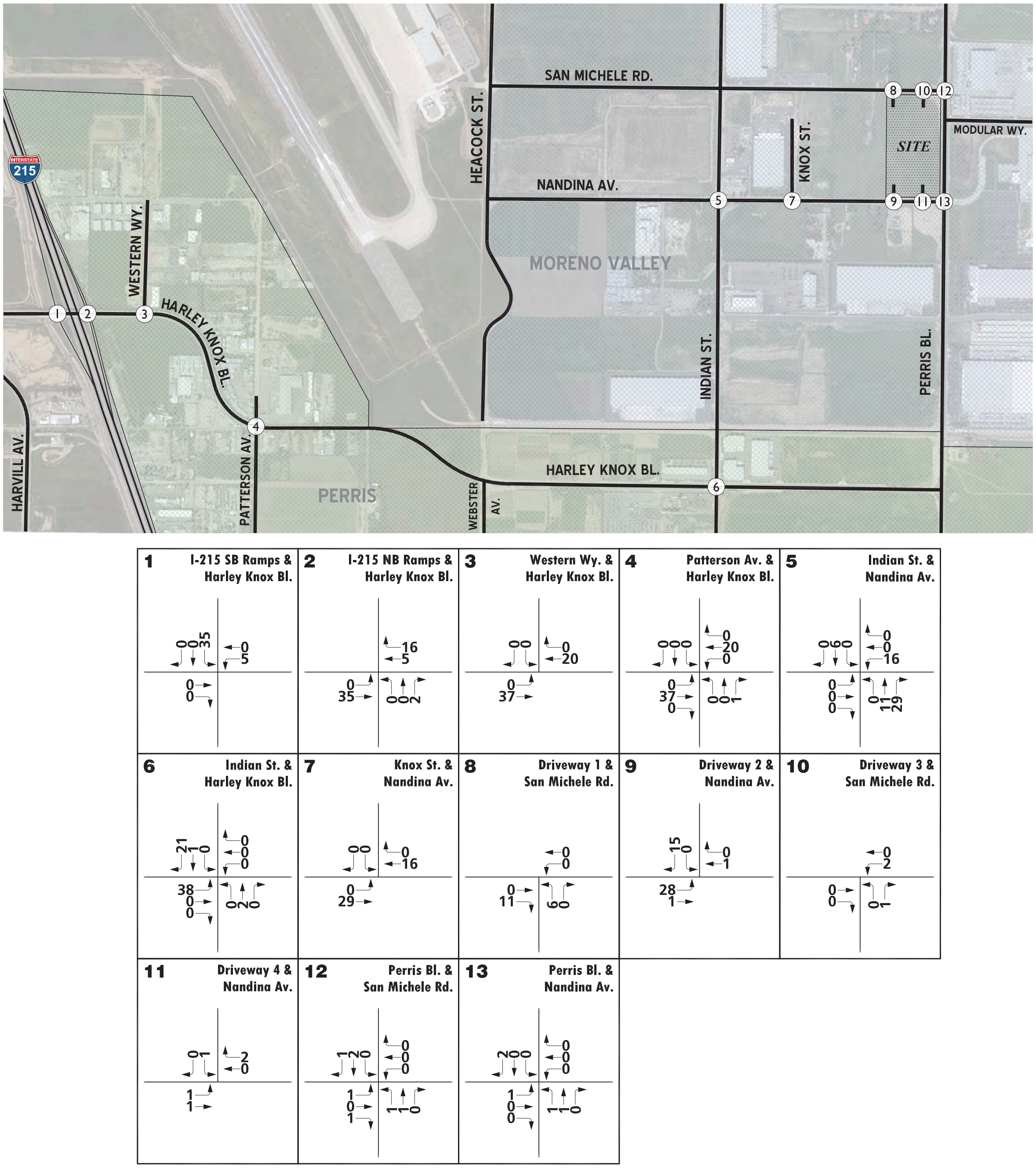
Cumulative Development PM Peak Hour Intersection Volumes



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-19

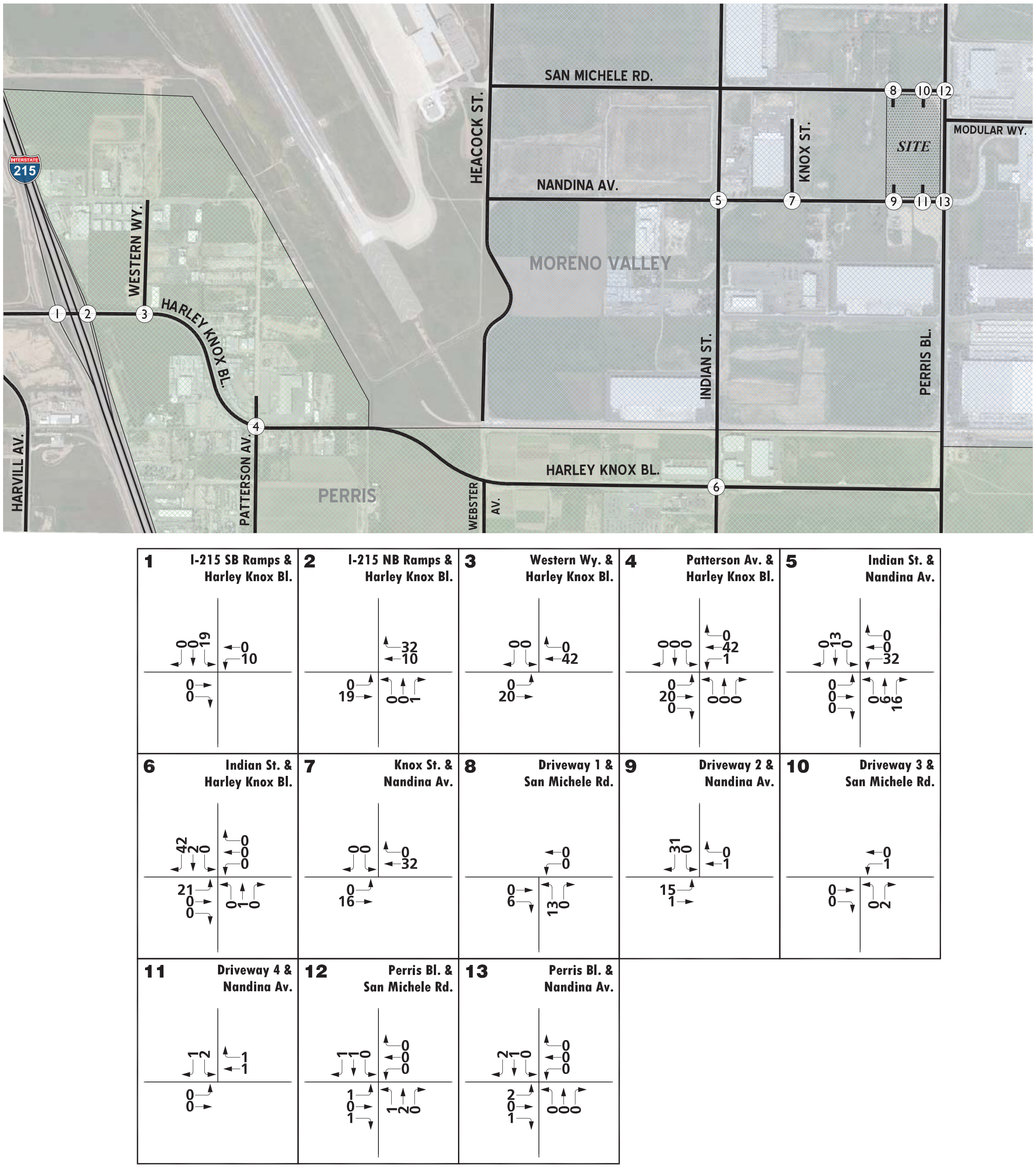
Project Only Average Daily Traffic (ADT)



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-20

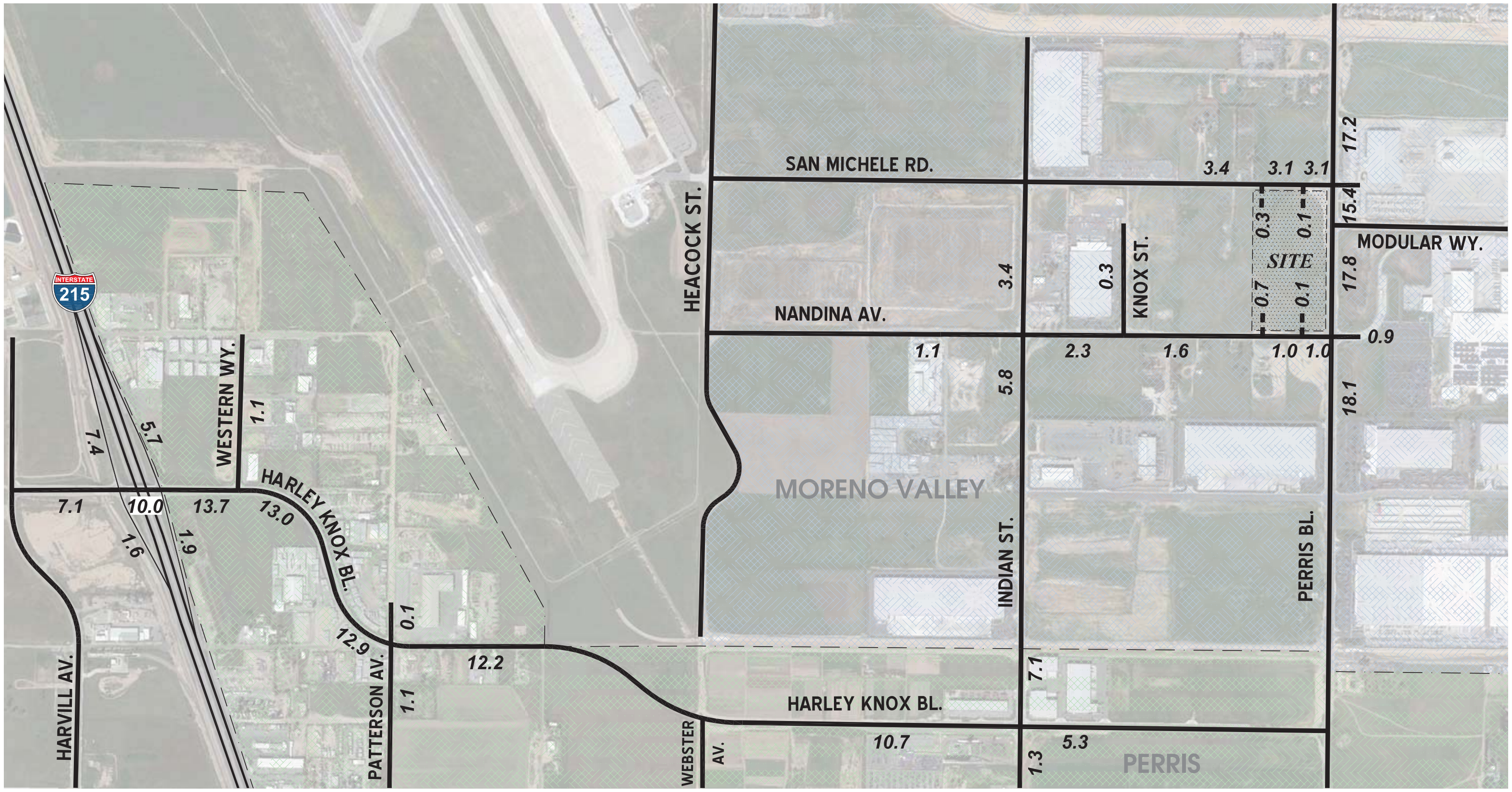
Project Only AM Peak Hour Intersection Volumes



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-21

Project Only PM Peak Hour Intersection Volumes

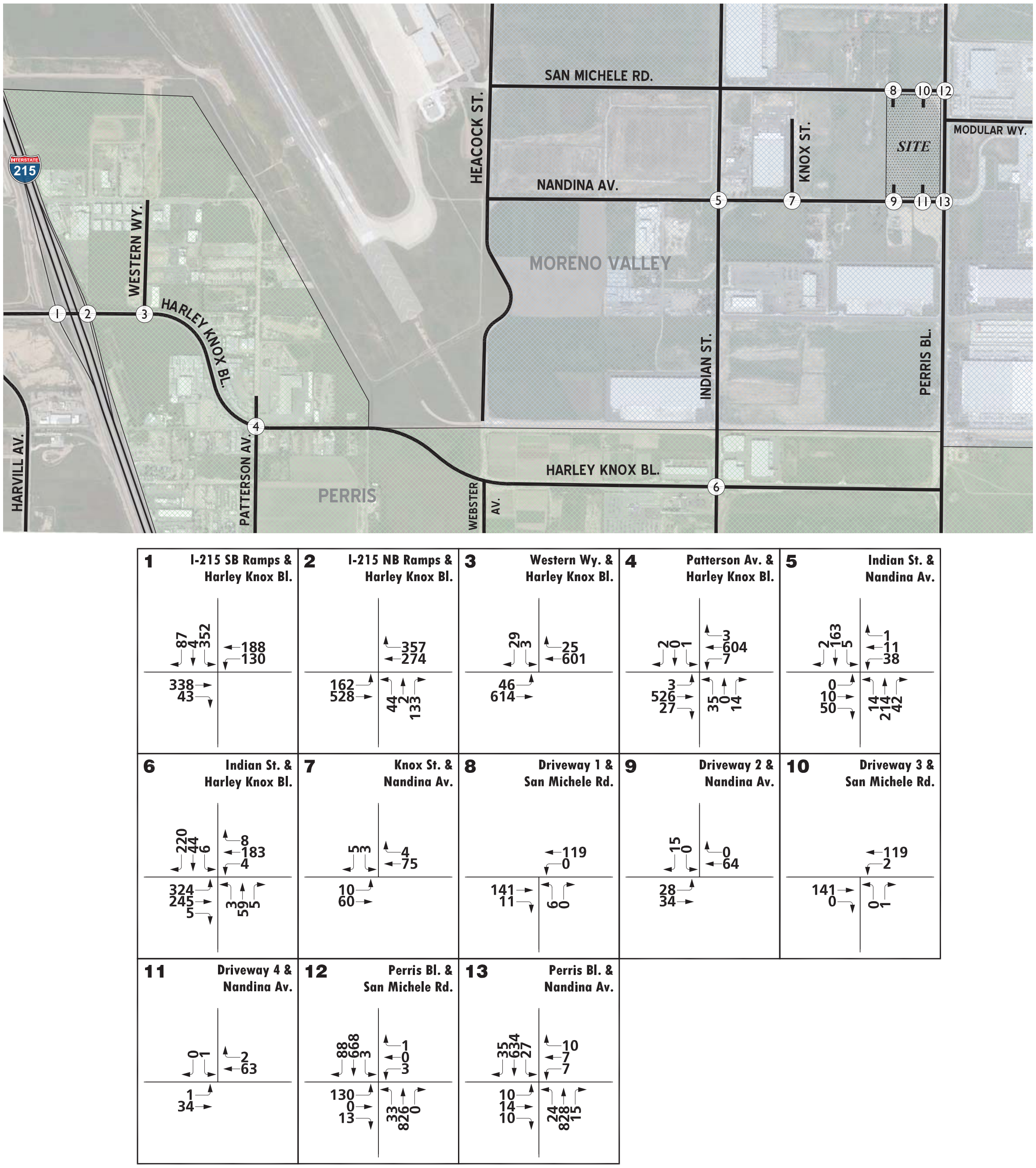


LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

Source: Urban Crossroads (07-06-12)

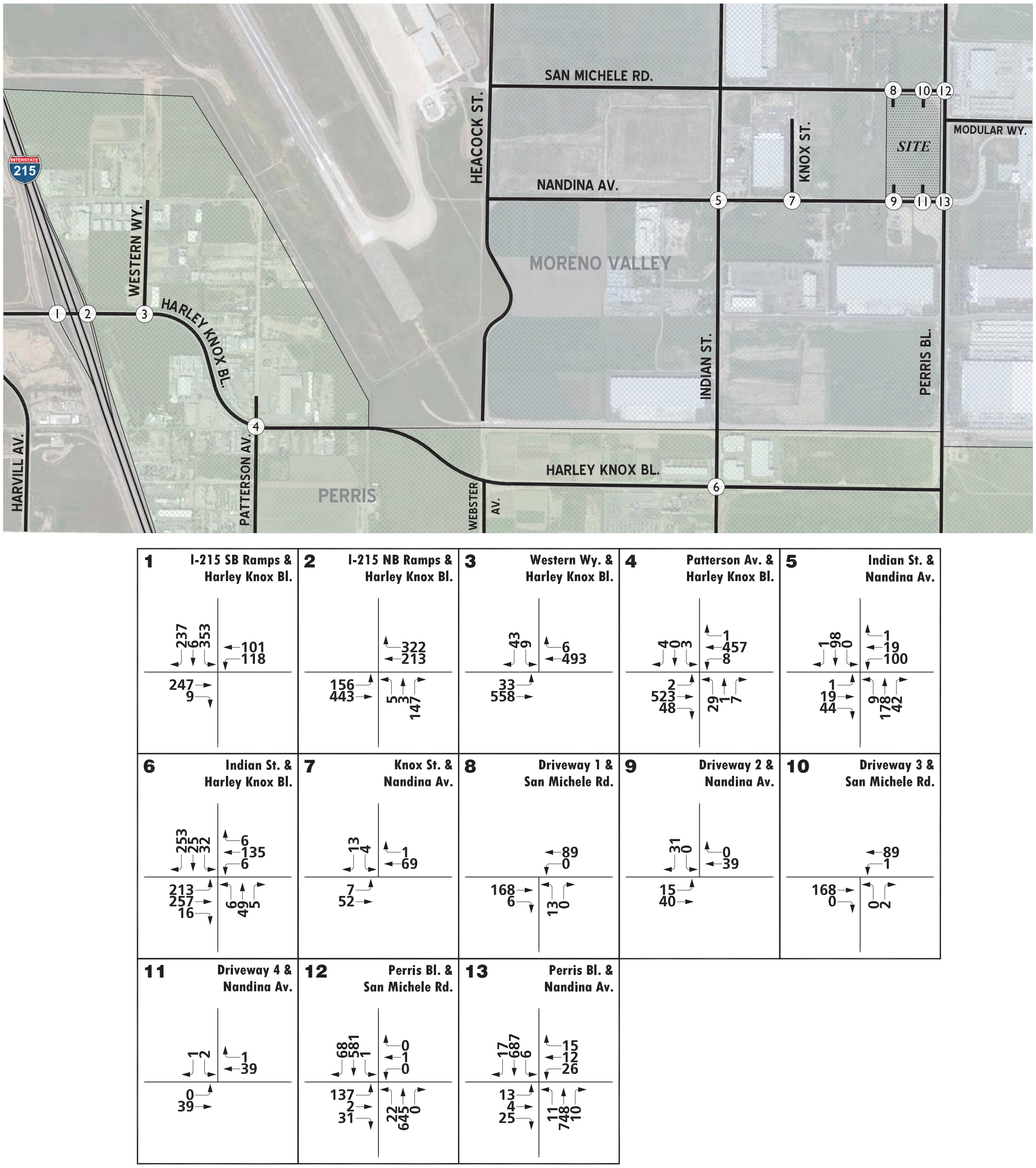
FIGURE 4.4-22
Existing Plus Project Average Daily Traffic (ADT)



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-23

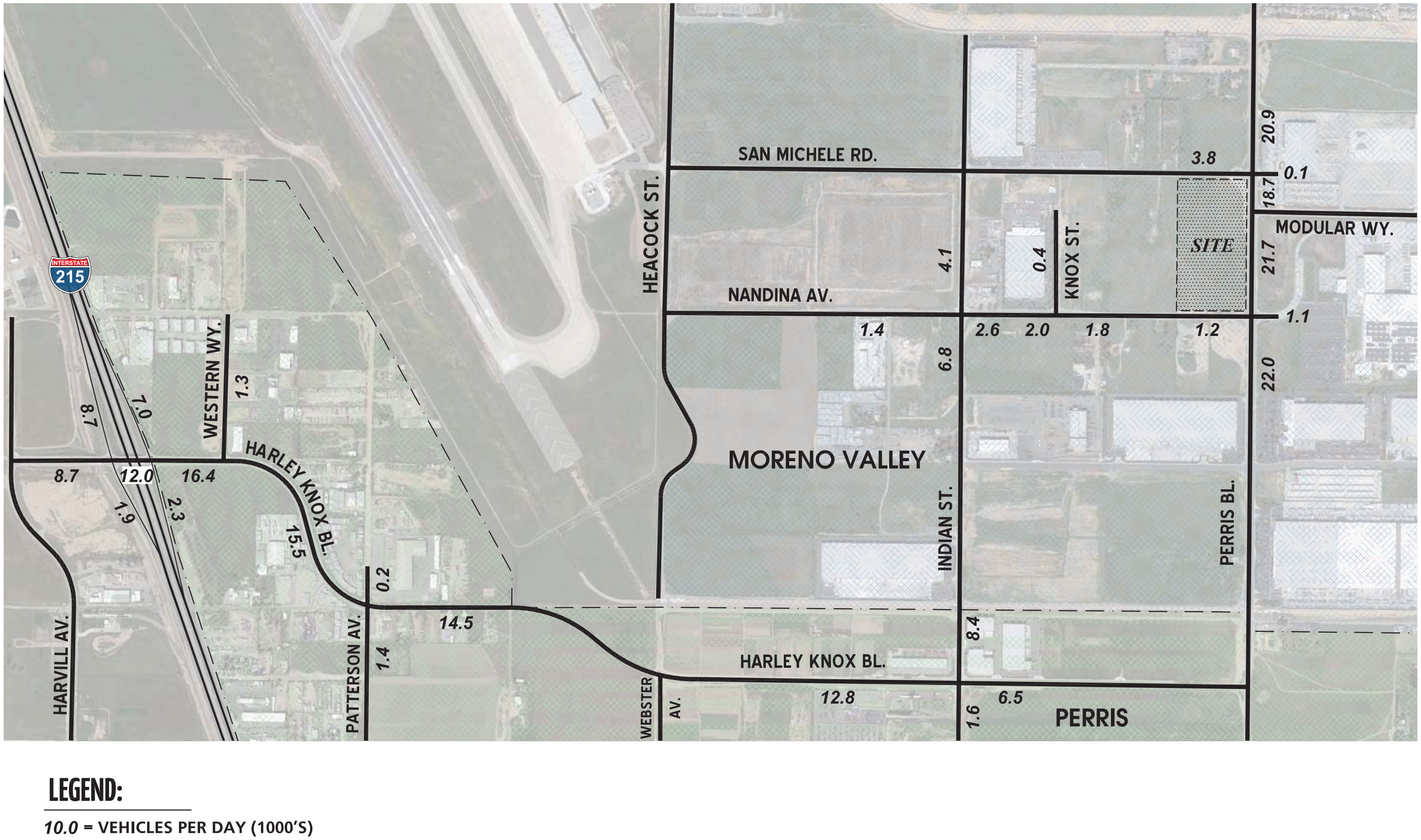
Existing Plus Project AM Peak Hour Intersection Volumes



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-24

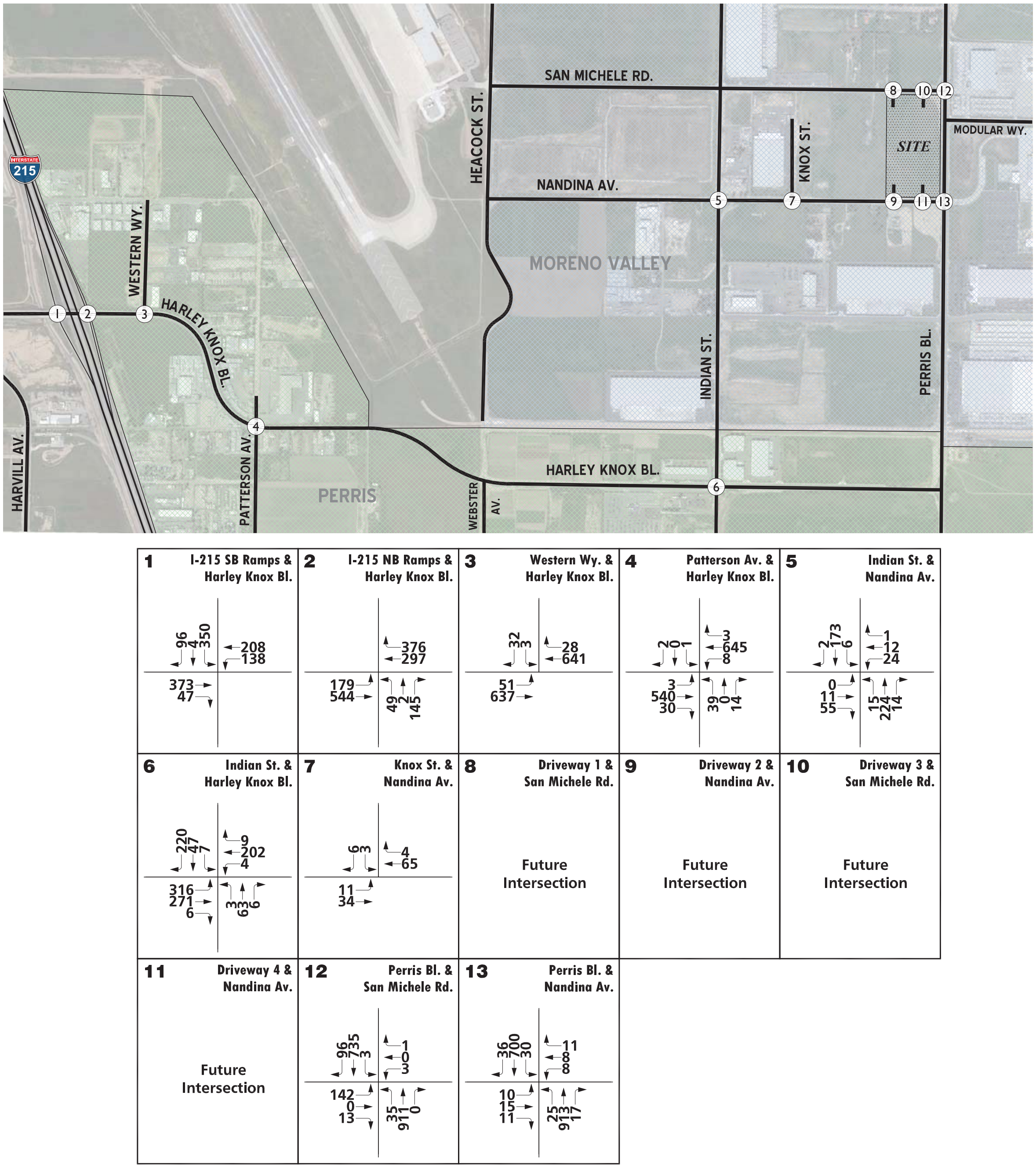
Existing Plus Project PM Peak Hour Intersection Volumes



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-25

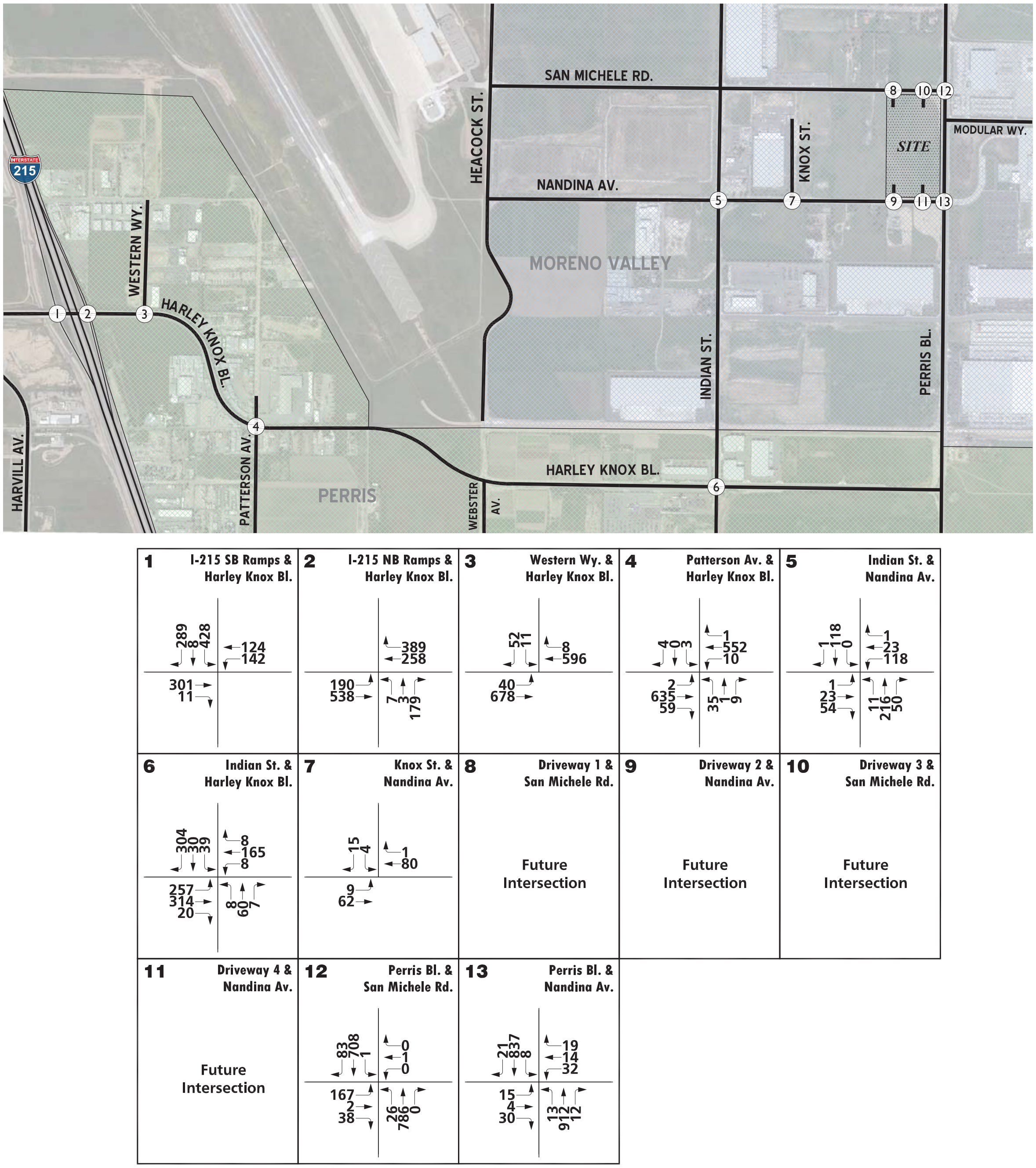
Opening Year (2017) Without Project Average Daily Traffic (ADT)



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-26

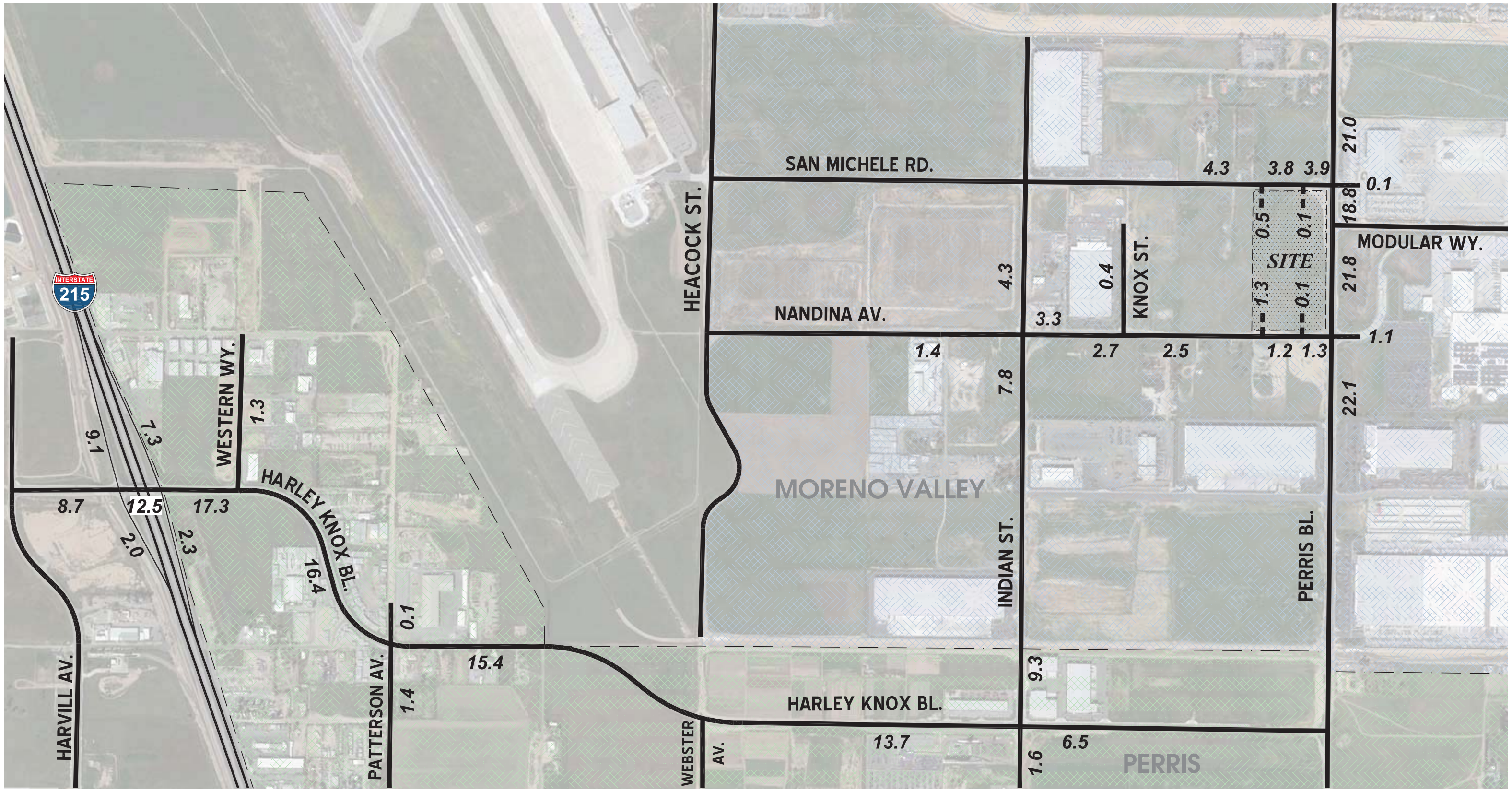
Opening Year (2017) Without Project AM Peak Hour Intersection Volumes



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-27

Opening Year (2017) Without Project PM Peak Hour Intersection Volumes



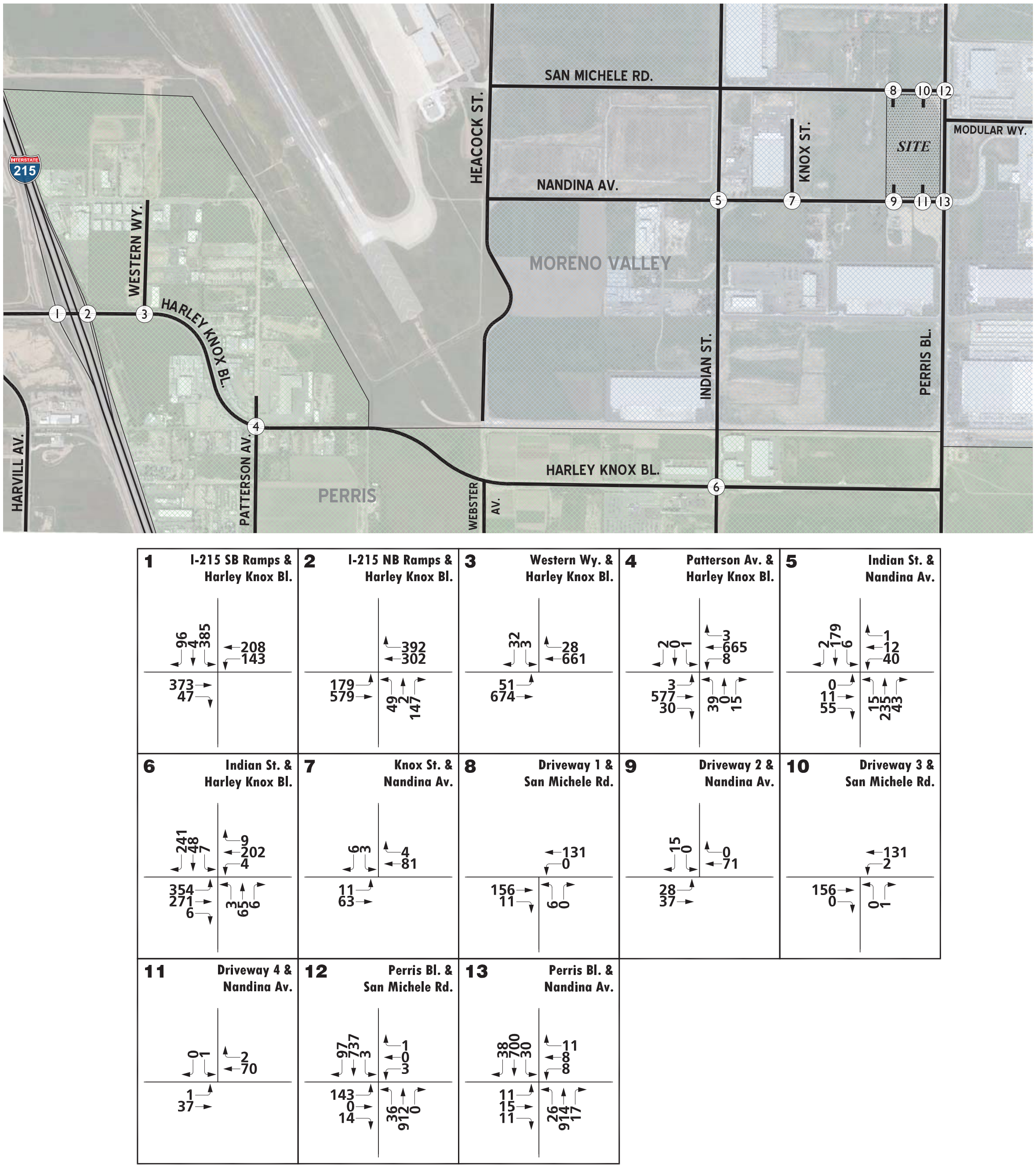
LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

Source: Urban Crossroads (07-06-12)

FIGURE 4.4-28

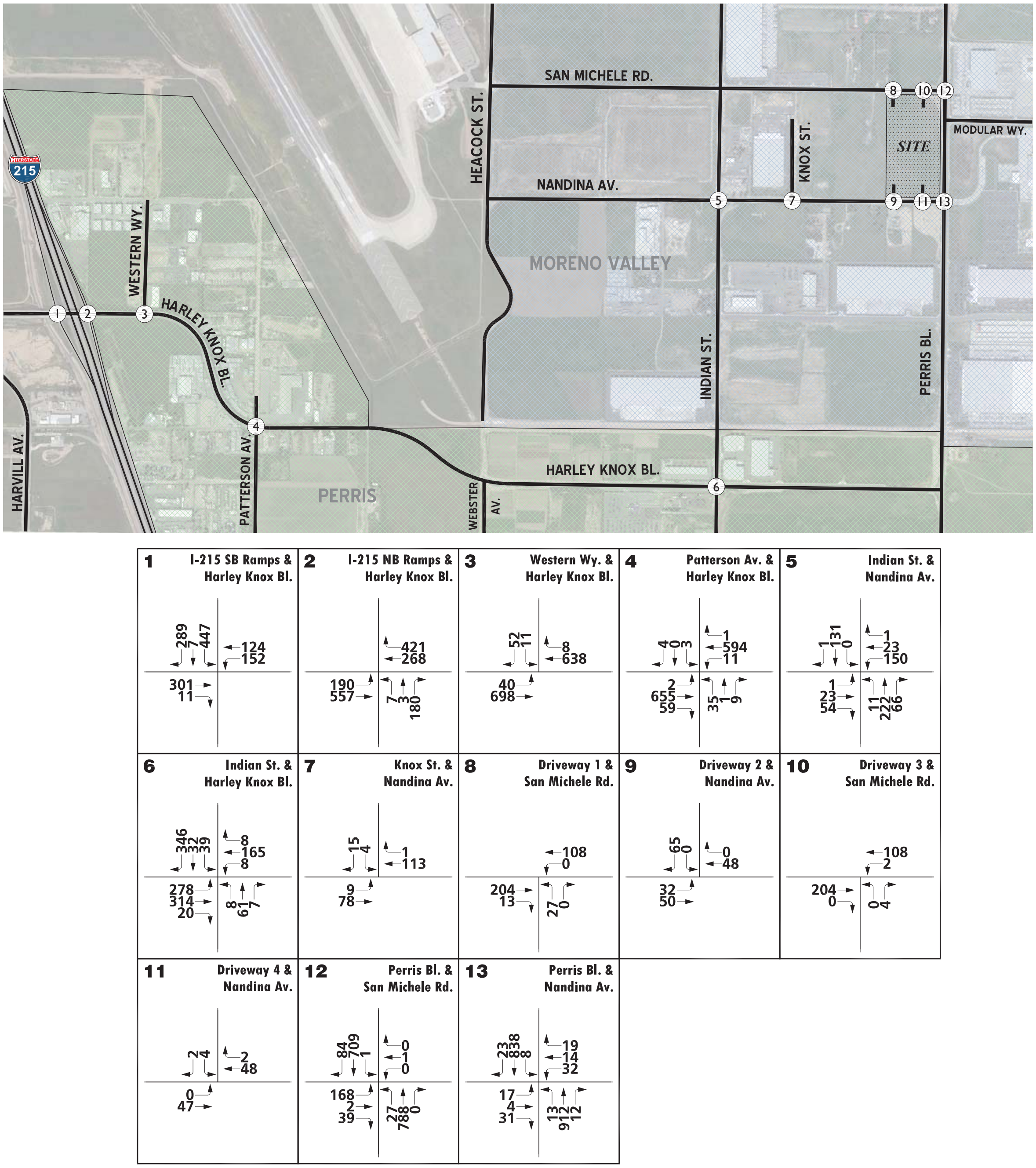
Opening Year (2017) With Project Average Daily Traffic (ADT)



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-29

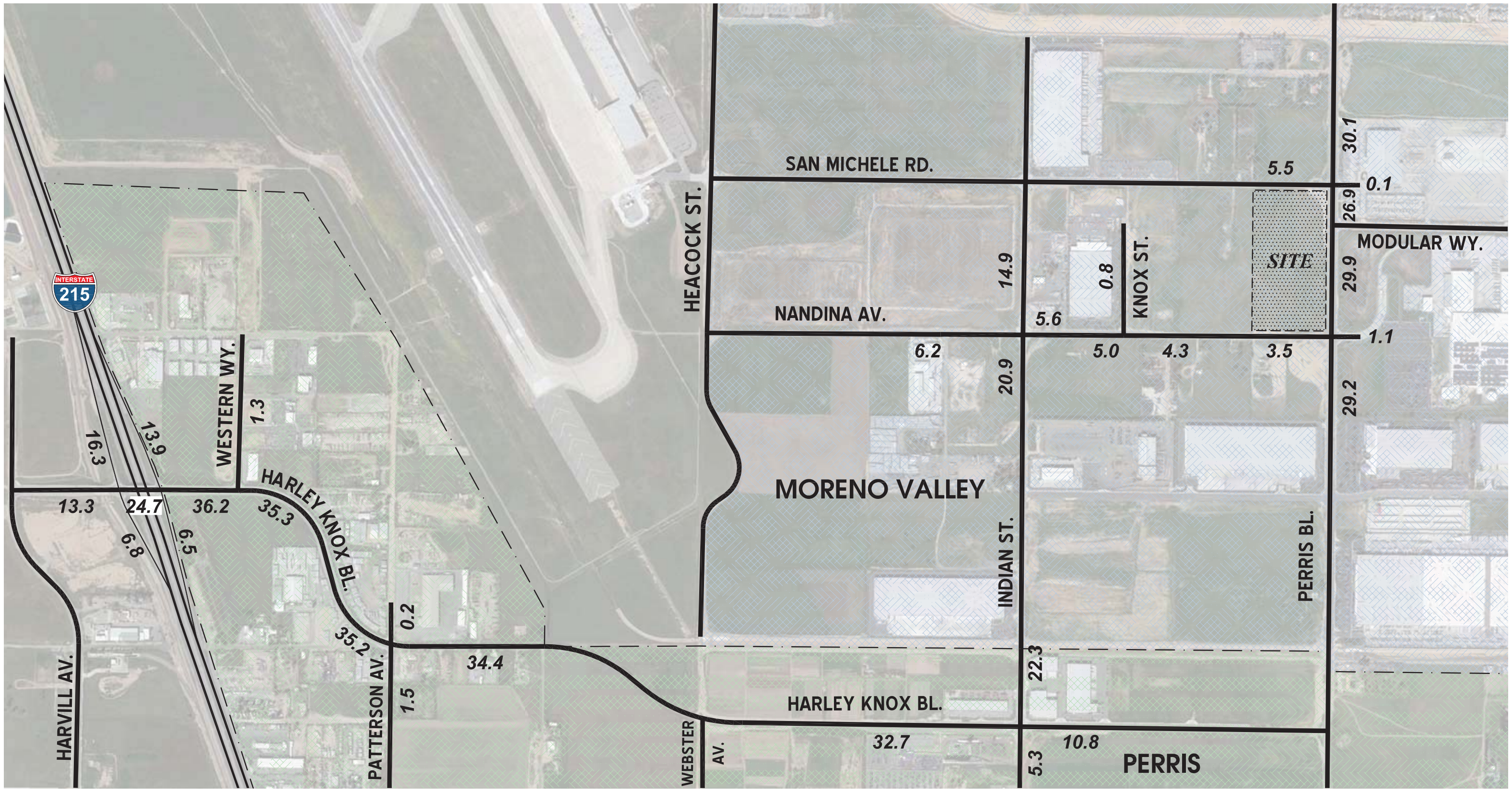
Opening Year (2017) With Project AM Peak Hour Intersection Volumes



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-30

Opening Year (2017) With Project PM Peak Hour Intersection Volumes



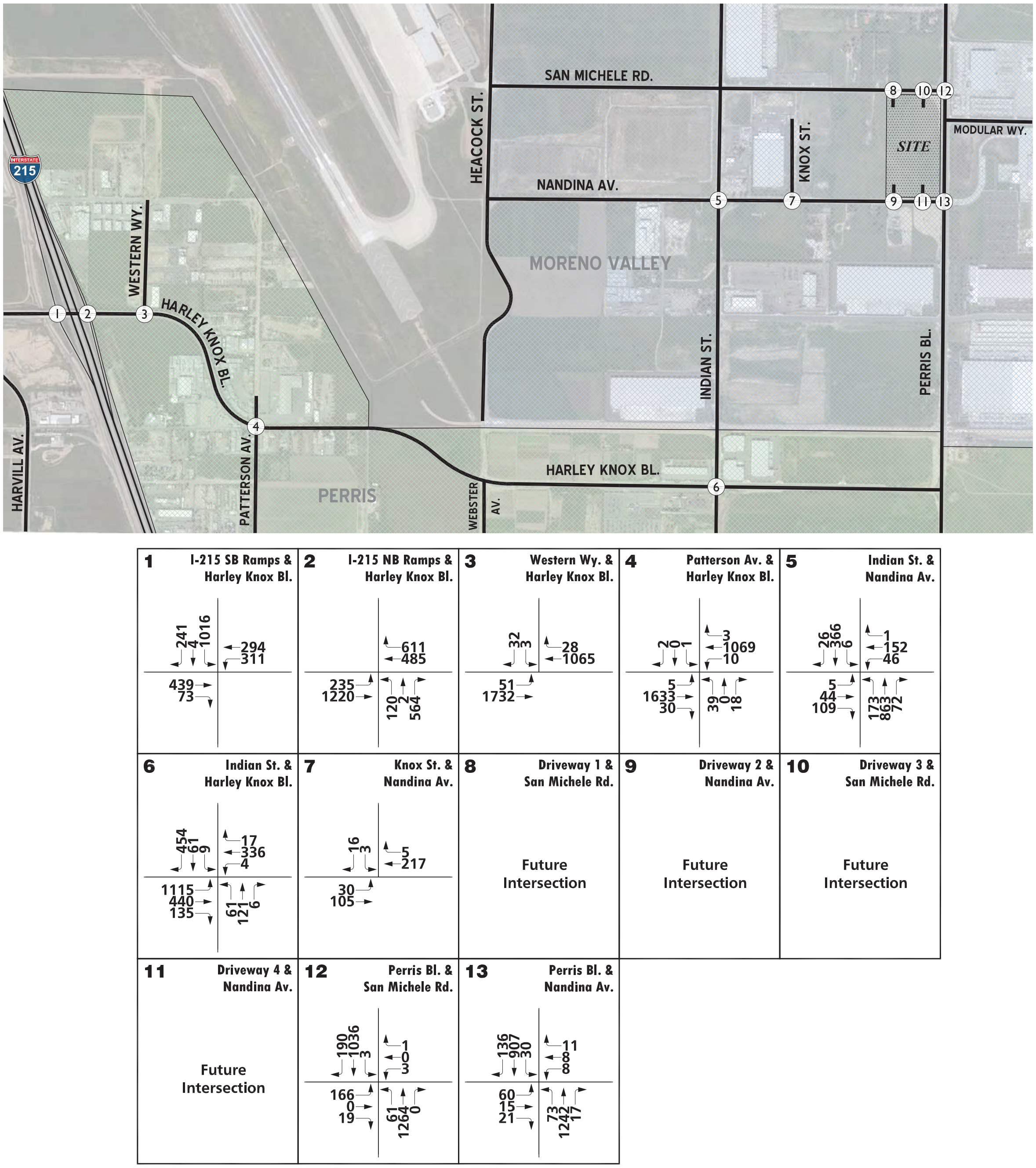
LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

Source: Urban Crossroads (07-06-12)

FIGURE 4.4-31

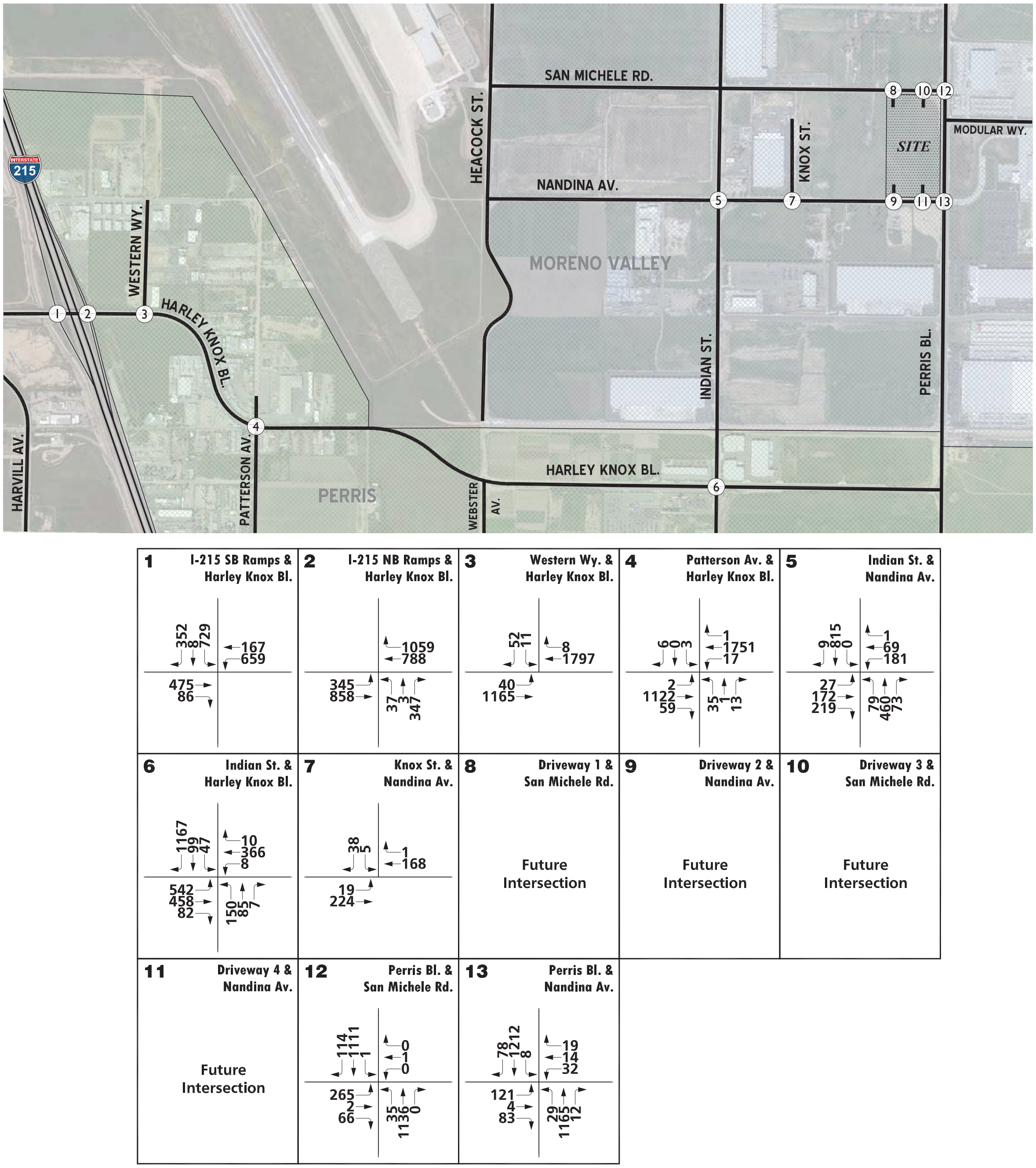
Opening Year Cumulative (2017) Without Project Average Daily Traffic (ADT)



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-32

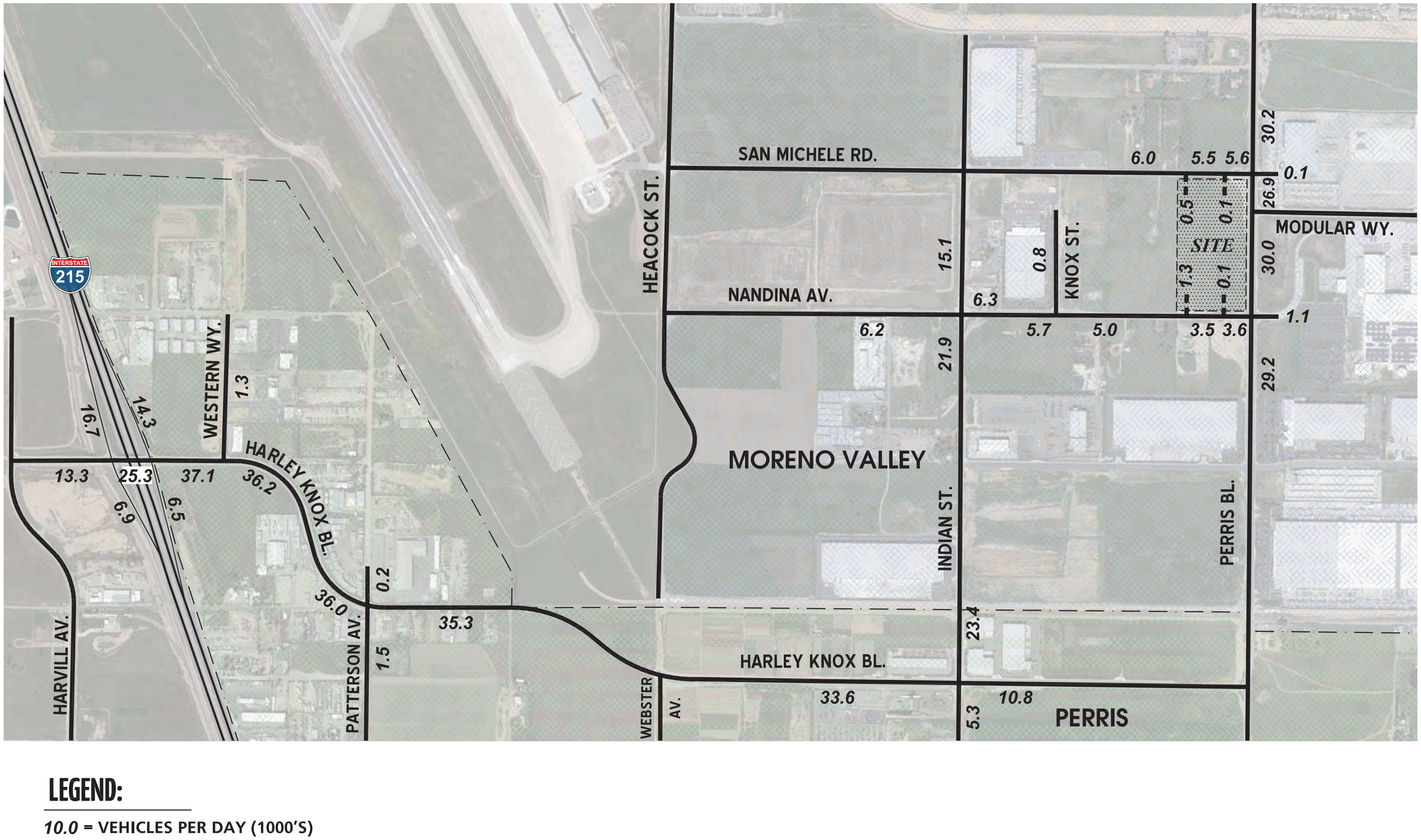
Opening Year Cumulative (2017) Without Project AM Peak Hour Intersection Volumes



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-33

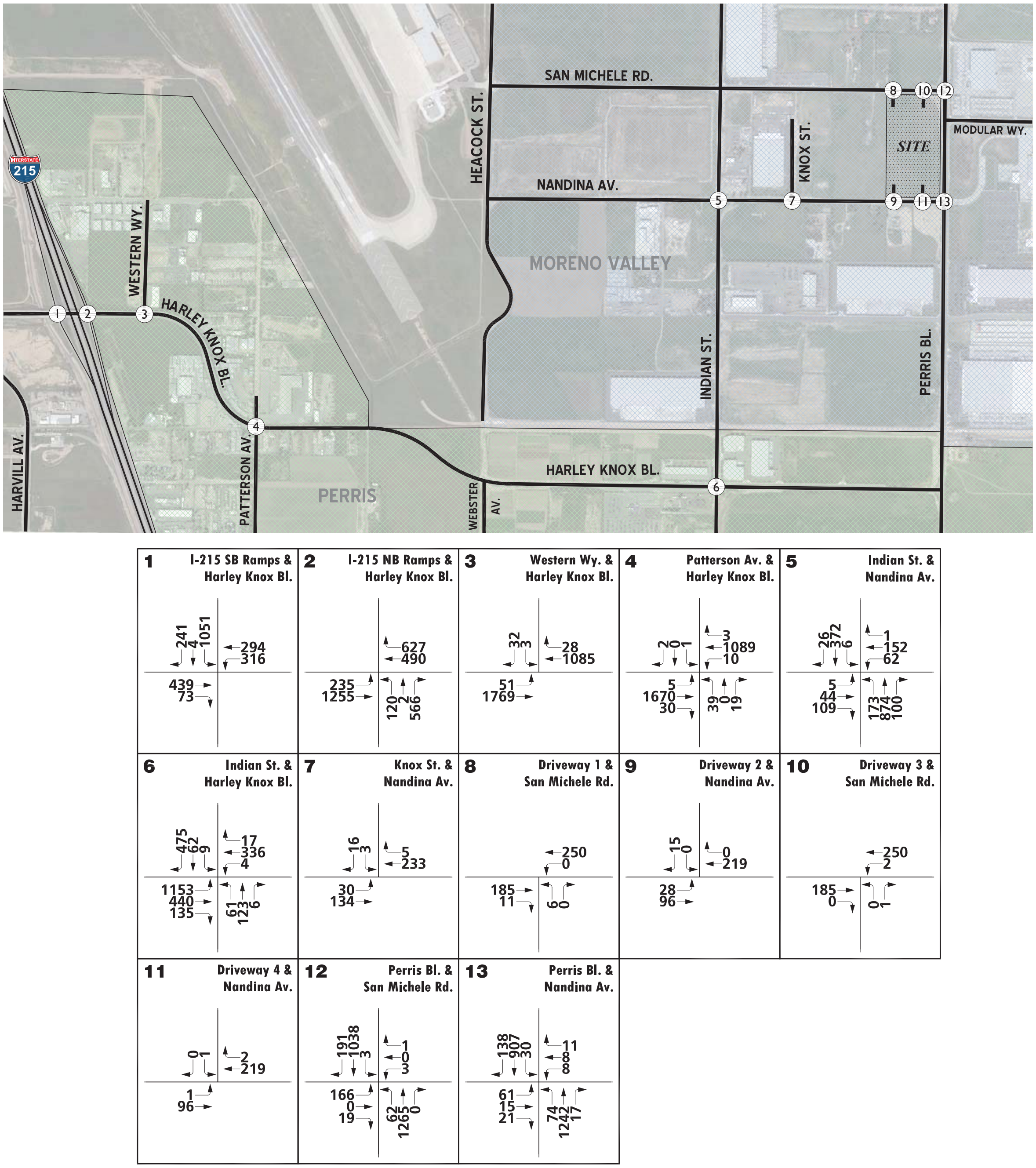
Opening Year Cumulative (2017) Without Project PM Peak Hour Intersection Volumes



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-34

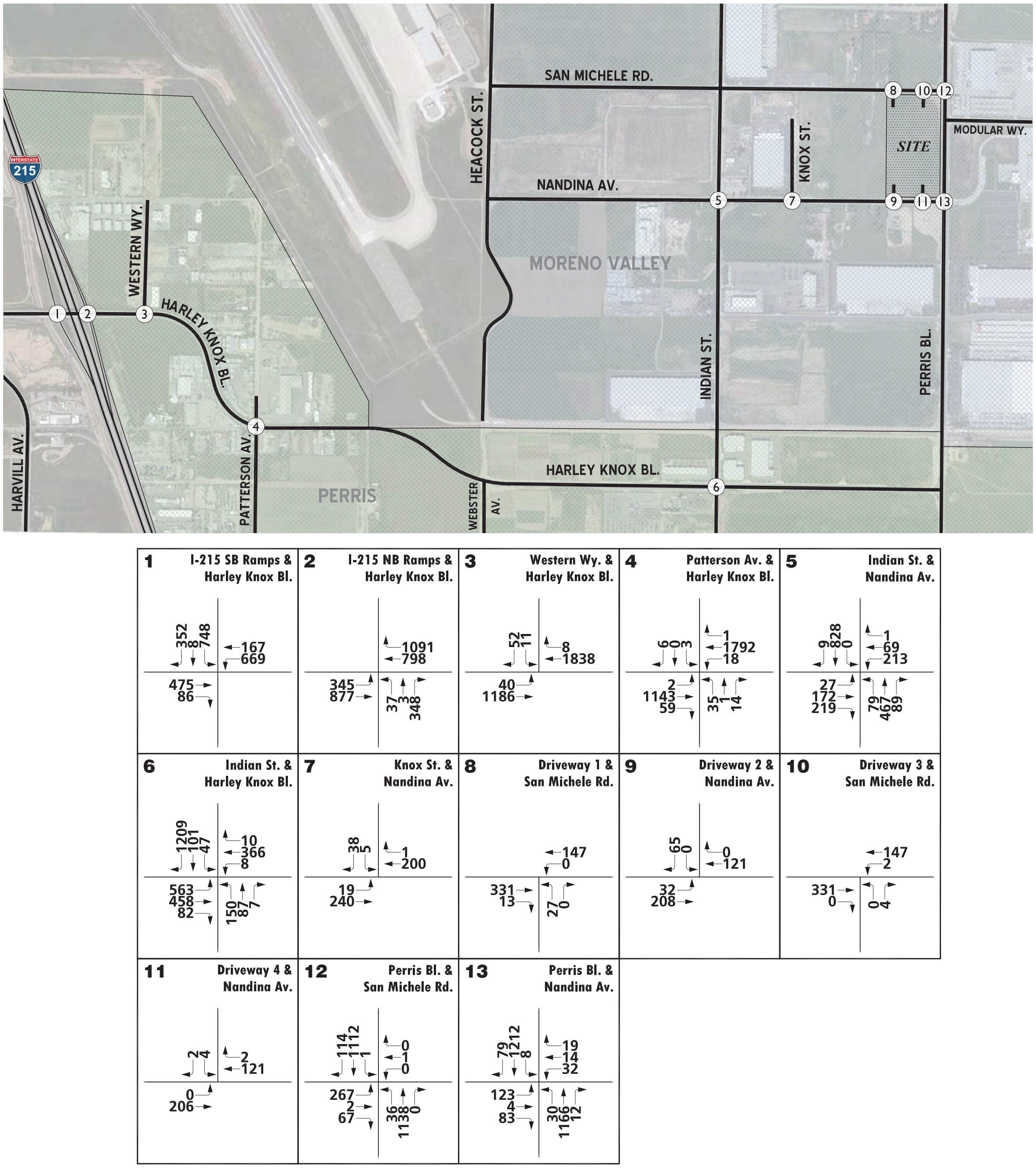
Opening Year Cumulative (2017) With Project Average Daily Traffic (ADT)



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-35

Opening Year Cumulative (2017) With Project AM Peak Hour Intersection Volumes



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-36

Opening Year Cumulative (2017) With Project PM Peak Hour Intersection Volumes

Source: Urban Crossroads (07-06-12)

FIGURE 4.4-37

Existing Plus Project I-215 Freeway Mainline Volumes

Source: Urban Crossroads (07-06-12)

FIGURE 4.4-38

Opening Year (2017) Without Project I-215 Freeway Mainline Volumes

LEGEND:

100 (250) = AM (PM) PEAK HOUR VOLUMES

Source: Urban Crossroads (07-06-12)

FIGURE 4.4-39

Opening Year (2017) With Project I-215 Freeway Mainline Volumes

Source: Urban Crossroads (07-06-12)

FIGURE 4.4-40

Opening Year Cumulative (2017) Without Project I-215 Freeway Mainline Volumes

Source: Urban Crossroads (07-06-12)

FIGURE 4.4-41

Opening Year Cumulative (2017) With Project I-215 Freeway Mainline Volumes

4.5 BIOLOGICAL RESOURCES

This subsection assesses the Project's potential to impact sensitive biological resources that may be present on the subject property or that could be otherwise affected by the Project. The analysis is based in part on information contained in a site-specific technical report titled, "Biological Technical Report for First Inland Logistics Center II," prepared by URS Corporation (URS), and dated January 4, 2012. This report is provided as *Technical Appendix G* to this EIR (URS Corporation, 2012a). The Biological Technical Report is accompanied by a Focused Burrowing Owl Survey (dated June 29, 2012) and a Focused Special Status Plant Survey (dated June 29, 2012), also prepared by URS, which are provided as *Technical Appendices G1* (URS Corporation, 2012b) and *G2* (URC Corporation, 2012c), respectively.

4.5.1 EXISTING CONDITIONS

A. Scope and Methodology

Biologists/Regulatory Specialists from URS conducted a site-specific evaluation of biological resources present or potentially present on the Project site. For this evaluation a biological study area (BSA) for the field survey was defined as 9.0 acres of undeveloped land plus a 250-foot buffer (URS Corporation, 2012a). The BSA did not include the 8.3-acre trailer parking yard on the Project site because that area is developed and has no potential to contain sensitive biological resources. Methods of study included a review of relevant literature and databases, pedestrian based field surveys and wildlife observations. URS assessed resources within the Project's BSA using methodologies and accepted scientific and technical standards and survey guideline requirements issued by the U.S. Fish and Wildlife Service (USFWS), the California Department of Fish and Wildlife (CDFW), the California Native Plant Society (CNPS), and the Western Riverside County MSHCP (URS Corporation, 2012a).

The field studies also focused on a number of primary objectives that satisfy the special provisions of the Western Riverside County MSHCP and also comply with CEQA requirements, including: (1) general reconnaissance surveys and vegetation mapping; (2) general wildlife surveys; (3) habitat assessments and surveys for special-status plants (including species with applicable MSHCP survey requirements); and (4) habitat assessments and focused surveys for special-status animals (including species with applicable MSHCP survey requirements). Observations of plant and wildlife species were recorded during each of the above mentioned survey efforts (URS Corporation, 2012a).

Please refer to Section 2.0 of the Biological Technical Report (*Technical Appendix G*) for a detailed description of the scope and methodology used for the general biological resources assessment.

B. Existing Vegetation Communities

One vegetation/land use type is present on the Project site; developed and disturbed land. Table 4.5-1, *Summary of Vegetation Communities/Land Uses,* provides a summary of vegetation acreage for the Project site. The remaining 8.3 acre area of the property is developed as a trailer parking yard. A detailed description of the vegetation/land use type is provided below.

Table 4.5-1 Summary of Vegetation Communities/Land Uses

VEGETATION	ACREAGE
Developed/Disturbed Land	9.0 [1]
Trailer Parking Yard	8.3
Total	**17.3**

Source: (URS Corporation, 2012a), *Table 1.*

[1] *Acreage is rounded*

☐ Developed/Disturbed Land

Approximately 9.0 acres of the Project site consists of developed/ disturbed lands. No native habitat exists within this area. Disturbed habitat areas are dominated by sparse non-native grasses and annual species. These habitats are non-sensitive.

☐ Trailer Parking Yard

Approximately 8.3 acres of the Project site is developed as a trailer parking yard. This area is paved, with the exception of ornamental landscaping installed adjacent to Perris Boulevard and a linear-shaped detention/water quality basin and ornamental landscaping installed adjacent to Nandina Avenue. This area contains no sensitive vegetation communities

C. Special Status Plants

An evaluation of plant species on the 9.0-acre undeveloped portion of the Project site was conducted by URS on January 4, 2012. The Biological Technical Report (*Technical Appendix G* Table 2) provides a list of the special-status plants evaluated for potential occurrence on the Project site. Plant species were considered based on a number of factors, including: 1) species identified by the California Natural Diversity Database (CNDDB) as occurring (either currently or historically) on or in the vicinity of the Project site, 2) Western Riverside County MSHCP survey areas, and 3) any other special-status plants that are known to occur within the vicinity of the property, or for which potentially suitable habitat occurs on the Project site.

☐ Narrow Endemic and Criteria Area Plants

The Project site is located within the Western Riverside County MSHCP Narrow Endemic Plant Species Survey Area (NEPSSA). During the general biological field evaluation conducted on January 4, 2012, URS looked for the twenty one (21) special status plant species which were reported to grow in the area; however, none of the species were observed. A focused survey for special status plants was conducted on June 7, 2012 per the requirements of the MSHCP (URS Corporation, 2012c). The focused assessment increased the BSA from a 250-foot to 500-foot buffer. The focused assessment searched for potential suitable habitats and identified the presence of one special-status plant species. Smooth tarplant (*Centromadia pungens ssp. laevis*) was detected on the site. Smooth tarplant is a CNPS List 1B.1 species and is a criteria area plant species survey area (CAPSSA) species under the MSHCP. Due to surrounding land use consisting primarily of developed parcels and the limited number of individuals plants; it is unlikely that this species would increase in population.

C. *Special Status Animals*

The 9.0-acre undeveloped portion of the Project site was evaluated by URS for the presence of special status animal species. The Biological Technical Report (*Technical Appendix G* Table 3) provides a list of special-status animals that were evaluated for their potential to occur in the BSA, including MSHCP Covered Species with additional survey requirements. Species were evaluated based on a number of factors, including: 1) species identified by the CNDDB as occurring (either currently or historically) on or in the vicinity of the property, 2) MSHCP species survey areas applicable to the property, and 3) any other special-status animals that are known to occur within the vicinity of the property, or for which potentially suitable habitat occurs on the site.

☐ Special Status Animals Observed On-Site

One special-status animal species was observed within the BSA during the biological field surveys; the California horned lark (*Eremophila alpestris actia*). The California horned lark is a MSHCP Covered Species, indicating that any impacts to this species are covered by the MSHCP.

○ *California Horned Lark (Eremophila alpestris actia)*

The California horned lark does not have a federal or state designation; however, this species is on the State Watch List. Additionally, the California horned lark is a Covered Species under the MSHCP. It has a holarctic distribution, ranging from the Arctic south to central Asia and Mexico with outlying populations in Morocco and Colombia. In general, the northernmost populations are migratory, moving south during the winter into remaining areas of the breeding range.

The California horned lark is a common to abundant resident in a variety of open habitats, usually where trees and large shrubs are absent. Range-wide, California horned larks breed in level or gently sloping shortgrass prairie, montane meadows, "bald" hills, open coastal plains, fallow grain fields, and alkali flats. Within Southern California, California horned larks breed primarily in open fields, (short) grasslands, and rangelands. Grasses, shrubs, forbs, rocks, litter, clods of soil, and other surface irregularities provide cover.

☐ Special Status Animals with a Potential to Occur On-Site

One special-status animal that has potential to occur at the Project site is the western burrowing owl (*Athene cunicularia hypugaea*). The Project site is located within the Western Riverside County MSHCP burrowing owl survey area; therefore, a MSHCP protocol burrowing owl survey was performed. A focused burrow survey was completed by URS on June 7, June 11, June 12,and June 20, 2012. As a result of the focus survey, ten burrows were observed; however, no burrowing owls or their signs were found with the potential burrows.

D. *MSHCP Riparian/Riverine Areas and Vernal Pools*

The Project site contains no drainages or vegetation that meets the definition of riparian or riverine habitat. Therefore, the Project site does not contain any MSHCP Riparian/Riverine areas. Additionally, the Project site lacks suitable habitat for wetland habitats and does not contain any MSHCP vernal pools.

E. *Regulatory Setting*

The proposed Project is subject to state and federal regulations associated with a number of regulatory programs. These programs often overlap and were developed to protect natural resources, including: state and federally listed plants and animals; aquatic resources including rivers and creeks, ephemeral streambeds, wetlands, and areas of riparian habitat; other special-status species which are not listed as threatened or endangered by the state or federal governments; and other special-status vegetation communities. Provided below is an overview of the federal, state, and regional laws, regulations, and requirements that apply to the proposed Project. For more information, refer to Technical Appendix *G*.

❑ State and/or Federally Listed Plants and Animals

○ *State of California Endangered Species Act*

California's Endangered Species Act (CESA) provides definitions for endangered species, threatened species, and candidate species of California. Listed endangered and threatened species are protected by the CESA and candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Article 3, Sections 2080 through 2085, of the CESA addresses the taking of threatened, endangered, or candidate species by stating "No person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided." Under the CESA, "take" is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Exceptions authorized by the state to allow "take" require permits or memoranda of understanding and can be authorized for endangered species, threatened species, or candidate species for scientific, educational, or management purposes and for take incidental to otherwise lawful activities. Sections 1901 and 1913 of the California Fish and Game Code provide that notification is required prior to disturbance.

○ *Federal Endangered Species Act*

The Federal Endangered Species Act of 1973 provides definitions for endangered species and threatened species of the U.S. Under provisions of Section 9(a)(1)(B) of the FESA it is unlawful to "take" any listed species. "Take" is defined in Section 3(18) of FESA: "...harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Further, the USFWS, through regulation, has interpreted the terms "harm" and "harass" to include certain types of habitat modification that result in injury to, or death of species as forms of "take." These interpretations, however, are generally considered and applied on a case-by-case basis and often vary from species to species. In a case where a property owner seeks permission from a federal agency for an action that could affect a federally listed plant and animal species, the property owner and agency are required to consult with USFWS. Section 9(a)(2)(b) of the FESA addresses the protections afforded to listed plants.

○ *State and Federal Take Authorizations for Listed Species*

Federal or state authorizations of impacts to or incidental take of a listed species by a private individual or other private entity would be granted in one of the following ways:

- Section 7 of the FESA stipulates that any federal action that may affect a species listed as threatened or endangered requires a formal consultation with USFWS to ensure that the action is not likely to jeopardize the continued existence of the listed species or result in destruction or adverse modification of designated critical habitat. 16 U.S.C. 1536(a)(2).

- In 1982, the FESA was amended to give private landowners the ability to develop Habitat Conservation Plans (HCPs) pursuant to Section 10(a) of the FESA. Upon development of an HCP, the USFWS can issue incidental take permits for listed species where the HCP specifies at minimum, the following: (1) the level of impact that will result from the taking, (2) steps that will minimize and mitigate the impacts, (3) funding necessary to implement the plan, (4) alternative actions to the taking considered by the applicant and the reasons why such alternatives were not chosen, and (5) such other measures that the Secretary of the Interior may require as being necessary or appropriate for the plan.

- Sections 2090-2097 of the California Endangered Species Act (CESA) require that the state lead agency consult with CDFG on projects with potential impacts on state-listed species. These provisions also require CDFG to coordinate consultations with USFWS for actions involving federally listed as well as state-listed species. In certain circumstances, Section 2080.1 of the California Fish and Game Code allows CDFG to adopt the federal incidental take statement or the 10(a) permit as its own based on its findings that the federal permit adequately protects the species under state law.

○ *Take Authorizations Pursuant to the MSHCP*

The Western Riverside County MSHCP, a regional HCP, was adopted on June 17, 2003, and an Implementing Agreement (IA) was executed between the USFWS, CDFG, and participating entities. The intent of the MSHCP is to preserve native vegetation and meet the habitat needs of multiple species, rather than focusing preservation efforts on one species at a time. As such, the MSHCP is intended to streamline review of individual projects with respect to the species and habitats addressed in the MSHCP, and to provide for an overall Conservation Area that would be of greater benefit to biological resources than would result from a piecemeal regulatory approach. The MSHCP provides coverage (including take authorization for listed species) for special-status plant and animal species, as well as mitigation for impacts to sensitive species.

Through agreements with the USFWS and the CDFG, the MSHCP designates 146 special-status animal and plant species that receive some level of coverage under the plan. Of the 146 "Covered Species" designated under the MSHCP, the majority of these species have no additional survey/conservation requirements. In addition, through participation with the MSHCP, the MSHCP provides mitigation for project-specific impacts to Covered Species so that the impacts would be reduced to below a level of significance pursuant to CEQA. As noted above, project-specific survey requirements exist for species designated as "Covered Species not yet adequately conserved" (Volume I, Section 6.1.2 of the MSHCP document). As the MSHCP's survey requirements relate to the Project site, surveys are required on the Project site for the western burrowing owl and for narrow endemic plants.

4.5.2 BASIS FOR DETERMINING SIGNIFICANCE

Environmental impacts to biological resources are assessed using impact significance threshold criteria, which reflect the policy statement contained in CEQA, §21001(c) of the California Public Resources Code. Accordingly, the State Legislature has established it to be the policy of the State of California to:

> *"Prevent the elimination of fish or wildlife species due to man's activities, ensure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities..."*

In the development of thresholds of significance for impacts to biological resources, CEQA provides guidance primarily in §15065, Mandatory Findings of Significance, and the CEQA Guidelines, Appendix G, Environmental Checklist Form. CEQA Guidelines §15065(a) states that a project may have a significant effect where:

> *"The project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or wildlife community, reduce the number or restrict the range of an endangered, rare, or threatened species, ..."*

Therefore, for the purpose of analysis in this EIR, the proposed Project would result in a significant impact to biological resources if the Project or any Project-related component would:

1. *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U. S. Fish and Wildlife Service;*

2. *Have a substantially adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U. S. Wildlife Service;*

3. *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;*

4. *Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites;*

5. *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or*

6. *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, other approved local, regional, or state habitat conservation plan.*

4.5.3 IMPACT ANALYSIS

Threshold 1: Would the proposed Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U. S. Fish and Wildlife Service?

A. Vegetation Communities

Approximately 9.0 acres of the Project site consists of developed/ disturbed lands and approximately 8.3 acres is developed as a trailer parking yard. Neither portion of the Project site contains sensitive vegetation communities. The trailer parking yard has been built upon and the remaining vacant lot contains no native vegetation community and is fully disturbed (URS Corporation, 2012a). Therefore, the Project will have no impact on sensitive vegetation communities.

B. Plant Species

The Project site contains one species of special status plant species, smooth tarplant. The smooth tarplant is a CNPS List 1B.1 species; however, due to the developed and disturbed nature of surrounding properties and a small number of individual plants (two) located on the Project site, URS determined that the species is unlikely to grow larger in population. The Project will have a less than significant impact on the plant species because the loss of these two individuals will not significantly impact the persistence of the species.

C. Wildlife

One special status species was observed on the Project site during biological field surveys, the California horned lark. Impacts to the species would be less than significant because the California horned lark is a MSHCP covered species. An Implementation Agreement (IA) between the USFWS, the CDFW, and participating government bodies including the City of Moreno Valley was executed and associated 10(a)(1)(B) Permit No. TE-088609 was issued on June 22, 2004. For properties such as the Project site that are outside of the MSCHP Criteria Area, impacts to plant and animal species identified in the MSHCP as "Covered Species Adequately Conserved" are authorized by Permit No. TE-088609. The Project will be required to pay the City of Moreno Valley's MSHCP Mitigation Fee, which supplements the financing and acquisition of lands supporting species covered by the MSHCP and to pay for new development's share of this cost.

Additionally, although the species was not observed, the Project site supports habitat for the western burrowing owl. No burrowing owls or their signs were found on the Project site or within a 500-foot buffer around the Project site, but because the property contains suitable habitat for the western burrowing owl, it is possible the species could migrate onto the property prior to construction, resulting in a potentially significant impact. The conduct of a pre-construction survey for the western burrowing owl is required and mitigation will be necessary if the species is found to be present.

Threshold 2: Would the proposed Project have a substantially adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U. S. Wildlife Service?

As documented in the Biological Technical Report completed by URS, the Project site contains no drainages or vegetation that meets the definition of riparian or other sensitive habitats as defined by the CDFW or USFWS. The Project site lacks evidence of riparian or riverine habitats and also does not contain vernal pools. Therefore, the proposed Project has no potential to cause an adverse effect or impact on any riparian habit or other sensitive natural community.

Threshold 3: Would the proposed Project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

The Project site contains no federal wetlands; therefore, there would be no impact on federally protected wetlands as defined by the Clean Water Act.

Threshold 4: Would the proposed Project interfere substantially with the movement of any resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The 17.3-acre Project site contains a trailer parking yard on the southern 8.3 acres while the northern 9.0 acres consists of developed/disturbed vacant land. There are no water bodies on or adjacent to the site that could support fish; therefore, there is no potential for the Project to interfere with the movement of fish. There are also no native wildlife nurseries on or adjacent to the site; therefore, there is no potential for the Project to impede the use of a native wildlife nursery site.

The property is surrounded by paved roads and developed parcels or parcels planned for development. The surrounding area contains a mixture of industrial warehouses, an automobile junk yard, truck trailer parking lot, undeveloped land and a small number of non-conforming residences. The paved roadways and surrounding land uses impede wildlife movement across the Project site and throughout the Project site's vicinity. Thus, implementation of the Project would not have the ability to interfere with an established migratory wildlife corridor, because the site does not serve as a corridor nor is it connected to an established corridor. Additionally, the Project site is not located adjacent to the Western Riverside County MSHCP Criteria Area or any MSHCP Preserve; thus, the Project has no potential to result in wildlife movement impacts on the MSHCP Preserve.

Threshold 5: Would the proposed Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The Project would not result in any significant conflicts with local policies related to the protection of biological resources because no local policies are applicable except for the MSHCP. The proposed Project is required to comply with the mandatory payment of MSHCP fees pursuant to Title 3, Chapter 3.48 of the City's Municipal Code. Although the City of Moreno Valley's Landscape Ordinance requires that "all mature trees on a site with 4" calipers or greater in place shall be retained and preserved," the proposed Project would not conflict with the Landscape Ordinance requirements because no such trees exist on the site, except for ornamental trees in the roadway frontage streetscapes that would be retained. The City of Moreno Valley does not have any additional ordinances in place protecting biological resources. Therefore, no impact would occur.

Threshold 6: Would the proposed Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, other approved local, regional, or state habitat conservation plan?

The following is an analysis of the proposed Project's compliance with the Western Riverside County MSHCP's Reserve Assembly Requirements as well as other applicable MSHCP requirements pursuant to the following sections of the MSHCP: Section 6.1.3, Protection of Narrow Endemic Plant Species; Section 6.1.4, Guidelines Pertaining to the Urban/Wildland Interface; and Section 6.3.2, Additional Survey Needs and Procedures.

☐ Project Relation to Reserve Assembly

The Project site occurs within the overall Plan Area of the MSHCP, and as such the Project is required to abide by any applicable survey and/or conservation requirements. As indicated in the discussion below, all surveys required by the MSHCP have been conducted on the proposed Project site and in the BSA buffer area. The Project site does not occur within the MSHCP Criteria Area. As such, the Project is not required to set aside conservation lands pursuant to the MSHCP, and the Project is not subject to the Habitat Evaluation and Acquisition Negotiation Strategy (HANS) process, or Joint Project Review (JPR). Accordingly, the proposed Project would not conflict with the MSHCP Reserve Assembly requirements (URS Corporation, 2012a).

☐ Protection of Narrow Endemic Plants

Section 6.1.3 of the MSHCP requires that within the Narrow Endemic Plant Species Survey Area (NEPSSA), site-specific focused surveys for Narrow Endemic Plant Species will be required for all public and private projects where appropriate soils and habitat are present. The Project site and 500 foot buffer are located within NEPSSA 3A; therefore, focused surveys are required for Narrow Endemic Plants on the Project site. After a thorough habitat assessment, a focused survey for smooth tarplant conducted by URS biologists determined that two plants are present. Impacts due to the removal of these two individuals are less than significant because the loss of these two individuals will not significantly impact the persistence of the species. Accordingly, the proposed Project would not conflict with Volume I, Section 6.1.3 of the MSHCP.

☐ Guidelines Pertaining to the Urban/Wildland Interface

The MSHCP Urban/Wildland Interface Guidelines are intended to address indirect effects associated with locating development in proximity to the MSHCP Conservation Area. As the MSHCP Conservation Area is assembled, development is expected to occur adjacent to the Conservation Area and edge effects with the potential to adversely affect biological resources within the Conservation Area are required to be evaluated. Edge effects are identified in the MSCHP as: Drainage; Toxics; Lighting; Noise; Invasive Species; Barriers; and Grading/Land Development. The Project site does not occur within or adjacent to the MSCHP Criteria Area or existing Conservation Area, or any Public/Quasi-Public lands. As such, the proposed Project would not have the potential to create indirect effects on the MSHCP Conservation Area and is not be subject to the Urban/Wildland Interface Guidelines (URS Corporation, 2012a). The Project, therefore, is consistent with Section 6.1.4 of the MSHCP.

❑ Additional Survey Needs and Procedures

MSHCP Section 6.3.2 identifies that in addition to the Narrow Endemic Plant Species addressed in Section 6.1.3, additional surveys may be needed for other certain plant and animal species in conjunction with MSHCP implementation in order to achieve full coverage for these species. Within areas of suitable habitat, focused surveys are required for additional plant species if a project site occurs within a designated CAPSSA, or special animal species survey area (i.e., burrowing owl, amphibians, and mammals). Of these, the Project site only occurs within the MSHCP burrowing owl survey area (URS Corporation, 2012a).

As discussed above under the analysis of Threshold 1, a focused survey for the western burrowing owl was completed in accordance with the MSHCP Burrowing Owl Survey Area requirements. The survey determined that no western burrowing owls or diagnostic sign of western burrowing owls (whitewash, pellets, feathers, small mammal bones, etc.) are located within the Project site or within a 500 foot buffer area around the site; therefore, no impact to an observed special-status species would occur. However, the species is migratory and therefore could migrate onto the undeveloped portion of the property prior to ground-disturbing construction activities. The conduct of a pre-construction survey for the species will be required and mitigation will be necessary if the species is found to be present.

4.5.4 CUMULATIVE IMPACT ANALYSIS

This cumulative impact analysis considers development of the proposed Project in conjunction with other development projects in the vicinity of the Project site and resulting from full General Plan buildout in the City of Moreno Valley and other jurisdictions in the region within the boundaries of the Western Riverside County MSHCP.

Implementation of the proposed Project would result in permanent ground disturbance and development on the 9.0 acres of the Project site that is not already developed. The primary effects of the proposed Project, when considered with the build out of long range plans in the region, would be the cumulative loss of vacant land that can support habitat for sensitive species. With respect to special-status species, although habitat offered on the Project site (disturbed/developed vegetation) is of substantially lesser quality than habitat that is found in undisturbed natural areas, it still provides open spaces for foraging, refuge, nesting, and areas that can be used for species reproduction.

Anticipated cumulative impacts are addressed within the region by the Western Riverside County MSHCP and the adopted “The Habitat Conservation Plan for the Stephens’ Kangaroo Rat in Western Riverside County, California”. The MSHCP, as currently adopted, addresses 146 “Covered Species” that represent a broad range of habitats and geographical areas within Western Riverside County, including threatened and endangered species and regionally- or locally-sensitive species that have specific habitat requirements and conservation and management needs. The MSHCP addresses biological impacts for take of Covered Species within the MSHCP area. Impacts to Covered Species and establishment and implementation of a regional conservation strategy and other measures included in the MSHCP are intended to address the federal, state, and local mitigation requirements for these species and their habitats. Specifically, Section 4.4 of the MSHCP states that:

> *The MSHCP was specifically designed to cover a large geographical area so that it would protect numerous endangered species and habitats throughout the region. It is the projected cumulative effect of future development that has required the preparation and implementation of the MSHCP to protect multiple habitats and multiple endangered species.*

It goes on to state that:

> *The LDMF [Local Development Mitigation Fee] is to be charged throughout the Plan Area to all future development within the western part of the County and the Cities in order to provide a coordinated conservation area and implementation program that will facilitate the preservation of biological diversity, as well as maintain the region's quality of life.*

The reason for the imposition of the Mitigation Fee over the entire region is that the loss of habitat for endangered species is a regional problem resulting from the cumulative impacts of continuing development throughout all of the jurisdictions in Western Riverside County. Finally, Section 5.1 of the MSHCP states that:

> *It is anticipated that new development in the Plan Area will fund not only the mitigation of the impacts associated with its proportionate share of regional development, but also the impacts associated with the future development of more than 332,000 residential units and commercial and industrial development projected to be built in the Plan Area over the next 25 years.*

As the construction of buildings, infrastructure, and all alterations of the land within areas that are outside of the Criteria Area are permitted under the MSHCP (see MSHCP Section 2.3.7.1), cumulative impacts to biological resources with the exception of MSHCP non-covered species would be less than significant provided that the terms of the MSHCP are fully implemented (MSHCP Final EIR/EIS, Section 4.4.1.6). The MSHCP database has been consulted for the proposed Project and the recommended focused surveys (for the western burrowing owl and narrow endemic plant species) have been conducted. The Project is required to pay the required MSHCP mitigation fees per the City of Moreno Valley Municipal Code Title 3, Chapter 3.48. The Project would comply with the requirements of the MSHCP and, thus, would not conflict with its adopted policies. Accordingly, because the Project complies with the MSHCP, would pay the required MSHCP mitigation fee, and would have less than significant impacts to MSHCP non-covered species, the proposed Project's contribution to cumulative impacts would be less than significant.

As indicated under the discussion and analysis of Threshold 1 in Subsection 4.3.3, the Project site does not contain any habitat for any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations. Accordingly, the Project would not result in any cumulatively significant impacts to sensitive species as a result of habitat loss.

Although the Project would impact one special status plant (smooth tarplant), the Project site does not occur within the MSHCP's Criteria Area, indicating that the species is not targeted for conservation in the Project area and would be conserved instead as part of the assemblage of the MSHCP Reserve System. Since the proposed Project and all other developments within the cumulative study area would be required to comply with the MSHCP, Project impacts to special-status plants are evaluated as less than significant on a cumulative basis.

Regarding special-status animals, the Project would eliminate actual or potential live-in habitat for the burrowing owl and the California horned lark. As the proposed Project and other cumulative developments would be required to comply with the MSHCP, potential Project-related impacts to California horned lark are concluded to be less than significant on a cumulative basis because adequate habitat for the species would be accommodated through the MSHCP Reserve System. The burrowing owl is fairly ubiquitous within the Project vicinity; as such, it is reasonable to conclude that impacts to habitat for this species are occurring throughout the cumulative study area. As such, prior to mitigation, the proposed Project's potential impacts to burrowing owls are concluded to be cumulatively significant and mitigation would be required.

The Project site does not contain habitat of wetlands or riparian areas. Therefore, the Project would not impact any wetlands or riparian areas; thus, the Project does not have the potential to contribute to cumulatively significant wetland and riparian impacts.

As indicated under the discussion and analysis of Threshold 4 in Subsection 4.5.3, the proposed Project would not significantly impact wildlife movement corridors because such corridors already are accommodated by the MSHCP and the Project site is not targeted for conservation as part of any proposed or existing linkages by the MSHCP. In addition, there are no native wildlife nursery sites within the Project vicinity. While Western Riverside County is becoming increasingly urbanized, which could restrict wildlife movement, the MSHCP, and the Conservation Areas established therein, was developed with several goals that specifically support wildlife movement. Accordingly, cumulative impacts to wildlife movement are less than significant. As concluded by the MSHCP's Final EIR/EIS, *"The MSHCP provides for the movement of native resident and migratory species and for genetic flow identified for Covered Species. Therefore, impacts related to cores and linkages resulting from the Plan are considered less than significant."* (MSHCP Final EIR/EIS, Section 4.1.5) Accordingly, the proposed Project would not result in any cumulatively significant impacts to wildlife movement corridors or native wildlife nursery sites.

The proposed Project would not conflict with any local policies or ordinances protecting biological resources; accordingly, a cumulatively significant impact due to a conflict with such local policies or ordinances would not occur.

As discussed under the analysis of Threshold 6 in Subsection 4.5.3, the proposed Project would be fully consistent with the all applicable MSHCP requirements. As such, cumulative impacts due to a conflict with these the MSHCP would not occur.

4.5.5 APPLICABLE PROJECT REQUIREMENTS

The following is a list of requirements and/or conditions to which the Project would be required to adhere. Compliance with these measures was assumed throughout the above analysis of impacts to biological resources.

PR 4.5-1 The Project shall comply with City of Moreno Valley Municipal Code Title 3, Chapter 3.48, Western Riverside County Multiple Species Habitat Conservation Plan

Fee Program, which requires a per-acre local development mitigation fee that will assist in providing revenue to acquire and preserve vegetation communities and natural areas within the city and western Riverside County which are known to support threatened, endangered or key sensitive populations of plant and wildlife species.

PR 4.5-2 The Project shall comply with City of Moreno Valley Municipal Code Title 3, Chapter 8.60, Threatened and Endangered Species, which requires a per-acre local development mitigation fee pursuant to the City's adopted "The Habitat Conservation Plan for the Stephens' Kangaroo Rat in Western Riverside County, California" and as established pursuant to Fee Resolution 89-92.

4.5.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold 1: Significant Direct and Cumulative Impact. No sensitive vegetation communities are located on the Project site. A less than significant impact on sensitive plant species would occur because the loss of two individual smooth tarplant would not significantly impact the persistence of the species. The loss of habitat for the California horned lark is less than significant with mandatory MSHCP compliance because the species is a MSHCP Covered Species. Although the western burrowing owl is not present on the Project site, the species could be impacted if it migrates onto the property prior to the commencement of ground-disturbing construction activities, which is a potentially significant direct and cumulative impact.

Threshold 2: No Impact. The Project site lacks riparian and other sensitive habitats; therefore, the Project would have no impact on riparian or other sensitive habitats as defined by the CDFW or USFWS.

Threshold 3: No Impact. No federally protected wetlands are located on the Project site; therefore, no impact would occur.

Threshold 4: No Impact. There is no potential for the Project to interfere with the movement of fish or impede the use of a native wildlife nursery site. Additionally, the Project would not have the ability to interfere with an established migratory wildlife corridor or result in wildlife movement impacts on the MSHCP Preserve.

Threshold 5: No Impact. The Project would not conflict with any local policies or ordinances governing biological resources.

Threshold 6: Significant Direct and Cumulative Impact. The Project site is subject to the Western Riverside County MSHCP and its survey requirements for the western burrowing owl. Although compliant with all MSHCP provisions, and although the species is absent on the property, the property contains suitable habitat for the western burrowing owl. If the species is present on the property at the time a grading permit is issued, impacts would be significant, requiring mitigation.

4.5.7 MITIGATION

MM 4.5-1 Within 30 days prior to grading, a qualified biologist shall conduct a survey of the undeveloped portions of the property and make a determination regarding the presence or absence of the burrowing owl. The determination shall be documented in a report and shall be submitted, reviewed, and accepted by the Planning Division prior to the issuance of a grading permit and subject to the following provisions:

a. In the event that the pre-construction survey identifies no burrowing owls on the property, a grading permit may be issued without restriction.

b. In the event that the pre-construction survey identifies the presence of at least one individual but less than three (3) mating pairs of burrowing owl, then prior to the issuance of a grading permit and prior to the commencement of ground-disturbing activities on the property, the qualified biologist shall passively or actively relocate any burrowing owls. Passive relocation, including the required use of one-way doors to exclude owls from the site and the collapsing of burrows, will occur if the biologist determines that the proximity and availability of alternate habitat is suitable for successful passive relocation. Passive relocation shall follow CDFW relocation protocol and shall only occur between September 15 and February 1. If proximate alternate habitat is not present as determined by the biologist, active relocation shall follow CDFW relocation protocol. The biologist shall confirm in writing that the species has fledged the site or been relocated prior to the issuance of a grading permit.

c. In the event that the pre-construction survey identifies the presence of three (3) or more mating pairs of burrowing owl, the requirements of MSCHP Species-Specific Conservation Objectives 5 for the burrowing owl shall be followed. Objective 5 states that if the site (including adjacent areas) supports three (3) or more pairs of burrowing owls and supports greater than 35 acres of suitable Habitat, at least 90 percent of the area with long-term conservation value and burrowing owl pairs will be conserved onsite until it is demonstrated that Objectives 1-4 have been met. A grading permit shall only be issued, either:

- upon approval and implementation of a property-specific Determination of Biologically Superior Preservation (DBESP) report for the western burrowing owl by the CDFW.

- a determination by the biologist that the site is part of an area supporting less than 35 acres of suitable Habitat, and upon passive or active relocation of the species following accepted CDFW protocols. Passive relocation, including the required use of one-way doors to exclude owls from the site and the collapsing of burrows, will occur if the biologist determines that the proximity and availability of alternate habitat is suitable for successful passive relocation. Passive relocation shall follow CDFW relocation protocol and shall only occur between September 15 and February 1. If proximate alternate habitat is not present as determined by the biologist, active relocation shall follow CDFW relocation protocol. The biologist shall confirm in writing that the species has fledged the site or been

- relocated prior to the issuance of a grading permit.

MM 4.5-2 If clearing activities are proposed between February 1 and August 31, then within 30 days prior to vegetation clearing activities a qualified biologist shall conduct nesting bird surveys. If any nesting bird species are identified, then a construction buffer distance of 300 feet for non-listed, non-raptor species or 500 feet for listed and raptor species shall be maintained until the Project biologist certifies that the nests are no longer occupied.

4.5.8 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

With implementation of Mitigation Measure 4.5-1, potential impacts to the western burrowing owl and nesting birds would be reduced to below a level of significance.

5.0 MANDATORY CEQA TOPICS

5.1 SIGNIFICANT ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED IF THE PROPOSED PROJECT IS IMPLEMENTED

The CEQA Guidelines require that an EIR disclose the significant environmental effects of a project which cannot be avoided if the proposed project is implemented (CEQA Guidelines §15126(b)). As described in detail in Section 4.0 of this EIR, the proposed Project would result in three (3) impacts to the environment that cannot be reduced to below a level of significance after implementation of relevant standard conditions of approval, compliance with applicable regulations, and application of feasible mitigation measures. The significant impacts that cannot be mitigated to a level below significant consist of the following:

- Air Quality (Long-Term): Significant direct and cumulative long-term air quality impact due to an exceedance of the SCAQMD regional threshold for NO_X emissions, which also would cumulatively contribute to an existing air quality violation within the SCAB (i.e., non-attainment status for ozone) because NO_X emissions are a precursor for ozone.

The proposed Project's unavoidable air quality impact listed above cannot be reduced to below a level of significance after implementation of the mitigation measures identified in this EIR. Additional feasible mitigation measures are not available to reduce the impact because operational emissions of NOx primarily come from mobile source emissions that are beyond the control of the Project Applicant, future Project tenants, and the City of Moreno Valley.

- Noise (Near-Term): Significant direct and cumulative near-term noise impact to due to the generation of noise levels during Project construction that exceed the City of Moreno Valley's Noise Ordinance standard of 65 dBA Leq at a distance of 200 feet from the property line.

In order to mitigate construction-related noise impacts to below a level of significance, all construction activities would need to be set back from the property line by a distance ranging from 565 feet (during architectural coating) to 2,774 feet (during site grading activities). It is not feasible to build the Project while restricting construction activities to those distances. Additionally, there are no feasible alternatives to using noise-generating equipment to construct the proposed Project. Accordingly, there are no feasible mitigation measures available to reduce the Project's near-term construction -related noise impacts to a level below significant.

- Transportation/Traffic (Near-Term): Significant cumulative near-term impact to the intersections of Western Way/Harley Knox Boulevard and Indian Street/ Harley Knox Boulevard.

Under Horizon Year Cumulative (2017) Conditions, the proposed Project would contribute 50 or more peak hour trips to the intersections of Western Way at Harley Knox Boulevard and Indian Street at Harley Knox Boulevard in the City of Perris, which would operate at deficient levels of service. Although these intersections and Harley Knox Boulevard are programmed for improvement under the North Perris RBBD, the Project site lies outside of the RBBD fee area and the Project Applicant is not subject to fair-share fee payments. Because the City of Moreno Valley has no authorization over City of Perris intersections to ensure that the improvements will be in place prior to the Project's Horizon Year Cumulative (2017) condition, the Project's impact is considered to be cumulatively considerable and unavoidable.

5.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES WHICH WOULD BE CAUSED BY THE PROPOSED PROJECT SHOULD IT BE IMPLEMENTED

The CEQA Guidelines require EIRs to address any significant irreversible environmental changes which would be involved in the proposed action should it be implemented (CEQA Guidelines § 15126.2(c)). An environmental change would fall into this category if: a) the project would involve a large commitment of non-renewable resources; b) the primary and secondary impacts of the project would generally commit future generations to similar uses; c) the project involves uses in which irreversible damage could result from any potential environmental accidents; or d) the proposed consumption of resources are not justified (e.g., the project results in the wasteful use of energy).

Determining whether the proposed Project may result in significant irreversible environmental changes requires a determination of whether key non-renewable resources would be degraded or destroyed in such a way that there would be little possibility of restoring them. Natural resources in the form of construction materials and energy resources would be used in the construction of the proposed Project, but development of the Project would have no measurable adverse effect on the availability of such resources, including resources that may be non-renewable (e.g., fossil fuels). Construction and operation of the proposed Project would not involve the use of large sums or sources of non-renewable energy.

Implementation of the proposed Project would result in the commitment of future generations to one warehouse building on the proposed Project site. Surrounding the Project site, several large-scale industrial and warehouse buildings have been developed and there are several approved development projects in this area that are pending construction. Immediately abutting the proposed Project site on the west is property containing a warehouse building occupied by Harbor Freight Tools, beyond which is a warehouse distribution facility currently occupied by Modular Metal Fabrications, Inc. Property located north of the site is designated for future industrial development, but currently consists of undeveloped land, several existing non-conforming single-family residences, and an automobile junk yard. Beyond those uses is another large warehouse distribution facility currently occupied by O'Reilly Auto Parts. Land immediately east of the Project site includes undeveloped land and two existing warehouse distribution facilities currently occupied by El Dorado Stone and Walgreens. To the south of the proposed Project site are disturbed lands used for truck trailer parking and one non-conforming single-family residence, south of which is a warehouse distribution facility currently occupied by Harman Distribution Center.

As demonstrated in the analysis presented throughout EIR Section 4.0, long-term operation of the proposed Project would not result in significant physical environmental effects to nearby properties. Although the Project would cause unavoidable impacts associated with air quality (long-term), noise (near-term), and traffic (near-term) as summarized above in Subsection 5.1, these effects would not commit surrounding properties to land uses other than the uses currently by the Moreno Valley General Plan and/or the Moreno Valley Industrial Area Plan.

EIR Subsection 5.4.5 provides an analysis of the proposed Project's potential to transport or handle hazardous materials which, if released into the environment, could result in irreversible damage to the environment. As concluded in the analysis, the proposed Project would be required to comply with federal, state, and local regulations related to hazardous materials, which would ensure that construction and long-term operation of the proposed Project would not have the potential to cause significant irreversible damage to the environment, including damage that may result from upset or accident conditions.

To reduce the Project's energy needs and fossil fuel consumption, and thereby reduce air emissions, the City of Moreno Valley will apply Conditions of Approval to the Project to ensure mandatory compliance with applicable regulatory requirements imposed by the State of California and the SCAQMD (as summarized in EIR Subsections 4.1 and 4.2, which would reduce the Project's level of demand for energy resources. Therefore, the proposed Project would not result in the wasteful use of energy or the consumption of resources that are not justified based on the scale of the proposed Project.

5.3 GROWTH INDUCING IMPACTS OF THE PROPOSED PROJECT

CEQA requires a discussion of the ways in which the proposed Project could be growth inducing. The CEQA Guidelines identify a project as growth inducing if it would foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment (CEQA Guidelines §15126.2(d)). New employees and new residential populations represent direct forms of growth. These direct forms of growth have a secondary effect of expanding the size of local markets and inducing additional economic activity in the area.

Western Riverside County abuts San Bernardino County to the northeast, Orange County to the west and San Diego County to the south. These adjacent counties have large employment bases and given Riverside County's close proximity to these adjacent counties, many Riverside County residents commute to jobs in adjacent counties. The California Employment Development Department (CEDD) reported that 173,379 workers were commuting out of Riverside County in 2000 (CEDD, 2008)[1].

A project could indirectly induce growth at the local level by increasing the demand for additional goods and services associated with an increase in population or employment and thus reducing or removing the barriers to growth. This typically occurs in suburban or rural environs where population growth results in increased demand for service and commodity markets responding to the new population. Economic growth would likely take place as a result of the proposed Project's operation as warehouse building, but the intensity of economic growth would occur consistent with planned growth identified in the Moreno Valley General Plan and in the General Plans of adjacent jurisdictions. The Project is consistent with the Business Park/Light Industrial land use designation

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[1] As of November 2012, the California Employment Development Department had not yet released County-to-County commuter data based on the 2010 Census.

assigned to the property by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (MVIAP).

Under CEQA, growth inducement is not considered necessarily detrimental, beneficial, or of little significance to the environment. Typically, growth-inducing potential of a project would be considered significant if it fosters growth or a concentration of population in excess of what is assumed in pertinent master plans, land use plans, or in projections made by regional planning agencies such as the Southern California Association of Governments (SCAG). Significant growth impacts also could occur if the project provides infrastructure or service capacity to accommodate growth beyond the levels currently permitted by local or regional plans and policies. In general, growth induced by a project is considered a significant impact if it directly or indirectly affects the ability of agencies to provide needed public services, or if it can be demonstrated that the potential growth significantly affects the environment in some other way.

Development of the Project with one warehouse building may place development pressure on several surrounding parcels designated for industrial development and that are currently undeveloped. However, these surrounding properties already are planned for development by the MVIAP and implementation of the proposed Project would not directly promote growth on these adjacent and surrounding properties. Because development of nearby parcels would be consistent with the City's General Plan and the MVIAP, growth-inducing impacts of the Project would be less than significant. The Project is not expected to induce growth or land use changes on other parcels in the vicinity, as other lands surrounding the site are either already developed or planned to be developed consistent with their General Plan and/or MVIAP land use designations.

Projected growth quantifications for the Project are most meaningful for the geographic area covered by the Western Riverside County Council of Governments (WRCOG). This area includes the cities of Calimesa, Canyon Lake, Corona, Hemet, Lake Elsinore, Moreno Valley, Murrieta, Norco, Perris, Riverside, San Jacinto, and Temecula, as well as portions of unincorporated Riverside County (including the new city of Menifee which was not yet incorporated at the time SCAG forecasts were published). SCAG's most recently adopted Integrated Growth Forecast (SCAG, 2008) for the WRCOG area is reflected below in Table 5-1, *SCAG Growth Forecasts for the WRCOG Region*. The proposed Project is consistent with those forecasts, in that the forecasts considered City General Plan buildout.

"Jobs-to-housing ratio" measures the extent to which job opportunities in a given geographic area are sufficient to meet the employment needs of area residents. However, as noted in the City's General Plan, "The land use plan allows for an adequate number of jobs to meet the needs of local residents" (Moreno Valley 2006a, p. 2-6). The proposed Project is consistent with the General Plan's land use designation for the site; therefore, the proposed Project would assist the City in improving the jobs-housing ratio, which under existing conditions is lower than the statewide and regional average (indicating the City of Moreno Valley and surrounding areas experience a relatively low jobs-to-housing ratio).

Table 5-1 SCAG Growth Forecasts for the WRCOG Region

CATEGORY	YEAR 2010	YEAR 2015	YEAR 2020	YEAR 2025	YEAR 2030	YEAR 2035
Population	1,735,426	1,918,962	2,096,544	2,262,992	2,414,256	2,550,867
Households	546,047	609,219	671,933	727,622	780,743	828,547
Employment	588,523	691,260	797,626	901,163	1,005,923	1,098,233

Source: SCAG, Regional Transportation Plan (RTP), 2008.

The northern half of the Project site (approximately 8.9 acres) is undeveloped and the southern half of the site (approximately 8.4 acres) is developed as a parking lot that is used for truck trailer parking, Lands immediately surrounding the Project site include undeveloped lands, warehouse buildings, and other land uses located on properties designated and zoned for industrial development by the City of Moreno Valley. Development in the area is occurring in accordance with the City of Moreno Valley General Plan and MVIAP. Implementation of the proposed Project would not stimulate growth in the area beyond that anticipated by the City of Moreno Valley General Plan.

Indirect growth-inducing impacts at the local level result from a demand for additional goods and services associated with the increase in people in the area, including employees. This occurs in suburban or rural environments where population growth results in increased demand for service and commodity markets responding to the new population. This type of growth is, however, a regional phenomenon resulting from introduction of a major employment center or regionally significant housing project. The implementation of the proposed Project would result in growth-inducing impacts of the region, but not beyond that which is already envisioned by the General Plan.

5.4 EFFECTS FOUND NOT TO BE SIGNIFICANT AS PART OF THE INITIAL STUDY PROCESS

CEQA Guidelines §15128 requires that an EIR:

> *"…contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR."*

An Initial Study was prepared for the proposed Project, which is included as *Technical Appendix A* to this EIR. Through the Initial Study process, the City of Moreno Valley determined that the proposed Project would not have the potential to cause significant adverse impacts to 13 environmental subject areas, including: aesthetics, agricultural resources, biological resources, cultural resources, geology/soils, hazards and hazardous materials, hydrology/water quality, land use/planning, mineral resources, population and housing, public services, recreation, and utilities/service systems. Therefore, these issue areas are not required to be analyzed in detail in Section 4.0, Environmental Analysis, of this EIR. A brief summary of issues found not to be significant is presented below. For information on the Project's background, refer to EIR Subsection 1.3, Project History, which summarizes the results of prior CEQA documentation prepared for the Project site.

5.4.1 AESTHETICS

The Project site is located in the City of Moreno Valley, which lies within a relatively flat valley floor surrounded by rugged hills and mountains. Scenic vistas within Moreno Valley are defined by the Box Springs Mountains and Reche Canyon area to the north, the "Badlands" to the east, and Mount Russell to the south. According to General Plan Figure 7-2, *Major Scenic Resources*, the Project site, which is located in the southwestern portion of the City, is not in close proximity to these major scenic resources and is not located within an identified view corridor or along an identified scenic route (City of Moreno Valley 2006a). Therefore, although the proposed Project would change the current aesthetics of the property from a parking lot and undeveloped lot to a developed logistic center, that aesthetic change would have a less than significant impact on a scenic vista.

The Project site is not located within or adjacent to a scenic highway corridor and does not contain trees, rock outcroppings, or historic buildings (City of Moreno Valley 2006a, pp. 7-13). Furthermore, there are no State-designated or eligible scenic highways within the City of Moreno Valley. The Project site is located approximately 6.0 miles north of Highway 74, which is the only facility within the Project vicinity that is designated as a State-eligible scenic highway. The Project's proposed development features (one building, parking lots, truck yards, landscaping, etc.) would not be discernable from Highway 74 due to intervening development and distance. Accordingly, no impact would occur.

Implementation of the proposed Project would result in the visual conversion of the site from an undeveloped lot and truck trailer parking lot to that of a developed site containing one warehouse building. The visual character of the site's surroundings is dominated by warehouse buildings and undeveloped properties designated for future industrial development. Implementation of the proposed Project would implement the City's General Plan and MVIAP as applicable to the property and would not substantially degrade the visual character or quality of the site or the site's surroundings. The visual character of the site would change, but the change would not be degrading to the existing visual character or quality of the property or its surroundings, resulting in a less than significant impact.

Exterior lighting proposed by the Project would be required to comply with City lighting requirements and the design standards of the MVIAP, which address light and glare. Compliance with City Municipal Code requirements and the MVIAP, demonstration of which would be required prior to City issuance of a building permit, would ensure that no operation, activity, sign, or light fixture proposed by the Project would produce substantial amounts of light or glare that would adversely affect the day or nighttime views of adjacent properties (City of Moreno Valley n.d., City of Moreno Valley 2002, p. III-19). With respect to potential daytime glare impacts, the proposed Project would involve the construction and operation of one building with exterior building surfaces that consist of tilt-up concrete construction and windows with reflective glazing. While glazing has a potential to result in glare effects, such effects would not adversely affect the daytime views of any surrounding properties, including motorists on adjacent roadways because the site would be surrounded along roadway perimeters with screen walls and landscaping. Accordingly, impacts to day or nighttime views in the area would be less than significant.

For the reasons stated above, the proposed Project would result in less than significant impacts to aesthetics.

5.4.2 AGRICULTURAL RESOURCES

The Project site is not used for agriculture. It contains lands classified as "Farmland of Local Importance" by the Farmland Mapping and Monitoring Program (FMMP) and does not contain any soils mapped by the State Department of Conservation as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (City of Moreno Valley 2006b 5.8-3). There are no General Plan policies requiring conservation of Farmland of Local Importance (City of Moreno Valley 2006a, p. 5.8-3). As such, a less than significant impact due to the conversion of important farmland types would occur with implementation of the Project.

The Project site is not within an agricultural preserve, nor is it subject to a Williamson Act contract. Under existing conditions, the Project site is comprised of a parking lot and vacant, undeveloped land. Lands surrounding the proposed Project site are not used for agricultural production and include undeveloped lands, non-conforming single family residential uses, warehouse distribution land uses, and industrial support areas (i.e., truck trailer parking). The Project site is zoned for industrial and industrial-support land uses and the immediate surrounding area is similarly zoned. Because the Project site is not located in or adjacent to an agricultural preserve and neither the Project site nor any immediately surrounding property is zoned for agricultural use, the proposed Project would not conflict with an existing agricultural use, zoning, or a Williamson Act contract.

For the reasons stated above, the proposed Project would result in less than significant impacts to agricultural resources.

5.4.3 CULTURAL RESOURCES

The Project site contains no structures or sites of historic significance. Because no historic resources exist on the property, no impact would occur. Furthermore, the Project site was not identified as a historic resource as part of the historic resource inventory that was conducted as part of the City of Moreno Valley General Plan FEIR (City of Moreno Valley 2006b, p. 5.10-3). Therefore, implementation of the proposed Project has no potential to result in a substantial adverse change to any designated historic resource, because no such resources exist on the Project site.

URS Corporation conducted a cultural resources inventory of the undeveloped portion of the proposed Project site in 2012 that included a records search at the Eastern Information Center at the University of California, Riverside and a pedestrian survey of the site. According to the archival research, no known cultural resources had been previously identified within the Project site, and no archaeological resources have previously been identified within the ½ mile of the Project site (URS Corporation 2012d, pp. 4-1 to 4-2). No archaeological resources were discovered on-site during the pedestrian survey (URS Corporation 2012d, p. 5-1). Additionally, the 2008 MND and its Addenda Nos. 1 and 2 prepared to evaluate the development of an interim parking lot on the property indicated that the potential for uncovering resources is low. No resources were recovered during site preparation activities during construction of the existing parking lot. As such, no known significant archaeological resources are present on the property.

Nonetheless, during site excavation and/or grading activities that occur during Project construction activities, there is a potential, however unlikely, to uncover archaeological resources that may be buried beneath the surface of the site if ground disturbance extends into previously undisturbed soils. Conditions of Approval would be imposed on the Project that would require any suspected archaeological resources discovered during ground-disturbing activities to be evaluated by a qualified archaeologist. Ground-disturbing activities would be required to cease within the immediate vicinity of any suspected archaeological resources until the qualified archaeologist determines the significance of the suspected archaeological resource and protective measures are implemented as recommended by the qualified archaeologist. Mandatory compliance with the Conditions of Approval would ensure that potential impacts to previously undiscovered archaeological resources would be less than significant.

During archaeological field investigations of the Project site, no evidence of human remains, including those interred outside of formal cemeteries, were observed (URS Corporation 2012d, p. 5-1). Additionally, no human remains were uncovered during construction of the parking lot in the southern portion of the Project site. Nevertheless, the potential exists that human remains may be unearthed during grading and excavation activities associated with Project construction. In the event that human remains are discovered during Project grading or other ground disturbing activities, the Project would be required to comply with the applicable provisions of California Health and Safety Code §7050.5 as well as Public Resources Code §5097 et. seq. Mandatory compliance with these provisions of California state law would ensure that impacts to human remains, if unearthed during construction activities, would be appropriately treated and ensure that potential impacts are less than significant.

The Project site does not contain any known unique geologic features. In addition, the proposed Project site is identified by the City's General Plan FEIR as having a "low" potential to contain unique paleontological resources (City of Moreno Valley 2006b, pp. 5.10-11). The 2008 MND prepared for the southern portion of the Project site that is now a parking lot also identified no potential to impact a paleontological resource or unique geologic feature. No paleontological resources were encountered during construction activities for the existing on-site parking lot. Depth of grading for the proposed Project would be approximately five feet or less, which also substantially limits the potential for subsurface resource discovery. For these reasons, the proposed Project has no potential to destroy unique paleontological resources or geologic features.

For the reasons stated above, the proposed Project would result in less than significant impacts to cultural resources. The following Project Requirement is carried forward as a Condition of Approval from the previously-approved project (P12-061):

"P12: If potential historic, archaeological, or paleontological resources are uncovered during excavation or construction activities at the project site, work in the affected area will cease immediately and a qualified person (meeting the Secretary of the Interior's standards (36CFR61)) shall be consulted by the applicant to evaluate the find, and as appropriate recommend alternative measures to avoid, minimize, or mitigate negative effects on the historic, prehistoric, or paleontological resource. Determinations and recommendations by the consultant shall be implemented as deemed appropriate by the Community & Economic Development Director, in consultation with the State Historic Preservation Officer (SHPO) and any and all affected Native American Tribes before any further work commences in the affected area.

If human remains are discovered, work in the affected area shall cease immediately and the County Coroner shall be notified. If it is determined that the remains are potentially Native American, the California Native American Heritage Commission and any and all affected Native American Indians tribes such as the Morongo Band of Mission Indians or the Pechanga Band of Luiseno Indians shall be notified and appropriate measures provided by State law shall be implemented (GP Objective 23.3, DG, CEQA)."

5.4.4 GEOLOGY/SOILS

No known earthquake faults traverse the Project site and the Project site is not located within an Alquist-Priolo fault zone (Southern California Geotechnical, p. 10). Because there are no faults located on the Project site, there is no potential that the Project could not expose people or structures to adverse effects related to ground rupture.

The Project site is located in a seismically active area of Southern California and is expected to experience moderate to severe ground shaking during the lifetime of the Project; however, this risk is not considered substantially different than that of other similar properties in the Southern California area. As a mandatory condition of Project approval, the Project would be required to construct proposed structures in accordance with the California Building Standards Code (CBSC), also known as California Code of Regulations (CCR), Title 24 and the City Building Code. The CBSC and City Building Code are designed to minimize adverse effects associated with strong seismic ground shaking. With mandatory compliance with standard design and construction measures, potential adverse impacts would be reduced to less than significant and the Project would not expose people or structures to substantial adverse effects, including loss, injury or death, involving seismic ground shaking.

The Project site is not located within a "Potential Liquefaction" zone (City of Moreno Valley 2006a, p. 6-18). Furthermore, a geotechnical report prepared for the subject property concludes that the risk of liquefaction at the Project site is low due to the subsurface conditions that include medium dense well-graded granular soils and a lack of shallow groundwater table (Southern California Geotechnical, p. 11). Furthermore, the site would be designed in accordance with the latest applicable seismic safety guidelines, including the requirements of the CBSC, which is anticipated to reduce the risk of seismic-related ground failure to less than significant levels. As such, development of the Project site would result in less than significant risks related to seismic-related ground failure, including liquefaction.

The Project site is relatively flat, as is the surrounding area. There are no hillsides or steep slopes on the site or in the vicinity of the Project site. Accordingly, the Project site is located within an area with no potential for landslides, and development on the subject property would not be exposed to any risk of landslide.

Development of the Project site would disturb the site during grading and construction and expose the underlying soils, which would increase erosion susceptibility. The Project's required adherence to standard regulatory requirements would lessen any potential erosion impact to below a level of significance. These include, but are not limited to, requirements imposed by the City of Moreno Valley's National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit (State Water Resources Control Board Order No. 99-08-DWQ), which requires the preparation of a Project-specific Water Quality Management Plan (WQMP) and the implementation of Best Management Practices (BMPs) to minimize the soil erosion and sedimentation in stormwater runoff leaving the Project site. In the long-term, development of the subject property would introduce additional impervious surfaces and landscaping on the Project site, thereby reducing the potential for erosion and loss of topsoil.

The geotechnical report for the Project site by Southern California Geotechnical Inc. in January 2012 determined that most soils within the subject property consist of sands and silty sands that are non-expansive. However, soils with increased clay content are located at depths below five feet, and could be encountered during required remedial grading activities (Southern California Geotechnical, p. 12). The proposed Project would be subject to the recommendations of the geotechnical report, as well as future geotechnical recommendations associated with future grading and building permits, which would ensure that any potentially expansive soils encountered during remedial grading on the Project site are appropriately remediated through site design considerations. Accordingly, the proposed Project would be subjected to less than significant risks related to unstable geologic units/soils and/or expansive soils.

For the reasons stated above, the proposed Project would result in less than significant impacts to geology/soils.

5.4.5 HAZARDS AND HAZARDOUS MATERIALS

The portion of the property developed as parking lot contains no known hazardous materials. According to a review of available historical data, it appears that the undeveloped portion of the subject property was vacant land from at least 1938 to the present. No evidence of hazardous materials, hazardous waste, underground storage tanks (USTs), above-ground storage tanks (ASTs), transformers or other potentially PCB-containing equipment were observed onsite during a site reconnaissance (URS Corporation 2012d, p. ES-1). Additionally, the site is not listed in any regulatory database for hazardous materials sites (URS Corporation 2012d, pp. 6-1 to 6-4). The March Air Reserve Base (ARB), located about 0.9-mile west of the proposed Project site, is documented as having the potential for groundwater contamination associated with its past use, but the Phase I ESA reports conclude that due to the orientation of groundwater flows in the area and distance to the March ARB, the potential for groundwater contamination at the proposed Project site is considered low (URS Corporation 2012d, p. 6-4). No other contaminated sites within the vicinity have the potential to create a significant hazard to future site workers (URS Corporation 2012d, p. 6-3 & 6-4). Accordingly, a less than significant impact associated with contamination on or affecting the proposed Project site would occur.

The specific business or tenant that will occupy the Project site's proposed building is not known at this time. The Project site is located within the Moreno Valley Industrial Area Plan, and the Plan designates the site for "Industrial" land uses. Based on the list of land uses permitted in the Industrial zone by the Moreno Valley Area Plan, it is possible that hazardous materials could be used during the course of daily operations. Examples of types of businesses that could occupy the proposed buildings on-site include warehouses, distribution businesses, and manufacturing industries.

Hazardous materials used by the future tenant of the Project may include chemical reagents, solvents, fuels, paints, and cleansers. Potential on-site uses also could generate hazardous byproducts that eventually must be handled and disposed of as hazardous materials. If businesses that use or store hazardous materials occupy the Project, the business owner and operator would be required to comply with all applicable federal, state, and local regulations to ensure proper use, storage, and disposal of hazardous substances. With mandatory regulatory compliance, the Project would not pose a significant hazard to any nearby use and any impacts would be less than significant.

The nearest school site, El Potrero Elementary School, is located approximately 0.7-mile northeast of the site. There are no school sites planned within one quarter mile of the site as part of the General Plan or MVIAP. Accordingly, the proposed Project has no potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

The Project site is located 0.9-mile east of the March ARB. There are no private airfields in the vicinity of the Project site. Pursuant to the March ARB Compatible Use Zone Study commissioned by the United States Air Force and as depicted on Figure 6-5 of the Moreno Valley General Plan, the Project site is not located within a zone subject to hazards related to air crashes (City of Moreno Valley 2006a, p. 6-30). Accordingly, implementation of the proposed Project would not result in a safety hazard for people residing or working in the Project area, and impacts would be less than significant.

The Project site does not contain any emergency facilities nor does it serve as an emergency evacuation route. During construction and long-term operation, the proposed Project would be required to maintain adequate emergency access for emergency vehicles as required by the City. Because the Project would not interfere with an adopted emergency response or evacuation plan, impacts are evaluated as less than significant.

The proposed Project is not located within a high wildfire hazard area (City of Moreno Valley 2006b, p. 5.5-5). The proposed Project site is located in an area that has been largely developed, with an existing industrial warehouse building located west of the site, industrial warehouse uses located east of the site, and disturbed lands and single family residences located to the south and north of the site. Accordingly, the proposed Project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

For the reasons stated above, the proposed Project would result in less than significant impacts to hazards and hazardous materials.

5.4.6 HYDROLOGY/WATER QUALITY

Water runoff from developed areas of the Project site may contain urban pollutants such as petroleum products, fertilizers, pesticides, soils, etc., which can degrade water quality if discharged from the site. The Project's Preliminary Water Quality Management Plan (WQMP) is prepared in accordance with City requirements to identify pollutants of concern and identify means to reduce their discharge from the site (i.e., Best Management Practices, BMPs). Required adherence to the Project-Specific WQMP would reduce the amount of pollutants in stormwater runoff, as well as non-storm water discharges. Furthermore, the Project will be required to comply with the Santa Ana River Basin

Water Quality Control Program and the City of Moreno Valley's National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit requirements (which requires the preparation of Stormwater Pollution Prevention Program (SWPPP) to control sediment/siltation runoff) to minimize the discharge of pollutants in storm water during short-term construction and long-term operational activities. Mandatory compliance with the Project's WQMP, in addition to compliance with NPDES Permit requirements, would ensure that all potential pollutants of concern are minimized or otherwise appropriately treated prior to being discharged into receiving waters. Therefore, implementation of the proposed Project would not violate any water quality standards or waste discharge requirements, and impacts would be less than significant.

The Project does not propose the installation of any water wells that would directly extract groundwater; however, the change in pervious surfaces to impervious surfaces that would occur with development of the site could reduce the amount of water percolating down into the underground aquifer that underlies the Project site and a majority of the City. However, and as noted in the City's General Plan EIR "the impact of an incremental reduction in groundwater would not be significant as domestic water supplies are not reliant on groundwater as a primary source (City of Moreno Valley 2006b, p. 5.7-12)." Accordingly, with buildout of the Project, the local groundwater levels would not be affected. Therefore, impacts to groundwater supplies and recharge would be less than significant.

The Project would involve demolition activities and mass grading of the site, which would alter the existing drainage pattern. Any alteration in drainage pattern has the potential to result in erosion and siltation both on-site during construction and off-site upon build-out of the Project, and also has the potential to increase the risk of on- and off-site flooding. To fully and more accurately determine the extent of potential erosion/siltation and flooding on- or off-site, a site-specific hydrology study was prepared for the Project site. The hydrology study evaluated the difference between existing and post-development drainage conditions, and determined that with buildout of the proposed Project there would be no substantial alteration to the existing drainage pattern of the site facilities because proposed stormwater drainage facilities on-site would attenuate the rate and volume of storm water discharge to be similar to the rate and volume that occurs under existing conditions (Albert A. Webb Associates 2012b, pp. 1-3). Accordingly, there would not be any significant increases in erosion/siltation or flooding on- or off-site. Impacts would be less than significant.

The Project site is not located within or adjacent to a 100-year floodplain (City of Moreno Valley 2006a, p. 6-26 and City of Moreno Valley 2006b, p. 5.5-5). Accordingly, the proposed Project would not place structures within a 100-year flood hazard area which could impede or re-direct flood flows. Furthermore, the proposed Project does not include housing. Therefore, there is no potential for the Project o place housing within a 100-year floodplain.

The nearest dam to the Project site is Lake Perris, located approximately 1.75 miles southeast of the subject property. Due to the distance of Lake Perris from the Project site and the topographic characteristics of the area, failure of a dam at Lake Perris would not expose people or structures on the Project site to flooding.

The Pacific Ocean is located more than 38 miles from the Project site; consequently, there is no potential for tsunamis to impact the Project. In addition, no steep hillsides subject to mudflow are located on or near the Project site. The nearest large body of water to the Project site is Lake Perris, located approximately 1.75 miles southeast of the Project site. Due to the distance of Lake Perris from the Project site and the topographic characteristics of the area, a seiche in Lake Perris would not impact the Project site. Although the Project site is located 0.25 mile south of the Perris Valley Channel, the Perris Valley Channel is not an enclosed or semi-enclosed basin that would be conducive to reverberation and creation of a seiche. Therefore, impacts associated with seiches, mudflows, and/or tsunamis would not occur.

For the reasons stated above, the proposed Project would result in less than significant impacts to hydrology/water quality.

5.4.7 LAND USE/PLANNING

The Project proposes to develop a logistics center warehouse building on a property that consists of a truck trailer parking lot and undeveloped land under existing conditions. Properties adjacent to the Project site have either been developed or are planned for development with industrial land uses. The subject property is designated for "Business Park/Light Industrial" land uses pursuant to the City of Moreno Valley General Plan, and is zoned for "Industrial" uses pursuant to the MVIAP. Development of the proposed warehouse building on the subject property would not conflict with applicable land use plans, policies, or regulations, and would not physically divide an established community.

As discussed in Section 4.5, *Biological Resources*, the proposed Project is subject to the adopted "The Habitat Conservation Plan for the Stephens' Kangaroo Rat in Western Riverside County, California" and the adopted Western Riverside County MSHCP, which are the habitat conservation plans applicable to the City of Moreno Valley and the proposed Project site. The proposed Project is not located within any MSHCP designated Criteria Cells or Cell Groups, and the proposed Project site does not contain any riparian/riverine areas or vernal pools. The Project is subject to pre-construction surveys for the burrowing owl and mitigation measures are applied in Section 4.5 to ensure that the Project would comply with the MSHCP's species-specific survey and conservation requirements for the burrowing owl. From a land use and planning prospective, the Project would not conflict with the MSHCP because the property is not designated for conservation and would comply with all required species survey requirements.

For the reasons stated above, the proposed Project would result in less than significant impacts to land use/planning.

5.4.8 MINERAL RESOURCES

The Project site is not located within an area known to be underlain by regionally- or locally-important mineral resources, or within an area that has the potential to be underlain by regionally- or locally-important mineral resources (City of Moreno Valley 2006b, p. 5.14-2). Accordingly, implementation of the proposed Project would not result in the loss of availability of a known mineral resource that would be of value to the region or the residents of the State of California. Accordingly, impacts to mineral resources would be less than significant.

5.4.9 POPULATION AND HOUSING

The proposed Project would develop the subject property with a logistics center warehouse building in accordance with the "Business Park/Light Industrial" land use designation applied to the site by the City of Moreno Valley General Plan and the "Industrial" zoning designation applied to the Project site by the MVIAP. Accordingly, the Project would not result in growth that was not already anticipated by the City of Moreno Valley General Plan and evaluated in the City of Moreno Valley General Plan FEIR. The Project site is served by existing public roadways and utility infrastructure is already installed beneath public rights of way that abut the property. As such, implementation of the Project would not result in direct or indirect growth in the area, and impacts are evaluated as less than significant. As such, implementation of the Project would not result in direct or indirect growth in the area, and impacts are evaluated as less than significant.

Under existing conditions the Project site is partially developed as a parking lot and partially vacant. The property contains no residential structures. Accordingly, implementation of the Project would not displace housing or people, and would not necessitate the construction of replacement housing elsewhere; thus, impacts would not occur.

For the reasons stated above, the proposed Project would result in no impacts to population/housing.

5.4.10 PUBLIC SERVICES

The proposed Project would be primarily served by the College Park Fire Station (Station No. 91), an existing station located approximately 2.3 roadway miles northeast of the proposed Project site. The Project site also could be served by the Kennedy Park Fire Station (Station No. 65), an existing station located approximately 2.8 roadway miles north of the Project. The proposed Project would be required to provide a minimum of fire safety and support fire suppression activities, including type of building construction, fire sprinklers, a fire hydrant system and paved access to the proposed Project area. Furthermore, the proposed Project is required to comply with the provisions of the City of Moreno Valley's Development Impact Fee Ordinance (Ordinance No. 695), which requires a fee payment that the City applies to the funding of public facilities, including fire protection facilities. Mandatory compliance with the Development Impact Fee Ordinance would be required prior to the issuance of building permits. Based on the foregoing, the proposed Project would receive adequate fire protection service, and would not result in the need for new or physically altered fire protection facilities.

The development of the subject property with business park/light industrial land uses would introduce new structures and employees to the Project site. This increase in the developed environment would result in an incremental increase in demand for police protection services, but would not require or result in the construction of new or physically altered police facilities. Prior to the issuance of building permits, the Project Applicant would be required to comply with the provisions of the City of Moreno Valley's Development Impact Fee Ordinance (Ordinance No. 695), which requires a fee payment that the City applies to the funding of public facilities, including police facilities. Based on the foregoing, the proposed Project would receive adequate police protection service, and would not result in the need for new or physically altered police protection facilities. Impacts to police protection facilities are therefore evaluated as less than significant.

The Project would not create a direct demand for public school services, as the subject property would be developed solely with one warehouse building and would not generate any school-aged children requiring public education. The addition of employment uses on the Project site would assist in the achievement of the City's goal to provide a better jobs/housing balance within the City and the larger western Riverside County region. Thus, the Project is not expected to draw new residents to the region and would therefore not indirectly generate additional school-aged students requiring public education. Because the Project would not directly generate students and is not expected to indirectly draw students to the area, the proposed Project would not result in the need to construct new or physically altered public school facilities. Regardless, the Project Applicant would be required to contribute development impact fees to the Val Verde Unified School District, in compliance with California Senate Bill 50 (Greene). Mandatory payment of school fees would be required prior to the issuance of building permits. Project-related impacts to public schools are evaluated as less than significant.

As discussed below under Subsection 5.4.11, the proposed Project would not create a demand for public park facilities and would not result in the need to modify existing or construct new park facilities. Accordingly, implementation of the Project would not adversely affect any park facility and impacts are regarded as less than significant.

The proposed Project would not result in a demand for other public facilities/services, including libraries, community recreation centers, and animal shelters. As such, implementation of the Project would not adversely affect other public facilities or require the construction of new or modified facilities.

For the reasons stated above, the proposed Project would result in less than significant impacts to public services.

5.4.11 RECREATION

The Project proposes to develop the site with one warehouse distribution building. The Project does not propose any type of residential use or other land use that may generate a population that would increase the use of existing neighborhood and regional parks or other recreational facilities in the vicinity. Accordingly, implementation of the Project would not result in the increased use or substantial physical deterioration of an existing neighborhood or regional park.

The Project does not propose to construct any new on- or off-site recreational facilities and would not expand any existing off-site recreational facilities. Therefore, adverse environmental impacts related to the construction or expansion of recreational facilities would not occur with implementation of the Project.

For the reasons stated above, the proposed Project would result in no impacts to recreation.

5.4.12 UTILITIES/SERVICE SYSTEMS

Wastewater service is provided to the Project site by EMWD. EMWD is required to operate all of its treatment facilities in accordance with the waste treatment and discharge standards and requirements set forth by the Regional Water Quality Control Board (RWQCB). The proposed Project would not install or utilize septic systems or alternative wastewater treatment systems; therefore, the Project would have no potential to violate the applicable wastewater treatment requirements established by the RWQCB. With the exception of new on-site sewer conveyance lines, the Project would not create the need for any new or expanded wastewater facility (such as treatment facilities, storage tanks, or pump stations). The construction of on-site sewer facilities would result in physical impacts to the surface and subsurface of the Project site; however, these impacts are considered to be inherent to the Project's construction phase and are evaluated throughout this EIR accordingly. In instances where significant impacts have been identified for the Project's construction phase, mitigation measures are recommended in each applicable subsection of this EIR, as feasible. There would be no significant environmental effects created particular to on-site water line installation.

With the exception of new on-site water service lines, the Project would not create the need for any new or expanded water facility (such as treatment facilities, storage tanks, or pump stations). The construction of on-site water facilities would result in physical impacts to the surface and subsurface of the Project site (with small encroachments into adjacent public rights of way of developed/paved streets); however, these impacts are considered to be inherent to the Project's construction phase and are evaluated throughout this EIR accordingly. In instances where significant impacts have been identified for the Project's construction phase, mitigation measures are recommended in each applicable subsection of this EIR, as feasible. There would be no significant environmental effects created particular to on-site water line installation.

The Project also includes regional storm drain improvements in San Michele Road (along the northern Project site border) and in Perris Boulevard from San Michele Road south to the connection with the existing line. Both San Michele Road and Perris Boulevard are developed/paved streets under existing conditions and the construction of proposed regional storm drain improvements beneath the public rights of way of developed/paved streets would not result in a new physical disturbance. Impacts associated with proposed storm drain improvements are inherent to the Project's construction phase and are evaluated throughout this EIR accordingly. In instances where significant impacts have been identified for the Project's construction phase, mitigation measures are recommended in each applicable subsection of this EIR, as feasible.

The operation of one warehouse building on the Project site would result in an increase in demand for potable water resources from the local water purveyor, EMWD. However, the proposed Project is fully consistent with the assumptions made in EMWD's 2010 Urban Water Management Plan. EMWD's 2010 Urban Water Management Plan concludes that the EMWD has sufficient water supplies available to serve planned land uses within its service area through at least 2035. Because sufficient water supplies are available to service the proposed Project as documented in EMWD's Urban Water Management Plan, impacts would be less than significant.

The one warehouse building proposed by the Project would generate wastewater that would be conveyed to the Perris Valley Regional Water Reclamation facility, which is owned and operated by EMWD. Under existing conditions, the Perris Valley Regional Water Reclamation facility has a daily treatment capacity of 15 million gallons per day. Following completion of an ongoing expansion project, the treatment capacity of this plant will increase to 22 million gallons per day. Based on EMWD's standard wastewater demand generation rate of 1,700 gallons per day per acre of industrial land uses, the proposed Project is estimated to demand approximately 29,410 gallons of wastewater service per day[2]. This generally corresponds to approximately two-tenths of one percent (0.20 percent) of the existing treatment capacity and approximately thirteen hundredths of one percent (0.13 percent) of future treatment capacity (following completion of the expansion project) at the Perris Valley Regional Water Reclamation Facility. Due to the relatively small amount of wastewater that would be generated by proposed Project and the amount of available capacity at this facility, it is anticipated that the Perris Valley Regional Water Reclamation Facility would have sufficient capacity to treat wastewater generated by the Project. As such, implementation of the Project results in a determination that adequate capacity is available to serve the Project's projected wastewater demand in addition to EMWD's existing commitments. Impacts would be less than significant.

Implementation of the proposed Project would generate solid waste requiring off-site disposal during short-term construction and long-term operational activities. During the construction phase, approximately 868.3 tons of waste would be generated during building construction, installation of subsurface/utility improvements, and installation of landscaping. The Project would be required to comply with City of Moreno Valley Ordinance No. 706, which requires a minimum of 50 percent of all construction waste and debris to be recycled. As such, the Project is estimated to generate approximately 434.2 tons of waste during construction, which corresponds to an average of 2.7 tons per day over the construction phase of the Project (eight months or 160 working days). Long-term operation of the Project is estimated to generate approximately 2.8 tons of solid waste per day. Solid waste generated by the proposed Project would be disposed at the El Sobrante Landfill, the Badlands Sanitary Landfill, and/or the Lamb Canyon Sanitary Landfill. Each of these landfills receive well below their maximum permitted daily disposal volume and have the potential for future expansion, and none of these regional landfill facilities are expected to reach their total maximum permitted disposal capacities during the Project's construction or operational periods. Accordingly, the Project would be served by landfills with sufficient available capacity to accept waste generated by the Project. Impacts would be less than significant.

The Project would be required to comply with the City of Moreno Valley's waste reduction programs, including recycling and other diversion programs to divert the amount of solid waste deposited in landfills. As such, the Project applicant or master developer would be required to implement feasible waste reduction programs, including source reduction, recycling, and composting. Additionally, in accordance with the California Solid Waste Reuse and Recycling Act of 1991 (Cal Pub Res. Code § 42911), the Project would provide adequate areas for collecting and loading recyclable materials where solid waste is collected. The implementation of these programs would reduce the amount of solid waste generated by the Project and diverted to landfills, which in turn will aid in the extension of the life of affected disposal sites. The Project would comply with all applicable solid waste statutes and regulations; as such, impacts would be less than significant.

For the reasons stated above, the proposed Project would result in less than significant impacts to utilities/service systems.

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[2] Source: Eastern Municipal Water District. *Sanitary Sewer System Planning & Design*. September 1, 2006.

6.0 ALTERNATIVES TO THE PROPOSED PROJECT

State CEQA Guidelines §15126.6(a) indicates the scope of alternatives to a proposed project that must be evaluated:

> *"An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selection of a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason."*

As discussed in Section 4.0 of this EIR, the proposed Project would result in significant adverse environmental effects to air quality, noise, and transportation/traffic that cannot be mitigated to below levels of significance after the implementation of Project design features, mandatory regulatory requirements, and feasible mitigation measures. The unavoidable significant impacts are:

- Air Quality: Significant direct and cumulative long-term air quality impact due to an exceedance of the SCAQMD regional threshold for NO_X emissions, which also would cumulatively contribute to an existing air quality violation within the SCAB (i.e., non-attainment status for ozone) because NO_X emissions are a precursor for ozone.

- Noise: Significant direct and cumulative near-term noise impact to due to the generation of noise levels during Project construction that exceed the City of Moreno Valley's Noise Ordinance standard of 65 dBA Leq at a distance of 200 feet from the property line.

- Transportation/Traffic: Significant cumulative near-term impact to the intersections of Western Way/Harley Knox Boulevard and Indian Street/ Harley Knox Boulevard.

CEQA Guidelines §15126.6(e) requires that an alternative be included that describes what would reasonably be expected to occur on the property in the foreseeable future if the Project were not approved, based on current plans and consistent with available infrastructure and community services. This is considered to be the No Project Alternative. In the case of the proposed Project, there are two No Project Alternatives, as described in detail below. The *No Project/Trailer Yard Alternative* is identified as the most environmentally superior alternative. CEQA requires that if the environmentally superior alternative is determined to be a No Project Alternative, then another environmentally superior alternative should be identified among the other alternatives, if the analysis indicates that significant impacts can be avoided by one or more of the other alternatives. Therefore, the Reduced Project/North Building Alternative is identified as the environmentally superior alternative.

6.1 ALTERNATIVES UNDER CONSIDERATION

The following scenarios are identified by the City of Moreno Valley as potential alternatives to implementation of the proposed Project.

☐ Alternative 1 – No Project/Trailer Yard Alternative

The No Project/Trailer Yard Alternative assumes that the proposed Project is not approved, and that the site would be developed in accordance with its existing entitlements pursuant to previously approved Amended Plot Plan P12-061. Under this alternative, improvements on the site would involve the expansion of the existing truck trailer yard to the northern portion of the property, thereby increasing the number of truck trailer parking spaces on-site from 338 spaces to 722 spaces. Access to the property would be afforded via a driveway along San Michele Road, and via the existing driveway located along Nandina Avenue. This alternative was selected by the Lead Agency to compare the environmental effects of the proposed Project against what could reasonably occur on the Project site under existing entitlements. If the Project were not approved, it is reasonable to expect that the property would be developed in accordance with previously approved Amended Plot Plan P12-061.

☐ Alternative 2 – No Project/Industrial Building Alternative

The No Project/Industrial Building Alternative assumes that the proposed Project is not approved, and that the site would be developed in accordance with existing entitlements. Under this alternative, the northern portion of the site would be developed with a truck trailer yard consisting of approximately 384 trailer spaces, as approved by Amended Plot Plan P12-061, while the southern portion of the site would be developed with a 181,031 s.f. industrial building (inclusive of 5,000 s.f. of office, 2,000 s.f. of mezzanine, and 173,031 s.f. of industrial warehouse) pursuant to previously approved Plot Plan PA07-0167. To construct the building, the existing parking lot located in the southern portion of the property would be demolished. The industrial building would include a total of 26 dock doors and 106 standard and handicap parking spaces. Access to the site would be provided via driveways along Nandina Avenue, Perris Boulevard, and San Michele Road. This alternative was selected by the Lead Agency to compare the environmental effects of the proposed Project against what could reasonably occur on the Project site under existing entitlements. If the Project were not approved, it is possible that the property would be developed in accordance with previously approved Amended Plot Plan P12-061 and previously approved Plot Plan PA07-0167.

☐ Alternative 3 – Reduced Project/Small Buildings Alternative

The Reduced Project/Small Buildings Alternative considers development of the site with two smaller industrial buildings consisting of a 194,525 s.f. building in the northern portion of the site (including 5,000 s.f. of office and 189,525 s.f. of industrial warehouse) and a 181,031 s.f. building in the southern portion of the site (including 6,000 s.f. of office, 2,000 s.f. of mezzanine space, and 173,031 s.f. of industrial warehouse), for a total of 375,556 s.f. of industrial building area. This alternative would result in a reduction in building area on the site by approximately 24,574 s.f. as compared to the 400,130 s.f. building that would be constructed under the proposed Project (or a 6% reduction in building area). Under this alternative, a total of 62 trailer parking spaces would be provided, in addition to 193 standard and handicap parking spaces. Access to the site would be provided via driveways along Nandina Avenue, Perris Boulevard, and San Michele Road. This alternative was selected by the Lead Agency to compare the environmental effects of the proposed Project (one larger building that is likely to attract one tenant) against the environmental effects of constructing two smaller buildings that is likely to attract two different tenants.

❑ Alternative 4 – Reduced Project/North Building Alternative

The Reduced Project/North Building Alternative is identified as the Environmentally Superior Alternative. It would involve no changes to the existing trailer parking in the southern portion of the site, while the northern portion of the site would be developed with a 194,525 s.f. industrial building (which includes 5,000 s.f. of office and 189,525 s.f. of industrial warehouse). Under this alternative, the number of truck trailer parking spaces provided on the site would increase by 30 spaces (providing for a total of 368 trailer parking spaces), while an additional 86 standard and handicap parking spaces also would be provided. Site access under this alternative would be afforded via new driveways along San Michele Road and Perris Boulevard, while the existing access via the adjacent lot along Nandina Avenue would be maintained. This alternative was selected for consideration by the Lead Agency to evaluate the comparative environmental benefits of reducing the amount of building area on the site, while maintaining the existing parking facility in the southern portion of the site.

6.2 ALTERNATIVES CONSIDERED AND REJECTED

An EIR is required to identify any alternatives that were considered by the Lead Agency but were rejected as infeasible. Among the factors described by CEQA Guidelines §15126.6 in determining whether to exclude alternatives from detailed consideration in the EIR are: a) failure to meet most of the basic project objectives, b) infeasibility, or c) inability to avoid significant environmental impacts. With respect to the feasibility of potential alternatives to the proposed Project, CEQA Guidelines §15126.6(f)(1) notes:

> *"Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries…and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site…"*

In determining an appropriate range of alternatives to be evaluated in this EIR, a number of possible alternatives were initially considered and, for a variety of reasons, rejected. Alternatives were rejected because either: 1) they could not accomplish the basic objectives of the Project, 2) they would not have resulted in a reduction of significant adverse environmental impacts, or 3) they were considered infeasible to construct or operate. The reason for not selecting each alternative is discussed below.

❑ Alternative Sites

CEQA does not require that an analysis of alternative sites always be included in an EIR. However, if the surrounding circumstances make it reasonable to consider an alternative site then this alternative should be considered and analyzed in the EIR. In making the decision to include or exclude analysis of an alternative site, the "key question and first step in analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need to be considered for inclusion in the EIR" (CEQA Guidelines §15126.6(f)(2)).

The Project as proposed is consistent with the Business Park/Light Industrial and Commercial land use designations applied to the property by the City of Moreno Valley General Plan and as further detailed by the Industrial and Industrial Support Areas designations applied to the property by the Moreno Valley Industrial Area Plan (Specific Plan 208). An examination of alternative sites is typically not necessary when a proposed development project is consistent with the applicable land use plan, because it can reasonably be assumed that development would ultimately occur in conformance with the applicable land use designation, whether by the Project Applicant or by others in the future. In cases where a proposed project is consistent with the applicable General Plan, the alternatives analysis should typically focus on options for developing the site consistent with adopted plan policies and the discussion of alternatives should search for an environmentally superior version of the project on the site instead of an alternative site.

The Project site is flat and is highly disturbed due to prior development of a parking site in the southern portion of the site and regular discing that occurs for fire fuel management in the northern portion of the site. And, as previously discussed, the property is entitled to be developed pursuant to previously approved Amended Plot Plan P12-061 and previously approved Plot Plan PA07-0167. CEQA analysis for site disturbance associated with those approvals was completed, consisting of a Mitigated Negative Declaration (MND) and two MND Addenda (SCH No. 2008101041). Locating the proposed Project on an alternative site, therefore, would not avoid physical disturbance of the property. It also would not avoid the implementation of either the No Project/Trailer Yard Alternative (Alternative 1) or the No Project/Industrial Building Alternative (Alternative 2) because existing entitlements are already in place to construct those alternatives on the property. The only potential advantage, then, to selecting an alternative site for the proposed Project would be to displace the Project's operational effects to a different location.

The Project site is surrounded by properties developed with or planned for the future construction of industrial land uses. Few other properties in the City of Moreno Valley and western Riverside County would offer less developmental and environmental constraints, or fewer physical environmental impacts than the proposed Project site. Development of the Project in an alternate location would have similar impacts as would occur with implementation of the Project at its proposed location, and may even increase environmental effects because the Project built in another location would be compounded with the effects of either the No Project/Trailer Yard Alternative (Alternative 1) or the No Project/Industrial Building Alternative (Alternative 2) because existing entitlements are already in place to construct those alternatives on the property. For these reasons, an alternative sites analysis is not required for the proposed Project.

❑ Alternative Land Use

Development of the Project site with a land use other than industrial warehousing was considered, but rejected because other land uses would be inconsistent with the property's General Plan and zoning designations and not meet any of the Project's objectives. Additionally, development of the Project site with a building type other than warehouse and permitted by General Plan and zoning designations was considered but rejected because other permitted building types (manufacturing and commercial/service) would create the same or similar construction-related impacts as the proposed Project, but would substantially increase operational impacts because these land use types generate more traffic and consequently would generate more operational noise and air emissions. For these reasons, alternative land uses on the property were considered and rejected.

☐ Construction Noise Avoidance Alternative

An alternative was considered that would avoid the proposed Project's construction-related noise impacts. As disclosed in EIR Section 4.3, near-term construction activities would exceed the City's Noise Ordinance standard of 65 dBA at a distance of 200 feet from the property line during all six (6) phases of construction. As shown in EIR Tables 4.3-5 through 4.3-10, in order to avoid a significant impact due to a conflict with the Noise Ordinance, construction activities would need to be set back from the property line by a distance ranging from 565 feet (during architectural coating) to 2,774 feet (during site grading activities). It would not be feasible to construct the proposed Project while restricting construction activities by 565 feet to 2,774 feet from the property line. Accordingly, the Construction Noise Avoidance Alternative has been rejected from detailed consideration in this EIR because it is infeasible.

6.3 ALTERNATIVES ANALYSIS

The following discussion compares the impacts of each alternative considered by the Lead Agency with the impacts of the proposed Project, as detailed in Section 4.0, Environmental Analysis, of this EIR. A conclusion is provided for each impact as to whether the alternative results in one of the following: (1) reduction or elimination of the proposed Project's impact, (2) a greater impact than would occur under the proposed Project, (3) the same impact as the proposed Project, or (4) a new impact in addition to the proposed Project's impacts. Table 6-1 at the end of this section compares the environmental hazard and resource impacts of the alternatives with those of the proposed Project and identifies the ability of the Alternative to meet the basic objectives of the Project. As described in EIR Subsection 3.2, the proposed Project's objectives are:

A. To construct and operate a logistics center warehouse building in the City of Moreno Valley on a property designated for industrial development by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208.)

B. To develop a logistics center warehouse building that is feasible to construct and operate and that appeals to light industrial and warehouse distribution tenants seeking to locate in the Moreno Valley area.

C. To make efficient use of property designated for industrial development by developing a logistics center warehouse building on a property that is adjacent to existing warehouse development and that achieves a minimum floor area ratio (FAR) of 0.5.

D. To construct and operate a logistics center warehouse building within five miles of major regional transportation corridors.

E. To attract new businesses and jobs to the City of Moreno Valley, thereby providing a more equal jobs/housing balance both in the city and in Riverside County and reducing the need for members of the existing local workforce to commute outside the area for employment.

6.3.1 ALTERNATIVE 1 – NO PROJECT/TRAILER YARD ALTERNATIVE

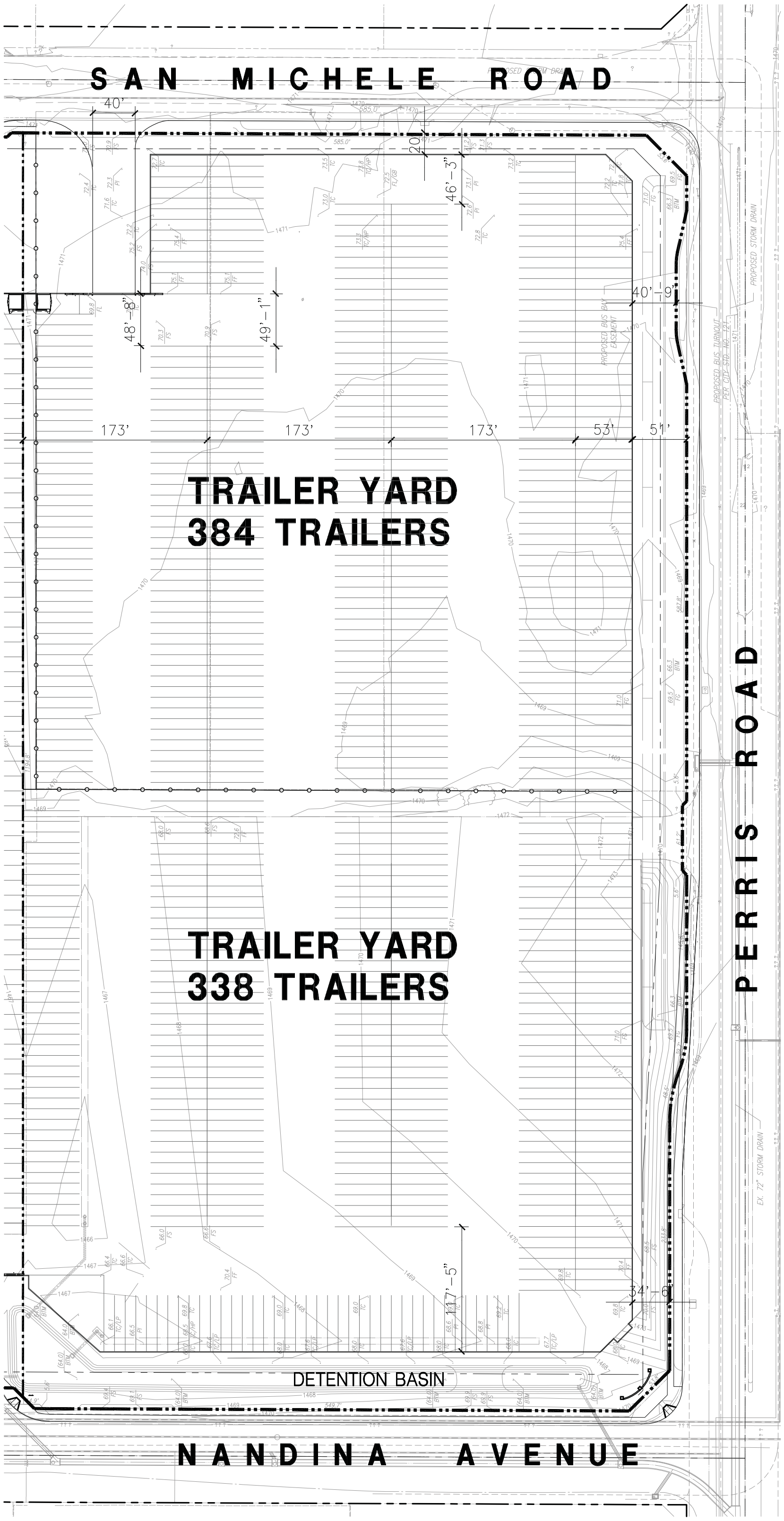
The No Project/Trailer Yard Alternative allows the decision-makers to compare the impacts of approving the proposed Project against the impacts of not approving the Project. If the Project were not approved, it is reasonable to expect the property to develop in accordance with previously approved permits. Under existing entitlements (specifically, Amended Plot Plan P12-061), the existing truck trailer parking lot in the southern portion of the site would remain. This parking area would be expanded onto the northern portion of the site to include an additional 509 trailer parking spaces, resulting in a total of 722 spaces on the site (including 338 spaces on the southern portion of the site and 384 spaces in the northern portion of the site). The existing parking area and expanded parking area would serve the existing 691,960 s.f. building located to the immediate west and currently occupied by Harbor Freight Tools. Figure 6-1, *No Project/Trailer Yard Alternative*, depicts a site plan for the No Project/Trailer Yard Alternative. CEQA analysis for this alternative was previously completed, consisting of two MND Addenda (SCH No. 2008101041). All imposed Conditions of Approval and Mitigation Measures would apply.

Under this alternative, roadway frontage improvements along Perris Boulevard and San Michele Road would occur, including additional paved roadway and the construction of curbs and sidewalks. There would be no change to the Project frontage along Perris Boulevard or Nandina Avenue. Access to the site would be afforded via a new driveway constructed along San Michele Road, near the northwestern Project boundary, while the existing driveway providing access to Nandina Avenue via the adjacent lot to the west would be retained. Screen walls also would be constructed along San Michele Road and Perris Boulevard, while the existing screen walls along Perris Boulevard and Nandina Avenue would stay in place.

In order to construct the expanded parking lot, portions of the existing trailer parking area and associated screen walls would be demolished and replaced. Otherwise, the majority of construction activities associated with this alternative would be limited to the northern portion of the site, and along the eastern frontage with Perris Boulevard and the entire frontage of San Michele Road.

This alternative would be fully consistent with the site’s existing General Plan and zoning designations. In addition, the parking area is proposed to be used only by trucks currently serving the existing building to the west. As such, under operational conditions, there would be no total increase in inbound or outbound traffic, nor would any other operational characteristics of the existing building to the west change as a result of this alternative.

Selection of the No Project/Trailer Yard Alternative would prevent the Project site from being developed with industrial buildings in the foreseeable future, but would not necessarily prevent the proposed Project or another project of its nature from being built in another location in response to the demand for industrial building space in western Riverside County. As discussed above, a detailed examination of alternative sites is not required in this EIR because the Project is consistent with its General Plan and Specific Plan land use designations applied to the property and locating the Project on an alternative site would not be environmentally superior. Nonetheless, the Lead Agency recognizes that selection of the No Project/Trailer Yard Alternative would not reduce the market demand for industrial building space in western Riverside County.



Source: HPA Architects (10-23-12)

FIGURE 6-1
No Project/Trailer Yard Alternative

☐ Air Quality

The No Project/Trailer Yard Alternative would not alter the land uses allowed on-site under the General Plan and zoning designations, and would not increase the intensity or amount of traffic that occurs under existing conditions because use of the parking yard would be limited to the existing building to the west currently occupied by Harbor Freight Tools. The parking area would only be used by trucks currently serving the existing building. Because the No Project/Trailer Yard Alternative is consistent with the site's existing General Plan and zoning designations that formed the basis for regional population projections used in the SCAQMD's AQMP, the No Project/Trailer Yard Alternative would not conflict with implementation of the AQMP, and a less than significant impact would occur. Similarly, the proposed Project also would be consistent with the site's existing General Plan and zoning land use designations and also would be consistent with the regional population projections used in the AQMP. Thus, both this alternative and the proposed Project would be consistent with the AQMP and no adverse impact would occur in either case.

Under the No Project/Trailer Yard Alternative, grading and the application of concrete and asphalt involved in the expansion of the parking lot would result in some construction emissions; however, construction activities under this alternative would be governed by the Mitigation Measures specified in MND Addenda No. 2 (SCH No. 2008101041) and Conditions of Approval associated Amended Plot Plan P12-061. Given the small size and duration of construction activities associated with expanding the existing parking yard to the northern portion of the property, short-term construction-related impacts would be less than significant with mitigation. Since the expanded parking lot would only be used by trucks serving the existing building to the west and would not increase the amount of operational traffic, long-term operational emissions would not occur nor result in any violations of an air quality standard or substantially contribute to a projected air quality violation. Accordingly, implementation of this alternative would reduce near-term construction-related impacts as compared to the proposed Project and would avoid the proposed Project's significant unavoidable long-term impacts due to NO_x emissions.

Based on the analysis contained in the 2008 MND and its associated Addenda (SCH No. 2008101041), and assuming mandatory implementation of the Mitigation Measures and Conditions of Approval associated with Amended Plot Plan P12-061, impacts to nearby sensitive receptors would be less than significant under this alternative. Near- and long-term air emissions under this alternative would be below the SCAQMD regional and localized thresholds of significance, and diesel particulate emissions would not expose sensitive receptors to significant cancer risks. Due to the reduced intensity of construction activities and reduced operational traffic associated with this alternative as compared to the proposed Project, air quality impacts affecting sensitive receptors would be reduced under this alternative. Neither this alternative nor the proposed Project would result in significant human health risks associated with air pollutant emissions.

Odors that would be associated with the No Project/Trailer Yard Alternative would be associated with near-term construction activities and diesel exhaust that would occur under both near-term construction and long-term operation. However, and as concluded in the MND and Addendum No. 2 (SCH No. 2008101041), impacts due to odors under this alternative would be less than significant due to the short-term duration and quantity of emissions, the predominantly industrial nature of the surrounding area, and the less than significant results of the localized significance threshold analysis. Similarly, because the proposed Project does not involve any land uses that would generate odors, and since odors under near-term construction activities would be similar (particularly when asphalt is being installed), near- and long-term odors would be similar and less than significant under both this alternative and the proposed Project.

❑ Greenhouse Gas Emissions

The No Project/Trailer Yard Alternative would involve the expansion of an existing truck trailer parking area from 213 spaces to a total of 722 spaces. All traffic associated with this alternative would be strictly associated with the adjacent warehouse building to the west, as the expanded parking lot would merely serve this existing use. Because the No Project/Trailer Yard Alternative would not result in an increase in operational characteristics associated with the site (e.g., there would be no net increase in traffic), there would be no change in the amount of operational GHG emissions that occurs under existing conditions. As such, this alternative would not generate GHG emissions that would directly or indirectly have a significant impact on the environment.

Mitigation Measures and Conditions of Approval associated with Plot Plan P12-061 would apply to this alternative, including mitigation measures and conditions imposed to address air quality emissions. However, since this alternative would not result in the generation of additional vehicular trips, and because fossil fuel usage associated with this alternative would be limited to electricity generation for lighting and electrical outlets, this alternative has no potential to generate a substantial amount of GHG emissions that could cumulatively contribute to global climate change. As such, impacts from GHG emissions that conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs would not be significant under this alternative. Since neither the proposed Project nor the No Project/Trailer Yard Alternative would conflict with any applicable plans or policies addressing climate change, impacts would be less than significant under both this alternative and the proposed Project.

❑ Noise

Noise associated with the No Project/Trailer Yard Alternative would occur during near-term construction activities and under long-term operation. Construction characteristics associated with this alternative would be similar to the proposed Project, except that construction activities would be limited to the northern portion of the property and there would be no building construction phase or architectural coating phase. As with the proposed Project, near-term construction noise impacts associated with this alternative would exceed the City's Noise Ordinance threshold of 65 dBA at a distance of 200 feet from the property line during demolition, site preparation, grading, and paving activities, although impacts during building construction and architectural coating would be avoided. Although this alternative represents a reduction in short-term noise impacts as compared to the proposed Project, the impact would not be avoided.

Under long-term operational conditions, noise generated by the No Project/Trailer Yard Alternative primarily would be associated with trucks maneuvering and idling within the dock areas. Mitigation Measures and Conditions of Approval associated Amended Plot Plan P12-061 would apply to this alternative, including requirements to construct noise attenuation walls along the perimeter of the site and to construct access gates with solid materials to address on-site noise generation. With implementation of the Mitigation Measures and Conditions of Approval, site operational noise affecting nearby sensitive receptors would be below the City's 65 dBA CNEL exterior standard and impacts would be less than significant. Due to the reduction in traffic and site operational characteristics associated with this alternative, operational noise would be reduced under this alternative as compared to the proposed Project.

No off-site noise increases would result from implementation of this alternative because there would not be an increase in traffic volumes and all truck trips would be associated with the existing warehouse building located to the west. As such, there would be no potential for the No Project/Trailer Yard Alternative to increase noise levels on nearby roadway segments, eliminating the proposed Project's contribution of up to 0.6 CNEL under long-term operating conditions.

Near-term ground-borne vibration or ground-borne noise effects would be temporary and infrequent during construction and would be less than significant under both the No Project/Trailer Yard Alternative and the proposed Project. Under long-term operational conditions, there would be no sources of ground-borne vibration or ground-borne noise associated with either the No Project/Trailer Yard Alternative or the proposed Project. Also, neither this alternative nor the proposed Project are noise-sensitive uses or involve an air travel component. Thus, there would be no impact associated with public or private airport usage with either the No Project/Trailer Yard Alternative or the proposed Project.

☐ Transportation and Traffic

The No Project/Trailer Yard Alternative would not involve any traffic increases, as all traffic would be associated with the existing warehouse building to the west. As such, this alternative would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, and no impact would occur. In comparison, the proposed Project would result in cumulatively significant impacts to seven roadway segments and five intersections under Opening Year Cumulative (2017) conditions, which would be avoided by the selection of this alternative.

The No Project/Trailer Yard Alternative would not result in any new traffic; therefore, this alternative would have no impact on CMP facilities. Implementation of the proposed Project would result in cumulatively significant but mitigable impacts to CMP facilities (I-215 Ramps at Harley Knox Boulevard) and would contribute new vehicle trips to CMP facilities that would not occur under this alternative; therefore, impacts to CMP facilities would be decreased under this alternative as compared to the proposed Project.

Neither the No Project/Trailer Yard Alternative nor the proposed Project has the potential to affect air traffic patterns. As such, impacts to air traffic patterns would not occur, and would be similar under either this alternative or the proposed Project.

Under both the No Project/Trailer Yard Alternative and the proposed Project, roadway frontage improvements would be required to adhere to City requirements, thereby precluding the potential for introducing hazards due to a design feature. Additionally, because both the proposed Project and No Project/Trailer Yard Alternative would involve warehouse-related uses, and the site is located within a predominantly industrial warehousing area, there would be no transportation design hazard impacts due to incompatible uses.

Both the No Project/Trailer Yard Alternative and the proposed Project would be served by a minimum of two access points, which would provide for adequate emergency access. Accordingly, an impact due to inadequate emergency access would not occur, and such impacts would be identical under either the proposed Project or No Project/Trailer Yard Alternative.

Frontage improvements along San Michele Road and Perris Boulevard would occur under both the No Project/Trailer Yard Alternative and the proposed Project, and would accommodate all required sidewalks, bike lanes, and bus turnouts. There are no other pedestrian, bicycle, or public transit facilities planned near the proposed Project site (with exception of the bus turnout). Accordingly, impacts due to a conflict with adopted policies or programs regarding public transit, bicycle, and pedestrian facilities would be identical under this alternative and the proposed Project, and no impact would occur.

☐ Biological Resources

This alternative would result in full disturbance of the property, as would occur under the proposed Project. As such, impacts to biological resources that would occur under this alternative are the same as those impacts described in EIR Subsection 4.5 for the proposed Project. No biological resource impacts would be reduced or avoided.

☐ Conclusion

Implementation of the No Project/Trailer Yard Alternative would result in the expansion of an existing truck trailer parking lot from 213 stalls to 722 stalls, and would increase the size of the parking lot to cover the northern portion of the Project site. With exception of near-term noise impacts, all significant effects of the proposed Project would be avoided or lessened by the selection of this alternative.

The No Project/Trailer Yard Alternative would fail to meet the Project's objectives. This alternative would not achieve the objectives to construct and operate a logistics center warehouse, and would not achieve a minimum FAR of 0.5. This alternative also would not attract new businesses or jobs to the City of Moreno Valley because the parking yard would merely service the existing warehouse building to the west. Moreover, selection of the No Project/Trailer Yard Alternative, while preventing development of the property with a logistics center warehouse building, would not result in a reduction in demand for industrial business park development in western Riverside County; thus, it is likely for the Project's environmental impacts to occur elsewhere rather than be avoided.

6.3.2 ALTERNATIVE 2 – NO PROJECT/INDUSTRIAL BUILDING ALTERNATIVE

Like the No Project/Trailer Yard Alternative described above, the No Project/Industrial Building Alternative allows decision-makers to compare the impacts of approving the proposed Project against the impacts that would occur if the property were to be developed pursuant to existing entitlements. Under existing entitlements (specifically, Plot Plan 07-0167 and Amended Plot Plan P12-061), the northern portion of the site would be developed with a truck trailer yard while the southern portion of the site would be developed with a 181,031 s.f. industrial building (inclusive of 5,000 s.f. of office, 2,000 s.f. of mezzanine, and 173,031 s.f. of industrial warehouse). In order to construct this alternative, the existing parking area would be demolished and some grading activities would be required on-site both in association with the new building and the expanded parking area. Figure 6-

2, *No Project/Industrial Building Alternative*, depicts a conceptual site plan for the No Project/Industrial Building Alternative. CEQA analysis for this alternative was previously completed, consisting of an MND and two MND Addenda (SCH No. 2008101041). All imposed Conditions of Approval and Mitigation Measures would apply.

Under this alternative, roadway frontage improvements along Perris Boulevard and San Michele Road would occur, including additional paved roadway and the construction of curbs and sidewalks. There would be no change to the Project frontage along Perris Boulevard or Nandina Avenue. Access to the site would be provided by driveways along Nandina Avenue, including an existing driveway accessed via the adjacent parcel and a new driveway to be constructed adjacent to the office space in the southwestern corner of the lot; a new driveway along Perris Boulevard, immediately to the north of the proposed building; and a new driveway along San Michele Road to be constructed at the northwestern corner of the lot.

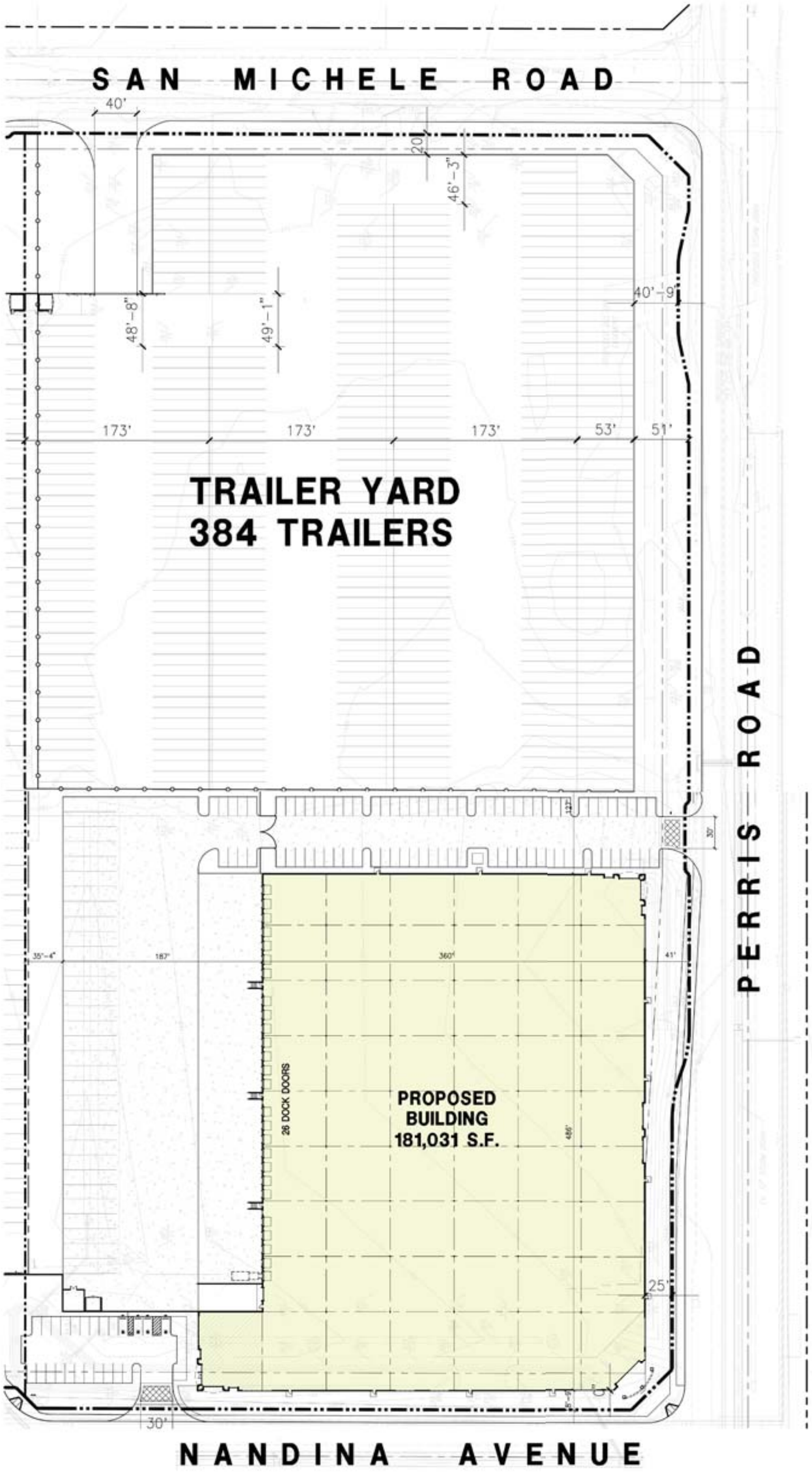
The existing screen walls located along the northern edge of the existing parking lot, along Perris Boulevard, and along Nandina Avenue would be demolished as part of this alternative. New screen walls would be constructed along the southern edge of the truck trailer parking area in the south of the site (just northerly of the parking lot for the office), and additional screen walls would be constructed along the frontage with Perris Boulevard (north of the proposed building) and along San Michele Road.

The industrial building proposed under this alternative would include a total of 26 dock doors and 106 standard and handicap parking spaces. The southwestern corner of the building (approximately 6,000 s.f.) would be dedicated for office space, while the remaining portions of the building would comprise 2,000 s.f. of mezzanine space and 173,031 s.f. of warehouse space.

Selection of the No Project/Industrial Building Alternative would reduce the amount of industrial warehouse building square footage on-site from 400,130 s.f. to 181,031 s.f., but would not necessarily prevent the additional square footage from being located in another location in response to the demand for industrial building space in western Riverside County. As discussed above, an examination of alternative sites is not required in this EIR because the Project is consistent with its General Plan and Specific Plan land use designations and locating the Project on an alternative site would not be environmentally superior. Nonetheless, the Lead Agency recognizes that selection of the No Project/Industrial Building Alternative would not reduce the market demand for industrial building space in western Riverside County.

☐ Air Quality

The No Project/Trailer Yard Alternative would not alter the land uses allowed on-site under the General Plan and zoning designations. Although traffic from the site would decrease under this alternative as compared to the proposed Project (from approximately 1,066 trips per day under the proposed Project to approximately 323 trips per day under this alternative), the development of an industrial building on the southern portion of the property would be consistent with the site's existing General Plan and zoning designations that formed the basis for regional population projections used in the SCAQMD's AQMP. As such, the No Project/Trailer Yard Alternative would not conflict with implementation of the AQMP, and no impact would occur. Similarly, the proposed Project also



Source: HPA Architects (10-23-12)

FIGURE 6-2
No Project/Industrial Building Alternative

would be consistent with the site's existing General Plan and zoning land use designations and also would be consistent with the regional population projections used in the AQMP. Thus, both this alternative and the proposed Project would be consistent with the AQMP and no adverse impact would occur in either case.

Under the No Project/Industrial Building Alternative, grading and concrete application involved in installing the parking lot, construction of the 181,031 s.f. building, and construction of screen walls would result in construction-related air emissions; however, construction activities under this alternative would be governed by the Mitigation Measures and Conditions of Approval associated with the original approvals (PA07-0165, PA07-0167, and P12-061). Given the small size and duration of construction associated with this alternative, short-term construction impacts due to the violation of an air quality standard or contribution to a projected air quality violation would be less than significant with mitigation. Due to the reduction in building area, near-term construction emissions would be reduced in comparison to the proposed Project, although both the proposed Project and this alternative would result in less than significant near-term air quality impacts during construction with the incorporation of mitigation measures.

Because the expanded parking lot would only be used by trucks serving the existing building to the west and the proposed new building, no additional traffic would be associated with the parking area. However, the new 181,031 s.f. building would generate approximately 323 trips per day (based on the information disclosed in the MND for PA07-0165, P07-166, PA07-0167). The projected increase in traffic from the site would require the implementation of Mitigation Measures and adherence to the Conditions of Approval associated with PA07-0165 and PA07-0167, which would reduce to a level below significant impacts due to the violation of air quality standards and/or contribution to an existing or projected air quality violation. Because the proposed Project would generate 743 more daily trips than would occur under this alternative, impacts to air quality standards and the level of contribution to existing or projected violations would be reduced under this alternative, but not avoided. While this alternative would reduce operational NO_x emissions as compared to the proposed Project, this alternative still would result in emissions of a criteria pollutant for which the region is non-attainment (i.e., ozone precursors), but to a lesser degree than the proposed Project.

Based on the analysis contained in the 2008 MND and its associated Addenda (SCH No. 2008101041), and assuming mandatory implementation of the Mitigation Measures and Conditions of Approval associated with the approved entitlements, impacts to nearby sensitive receptors would be less than significant under this alternative. Near- and long-term air emissions under this alternative would be below the SCAQMD regional and localized thresholds of significance with mitigation, and diesel particulate emissions would not expose sensitive receptors to significant cancer risks. Due to the reduced intensity of construction activities and reduced operational traffic associated with this alternative as compared to the proposed Project, air quality impacts affecting sensitive receptors would be reduced under this alternative. Neither this alternative nor the proposed Project would result in significant human health risks associated with air pollutant emissions.

Odors that would be associated with the No Project/Industrial Building Alternative would be associated with near-term construction activities and diesel exhaust that would occur under both near-term construction and long-term operation. However, and as concluded in the MND and Addendum No. 2 (SCH No. 2008101041), impacts due to odors would be less than significant due to the short-term duration and quantity of emissions, the predominantly industrial nature of the surrounding area, and the less than significant results of the localized significance threshold analysis. Similarly, because the proposed Project does not involve any land uses that would generate odors, and since odors under near-term construction activities would be similar (particularly when asphalt is being installed), near- and long-term odors would be similar and less than significant under both this alternative and the proposed Project.

❑ Greenhouse Gas Emissions

Impacts due to GHG emissions were not previously evaluated in the approved MND for the proposed 181,031 s.f. building, although an impact analysis was conducted for the expanded trailer parking area in the northern portion of the site for Addendum No. 2. Addendum No. 2 concluded that impacts associated with the parking area would not result in substantial amount of GHG emissions. The No Project/Industrial Building Alternative would involve the construction and operation of a 181,031 s.f. industrial warehouse building and a truck trailer parking area. Due to the decrease in the amount of traffic associated with this alternative (743 fewer average daily trips), and the reduced building area (219,099 s.f. less building area than the proposed Project), this alternative would generate fewer GHG emissions as compared to the proposed Project. It should be noted that the Mitigation Measures identified to address the Project's GHG emissions would not be implemented as part of this alternative. Nonetheless, impacts due to GHG emissions would be reduced under this alternative as compared to the proposed Project, and would be less than significant.

Mitigation Measures and Conditions of Approval associated with PA07-0165, PA07-0167, and P12-061 would apply to this alternative, including Mitigation Measures and Conditions of Approval imposed to address air quality emissions. Incorporation of these measures is anticipated to reduce near- and long-term emissions of GHGs. As with the proposed Project, this alternative would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, including the CARB Scoping Plan recommended measures and actions or the GHG emission reduction strategies set forth in the 2006 CAT Report. As such, impacts due to a conflict with applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of greenhouse gases would be similar under both this alternative and the proposed Project.

❑ Noise

Noise associated with the No Project/Industrial Building Alternative would occur during near-term construction activities and under long-term operation. Similar to the proposed Project, near-term construction activities during each phase of construction would generate noise levels that exceed the City's Noise Ordinance standard of 65 dBA at a distance of 200 feet from the property line. However, due to the reduction in building area associated with this alternative, the duration of construction-related noise impacts would be reduced in comparison to the proposed Project.

Under long-term operational conditions, noise generated by the No Project/Industrial Building Alternative primarily would be associated with trucks maneuvering and idling within the dock areas. Mitigation Measures and Conditions of Approval associated with PA07-0167 and P12-061 would apply to this alternative, including requirements to construct noise attenuation walls along the perimeter of the site and to construct access gates with solid materials to address on-site noise generation. With implementation of the Mitigation Measures and Conditions of Approval, site operational noise affecting nearby sensitive receptors would be below the City's 65 dBA CNEL exterior standard and impacts would be less than significant. Because the intensity of operations associated with this alternative would be reduced in comparison to the proposed Project, operational-related noise impacts would be less under this alternative, but still less than significant for both this alternative and the proposed Project.

Because the trailer parking lot in the northern portion of the property would not result in an increase in traffic, potential off-site noise impacts associated with traffic would be limited to the 323 vehicle trips per day generated by the 181,031 s.f. building. Based on the analysis presented in the MND, the total off-site contribution to noise levels along nearby roadway segments would be between 0.1 to 1.3 decibels (which includes traffic associated with the existing 676,960 s.f. warehouse building on the parcel to the west). This level of noise increase is well below the City's significance threshold. Since the proposed Project would result in off-site noise impacts ranging from 0.0 dBA CNEL to 1.6 dBA CNEL, off-site noise impacts would be reduced under this alternative, although would not be significant under either this alternative or the proposed Project.

Near-term ground-borne vibration or ground-borne noise effects would be temporary and infrequent during construction and would be less than significant under both the No Project/Industrial Building Alternative and the proposed Project. Under long-term operational conditions, there would be no sources of ground-borne vibration or ground-borne noise associated with either the No Project/Trailer Yard Alternative or the proposed Project. Also, neither this alternative nor the proposed Project are noise-sensitive uses or involve an air travel component. Thus, there would be no impact associated with public or private airport usage with either the No Project/Trailer Yard Alternative or the proposed Project.

❑ Transportation and Traffic

The No Project/Industrial Building Alternative would result in the construction of a 181,031 s.f. industrial warehouse building on the southern portion of the site, which would result in the generation of approximately 323 average daily vehicle trips. There would be no increase in traffic associated with the truck trailer parking area. As determined by the MND and Addendum No. 2, implementation of this alternative would result in significant but mitigable cumulative impacts to a total of nine intersections. The proposed Project would result in cumulatively significant impacts to a total of seven roadway segments and five intersections under Opening Year Cumulative (2017) conditions and impacts to two of the intersections would be significant and unavoidable. In comparison, implementation of the No Project/Industrial Building Alternative would reduce impacts to transportation/traffic as compared to the proposed Project and eliminate the Project's significant and unavoidable cumulative traffic impacts.

As concluded in the MND and Addendum No. 2, the No Project/Industrial Building Alternative would result in cumulatively significant but mitigable impacts to two CMP facilities (I-215 SB Ramp at Oleander Avenue and I-215 NB Ramp at Oleander Avenue). Implementation of the proposed Project would result in cumulatively significant but mitigable impacts to two CMP facilities (I-215 SB Ramps at Harley Knox Boulevard and I-215 NB Ramps at Harley Knox Boulevard). Accordingly, impacts to CMP facilities would be the same under this alternative and the proposed Project.

Neither the No Project/Industrial Building Alternative nor the proposed Project has the potential to affect air traffic patterns. As such, impacts to air traffic patterns would not occur, and would be similar under either this alternative or the proposed Project.

Under both the No Project/Industrial Building Alternative and the proposed Project, roadway frontage improvements would be required to adhere to City requirements, thereby precluding the potential for introducing hazards due to a design feature. Additionally, because both the proposed Project and No Project/Industrial Building Alternative would involve industrial-related uses, and the site is located within a predominantly industrial area, there would be no transportation design hazard impacts due to incompatible uses. In both cases, impacts would be less than significant under both the No Project/Industrial Building Alternative and the proposed Project.

Both the No Project/Industrial Building Alternative and the proposed Project would be served by a minimum of two access points, which would provide for adequate emergency access. Accordingly, an impact due to inadequate emergency access would not occur, and such impacts would be identical under either the proposed Project or No Project/Industrial Building Alternative.

Frontage improvements along San Michele Road and Perris Boulevard would occur under both the No Project/Industrial Building Alternative and the proposed Project, and would accommodate all required sidewalks, bike lanes, and bus turnouts. There are no other pedestrian, bicycle, or public transit facilities planned near the proposed Project site (with exception of the bus turnout). Accordingly, impacts due to a conflict with adopted policies or programs regarding public transit, bicycle, and pedestrian facilities would be the same under this alternative and the proposed Project, and no impact would occur.

☐ Biological Resources

This alternative would result in full disturbance of the property, as would occur under the proposed Project. As such, impacts to biological resources that would occur under this alternative are the same as those impacts described in EIR Subsection 4.5 for the proposed Project. No biological resource impacts would be reduced or avoided.

☐ Conclusion

Implementation of the No Project/Industrial Building Alternative would result in constructing a truck trailer parking lot on the northern portion of the property and constructing a 181,031 s.f. industrial warehouse building on the southern portion of the property in accordance with existing, approved entitlements. Implementation of this alternative would avoid the Project's significant unavoidable impact to transportation/traffic, and would generally reduce many of the other Project-related impacts that are related to building intensity. However, this alternative would reduce, but would not fully avoid, the proposed Project's impacts due to long-term operational-related emissions of NO_x, and would reduce but not fully avoid the proposed Project's significant unavoidable impact due to construction-related noise.

The No Project/Industrial Building Alternative would meet most of the Project's objectives, but generally to a lesser degree. This alternative would not achieve the Project's objective to achieve a minimum FAR of 0.5, and would be less effective in providing logistics center warehouse building space in comparison to the proposed Project. This alternative, while providing logistics center warehouse building space within five miles of major regional transportation corridors, would provide less building space than the proposed Project. Additionally, this alternative would attract fewer businesses and jobs to the City of Moreno Valley as compared to the proposed Project. Moreover, selection of the No Project/Industrial Building Alternative, while limiting the size of the on-site logistics center warehouse building, would not result in a reduction in demand for industrial business park development in western Riverside County; thus, it is likely for a portion of the Project's environmental impacts to occur elsewhere rather than be avoided.

6.3.3 ALTERNATIVE 3 – REDUCED PROJECT/SMALL BUILDINGS ALTERNATIVE

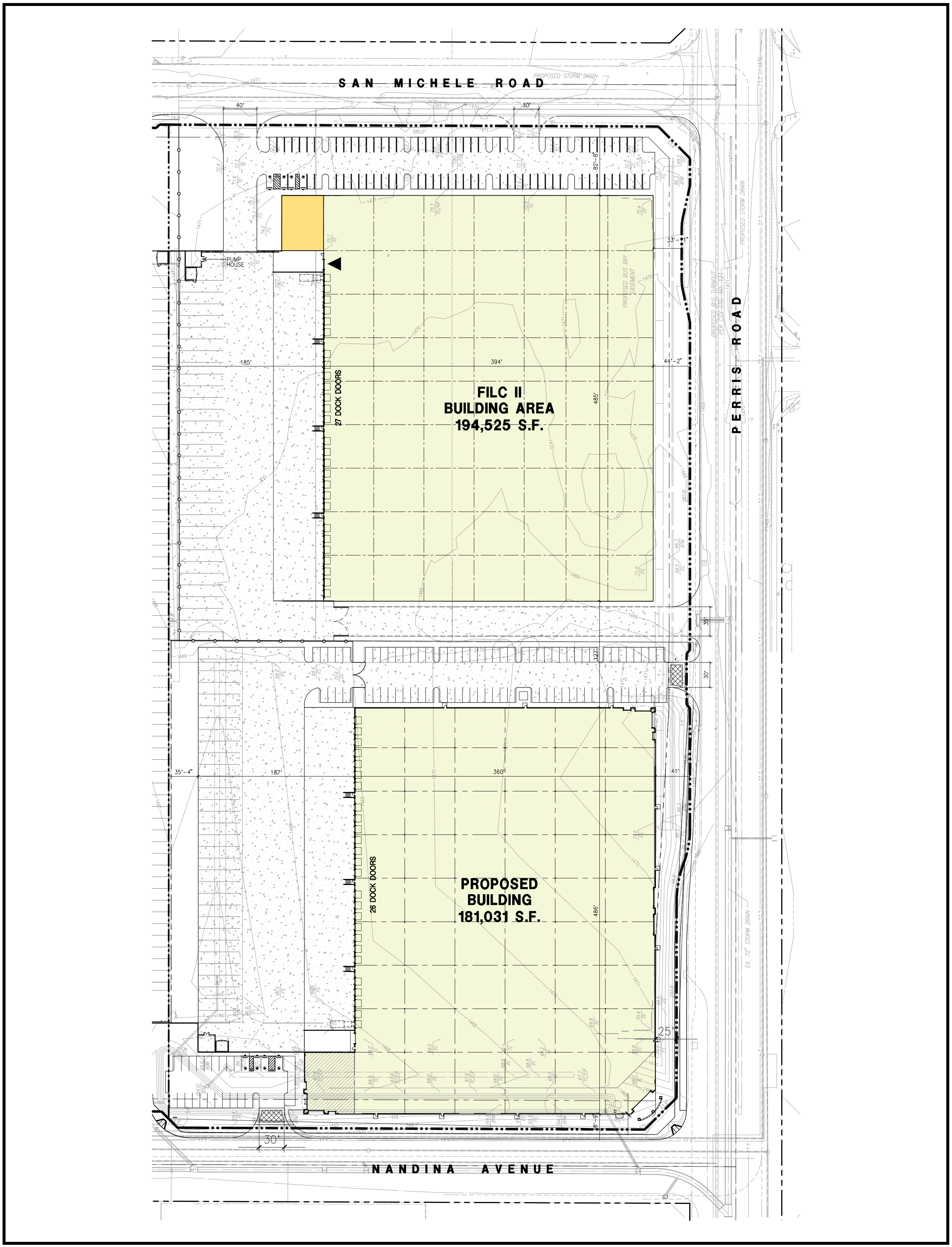
The Reduced Project/Small Buildings Alternative was selected to evaluate the comparative environmental benefits of constructing two smaller industrial warehouse buildings on-site in lieu of the single large building proposed by the Project. Under this alternative, two buildings would be constructed, with the northern building comprising approximately 194,525 s.f. of building area and the southern building comprising approximately 181,031 s.f. of building area. The southern building would consist of a 173,031 s.f. warehouse, 2,000 s.f. of mezzanine space, and a 6,000 s.f. office. The northern building would consist of 189,525 s.f. of warehouse space and 5,000 s.f. of office space. The two buildings, combined, would include 375,556 s.f. of building area, or 24,574 s.f. less building area than the proposed Project (a reduction in building area by approximately 6%). Figure 6-3, *Reduced Project/Small Buildings Alternative,* depicts a conceptual site plan for the Reduced Project/Small Buildings Alternative.

Roadway improvements and access points would be identical to the proposed Project under this alternative, except that an additional access would be provided to Perris Boulevard on the north side of the southern building. The existing screen walls would be extended under this alternative and would occur along the entire frontage with Perris Boulevard and San Michele Road, while the screen walls along Nandina Avenue would be demolished and replaced along the northern edge of the employee parking area proposed adjacent to Nandina Avenue.

The industrial buildings proposed under this alternative would include a total of 55 dock doors, 62 truck trailer parking stalls, and 193 standard and handicap spaces.

☐ Air Quality

The Reduced Project/Small Buildings Alternative would not alter the land uses allowed on-site under the General Plan and zoning designations. The development of industrial buildings on-site would be consistent with the site's existing General Plan and zoning designations that formed the basis for regional population projections used in SCAG's AQMP. As such, the Reduced Project/Small Buildings Alternative would not conflict with implementation of the AQMP, and no impact would occur. Because the proposed Project also would be consistent with the site's existing General Plan and zoning land use designations and would be consistent with the regional population projections used in the AQMP, impacts due to a conflict with the applicable AQMP would be the same under both the proposed Project and the Reduced Project/Small Buildings Alternative.



Source: HPA Architects (10-23-12)

FIGURE 6-3

Reduced Project/Small Building Alternative

Under the Reduced Project/Small Buildings Alternative, activities involved in demolishing the existing parking lot and building the two small buildings would result in construction emissions very similar to that of the proposed Project. Although this alternative would result in a reduction in building area, this alternative would require the construction of more walls for the individual buildings and would require more area requiring paint, thereby increasing the emission of VOCs under near-term conditions. As with the proposed Project, this alternative would require mitigation measures to reduce near-term emissions of ROGs and NO_x to a level below significant. With the required mitigation, neither this alternative nor the proposed Project would result in a violation of an air quality standard or contribution to a projected air quality violation, although near-term construction emissions would slightly increase under this alternative as compared to the proposed Project.

The new 181,031 s.f. building and 194,525 s.f. building would generate approximately 1,336 trips per day (utilizing the ITE rates for industrial warehousing). Because the buildings would not qualify as “high cube” due to their small size, the trip rate per square foot is higher than the proposed Project. The projected increase in traffic from the site would require the implementation of mitigation measures and City issued conditions of approval. However, even with the incorporation of mitigation measures, the 1,336 daily trips associated with this alternative would result in significant and unavoidable impacts due to the emissions of NO_x, which would violate the SCAQMD regional air quality standard and would contribute to an existing air quality violation (i.e., smog). Since the proposed Project would generate 270 fewer daily trips than would occur under this alternative, impacts due to a conflict with the SCAQMD regional air quality standard and the level of contribution to an existing air quality violation (i.e., ozone) would be increased under this alternative. Accordingly, this alternative would increase the proposed Project’s significant and unavoidable impact due to operational NO_x emissions.

As with the proposed Project, and assuming mandatory implementation of similar mitigation measures and conditions of approval, impacts to nearby sensitive receptors would be less than significant under this alternative. Emissions under this alternative would be below the SCAQMD regional and localized thresholds of significance, and diesel particulate emissions would not expose sensitive receptors to significant cancer risks. However, these less than significant impacts to sensitive receptors would be increased under this alternative in comparison to the proposed Project due to the increase in daily vehicular trips (i.e., 1,336 average daily trips, as compared to 1,066 average daily trips under the proposed Project).

Odors that would be associated with the Reduced Project/Small Buildings Alternative would be associated with near-term construction activities and diesel exhaust that would occur under both near-term construction and long-term operation. However, and similar to the proposed Project, impacts due to odors under this alternative would be less than significant due to the short-term duration and quantity of emissions, the predominantly industrial nature of the surrounding area, and the less-than-significant results of the localized significance threshold analysis. Since this alternative and the proposed Project do not involve any land uses that would generate odors, and since odors under near-term construction activities would be similar (particularly when asphalt is being installed), near- and long-term odors would be similar under both this alternative and the proposed Project, and would be less than significant.

☐ Greenhouse Gas Emissions

The Reduced Project/Small Buildings Alternative would involve the construction and operation of 375,556 s.f. of industrial warehouse building area in two buildings. Due to the slight increase in the amount of traffic associated with this alternative (270 additional average daily trips), mobile-source related GHG emissions would increase as compared to the proposed Project. However, since this alternative would involve less building area, non-mobile source operational GHG emissions could be reduced under this alternative. Nonetheless, because the majority of GHG emissions are associated with vehicle sources, total GHGs generated under this alternative would be greater than those associated with the proposed Project.

Mitigation measures and conditions of approval similar to those applied to the proposed Project would apply to this alternative, including those imposed to address air quality emissions. Incorporation of these measures is anticipated to reduce near- and long-term emissions of GHGs. As with the proposed Project, it is not anticipated that this alternative would conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases, including the CARB Scoping Plan recommended measures and actions or the GHG emission reduction strategies set forth in the 2006 CAT Report. As such, impacts due to a conflict with applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of greenhouse gases would be similar under both this alternative and the proposed Project and would be less than significant.

☐ Noise

Noise associated with the Reduced Project/Small Buildings Alternative would occur during near-term construction activities and under long-term operation. Similar to the proposed Project, near-term construction activities during each phase of construction would generate noise levels that exceed the City's Noise Ordinance standard of 65 dBA at a distance of 200 feet from the property line. Since this alternative would result in the construction of two buildings instead of one, it is anticipated that the duration of noise impacts during the building construction and architectural coating phase would increase under this alternative as compared to the proposed Project. Accordingly, implementation of this alternative would result in a near-term significant and unavoidable impact to noise, and such impacts would be slightly increased as compared to the proposed Project.

Under long-term operational conditions, noise generated by the Reduced Project/Small Buildings Alternative primarily would be associated with trucks maneuvering and idling within the dock areas. Perimeter walls would act as noise barriers and contain operational noise and nearby sensitive receptors would experience noise levels below the City's 65 dBA CNEL exterior standard. As such, impacts would be less than significant. Noise levels may be increased compared to the proposed Project, however, due to the 270 vehicle increase in average daily traffic associated with this alternative.

Off-site transportation related impacts are not anticipated to be significant in association with this alternative. However, since this alternative would result in 270 more average daily vehicle trips as compared to the proposed Project, off-site noise impacts would increase under this alternative in comparison to the proposed Project, but would remain below a level of significance.

Near-term ground-borne vibration or ground-borne noise effects would be temporary and infrequent during construction and would be less than significant under both this alternative and the proposed Project. Under long-term operational conditions, there would be no sources of ground-borne vibration or ground-borne noise associated with either the Reduced Project/Small Buildings Alternative or the proposed Project. Also, neither this alternative nor the proposed Project are noise-sensitive uses or involve an air travel component. Thus, there would be no impact associated with public or private airport usage with either the Reduced Project/Small Buildings Alternative or the proposed Project.

❑ Transportation and Traffic

The Reduced Project/Small Buildings Alternative would result in the construction and operation of 375,556 s.f. of industrial warehouse building area, which would result in the generation of approximately 1,336 average daily vehicle trips (utilizing the ITE rates for industrial warehousing). Due to the increase in traffic associated with this alternative (i.e., 1,336 average daily trips, as compared to 1,066 average daily trips for the proposed Project), it can reasonably be assumed that this alternative would result in similar or increased impacts at the seven roadway segments and five intersections that would be significantly and cumulatively impacted by the proposed Project under Horizon Year Cumulative (2017) conditions. Cumulative impacts at the intersections of Western Way/ Harley Knox Boulevard and Indian Street/ Harley Knox Boulevard would remain significant and unavoidable under both this alternative and the proposed Project, although this alternative would produce more traffic and would therefore have a greater on these intersections. Therefore, implementation of the Reduced Project/Small Buildings Alternative would increase impacts to transportation/traffic as compared to the proposed Project.

Implementation of the Reduced Project/Small Buildings Alternative would likely impact the same CMP facilities as the proposed Project (I-215 SB Ramps at Harley Knox Boulevard and I-215 NB Ramps at Harley Knox Boulevard); however, such impacts would be increased because this alternative would produce 270 more average daily trips than the proposed Project. Accordingly, impacts to CMP facilities would increase under this alternative as compared to the proposed Project, although such impacts would be reduced to a level below significant through the payment of DIF and/or TUMF fees in either case.

Neither the Reduced Project/Small Buildings Alternative nor the proposed Project has the potential to affect air traffic patterns. As such, impacts to air traffic patterns would not occur, and would be similar under either this alternative or the proposed Project.

Under both the Reduced Project/Small Buildings Alternative and the proposed Project, roadway frontage improvements would be required to adhere to City requirements, thereby precluding the potential for introducing hazards due to a design feature. Additionally, because both the proposed Project and Reduced Project/Small Buildings Alternative would involve industrial-related uses, and the site is located within a predominantly industrial area, there would be no impacts due to incompatible uses. In both cases, impacts would be similar under both the Reduced Project/Small Buildings Alternative and the proposed Project and would not be significant.

Both the Reduced Project/Small Buildings Alternative and the proposed Project would be served by a minimum of two access points, which would provide for adequate emergency access. Accordingly, an impact due to inadequate emergency access would not occur, and such impacts would be identical under either the proposed Project or Reduced Project/Small Buildings Alternative.

Frontage improvements along San Michele Road and Perris Boulevard would occur under both the Reduced Project/Small Buildings Alternative and the proposed Project, and would accommodate all required sidewalks, bike lanes, and bus turnouts. There are no other pedestrian, bicycle, or public transit facilities planned near the proposed Project site (with exception of the bus turnout). Accordingly, impacts due to a conflict with adopted policies or programs regarding public transit, bicycle, and pedestrian facilities would be identical under this alternative and the proposed Project, and no impact would occur.

☐ Biological Resources

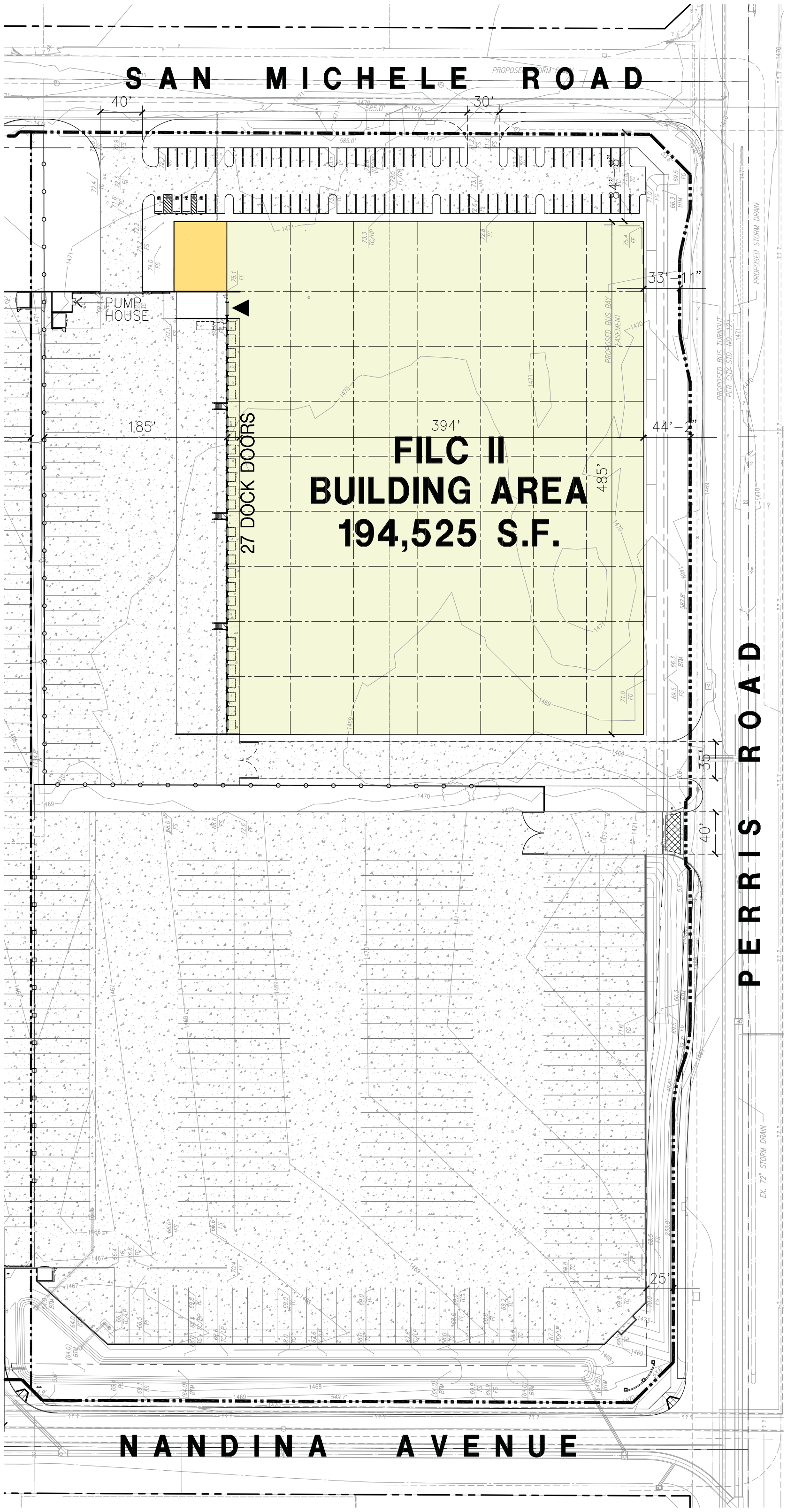
This alternative would result in full disturbance of the property, as would occur under the proposed Project. As such, impacts to biological resources that would occur under this alternative are the same as those impacts described in EIR Subsection 4.5 for the proposed Project. No biological resource impacts would be reduced or avoided.

☐ Conclusion

Implementation of the Reduced Project/Small Buildings Alternative would result in the construction of 375,556 s.f. of industrial warehouse building area, or 24,574 s.f. less building area than the proposed Project (a reduction in building area by approximately 6%). Implementation of this alternative would increase the proposed Project's significant unavoidable impacts to air quality, noise, and transportation/traffic, and would generally increase Project-related operational impacts that are related to average daily traffic. The Reduced Project/Small Buildings Alternative would meet all of the Project's objectives, except may have more difficulty meeting the objective to construct a logistics center that appeals to tenants seeking to locate in the Moreno Valley area due to the smaller sized buildings as compared to the larger building proposed by the Project.

6.3.4 ALTERNATIVE 4 – REDUCED PROJECT / NORTH BUILDING ALTERNATIVE

The Reduced Project/North Building Alternative was selected to evaluate the comparative environmental benefits of constructing one smaller industrial warehouse building on the northern portion of the property and retaining the existing truck trailer yard in the southern portion of the site, in lieu of constructing the single large building proposed by the Project. Under this alternative, a single 194,525 s.f. building would be constructed in the northern portion of the site, while the existing truck trailer parking area in the south would be retained. The building would consist of 189,525 s.f. of warehouse space and 5,000 s.f. of office space. Implementation of this alternative would reduce the allowable building area on-site by 205,605 s.f., or approximately 51% less building area than the proposed Project. Figure 6-4, *Reduced Project/North Building Alternative*, depicts a conceptual site plan for the No Project/North Building Alternative.



Source: HPA Architects (10-23-12)

FIGURE 6-4

Reduced Project/North Building Alternative

Roadway improvements and access points would be identical to the proposed Project under this alternative, except that an additional access would be provided to Perris Boulevard on the north side of the existing truck trailer parking area. The existing screen walls would be extended under this alternative and would occur along the entire frontage with Perris Boulevard and San Michele Road, while the screen walls along Nandina Avenue would be demolished and replaced along the northern edge of the employee parking area proposed adjacent to Nandina Avenue.

The industrial building proposed under this alternative would include a total of 28 dock doors, 243 truck trailer parking stalls, and 87 standard and handicap spaces.

☐ Air Quality

The Reduced Project/North Building Alternative would not alter the land uses allowed on-site under the General Plan and zoning designations. The development of an industrial building on-site would be consistent with the site's existing General Plan and zoning designations that formed the basis for regional population projections used in SCAG's AQMP. As such, the Reduced Project/North Building Alternative would not conflict with implementation of the AQMP, and no impact would occur. Because the proposed Project also would be consistent with the site's existing General Plan and zoning land use designations and would be consistent with the regional population projections used in the AQMP, impacts due to a conflict with the applicable AQMP would be the same under both the proposed Project and the Reduced Project/North Building Alternative.

Under the Reduced Project/North Building Alternative, the extent of construction activities would be reduced as compared to the proposed Project; as such, construction-related air quality emissions would be lessened. As with the proposed Project, this alternative would require mitigation measures to reduce near-term emissions of VOCs and NO_x to a level below significant, but to a lesser degree. With required mitigation, neither this alternative nor the proposed Project would result in a violation of an air quality standard or contribution to a projected air quality violation, although near-term construction emissions would be reduced under this alternative as compared to the proposed Project.

The new 194,525 s.f. building would generate approximately 693 trips per day (utilizing the ITE rates for industrial warehousing). The projected increase in traffic from the site would require the implementation of mitigation measures and adherence to conditions of approval similar to those imposed for the proposed Project. However, even with the incorporation of mitigation measures, the 693 trips associated with this alternative would result in significant and unavoidable impacts due to the emissions of NO_x, which would violate the SCAQMD regional air quality standard and would contribute to an existing air quality violation (i.e., smog). Since the proposed Project would generate 373 more daily trips than would occur under this alternative, impacts due to a conflict with the SCAQMD regional air quality standard and the level of contribution to an existing air quality violation (i.e., ozone) would be reduced under this alternative. Accordingly, this alternative would reduce but not avoid the proposed Project's significant and unavoidable impact due to operational NO_x emissions.

As with the proposed Project, and assuming implementation of similar mitigation measures and conditions of approval, impacts to nearby sensitive receptors would be less than significant under this alternative. Emissions under this alternative would be below the SCAQMD regional and localized thresholds of significance, and diesel particulate emissions would not expose sensitive receptors to significant cancer risks. These less than significant impacts to sensitive receptors would be reduced under this alternative in comparison to the proposed Project due to the reduction in daily vehicular trips (i.e., 693 average daily trips, as compared to 1,066 average daily trips under the proposed Project).

Odors that would be associated with the Reduced Project/North Building Alternative would be associated with near-term construction activities and diesel exhaust that would occur under both near-term construction and long-term operation. However, and similar to the proposed Project, impacts due to odors under this alternative would be less than significant due to the short-term duration and quantity of emissions, the predominantly industrial nature of the surrounding area, and the less-than-significant results of the localized significance threshold analysis. Since this alternative and the proposed Project do not involve any land uses that would generate odors, and since odors under near-term construction activities would be similar (particularly when asphalt is being installed), near- and long-term odors would be similar under both this alternative and the proposed Project, and would be less than significant.

❑ Greenhouse Gas Emissions

The Reduced Project/North Building Alternative would involve the construction and operation of 194,525 s.f. of industrial warehouse building area. Due to the slight reduction in the amount of traffic associated with this alternative (373 fewer average daily trips), mobile-source related GHG emissions would decrease as compared to the proposed Project. Additionally, since this alternative would involve less building area, non-mobile source operational GHG emissions also would be reduced under this alternative.

Mitigation measures and conditions of approval similar to those applied to the proposed Project associated would apply to this alternative, including those imposed to address air quality emissions. Incorporation of these measures is anticipated to reduce near- and long-term emissions of GHGs. As with the proposed Project, it is not anticipated that this alternative would conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases, including the CARB Scoping Plan recommended measures and actions or the GHG emission reduction strategies set forth in the 2006 CAT Report. As such, impacts due to a conflict with applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of greenhouse gases would be similar under both this alternative and the proposed Project and would be less than significant.

❑ Noise

Noise associated with the Reduced Project/North Building Alternative would occur during near-term construction activities and under long-term operation. Similar to the proposed Project, near-term construction activities during each phase of construction would generate noise levels that exceed the City's Noise Ordinance standard of 65 dBA at a distance of 200 feet from the property line. Since this alternative would result in the construction of a smaller building on-site, it is anticipated that the duration of noise impacts during the building construction and architectural coating phase would be reduced under this alternative as compared to the proposed Project. However, implementation of this alternative would not fully avoid the proposed Project's near-term significant and unavoidable impact to noise.

Under long-term operational conditions, noise generated by the Reduced Project/North Building Alternative primarily would be associated with trucks maneuvering and idling within the dock areas. Mitigation measures and conditions of approval, including requirements to construct noise attenuation walls along the perimeter of the site and to construct access gates with solid materials to address on-site noise generation would be effective in containing operational noise. With implementation of similar mitigation measures and conditions of approval imposed on the proposed Project, site operational noise affecting nearby sensitive receptors would be below the City's 65 dBA CNEL exterior standard and impacts would be less than significant. Overall, operational noise impacts would be decreased as compared to the proposed Project due to the 373 vehicle fewer average daily trips associated with this alternative.

Off-site transportation related impacts would be less than significant in association with this alternative and the proposed Project. Since this alternative would result in 373 fewer average daily vehicle trips as compared to the proposed Project, off-site noise impacts would decrease under this alternative in comparison to the proposed Project.

Near-term ground-borne vibration or ground-borne noise effects would be temporary and infrequent during construction and would be less than significant under both this alternative and the proposed Project. Under long-term operational conditions, there would be no sources of ground-borne vibration or ground-borne noise associated with either the Reduced Project/North Building Alternative or the proposed Project. Also, neither this alternative nor the proposed Project are noise-sensitive uses or involve an air travel component. Thus, there would be no impact associated with public or private airport usage with either the Reduced Project/North Building Alternative or the proposed Project.

☐ Transportation and Traffic

The Reduced Project/North Building Alternative would retain the parking lot in the southern portion of the site and result in the construction and operation of a 194,525 s.f. industrial warehouse building in the northern portion of the site, which would result in the generation of approximately 693 average daily vehicle trips (utilizing the ITE rates for industrial warehousing). It is anticipated that implementation of this alternative would result in cumulatively significant impacts at the same seven roadway segments and five intersections that would be impacted by the proposed Project under Horizon Year Cumulative (2017) conditions, although such impacts would be reduced in comparison to the proposed Project. Cumulative impacts at the intersections of Western Way/ Harley Knox Boulevard and Indian Street/ Harley Knox Boulevard would remain significant and unavoidable under both this alternative and the proposed Project, although this alternative would produce less traffic and would therefore have a lesser degree of cumulative impact at these intersections.

Implementation of the Reduced Project/North Building Alternative would likely impact the same CMP facilities as the proposed Project (I-215 SB Ramps at Harley Knox Boulevard and I-215 NB Ramps at Harley Knox Boulevard); however, such impacts would be reduced since this alternative would produce 373 fewer average daily trips than the proposed Project. Accordingly, impacts to CMP facilities would be reduced under this alternative as compared to the proposed Project, and such impacts would be reduced to a level below significant through the payment of DIF and/or TUMF fees.

Neither the Reduced Project/North Building Alternative nor the proposed Project has the potential to affect air traffic patterns. As such, impacts to air traffic patterns would not occur, and would be similar under either this alternative or the proposed Project.

Under both the Reduced Project/North Building Alternative and the proposed Project, roadway frontage improvements would be required to adhere to City requirements, thereby precluding the potential for introducing hazards due to a design feature. Additionally, because both the proposed Project and Reduced Project/North Building Alternative would involve industrial-related uses, and the site is located within a predominantly industrial area, there would be no impacts due to incompatible uses. In both cases, impacts would be similar under both the Reduced Project/North Building Alternative and the proposed Project and would not be significant.

Both the Reduced Project/North Building Alternative and the proposed Project would be served by a minimum of two access points, which would provide for adequate emergency access. Accordingly, an impact due to inadequate emergency access would not occur, and such impacts would be identical under either the proposed Project or Reduced Project/North Building Alternative.

Frontage improvements along San Michele Road and Perris Boulevard would occur under both the Reduced Project/North Building Alternative and the proposed Project, and would accommodate all required sidewalks, bike lanes, and bus turnouts. There are no other pedestrian, bicycle, or public transit facilities planned near the proposed Project site (with exception of the bus turnout). Accordingly, impacts due to a conflict with adopted policies or programs regarding public transit, bicycle, and pedestrian facilities would be identical under this alternative and the proposed Project, and no impact would occur.

☐ Biological Resources

This alternative would result in full disturbance of the property, as would occur under the proposed Project. As such, impacts to biological resources that would occur under this alternative are the same as those impacts described in EIR Subsection 4.5 for the proposed Project. No biological resource impacts would be reduced or avoided.

☐ Conclusion

Implementation of the Reduced Project/North Building Alternative would retain the existing truck trailer parking yard in the southern portion of the property and result in the construction of 194,525 s.f. of industrial warehouse building area in the northern portion of the property. This would result in 205,605 s.f. less building area than the proposed Project (a reduction in building area by approximately 51%). Implementation of this alternative would reduce the proposed Project's significant unavoidable impacts to air quality, noise, and transportation/traffic, although such impacts would not be fully avoided under this alternative. Other Project-related operational impacts that are related to average daily traffic also would be reduced under this alternative.

The Reduced Project/North Building Alternative would meet most of the Project's objectives, but generally to a lesser degree. This alternative would not achieve the Project's objective to achieve a minimum FAR of 0.5, and would be less effective in providing logistics center warehouse building space in comparison to the proposed Project. This alternative, while providing logistics center warehouse building space within five miles of major regional transportation corridors, would provide less building space than the proposed Project. Additionally, this alternative would attract fewer businesses and jobs to the City of Moreno Valley as compared to the proposed Project. Moreover, selection of the Reduced Project/North Building Alternative would not result in a reduction in demand for industrial business park development in western Riverside County; thus, it is likely for a portion of the Project's environmental impacts to occur elsewhere rather than be avoided.

Table 6-1 Alternatives – Comparison of Environmental Effects

ENVIRONMENTAL TOPIC	PROPOSED PROJECT SIGNIFICANCE OF IMPACTS AFTER MITIGATION	LEVEL OF IMPACT COMPARED TO THE PROPOSED PROJECT			
		NO PROJECT/ TRAILER YARD ALTERNATIVE	NO PROJECT/ INDUSTRIAL BUILDING ALTERNATIVE	REDUCED PROJECT/ SMALL BUILDINGS ALTERNATIVE	REDUCED PROJECT/ NORTH BUILDING ALTERNATIVE
Air Quality – Construction	Less than Significant	Reduced	Reduced	Increased	Reduced
Air Quality - Operational	Significant and Unavoidable	Reduced and Avoided	Reduced but Not Avoided	Increased	Reduced but Not Avoided
Greenhouse Gas Emissions	Less than Significant	Reduced	Reduced	Increased	Reduced
Noise - Construction	Significant and Unavoidable	Reduced but Not Avoided	Reduced but Not Avoided	Increased	Reduced but Not Avoided
Noise - Operational	Less than Significant	Reduced	Reduced	Increased	Reduced
Transportation/ Traffic - Operational	Significant and Unavoidable	Reduced and Avoided	Reduced but Not Avoided	Increased	Reduced but Not Avoided
Biological Resources	Less than Significant	Same	Same	Same	Same
ABILITY TO MEET THE BASIC OBJECTIVES OF THE PROJECT[1]					
	Objective A:	No	Yes, but to a lesser degree	Yes, but to a lesser degree	Yes, but to a lesser degree
	Objective B:	No	Yes, but to a lesser degree	Yes, but to a lesser degree	Yes, but to a lesser degree
	Objective C:	No	No	Yes, but to a lesser degree	Yes, but to a lesser degree
	Objective D:	No	Yes, but to a lesser degree	Yes	Yes, but to a lesser degree
	Objective E:	No	Yes, but to a lesser degree	Yes, but to a lesser degree	Yes, but to a lesser degree

1. Refer to EIR Subsection 6.3 for a list of the proposed Project's basic objectives.

7.0 REFERENCES

7.1 EIR PREPARERS

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7.2 DOCUMENTS INCORPORATED BY REFERENCE

Project Applications. 2012. Application for Building Plot Plan (PA12-0023) on file at the City of Moreno Valley Community and Economic Development Department, Planning Division, 14177 Frederick Street, Moreno Valley, CA 92552.

Moreno Valley, City of. 2008. Mitigated Negative Declaration for Nandina III Distribution Center and associated Addendum No. 1 (2011) and Addendum No. 2 (2012).

Moreno Valley, City of. 2007. *City of Moreno Valley Transportation Engineering Division Traffic Impact Analysis Preparation Guide*. Available at the City of Moreno Valley Public Works Departmetn, 14177 Frederick Street, Moreno Valley, CA 92552, or online at http://www.moreno-valley.ca.us/city_hall/departments/pub-works/transportation/pdfs/traffic-studyguide.pdf

Moreno Valley, City of. 2006a. *Moreno Valley General Plan*. Approved July 11, 2006. Available at the City of Moreno Valley Community & Economic Development Department, Planning Division, 14177 Frederick Street, Moreno Valley, CA 92552, or online at http://www.moreno-valley.ca.us/city_hall/general_plan.shtml

Moreno Valley, City of. 2006b. *Moreno Valley General Plan Final Environmental Impact Report*. Certified July 11, 2006. Available at the City of Moreno Valley Community & Economic Development Department, Planning Division, 14177 Frederick Street, Moreno Valley, CA 92552, or online at http://www.moreno-valley.ca.us/city_hall/general_plan.shtml.

Moreno Valley, City of. 2002. *Moreno Valley Industrial Area Plan (Specific Plan 208)*. Amended March 12, 2002. Available at the City of Moreno Valley Community & Economic Development Department, Planning Division, 14177 Frederick Street, Moreno Valley, CA 92552, or online at http://www.moreno-valley.ca.us/city_hall/general_plan.shtml.

Perris, City of. 2005. *City of Perris General Plan and Final Program Environmental Impact Report*. Certified April 2005. Available at the City of Perris Department of Community Development, 135 North "D" Street, Perris, CA 92570, or online at http://www.cityofperris.org/city-hall/general-plan.html.

Riverside, City of. 2007. *City of Riverside General Plan Final Program Environmental Impact Report*. Certified November 2007. Available at the City of Riverside Community Development Department, Planning Division, 3900 Main Street, Riverside, CA 92522, or online at http://www.riversideca.gov/planning/gp2025program.

Riverside, County of. 2003a. *County of Riverside General Plan Final Program Environmental Impact Report*. Certified October 2003. Available at the County of Riverside County Planning Department, 4080 Lemon Street, 12th Floor, Riverside, CA 92502, or online at http://www.rctlma.org/genplan/default.aspx.

7.3 DOCUMENTS AND WEBSITES CONSULTED

Air Force, Department of. 2005. *Air Installation Compatible Use Zone Study for March Air Reserve Base*. Available at: http://www.marchjpa.com/docs_forms/aicuz2005.pdf. August 2005. Accessed March 14, 2011.

Albert A. Webb Associates. (2008). *North Perris Road and Bridge Benefit District Analysis Report*. City of Perris. Retrieved November 27, 2012, from http://www.cityofperris.org/business/news/northperris-bridgedist-report-v3_0308.pdf

Alfred A. Webb Associates. 2012a. *Preliminary Water Quality Management Plan First Inland Logistics Center II*. July 2012.

Alfred A. Webb Associates. 2012b. *Preliminary Drainage Study First Inland Logistics Center II*. May 2012.

Building Plot Plan (PA12-0023) on file at the City of Moreno Valley Community and Economic Development Department, Planning Division.

California Air Resources Board. 2011. "Air Quality and Emissions" Available at: http://www.arb.ca.gov/html/ds.htm. Updated February 24, 2011 and accessed September 16, 2011.

California Air Resources Board, 2009. "2009 Air Quality Almanac." Web. Available at: http://www.arb.ca.gov/aqd/almanac/almanac09/almanac09.htm. Accessed January 29, 2013.

California Department of Conservation. 2010. "Alquist-Priolo Earthquake Fault Zone Maps." Web. Available at: http://www.quake.ca.gov/gmaps/ap/ap_maps.htm. Accessed: May 22, 2012.

California Department of Resources Recycling and Recovery. n.d. *Solid Waste Information System, Facility/Site Listing.* Web. Available: http://www.calrecycle.ca.gov/SWFacilities/Directory/SearchList/List?FAC=Disposal&OPSTATUS=Active&REGSTATUS=Permitted. Accessed October 18, 2012.

California Department of Toxic Substances Control. n.d. "Cleanup Sites and Hazardous Waste Permitted Facilities." Web. Available: http://www.envirostor.dtsc.ca.gov/public/. Accessed: May 22, 2012.

California Department of Toxic Substances Control. n.d. *EnviroStor*. Available at: http://www.envirostor.dtsc.ca.gov/public. Accessed: March 17, 2011.

California Department of Toxic Substances Control. 2007. "Fact Sheet, August 2007: Hazardous Waste Transporter Requirements" Web. Available at: http://www.dtsc.ca.gov/ContactDTSC/Transporters.cfm. Accessed September 20, 2011.

California Department of Transportation. "California Scenic Highway Program." Web. Available: <http://www.dot.ca.gov/hq/LandArch/scenic_highways/scenic_hwy.htm>. Accessed: May 22, 2012.

California State Legislature. 2006. *Assembly Bill 32 (Nunez).*

California State Legislature. 2004. *Senate Bill 50 (Greene).*

City of Moreno Valley. 2006a. Moreno Valley General Plan. Retrieved from http://www.moreno-valley.ca.us/city_hall/general_plan.shtml

City of Moreno Valley. 2007. City of Moreno Valley Transportation Engineering Division Traffic Impact Analysis Preparation Guide. Retrieved from www.moreno-valley.ca.us/city_hall/departments/pub-works/transportation/pdfs/traffic-studyguide.pdf

County of Riverside. 2003a, October. County of Riverside General Plan Final Program Environmental Impact Report. Retrieved from www.riversideca.gov/planning/gp2025program

Department of the Air Force. 2005. March Air Reserve Base/ Inland Port Airport Joint Land Use Study. March Joint Powers Authority.

Eastern Municipal Water District, 2011. *2010 Urban Water Management Plan.* Available at http://www.emwd.org/news/pubs_uwmp.html.

Eastern Municipal Water District. 2007a. Mitigated Negative Declaration (SCH No. 2007031155) for the Moreno Valley Regional Wastewater Reclamation Facility Expansion Project. June 20, 2007.

Eastern Municipal Water District. 2005a. Mitigated Negative Declaration (SCH No. 2004101086) for the Perris Valley Regional Wastewater Reclamation Facility Expansion Project.

Eastern Municipal Water District, 2005b. *2005 Urban Water Management Plan.* Retrieved from http://www.emwd.org/news/pubs_uwmp.html.

ESNR Corporation. 2007. *Phase I Environmental Site Assessment of Eight Parcels Located at Nandina Avenue and Perris Boulevard in Moreno Valley, California.* August 2007.

Google. *Google Earth.* Vers. 6.1.0.5001. Computer software. Google, 2011.

March Joint Powers Authority. 2007. *General Plan of the March Joint Powers Authority.*

March Joint Powers Authority. 2010. *March Air Reserve Base/Inland Port Airport Joint Land Use Study*, December 2010 (prepared by Mead & Hunt). Available at: http://www.marchjpa.com/docs_forms/jlus2010.pdf.

March Joint Powers Authority. 2010. *Draft Vision 2030: March JPA General Plan.* March 2010 Draft.

March Joint Powers Authority, 2009. *Final Program Environmental Impact Report for the March LIfecare Campus Specific Plan.* October 2009.

Master Plot Plan (PA11-0002) on file at the City of Moreno Valley Planning Department.

Moreno Valley, City of. n.d. *Municipal Code*. Web. Available: <http://qcode.us/codes/morenovalley/>. Accessed: May 22, 2012.

Moreno Valley, City of. 2012. Addendum No. 2 to Mitigated Negative Declaration for Nandina III Distribution Center.

Moreno Valley, City of. 2011. *GIS Maps OnLine.* Web. Available: www.moreno-valley.ca.us/city_hall/city_maps.shtml. Accessed: October, 2012.

Moreno Valley, City of. 2010. *Adopted Land Use Map.* Web. Available at: http://www.moreno-valley.ca.us/city_hall/general_plan.shtml. Accessed: October, 2012

Moreno Valley, City of. 2008. Mitigated Negative Declaration for Nandina III Distribution Center.

Moreno Valley, City of. 2006a. *Moreno Valley General Plan.* Web. Available at: www.moreno-valley.ca.us/city_hall/general_plan.shtml. Accessed: November, 2012.

Moreno Valley, City of. 2006b. Moreno *Valley General Plan Final Environmental Impact Report.* Web. Available at: http://www.moreno-valley.ca.us/city_hall/general_plan.shtml.

Moreno Valley, City of. 2002. *Moreno Valley Industrial Area Plan (Specific Plan 208)*. Available at: www.moreno-valley.ca.us/city_hall/departments/specificplans.shtml.

Moreno Valley, City of. n.d. *Municipal Code*. Available at: http://qcode.us/codes/morenovalley/.

Perris, City of. 2010. *Zoning Ordinance.* Available at: http://www.cityofperris.org/city-hall/zoning.html Amended through February 4, 2010.

Perris, City of. 2005. *City of Perris General Plan Final Program Environmental Impact Report*. Certified April 2005. Available at: http://www.cityofperris.org/city-hall/general-plan.html.

Riverside, City of. 2007. *City of Riverside General Plan Final Program Environmental Impact Report*. Certified November 2007. Available at: http://www.riversideca.gov/planning/gp2025program/.

Riverside, City of. n.d. Municipal Code Chapter 19.590, Performance Standards. Available at: http://www.riversideca.gov/municode/pdf/19/article-8/19-590.pdf. Accessed: October 2012.

Riverside, County of. 2011. *Request for Qualifications #TLARC-315 March Air Reserve Base Airport Land Use Compatibility Plan Environmental Impact Report Services.* Available at: http://www.purchasing.co.riverside.ca.us/document/903/TLARC315%20.pdf. Closing date September 15, 2011.

Riverside, County of. 2003a. *County of Riverside General Plan Final Program Environmental Impact Report*. Certified October 2003. Available at: http://www.rctlma.org/genplan/default.aspx.

Riverside, County of. 2003b. *Western Riverside County Multiple Species Habitat Conservation Plan.* Vols. 1-5. Web. Available at: http://www.rctlma.org/mshcp/index.html.

Riverside, County of. 2003c. *County of Riverside General Plan*. Approved October 2003. Available at http://www.rctlma.org/genplan/default.aspx>.

Riverside, County of. 1986. *Fire Protection and Emergency Medical Master Plan*. November 15, 1986.

Riverside County Airport Land Use Commission. 1986. *Riverside County Airport Land Use Compatibility Plan, March ARB*. Web. Available at: http://www.rcaluc.org/filemanager/plan/old//March%20Air%20Reserve%20Base%20(MARB).pdf.

Riverside County Flood Control and Water Conservation District. n.d. *Perris Valley Master Drainage Plan;* and, *Sunnymead Master Drainage Plan* Available at: http://rcflood.org/RCFCInternetText/DistrictDocuments.html.

Riverside County Transportation and Land Management Agency. 2011. Geographic Information System. Accessed May 2011 through November 2011.

Riverside County Transportation Commission. 2010. *2010 Riverside County Congestion Management Program*. Web. Available at: www.rctc.org/downloads/congestionmanagementprogram.pdf.

Riverside County Transportation Commission. n.d. "North I-215 Project." Available at: http://www.i215project.info/north/.

Riverside County Transportation Commission. n.d. "Perris Valley Line." Web. Available: http://www.perrisvalleyline.info/index.asp.

Riverside County Waste Management Department. 2012. *Countywide Disposal Tonnage Tracking System (CDTTS) Disposal Reports – 2nd Quarter 2012 (April 1, 2012 thru June 30, 2012).* October 10, 2012. Web. Available: www.rivcowm.org/opencms/ab939/pdf/DisposalReportsPDFs/2012-2QTR-RCDisposalReports.PDF. Accessed October 18, 2012.

Riverside County Waste Management Department. 2011. *Countywide Disposal Tonnage Tracking System (CDTTS) Disposal Reports – 1st Quarter 2011 (January 1, 2011 thru March 31, 2011)*. July 6, 2011. Web. Available at : http://www.rivcowm.org/opencms/ab939/pdf/DisposalReportsPDFs/2011-1QTR-RCDisposalReports.pdf.

Riverside County Waste Management Department. n.d. "Landfill Information." Available: http://www.rivcowm.org/opencms/landfill_info/index.html.

San Jacinto River Watershed Council. 2007. *Integrated Regional Watershed Management Plan for the San Jacinto River Watershed*. December 31, 2007. Available at: http://www.cityofcanyonlake.com/uploads/files/SanJacintoIRWMP_EntireDocument.pdf.

Santa Ana Watershed Project Authority. 2010. *2009 Santa Ana Integrated Watershed Plan*. November 16, 2010. Available at: www.sawpa.org/owow-generalinfo.html.

Santa Ana Regional Water Quality Control Board, 2008. *The Santa Ana River Basin Water Quality Control Plan*. Available at: www.waterboards.ca.gov/santaana/water_issues/programs/basin_plan/index.shtml.

South Coast Air Quality Management District. 2007. *2007 Final Air Quality Management Plan*. June 2007. Available at: http://www.aqmd.gov/aqmp/07aqmp/index.html.

South Coast Air Quality Management District. 2007. *Air Quality Management Plan*. Available at: www.aqmd.gov/aqmp/aqmpintro.htm.

Southern California Association of Governments. 2008b. 2008 Regional Transporation Plan. Available at: www.scag.ca.gov/rtp2008/final.htm\

Southern California Association of Governments. 2012. 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy. Available at: http://rtpscs.scag.ca.gov/Pages/2012-2035-RTP-SCS.aspx . Accessed: August 31, 2012.

Southern California Association of Governments. 2008a. *Integrated Growth Forecast: 2008 Regional Transportation Plan*. Web. Available at: http://www.scag.ca.gov/forecast/index.htm.

Southern California Association of Governments. 2008b. 2008 *Regional Transportation Plan*. Available at: http://www.scag.ca.gov/rtp2008/final.htm.

Southern California Association of Governments. 2008c. *Final Regional Comprehensive Plan*. 2008. Available at: http://scag.ca.gov/rcp/index.htm.

Southern California Association of Governments. 2001. *Employment Density Study Summary Report*. Available at: http://www.scag.ca.gov/forecast/downloads/employ_den.pdf. October 31, 2001.

Southern California Geotechnical. *Supplementary Geotechnical Investigation Proposed Building 4 - Nandina III and IV*. January 12, 2012.

T&B Planning. 2012. Field Reconnaissance by Jeramey Harding. May 22, 2012.

United States Air Force. 2005. *March ARB Air Installation Compatible Use Zone Study*. Web. Available at: www.marchjpa.com/docs_forms/aicuz2005.pdf.

United States Department of Homeland Security, Federal Emergency Management Agency. 2011. *Flood Map Viewer*. Available at https://hazards.fema.gov/wps/portal/mapviewer.

Urban Crossroads, Inc. 2012a. *First Inland Logistics Center II Air Quality Impact Analysis*. November 14, 2012.

Urban Crossroads, Inc. 2012b. *First Inland Logistics Center II Mobile Source Health Risk Assessment*. November 14, 2012.

Urban Crossroads, Inc. 2012c. *First Inland Logistics Center II Greenhouse Gas Analysis*. November 14, 2012.

Urban Crossroads, Inc. 2012d. *First Inland Logistics Center II Noise Impact Analysis*. October 31, 2012.

Urban Crossroads, Inc. 2013. *First Inland Logistics Center II Traffic Impact Analysis*. January 03, 2013.

URS Corporation. 2012a. *First Industrial, L.P., Daniel's Property Project Biological Technical Report*. January 2012.

URS Corporation. 2012b. *2012 Protocol Burrowing Owl Survey – San Michele Property Project, City of Moreno Valley, Riverside County, California.* June 29, 2012.

URS Corporation. 2012c. *2012 Special-Status Plant Survey Results – San Michele Property Project, City of Moreno Valley, Riverside, California.* June 29, 2012.

URS Corporation. 2012d. *Cultural Resources Assessment of Daniel's Property Project, Moreno Valley, CA*. January 2012.

URS Corporation. 2012e. *Phase I Environmental Site Assessment – Daniel's Property, Southwest Corner of San Michele Road and Perris Boulevard, Moreno Valley, CA.* January 23, 2012.

7.4 PERSONS CONSULTED/WRITTEN OR VERBAL COMMUNICATION

Cochran, Larry (LDC Consulting). 2012a. Verbal communication among Larry Cochran of LDC Consulting and Tracy Zinn of T&B Planning regarding the proposed Project's construction and operational characteristics. May 15, 2012.

Chandler, Sandy (Albert A. Webb Associates), 2012. E-mail correspondence from Sandy Chandler, Entitlement Specialist of Albert A. Webb Associates to Tracy Zinn of T&B Planning. May 29, 2012.

7.5 DOCUMENTS APPENDED TO THIS EIR

The following reports, studies, and supporting documentation were used in preparing the First Inland Logistics Center II EIR and are bound separately as Technical Appendices. A copy of the Technical Appendices is available for review at the City of Moreno Valley Community and Economic Development Department, Planning Division, 14177 Frederick Street, Moreno Valley, California, 92552.

Appendix A	Initial Study for First Inland Logistics Center II, Notice of Preparation, and Written Comments.
Appendix B	Urban Crossroads, Inc. 2012a. *First Inland Logistics Center II Air Quality Impact Analysis*. November 14, 2012.
Appendix C	Urban Crossroads, Inc. 2012b. First Inland Logistics Center II Mobile Source Health Risk Assessment. November 14, 2012.

Appendix D	Urban Crossroads, Inc. 2012c. First Inland Logistics Center II Greenhouse Gas Analysis. November 14, 2012.
Appendix E	Urban Crossroads, Inc. 2012d. First Inland Logistics Center II Noise Impact Analysis. October 31, 2012.
Appendix F	Urban Crossroads, Inc. 2013. First Inland Logistics Center II Traffic Impact Analysis. January 03, 2013.
Appendix G	URS Corporation. 2012a. First Industrial, L.P., Daniel's Property Project Biological Technical Report. January 2012.
Appendix G1	URS Corporation. 2012b. 2012 Protocol Burrowing Owl Survey – San Michele Property Project, City of Moreno Valley, Riverside County, California. June 29, 2012.
Appendix G2	URS Corporation. 2012c. 2012 Special-Status Plant Survey Results – San Michele Property Project, City of Moreno Valley, Riverside, California. June 29, 2012.
Appendix H	Southern California Geotechnical. 2012. Supplementary Geotechnical Investigation Proposed Building 4 - Nandina III and IV. January 12, 2012.
Appendix I	URS Corporation. 2012e. Phase I Environmental Site Assessment – Daniel's Property, Southwest Corner of San Michele Road and Perris Boulevard, Moreno Valley, CA. January 23, 2012.

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Attachment 5

Draft Environmental Impact Report
SCH No. 2012121011

FIRST INLAND LOGISTICS CENTER II
Moreno Valley, California
EIR Case P12-064

Lead Agency
The City of Moreno Valley
14177 Frederick Street
PO Box 88005
Moreno Valley, CA 92552

Date: June 5, 2013

Draft Environmental Impact Report
SCH No. 2012121011

First Inland Logistics Center II
Moreno Valley, California
EIR Case P12-064

Lead Agency
The City of Moreno Valley
14177 Frederick Street
PO Box 88005
Moreno Valley, CA 92552

CEQA Consultant
T&B Planning, Inc.
17542 East 17th Street, Suite 100
Tustin, CA 92780

Lead Agency Discretionary Permit
Building Plot Plan (PA12-0023)

Date: June 5, 2013

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C: Mobile Source Health Risk Assessment
D: Greenhouse Gas Analysis
E: Noise Report
F: Traffic Report
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ACRONYMS

Acronym	Definition
§	Section
1992 CO Plan	1992 Federal attainment Plan for Carbon Monoxide
2003 AQMP	SCAQMD's 2003 Air Quality Management Plan
AB	Assembly Bill
ADT	Average Daily Traffic
a.m.	Ante Meridiem (between the hours of midnight and noon)
AMSL	above mean sea level
APN	Assessor Parcel Number
APS	alternative planning strategy
AQMP	Air Quality Management Plan
ARB	Air Reserve Base
AST	above-ground storage tank
BMPs	best management practices
BP	Business Park/Light Industrial land use designation
C	Capacity -or- Commercial land use designation
C_2F_6	hexafluoroethane
C_2H_6	ethane
CA	California
CAA	Federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CA H_2 Net	California Hydrogen Highway Network
CalEEMod™	California Emissions Estimator Model™
CalEPA	California Environmental Protection Agency
CalGreen Code	California Green Building Standards Code
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CAPSSA	Criteria Area Plant Species Survey Area
CARB	California Air Resources Board
CAT	Climate Action Team
CBSC	California Building Standards Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CETAP	Community & Environmental Transportation Acceptability Process
CFC	chlorofluorocarbon
CF_4	tetrafluoromethane
CH_4	methane

Acronym	**Definition**
CHP	combined heat and power
CIWMB	California Integrated Waste Management Board
CMP	Congestion Management Plan
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
COG	council of governments
COHb	carboxyhemoglobin
CO_2e	carbon dioxide equivalent
CPUC	California Public Utilities Commission
dB	decibel
dBA	A-weighted decibel
DIF	Development Impact Fee
DPM	Diesel Particulate Matter
E+A	Existing Plus Ambient Growth Conditions
E+A+C	Existing Plus Ambient Growth Plus Cumulative Conditions
E+A+C+P	Existing Plus Ambient Growth Plus Cumulative Plus Project Conditions
E+A+P	Existing Plus Ambient Growth Plus Project Conditions
E+P	Existing Plus Project Conditions
EAP II	Energy Action Plan II
EIR	Environmental Impact Report
EMFAC	Emission FACtor model
EMWD	Eastern Municipal Water District
et seq.	*et sequentia*, meaning "and the following”
EPA	Environmental Protection Agency
EPS	emission performance standard
FAR	floor area ratio
FEIR	Final Environmental Impact Report
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
GCC	Global Climate Change
GHG	greenhouse gas
GWP	Global Warming Potential
H_2O	water vapor
HANS	Habitat Evaluation and Acquisition Negotiation Strategy
HCM	Highway Capacity Manual
HCP	Habitat Conservation Plan
HETs	high-efficiency toilets
HFC	hydrofluorocarbon

Acronym	Definition
HPLV	High Pressure Low Volume
HVAC	heating, ventilation, and air conditioning
HVWAP	Harvest Valley/Winchester Area Plan
I	Industrial zoning designation
I-15	Interstate 15
I-215	Interstate 215
IA	Implementing Agreement
ID	Identification
IPA	Inland Port Airport
IPCC	Intergovernmental Panel on Climate Change
ITE	Institute of Transportation Engineers
ITS	intelligent transportation systems
JPA	Joint Powers Authority
JPR	Joint Project Review
LCFS	low carbon fuel standard
Leq	equivalent level
LOS	Level of Service
LNAP	Lakeview/Nuevo Area Plan
LSTs	localized significance thresholds
MARB	March Air Reserve Base
MEISC	maximally exposed individual school child
MEIR	maximally exposed individual receptor
MEIW	maximally exposed individual worker
$MMTCO_2e$	million metric tons of carbon dioxide equivalent
MMTs	million metric tons
MND	Mitigated Negative Declaration
MPO	metropolitan planning organization
MSHCP	Multiple Species Habitat Conservation Plan
MT	metric ton
MUTCD	Manual on Uniform Traffic Control Devices
MVAP	Mead Valley Area Plan
MVIAP	Moreno Valley Industrial Area Plan
MWD	Metropolitan Water District
NAAQS	National Ambient Air Quality Standards
NEPSSA	Narrow Endemic Plant Species Survey Area
No.	number
N_2	nitrogen
NO	nitric oxide
NOP	Notice of Preparation
NO_2	nitrogen dioxide

Acronym	Definition
NO_X	nitrogen oxides
N_2O	nitrous oxide
NPDES	National Pollution Discharge Elimination System
O_2	oxygen
O_3	ozone
Ord.	Ordinance
P12-064	City of Moreno Valley EIR for the First Inland Logistics Center II
PA12-0023	proposed Building Plot Plan
Pb	lead
PCBs	polychlorinated biphenyls
PCEs	Passenger Car Equivalents
PFC	perfluorocarbon
p.m.	Post Meridiem (between the hours of noon and midnight)
$PM_{2.5}$	fine particulate matter (2.5 microns or smaller)
PM_{10}	fine particulate matter (10 microns or smaller)
POLA	Port of Los Angeles
POLB	Port of Long Beach
ppb	parts per billion
ppm	parts per million
Project	First Inland Logistics Center II Project
RBBD	Road and Bridge Benefit District
RCALUC	Riverside County Airport Land Use Commission
RCCDR	Riverside County Center for Demographic Research
RCIP	Riverside County Integrated Project
RCTC	Riverside County Transportation Commission
ROG	Reactive Organic Gas
RTA	Riverside Transit Agency
RTP	Regional Transportation Plan
RTPA	Regional Transportation Planning Agency
RWQCB	Regional Water Quality Control Board
s.f.	square feet
SB	Southbound -or- Senate Bill
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCG	Southern California Geotechnical
SCH	California State Clearinghouse (Office of Planning and Research)
SCS	Sustainable Communities Strategy
SF_6	sulfur hexafluoride
SIP	State Implementation Plan
SO_2	sulfur dioxide

Acronym	Definition
SO_4	sulfates
SO_X	sulfur oxides
SP	Specific Plan
SR-60	State Route 60
SR-91	State Route 91
SRA	source receptor area
SRRE	Source Reduction and Recycling Element
SWH	solar water heaters
SWPPP	Stormwater Pollution Prevention Plan
TIA	Traffic Impact Analysis
TRUs	Transportation Refrigeration Units
TUMF	Transportation Uniform Mitigation Fee
UNFCCC	United Nations' Framework Convention on Climate Change
USFWS	United States Fish and Wildlife Service
U.S.	United States
UST	underground storage tank
VMT	vehicle miles traveled
VOC	volatile organic compounds
WQMP	Water Quality Management Plan
WRCOG	Western Riverside Council of Governments

S.0 EXECUTIVE SUMMARY

S.1 INTRODUCTION

The California Environmental Quality Act (CEQA), Public Resources Code §21000, et seq. requires that before a public agency makes a decision to approve a project that could have one or more adverse effects on the physical environment, the agency must inform itself about the project's potential environmental impacts, give the public an opportunity to comment on the environmental issues, and take feasible measures to avoid or reduce potential harm to the physical environment.

This Environmental Impact Report (EIR), having California State Clearinghouse No. 2012121011, has been prepared in accordance with CEQA Guidelines Article 9, §15120 to §15132, to evaluate the potential environmental impacts associated with planning, constructing, and operating the proposed First Inland Logistics Center II Project (herein, "the Project"). This EIR does not recommend either approval or denial of the proposed Project; rather, it is a source of impartial information regarding potential impacts that the Project may cause to the physical environment. The Draft EIR will be available for public review for a period of 45 days. After consideration of public comment, the City of Moreno Valley will consider certifying the Final EIR and adopting required findings in conjunction with Project approval. In the case that there are any adverse environmental impacts that cannot be fully mitigated, the City of Moreno Valley must adopt a Statement of Overriding Considerations if it approves the Project, stating why the Project is being approved despite its unavoidable impacts.

This Executive Summary has been prepared in accordance with CEQA Guidelines §15123. The scope of this EIR covers five (5) primary subject areas determined through the completion of an Initial Study prepared by the City of Moreno Valley pursuant to CEQA Guidelines §15063, and in consideration of public comment received by the City in response to this EIR's Notice of Preparation (NOP). The Initial Study, NOP, and written comments received by the City in response to the NOP are attached to this EIR as *Technical Appendix A*. As determined by the Initial Study and in consideration of public comment on the NOP, the five (5) environmental subject areas that could be reasonably and significantly affected by the Project are analyzed herein, including:

1. Air Quality
2. Greenhouse Gas Emissions
3. Noise
4. Transportation/Traffic
5. Biological Resources

Refer to Section 4.0, *Environmental Analysis*, for a full account and analysis of the subject matters listed above. As mentioned, the scope of this EIR includes these five (5) subject areas as determined through the completion of an Initial Study pursuant to CEQA Guidelines §15063, and in consideration of public comment to this EIR's NOP. Subject areas for which the Initial Study concluded that impacts would be clearly less than significant and that do not warrant further analysis in this EIR are addressed in Subsection 5.4, *Effects Found Not to Be Significant as Part of the Initial Study Process*. For each of the five (5) subject areas analyzed in Section 4.0, this EIR describes: 1) the physical conditions that existed at the approximate time this EIR's NOP was filed with the California State Clearinghouse (December 2012); 2) discloses the type and magnitude of potential environmental impacts resulting from Project planning, construction, and operation; and 3) if warranted, recommends feasible mitigation measures that would reduce or avoid any significant adverse environmental impacts that the Project may cause. A summary of the Project's significant environmental impacts and the mitigation measures imposed by the City of Moreno Valley to lessen or avoid those impacts is included in this Executive Summary as Table S-1, *Mitigation Monitoring and Reporting Program*.

This EIR also discusses alternatives to the proposed Project. Alternatives are studied that would attain most of the Project objectives while avoiding or substantially lessening the proposed Project's significant environmental effects. A full discussion of Project alternatives is found in EIR Section 6.0, *Alternatives*.

S.2 PROJECT OVERVIEW

S.2.1 LOCATION AND REGIONAL SETTING

The 17.3-acre Project site is located in the City of Moreno Valley, in western Riverside County, California. From a regional perspective, the Project site is located to the north and northeast of the City of Perris and to the southeast of the City of Riverside. The March Air Reserve Base (ARB) is located approximately 0.9-mile west of the site. The property is rectangular-shaped and located immediately west of North Perris Boulevard, south of and adjacent to San Michele Road, approximately 1,150 feet east of Knox Street, and north of and adjacent to Nandina Avenue. This portion of the City of Moreno Valley is developing as a center for distribution warehousing and light industrial land uses. Currently, the Project site is surrounded by a mixture of warehouse buildings, undeveloped lands, and other land uses located on properties designated and zoned for industrial development. Refer to Subsections 2.1, 2.2, and 2.3 of this EIR for more information about the Project's location and regional setting.

S.2.2 EXISTING PHYSICAL CONDITIONS

The northern half of the Project site (approximately 8.9 acres) is an undeveloped vacant lot and is routinely maintained (e.g., disced) to remove vegetation that may pose a wildland fire hazard. The southern half of the site (approximately 8.4 acres) is developed as a parking lot that is used for truck trailer parking, with a driveway access provided from Nandina Avenue and landscaping provided along Nandina Avenue and Perris Boulevard. Additional landscaping is located at the boundary between the existing parking lot in the south and the undeveloped portion of the site in the north. There are no unique land uses, topographic features, or environmental resources present on the property.

S.2.3 PROJECT OBJECTIVES

The primary objective of the proposed Project is to construct and operate one logistics center warehouse building in the City of Moreno Valley on a property designated for industrial development by the Moreno Valley Industrial Area Plan (Specific Plan 208). The following is a list of specific objectives sought by the proposed Project.

A. To construct and operate a logistics center warehouse building in the City of Moreno Valley on a property designated for industrial development by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208.)

B. To develop a logistics center warehouse building that is feasible to construct and operate and that appeals to light industrial and warehouse distribution tenants seeking to locate in the Moreno Valley area.

C. To make efficient use of property designated for industrial development by developing a logistics center warehouse building on a property that is adjacent to existing warehouse development and that achieves a minimum floor area ratio (FAR) of 0.5.

D. To construct and operate a logistics center warehouse building within five miles of major regional transportation corridors.

E. To attract new businesses and jobs to the City of Moreno Valley, thereby providing a more equal jobs/housing balance both in the city and in Riverside County and reducing the need for members of the existing local workforce to commute outside the area for employment.

S.2.4 BACKGROUND

The proposed Project site is located within the geographical limits of the Moreno Valley Industrial Area Plan (Specific Plan (SP) 208), which designates the property as “Industrial.” The Project site was the subject of previous environmental review under CEQA as part of the EIR certified in 1989 for SP 208 (State Clearinghouse Number 1988080813). More recently, in 2008, the City of Moreno Valley approved Tentative Parcel Map No. 35859 (PA07-0165) and two Plot Plans (PA07-0166 and PA07-0167) that covered the southern portion of the Project site and additional property located to the immediate west. For that project, the City prepared a Mitigated Negative Declaration (2008 MND) in compliance with CEQA (SCH No. 2008101041). That approved project consisted of a 700,000 s.f. warehouse building west of the currently proposed Project site, which is constructed and occupied by Harbor Freight Tools, and an 180,000 s.f. warehouse building on the southern portion of the currently proposed Project site which is not constructed.

In 2011, Addendum No. 1 to the 2008 MND was prepared to address minor design modifications to the approved buildings, parking stalls, and driveways, as well as a proposal to construct an interim truck parking lot with 213 stalls on the southern portion of the currently proposed Project site (at the approximate location of the originally approved 180,000 s.f. building). That project was constructed and the southern portion of the currently proposed Project site is now developed as an interim truck parking lot, although the original approval of an 180,000 s.f. building remains valid and could be implemented in the future. In 2012, the City of Moreno Valley approved a site plan (P12-061) to allow the expansion of the interim truck parking lot constructed on the southern portion of the Project site across the northern portion of the Project site. For this project, the City prepared Addendum No 2 to the 2008 MND. The parking lot expansion has not yet been constructed and under existing conditions the northern portion of the Project site remains vacant.

S.2.5 PROJECT DESCRIPTION SUMMARY

The Project proposes to develop a 17.3-acre property with one logistics center warehouse building containing 400,130 square feet (s.f.) of interior building space. Associated improvements to the property would include, but are not limited to 59 loading bays, surface parking areas, drive aisles, utility infrastructure, landscaping, exterior lighting, signage, and water quality/detention basins. Construction of the proposed Project involves demolition and removal of the existing parking lot, grading of the 17.3-acre property, and construction of the proposed building. One discretionary action is requested of the City of Moreno Valley to implement the Project, PA12-0023. The proposed building is designed to contain 394,130 s.f. of warehouse space and 6,000 s.f. of office and mezzanine space. The front door and office would be positioned at the southeast corner of the building, facing the intersection of Perris Boulevard/Nandina Avenue. On the 17.3 acre property, 0.3 acres would be dedicated to the City of Moreno Valley for the widening of San Michele Road, so the total net parcel acreage is 17.0 acres. Over the 17.0 net acre parcel, the proposed building would calculate to a floor area ratio (FAR) of 0.51.

S.3 EIR PROCESS

As a first step in complying with the procedural requirements of CEQA for an EIR, an Initial Study was prepared by the City of Moreno Valley to determine whether any aspect of the proposed Project, either individually or cumulatively, may cause a significant adverse effect on the physical environment (refer to EIR *Technical Appendix A*). After completion of the Initial Study, the City filed a NOP with the California Office of Planning and Research (State Clearinghouse) to indicate that an EIR would be prepared. In turn, the Initial Study and NOP were distributed for a minimum 30-day public review period, which ended on January 14, 2013.

Written comments on the scope of the EIR were received during the NOP comment period, and were considered by the City during the preparation of this EIR. For this Project, the Initial Study indicated that this EIR should focus on four (4) environmental subject areas. As a result of considering the public comment submitted as part of the NOP process, one (1) additional subject area was added (biological resources) to the scope of the EIR. Therefore, this EIR focuses on five (5) primary environmental topics: air quality, greenhouse gas, noise, traffic/circulation, and biological resources.

This EIR is being circulated for review and comment by the public and other interested parties, agencies, and organizations for a 45-day review period. During the 45-day public review period, public notices announcing availability of the Draft EIR will be mailed to interested parties, advertisements will be posted in the local newspaper, and copies of the Draft EIR and its Technical Appendices will be available for review at the locations indicated in the public notices.

After the close of the 45-day Draft EIR public comment period, responses to written comments on the environmental effects of the proposed Project will be prepared and published. The Final EIR will then be considered for certification by the City of Moreno Valley Planning Commission during a public hearing(s). The Planning Commission will review and consider the Final EIR prior to deciding to approve, approve with revision, or reject the proposed Project. Approval of the proposed Project would be accompanied by the adoption of written findings and a statement of overriding considerations for any significant unavoidable environmental impacts identified in the Final EIR. In addition, the City must adopt a Mitigation, Monitoring, and Reporting Program (MMRP), which describes the process to ensure implementation of the mitigation measures identified in the Final EIR to reduce or avoid significant impacts on the physical environment. The MMRP, which is included as Table S-1 in this EIR, will ensure CEQA compliance during Project construction and operation. The decision of the Planning Commission is appealable to the Moreno Valley City Council.

S.4 AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

CEQA Guidelines §15123(b)(2) requires that areas of controversy known to the Lead Agency (City of Moreno Valley) be identified in the Executive Summary. In consideration of the comments received in response to the NOP, the City of Moreno Valley has identified one area of controversy.

The South Coast Air Quality Management District (SCAQMD) suggested that mitigation measures be applied for air quality impacts that go beyond what is required by law. The City of Moreno Valley applies mitigation measures which it determines to be feasible and practical for the Project Applicant to implement and the City of Moreno Valley to monitor and enforce. Although some of these measures may go beyond what the law requires, the imposed measures must have an essential nexus to the Project's impacts, be feasible to implement and enforce, be legal for the City to impose, and result in a benefit to the physical environment. Due to the non-attainment status of the South Coast Air Basin for the federal 8-hour ozone standard, there is controversy regarding the feasibility of applying mitigation measures for nitrogen oxide (NOx) mobile source emissions on a project-by-project basis beyond those required by federal and state law, and the resultant benefits, if any, to regional air quality.

Regarding issues to be resolved, this EIR addresses the environmental issues that are known by the City and that are identified in the Initial Study prepared for the Project (refer to *Appendix A* of this EIR). Eight (8) written comment letters were received by the City on this EIR's NOP, copies of which are also included in *Appendix A*. Environmental topics raised in written comment to the NOP are primarily related to the issue areas of air quality, environmental and human health hazards, traffic, biological resources, agriculture, cultural resources, and soils. Refer to Table 1-2, *Summary of NOP Comments,* in Section 1.0 of this EIR.

S.5 ALTERNATIVES TO THE PROPOSED PROJECT

In compliance with CEQA Guidelines §15126.6, an EIR must describe a range of reasonable alternatives to the Project or to the location of the Project. Each alternative must be able to feasibly attain most of the Project's objectives and avoid or substantially lessen the Project's significant effects on the environment. A detailed description of each alternative evaluated in this EIR, as well as an analysis of the potential environmental impacts associated with each alternative, is provided in Section 6.0, *Alternatives to the Proposed Project.* Also described in Section 6.0 is a list of alternatives that were considered but rejected from further analysis. The alternatives considered by this EIR include those listed below.

S.5.1 ALTERNATIVE 1 – NO PROJECT/TRAILER YARD ALTERNATIVE

The No Project Alternative/Trailer Yard Alternative is included in the alternatives analysis as required pursuant to CEQA Guidelines §15126.6(e), which requires evaluation of an alternative that considers what would reasonably be expected to occur on the property in the foreseeable future if the Project were not approved, based on current plans and consistent with available infrastructure and community services. For purposes of analysis in this EIR, the No Project/Trailer Yard Alternative assumes that the Project site would be developed in accordance with its existing entitlements pursuant to previously approved Amended Plot Plan P12-061. Under this alternative, improvements on the site would involve the expansion of the existing truck trailer parking yard to the northern portion of the property, thereby increasing the number of truck trailer parking spaces on-site from 338 spaces to 722 spaces. Access to the property would be afforded via a driveway along San Michele Road, and via the existing driveway located along Nandina Avenue. With exception of near-term noise impacts, all significant effects of the proposed Project would be avoided or lessened by the selection of this alternative. However, this alternative would not achieve the objectives of the Project.

S.5.2 ALTERNATIVE 2 – NO PROJECT/INDUSTRIAL BUILDING ALTERNATIVE

The No Project/Industrial Building Alternative also is included in the alternatives analysis as required pursuant to CEQA Guidelines §15126.6(e). This alternative assumes that the proposed Project is not approved, and that the site would be developed in accordance with existing entitlements. Under this alternative, the northern portion of the site would be developed with a truck trailer yard consisting of approximately 384 trailer spaces, as approved by Amended Plot Plan P12-061, while the southern portion of the site would be developed with a 181,031 s.f. industrial building with 26 dock doors pursuant to previously approved Plot Plan PA07-0167. To construct the building, the existing parking lot located in the southern portion of the property would be demolished. Access to the site would be provided via driveways along Nandina Avenue, Perris Boulevard, and San Michele Road. The No Project/Industrial Building Alternative would meet most of the Project's objectives, but generally to a lesser degree. Implementation of this alternative would avoid the Project's significant and unavoidable near-term impact to transportation/traffic, and would reduce the magnitude of many of the other Project-related impacts that are related to building intensity. However, this alternative would reduce, but would not fully avoid, the proposed Project's impacts due to long-term operational-related emissions of NO_x, and would reduce but not fully avoid the proposed Project's significant unavoidable impact due to construction-related noise.

S.5.3 ALTERNATIVE 3 – REDUCED PROJECT/SMALL BUILDINGS ALTERNATIVE

The Reduced Project/Small Buildings Alternative considers development of the site with two smaller industrial buildings consisting of a 194,525 s.f. building in the northern portion of the site and a 181,031 s.f. building in the southern portion of the site. There would be a total of 375,556 s.f. of interior floor space in two structures, which is 24,574 s.f. less than the proposed Project (a 6% reduction in building area). Access to the site would be provided via driveways along Nandina Avenue, Perris Boulevard, and San Michele Road. This alternative was selected by the Lead Agency to compare the environmental effects of the proposed Project (one larger building that is likely to attract one tenant) against the environmental effects of constructing two smaller buildings that are likely to attract two different tenants. Implementation of this alternative would generate more traffic. Therefore, it would increase the proposed Project's significant and unavoidable impacts to long-term air quality (NO_x emissions) and near-term transportation/traffic, and would generally increase other Project-related operational impacts that are related to average daily traffic volumes. The Reduced Project/Small Buildings Alternative would meet all of the Project's objectives, except it may have more difficulty meeting the objective to construct a logistics center that appeals to tenants seeking to locate in the Moreno Valley area due to the smaller sized buildings as compared to the larger building proposed by the Project.

S.5.4 ALTERNATIVE 4 – REDUCED PROJECT/NORTH BUILDING ALTERNATIVE

The Reduced Project/North Building Alternative is identified as the Environmentally Superior Alternative. It would involve no changes to the existing trailer parking yard in the southern portion of the site, while the northern portion of the site would be developed with a 194,525 s.f. industrial building. This alternative would construct 205,605 s.f. less building area than the proposed Project (a reduction in building area by approximately 51%). Site access under this alternative would be afforded via new driveways along San Michele Road and Perris Boulevard, while the existing access via the adjacent lot along Nandina Avenue would be maintained. Implementation of this alternative would reduce the proposed Project's significant unavoidable impacts to near- and long-term air quality, near-term noise, and near-term transportation/traffic, although such impacts would not be fully avoided under this alternative. Other Project-related operational impacts that are related to average daily traffic volumes also would be reduced under this alternative. The Reduced Project/North Building Alternative would meet most of the Project's objectives, but generally to a lesser degree. Selection of the Reduced Project/North Building Alternative, while providing less building space on the property, would not result in a reduction in demand for industrial business park development in western Riverside County; thus, it is likely for a portion of the Project's environmental impacts to occur elsewhere rather than be avoided.

S.6 SUMMARY OF IMPACTS, PROJECT REQUIREMENTS, MITIGATION MEASURES, AND CONCLUSIONS

S.6.1 EFFECTS FOUND NOT TO BE SIGNIFICANT

The scope of this EIR includes five (5) subject areas as determined through the completion of an Initial Study prepared by the City of Moreno Valley pursuant to CEQA Guidelines §15063 and CEQA Statute §21002.1(e), as well as consideration of public comments received by the City on this EIR's NOP. The Initial Study, NOP, and public comments received in response to the NOP, are attached to this EIR as *Technical Appendix A*. Subject areas for which the Initial Study concluded that impacts would be clearly less than significant and that do not warrant further analysis in this EIR include: aesthetics, agricultural resources, cultural resources, geology/soils, hazards and hazardous materials, hydrology/water quality, land use/planning , mineral resources, population and housing, public services, recreation, and utilities/service systems. The EIR addresses these topics in EIR Subsection 5.4, *Effects Found Not to be Significant as Part of the Initial Study Process.*

S.6.2 IMPACTS OF THE PROPOSED PROJECT

Table S-1, *Mitigation, Monitoring, and Reporting Program*, provides a summary of the proposed Project's environmental impacts, as required by CEQA Guidelines §15123(a). Also presented are the Project's design features and mandatory project requirements that would serve to reduce or avoid impacts, as well as the mitigation measures imposed on the Project by the City of Moreno Valley to further avoid adverse environmental impacts or to reduce their level of significance.

Table S-1 Mitigation, Monitoring, and Reporting Program

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
4.1 Air Quality					
Applicable Project Requirements					
	PR 4.1-1 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 402, "Nuisance."	Project Construction Manager, Project Tenants	South Coast Air Quality Management District (SCAQMD)	During construction activities and ongoing during long-term operation	
	PR 4.1-2 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 403, "Fugitive Dust." Rule 403 requires implementation of best available dust control measures during construction activities that generate fugitive dust, such as earth moving activities, grading, and equipment travel on unpaved roads.	Project Construction Manager	SCAQMD	During construction activities	
	PR 4.1-3 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 431.2, "Sulfur Content of Liquid Fuels."	Project Construction Manager, Project Tenants	SCAQMD	During construction activities and ongoing during long-term operation	
	PR 4.1-4 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 1113, "Architectural Coatings."	Project Construction Manager, Project Tenants	City of Moreno Valley Building and Safety Division, SCAQMD	During construction activities and ongoing during long-term operation	
	PR 4.1-5 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 1186, "PM10 Emissions from Paved and Unpaved Roads, and Livestock Operations."	Project Construction Manager	SCAQMD	During construction activities	
	PR 4.1-6 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 1186.1, "Less-Polluting Street Sweepers."	Project Construction Manager	SCAQMD	During construction activities	

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	PR 4.1-7 The Project is required to comply with California Code of Regulations Title 13, Division 3, Chapter 1, Article 4.5, Section 2025, "Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles."	Project Construction Manager, Project Tenants	SCAQMD	During construction activities and ongoing during long-term operation	
	PR 4.1-8 The Project is required to comply with California Code of Regulations Title 13, Division 3, Chapter 10, Article 1, Section 2485, "Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling."	Project Tenants	SCAQMD	Ongoing during long-term operation	
	PR 4.1-9 The Project is required to comply with California Code of Regulations Title 24, "California Building Standards Code" and the "California Green Building Code."	Project Architect	City of Moreno Valley Building and Safety Division	Prior to issuance of building permit and during construction activities	
Summary of Impacts					
Threshold 1: The proposed Project would not conflict with or obstruct implementation of the SCAQMD's AQMP.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Thresholds 2 and 3: Emissions during Project construction (near-term) would violate the SCAQMD regional thresholds for VOCs and NOx. In addition, emissions during Project operation (long term) are projected to exceed the SCAQMD regional threshold for NOx. Near-term emissions of VOCs and near- and long-term emissions of NOx also would contribute to an existing air quality violation in the SCAB (i.e., non-attainment status for O_3) because both VOCs and NOx are precursors for O_3. As such, Project-related air emissions would violate SCAQMD air quality standards and contribute to the non-attainment status of a criteria pollutant (i.e., O_3). These Project-related air emissions are concluded to be a significant impact on a direct and cumulative basis.	**PM10 Emissions – Near Term** **MM 4.1-1** Prior to grading permit issuance, the City shall verify that the following notes are specified on the grading plan to ensure implementation of SCAQMD Rule 403. Project contractors shall be required to comply with these notes and maintain written records of such compliance that can be inspected by the City of Moreno Valley upon request. All clearing, grading, earth-moving, and excavation activities shall cease when winds exceed 25 miles per hour. All unpaved roads and disturbed areas shall be watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and	Project Engineer/ Project Construction Manager	City of Moreno Valley Planning Division and Land Development Division	Prior to the issuance of grading permit(s) and during construction activities	Significant Unavoidable Direct and Cumulative Impact (VOC and NOx (Near Term) and NOx (Long Term))

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	after work is done for the day. The contractor shall ensure that traffic speeds on unpaved roads and areas where soil is exposed are reduced to 15 miles per hour or less. Public streets shall be swept at the end of each workday using a street sweeper meeting SCAQMD Rule 1186.1 if visible soil is carried onto paved public roads. The cargo area of all vehicles hauling soil, sand, or other loose earth materials shall be covered.				
	MM 4.1-2 Prior to the start of grading, the construction contractor shall post legible, durable, weather-proof signs at the property's frontage with Perris Boulevard, San Michelle Road, and Nandina Avenue stating the name and phone number of an authorized individual to be contacted to resolve dust complaints. Proof of sign posting in the form of photographs shall be placed on file with the City of Moreno Valley. These signs shall remain posted on the property until grading is complete. All legitimate dust complaints shall be resolved in 24 hours.	Project Construction Manager	City of Moreno Valley Planning Division and Land Development Division	Prior to the issuance of grading permit(s) and during construction activities	
	NOx Emissions – Near-Term				
	MM 4.1-3 Prior to grading permit and building permit issuance, the City shall verify that the following notes are specified on all grading and building plans. Project contractors shall be required to comply with these notes and permit periodic inspection of the construction site by City of Moreno Valley staff to confirm compliance. Mass grading shall be limited to no more than 4.0 acres per day. During construction activity, diesel engines shall not idle in excess of five (5) minutes. All equipment that is greater than or equal to 100 horsepower shall be CARB Tier 3 Certified or	Project Applicant/ Developer	SCAQMD, City of Moreno Valley Planning Division, Building and Safety Division, and Land Development Division	Prior to the issuance of grading permit(s) and building permit(s) and during construction activities	

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	better. Temporary traffic control for construction vehicles entering and exiting the site shall be implemented pursuant to the requirements of the California Manual on Uniform Traffic Control Devices.				
	<u>**VOC Emissions – Near Term**</u>				
	MM 4.1-4 Prior to building permit issuance, the City shall verify that the following note is specified on all building plans. Project contractors shall be required to comply with these notes and maintain written records of such compliance that can be inspected by the City of Moreno Valley upon request. All surface coatings shall consist of Zero-Volatile Organic Compound paints (no more than 150 gram/liter of VOC) and/or be applied with High Pressure Low Volume (HPLV) applications consistent with SCAQMD Rule 1113. Alternatively, building materials may be used that do not require painting or are delivered to the construction site pre-painted.	Project Construction Supervisor	City of Moreno Valley Planning Division, Building and Safety Division, and Land Development Division	Prior to the issuance of building permit(s) and during construction activities	
	<u>**NOx Emissions – Long-Term**</u>				
	MM 4.1-5 Legible, durable, weather-proof signs shall be placed at truck access gates, loading docks, and truck parking areas that identify applicable California Air Resources Board (CARB) anti-idling regulations. At a minimum each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) instructions for drivers of diesel trucks to restrict idling to no more than three (3) minutes; and 3) telephone numbers of the building facilities manager and the CARB to report violations. Prior to occupancy permit issuance, the City shall conduct a site inspection to ensure that the signs are in place.	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division and Planning Division	Prior to the issuance of occupancy permit(s)	
	MM 4.1-6 Prior to the issuance of building permits, the City shall verify that the parking lot	Project Applicant/ Developer	City of Moreno Valley Planning Division	Prior to the issuance of building permit(s)	

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	striping and security gating plan allows for adequate truck stacking at gates to prevent queuing of trucks outside the property.				
Threshold 4: Near-term construction and long-term operation of the proposed Project would not expose nearby sensitive receptors to substantial pollutant concentrations of any criteria pollutant or diesel particulate matter. As such, a less than significant impact would occur.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 5: The Project does not propose land uses or operational activities associated with emitting objectionable odors. Any odor emissions generated during Project construction would be short term, not objectionable, and not affect a substantial population. Therefore, impacts due to odors would be less than significant.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
4.2 Greenhouse Gas Emissions					
Applicable Project Requirements					
	PR 4.2-1 The Project is required to comply with mandatory regulatory requirements imposed by the State of California and the South Coast Air Quality Management District aimed at the reduction of air quality emissions. Those that are applicable to the Project and that would assist in the reduction of Project-related GHG emissions include, but are not limited to the following: a) Global Warming Solutions Act of 2006 (AB32). b) Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies (SB 375). c) Pavely Fuel Efficiency Standards (AB1493), which establishes fuel efficiency ratings for new vehicles. d) California Code of Regulations Title 13,	Project Applicant/ Developer	City of Moreno Valley Planning Division and Building and Safety Division	Prior to the issuance of building permit(s) and ongoing during long-term operation	

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	Division 3 addressing diesel exhaust emissions. Specifically, Chapter 1, Article 4.5, §2025, "Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles" and Chapter 10, Article 1, §2485, "Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling." e) California Code of Regulations Title 24 (California Building Code), which establishes energy efficiency requirements for new construction. f) California Code of Regulations Title 20 (Appliance Energy Efficiency Standards), which establishes energy efficiency requirements for appliances. g) Title 17 California Code Regulations (Low Carbon Fuel Standard). Requires carbon content of fuel sold in California to be 10% less by 2020. h) California Water Conservation in Landscaping Act of 2006 (AB1881), which requires local agencies to adopt the Department of Water Resources updated Water Efficient Landscape Ordinance or equivalent by January 1, 2010 to ensure efficient landscapes in new development and reduce water waste in existing landscapes. i) Statewide Retail Provider Emissions Performance Standards (SB 1368), requiring energy generators to achieve performance standards for GHG emissions. j) Renewable Portfolio Standards (SB 1078). Requires electric corporations to increase the amount of energy obtained from eligible renewable energy resources to 20 percent by 2012 and 33 percent by 2020. k) South Coast Air Quality Management District Rule 1118 "PM10 Emissions from Paved and Unpaved Roads, and Livestock Operations," and				

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	Rule 1186.1 "Less Polluting Street Sweepers."				
	PR 4.2-2 The Project will provide on-site bicycle storage pursuant to City of Moreno Valley Municipal Code §9.11.060.B, Off-Street Bicycle Parking Requirements.	Project Applicant/ Developer	City of Moreno Valley Planning Division and Building and Safety Division	Prior to the issuance of building permit(s)	N/A
	PR 4.2-3 The Project will comply with all applicable provisions of the City of Moreno Valley Municipal Code Chapter 6.02 "Refuse Collection, Transfer and Disposal" and Chapter 8.80 "Recycling and Diversion of Construction and Demolition Waste."	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division	Prior to the issuance of building permit(s)	N/A
Summary of Impacts					
<u>Thresholds 1 and 2:</u> The proposed Project would not generate GHG emissions, either directly or indirectly, in quantities that may have a direct or cumulatively considerable significant impact on the environment. In addition, the proposed Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.	Impacts would not be significant; therefore, mitigation measures are not required. Regardless, to ensure that the Project will comply with applicable GHG emission reduction strategies specified in California's 2006 Climate Action Team report, the following mitigation measures are recommended.				Less than Significant Impact
	MM 4.2-1 Prior to the approval of building permits, the City shall review the building plans to ensure that the building's mechanical/electrical /plumbing (MEP) plans specify the installation of U.S. EPA Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and water-conserving shower heads (if showers are proposed).	Project Applicant/ Developer	City of Moreno Valley Planning Division and Building and Safety Division	Prior to the issuance of building permit(s) and as part of final building inspection	
	MM 4.2-2 Prior to the approval of building permits, the City shall review the building plans to ensure that the building's roof is structurally designed to accommodate the future addition of photovoltaic solar panels.	Project Applicant/ Developer	City of Moreno Valley Planning Division and Building and Safety Division	Prior to the issuance of building permit(s) and as part of final building inspection	
4.3 Noise					
Applicable Project Requirements					
	PR 4.3-1 The Project is required to comply with the City of Moreno Valley Noise Ordinance (Moreno Valley Municipal Code Chapter 11.80).	Project Construction Manager, Project Tenants	City of Moreno Valley Code and Neighborhood Services Division	During construction activities and ongoing during long-term operation	N/A
Summary of Impacts					
<u>Thresholds 1, 3, and 4:</u> During Project construction, noise levels beyond 200 feet	**MM 4.3-1** Prior to grading or building permit issuance, the City shall review grading and building	Project Construction Manager	City of Moreno Valley Land Development	Prior to the issuance of grading permit(s) and	Significant Unavoidable Direct

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
from the property boundary would exceed levels specified in the City of Moreno Valley Noise Ordinance. Existing sensitive receptors (residential) located within 2,774 feet of the Project boundary with a clear line of site to the construction activity would experience noise levels above 65 dBA leq at some point during the construction process. Additionally, in the event that Project construction activities occur simultaneously with other construction activities that affect the same sensitive receptors, cumulative construction-related noise would also be significant. Under long-term operating conditions, the Project would not generate traffic-related or stationary noise levels above the standards given in the City of Moreno Valley Noise Ordinance or in any adjacent jurisdiction's General Plan. Long-term impacts would be less than significant.	plans to ensure that the following notes are included. Project contractors shall be required to comply with these notes and maintain written records of such compliance that can be inspected by the City of Moreno Valley upon request. a) All construction activities, including but not limited to haul truck deliveries, shall be limited to between the hours of 7:00 a.m. and 8:00 p.m. b) Construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards. c) All stationary construction equipment and equipment staging areas shall be placed as close as possible to the center of the western property line. d) All haul truck deliveries shall use City-approved haul routes. Should alternate routes be necessary, haul trucks shall not use roadways that pass noise-sensitive land uses or residential dwellings unless approved by the City of Moreno Valley.		Division and Building and Safety Division	building permit(s)	and Cumulative Impact (Near-Term)
Threshold 2: Near-term construction activities and long-term operation of the proposed Project would not expose persons to or generate excessive groundborne vibration or groundborne noise levels.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 5: The Project would not expose people to excessive noise levels associated with the operation of an airport.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 6: There are no private airstrips in the vicinity of the Project site; as such, the Project has no potential to expose people residing or working in the area to excessive noise levels associated with operation of a private airstrip.	Mitigation is not required.	N/A	N/A	N/A	No Impact

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
4.4 Transportation/Traffic					
Applicable Project Requirements					
	PR 4.4-1 The Project will construct roadway improvements (including but not limited to parkway, landscaping, and sidewalk improvements) along its frontage with Perris Boulevard and San Michele Road as specified in the City of Moreno Valley's Conditions of Approval for Plot Plan PA12-0023.	Project Applicant/ Project Construction Supervisor	City of Moreno Valley Land Development Division	Prior to the issuance of the first (1st) occupancy permit	N/A
	PR 4.4-2 The Project will construct intersection improvements at each Project Driveway as specified in the City of Moreno Valley's Conditions of Approval for Plot Plan PA12-0023.	Project Applicant/ Project Construction Supervisor	City of Moreno Valley Land Development Division	Prior to the issuance of the first (1st) occupancy permit	N/A
	PR 4.4-3 The Project shall comply with the City of Moreno Valley Development Impact Fee (DIF) program, which requires the payment of a fee to the City to reduce traffic congestion by participating in funding the installation of intersection improvements. The project also shall comply with the Transportation Uniform Mitigation Fee (TUMF) program, which funds off-site regional transportation improvements. The following study area intersection improvements are currently covered under DIF-funding and/or TUMF-funding: a) I-215 Southbound Ramps/ Harley Knox Boulevard (ID #1): One (1) southbound lane; one (1) westbound lane; and re-striping for one southbound lane and one southbound right turn. b) I-215 Northbound Ramps/ Harley Knox Boulevard (ID #2): One westbound free right lane, and re-striping for one (1) northbound right turn lane. c) Patterson Avenue/ Harley Knox Boulevard (ID #4): One (1) eastbound turn lane, and one (1) westbound turn lane. d) Indian Street/ Nandina Avenue (ID #5): One (1) northbound turn lane; one (1) southbound turn lane; one (1) southbound right turn lane; one (1) eastbound lane; and protected left-turn on eastbound and westbound approaches.	Project Applicant/ Project Construction Supervisor	City of Moreno Valley Land Development Division and Planning Division	Prior to the issuance of the first (1st) occupancy permit	N/A

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THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	e) Indian Street/ Harley Knox Boulevard (ID #6): Two (2) southbound right turn lanes with overlapping phasing; one (1) eastbound lane; one (1) eastbound turn lane; and remove cross-walk on north leg (westbound approach). f) Perris Boulevard/ San Michele Road (ID #12): One southbound turn lane.				
	PR 4.4-4 On-site direction signing and striping is required to be installed in conjunction with detailed construction plans for the Project and as approved by the City of Moreno Valley. The on-site signing and striping plans shall be subject to review and approval by the Planning Division, and shall clearly indicate the location of service area docks and public parking areas.	Project Applicant/ Project Construction Supervisor	City of Moreno Valley Planning Division	Prior to the issuance of occupancy permit(s)	N/A
	PR 4.4-5 All final grading, landscaping, and street improvement plans are required to provide sight distance standards in accordance with City of Moreno Valley and California Department of Transportation (Caltrans) standards, as appropriate.	Project Applicant/ Project Construction Supervisor	City of Moreno Valley Department of Public Works (Transportation Engineering Division), City of Moreno Valley Land Development Division and Planning Division	Prior to the issuance of building permit(s)	N/A
	PR 4.4-6 The minimum number of vehicle and bicycle parking spaces specified by the City of Moreno Valley Municipal Code is required to be provided.	Project Applicant/ Project Construction Supervisor	City of Moreno Valley Planning Division	Prior to the issuance of occupancy permit(s)	N/A
	PR 4.4-7 A future transit stop will be provided by the Project on the southbound side of Perris Boulevard as specified in the City of Moreno Valley's Conditions of Approval for Plot Plan PA12-0023.	Project Applicant/ Project Construction Supervisor	City of Moreno Valley Department of Public Works (Transportation Engineering Division)	Prior to the issuance of the first (1st) occupancy permit	N/A

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Summary of Impacts					
<u>Threshold 1:</u> The proposed Project would result in cumulatively considerable significant impacts to the existing and planned roadway network by contributing traffic to facilities that would operate at deficient levels of service with or without the addition of Project traffic. Project traffic would make a cumulatively considerable contribution to identified cumulative impacts at seven (7) roadway segments and five (5) intersections in Opening Year Cumulative (2017) Conditions. With required payment of City of Moreno Valley DIF fees and TUMF fees (see PR 4.4-3) and implementation of the DIF and TUMF-funded improvements at the cumulatively impacted facilities, all cumulatively impacted roadway segments and intersections in Opening Year Cumulative (2017) Conditions would be reduced to a less than significant impact with the exception of two (2) intersections: Western Way/Harley Knox Boulevard (Project's traffic contribution is 3.3%) and Indian Street/ Harley Knox Boulevard (Project's traffic contribution is 3.5%)). Although improvements are anticipated to relieve these deficiencies in the long-term along Harley Knox Boulevard, funded by the North Perris Road Bridge and Benefit District, there is no assurance that the improvements will be in place at the time of the proposed Project's Opening Year Cumulative (2017) Conditions. Thus, the cumulative impact is considered a near-term impact, until such time as the intersection improvements are in place.	**MM 4.4-1** In the event that the City of Perris establishes a fair-share funding program for improvements to the following intersections (or immediately adjacent roadways segments that contribute to the intersection's level of service), that applies to projects in the City of Moreno Valley, then prior to the issuance of a building permit for the project, the Project Applicant shall contribute a fair-share payment to the established funding program to address the Project's cumulative impacts to the following facilities: a) Intersection of Western Way/ Harley Knox Boulevard (Project's fair-share contribution is 3.3%); b) Intersection of Indian Street/ Harley Knox Boulevard (Project's fair-share contribution is 3.5%)	Project Applicant/ Developer	City of Moreno Valley Public Works Department (Transportation Engineering Division)	Prior to the issuance of the first (1st) building permit	Significant Unavoidable Cumulative Impact (Near-Term)
<u>Threshold 2:</u> The proposed Project would result in less than significant direct and cumulative impacts to CMP facilities.	Mitigation is not required	N/A	N/A	N/A	Less than Significant Impact
<u>Threshold 3:</u> There is no potential for the Project to change air traffic levels or create substantial air traffic safety risks.	Mitigation is not required.	N/A	N/A	N/A	No Impact

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Threshold 4: No transportation safety hazards would be introduced as a result of the proposed Project's design.	Mitigation is not required.	N/A	N/A	N/A	No Impact
Threshold 5: Adequate emergency access would be provided to the Project site.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 6: The proposed Project is consistent with adopted policies and programs regarding public transit, bicycle, and pedestrian facilities. The Project is designed to reduce all potential transportation mode conflicts. Potential impacts to the performance or safety of transit, bicycle, and pedestrian systems would be less than significant.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
4.5 Biological Resources					
Applicable Project Requirements					
	PR 4.5-1 The Project shall comply with City of Moreno Valley Municipal Code Title 3, Chapter 3.48, Western Riverside County Multiple Species Habitat Conservation Plan Fee Program, which requires a per-acre local development mitigation fee that will assist in providing revenue to acquire and preserve vegetation communities and natural areas within the city and western Riverside County which are known to support threatened, endangered or key sensitive populations of plant and wildlife species.	Project Applicant/ Developer	City of Moreno Valley Planning Division	Prior to the issuance of a building permit	N/A
	PR 4.5-2 The Project shall comply with City of Moreno Valley Municipal Code Title 3, Chapter 8.60, Threatened and Endangered Species, which requires a per-acre local development mitigation fee pursuant to the City's adopted "The Habitat Conservation Plan for the Stephens' Kangaroo Rat in Western Riverside County, California" and as established pursuant to Fee Resolution 89-92.	Project Applicant/ Developer	City of Moreno Valley Planning Division	Prior to the issuance of grading permit(s)	N/A
Summary of Impacts					
Threshold 1: No sensitive vegetation communities are located on the Project site. A less than significant impact on sensitive plant species would occur because the loss of	**MM 4.5-1** Within 30 days prior to grading, a qualified biologist shall conduct a survey of the undeveloped portions of the property and make a determination regarding the presence or absence of	Project Applicant/ Developer/Project Biologist	City of Moreno Valley Planning Division	Prior to the issuance of grading permit(s)	Significant Direct and Cumulative Impact Mitigated to Less than Significant

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
two individual smooth tarplant would not significantly impact the persistence of the species. The loss of habitat for the California horned lark is less than significant with mandatory MSHCP compliance because the species is a MSHCP Covered Species. Although the western burrowing owl is not present on the Project site, the species could be impacted if it migrates onto the property prior to the commencement of ground-disturbing construction activities, which is a potentially significant direct and cumulative impact.	the burrowing owl. The determination shall be documented in a report and shall be submitted, reviewed, and accepted by the Planning Division prior to the issuance of a grading permit and subject to the following provisions: a) In the event that the pre-construction survey identifies no burrowing owls on the property, a grading permit may be issued without restriction. b) In the event that the pre-construction survey identifies the presence of at least one individual but less than three (3) mating pairs of burrowing owl, then prior to the issuance of a grading permit and prior to the commencement of ground-disturbing activities on the property, the qualified biologist shall passively or actively relocate any burrowing owls. Passive relocation, including the required use of one-way doors to exclude owls from the site and the collapsing of burrows, will occur if the biologist determines that the proximity and availability of alternate habitat is suitable for successful passive relocation. Passive relocation shall follow CDFW relocation protocol and shall only occur between September 15 and February 1. If proximate alternate habitat is not present as determined by the biologist, active relocation shall follow CDFW relocation protocol. The biologist shall confirm in writing that the species has fledged the site or been relocated prior to the issuance of a grading permit. c) In the event that the pre-construction survey identifies the presence of three (3) or more mating pairs of burrowing owl, the requirements of MSCHP Species-Specific Conservation Objectives 5 for the burrowing owl shall be followed. Objective 5 states that if the site (including adjacent areas) supports three (3) or more pairs of burrowing owls and supports greater than 35 acres of suitable Habitat, at least 90 percent of the area with long-term conservation value and burrowing owl pairs will be conserved onsite until it is demonstrated that Objectives 1-4 have been met. A grading permit shall only be issued, either:				

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	• upon approval and implementation of a property-specific Determination of Biologically Superior Preservation (DBESP) report for the western burrowing owl by the CDFW. • a determination by the biologist that the site is part of an area supporting less than 35 acres of suitable Habitat, and upon passive or active relocation of the species following accepted CDFW protocols. Passive relocation, including the required use of one-way doors to exclude owls from the site and the collapsing of burrows, will occur if the biologist determines that the proximity and availability of alternate habitat is suitable for successful passive relocation. Passive relocation shall follow CDFW relocation protocol and shall only occur between September 15 and February 1. If proximate alternate habitat is not present as determined by the biologist, active relocation shall follow CDFW relocation protocol. The biologist shall confirm in writing that the species has fledged the site or been relocated prior to the issuance of a grading permit.				
<u>Threshold 2:</u> The Project site lacks riparian and other sensitive habitats; therefore, the Project would have no impact on riparian or other sensitive habitats as defined by the CDFW or USFWS.	Mitigation is not required	N/A	N/A	N/A	No Impact
<u>Threshold 3:</u> No federally protected wetlands are located on the Project site; therefore, no impact would occur.	Mitigation is not required	N/A	N/A	N/A	No Impact
<u>Threshold 4:</u> There is no potential for the Project to interfere with the movement of fish or impede the use of a native wildlife nursery site. Additionally, the Project would not have the ability to interfere with an established migratory wildlife corridor or result in	Mitigation is not required	N/A	N/A	N/A	No Impact

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
wildlife movement impacts on the MSHCP Preserve.					
Threshold 5: The Project would not conflict with any local policies or ordinances governing biological resources.	Mitigation is not required	N/A	N/A	N/A	No Impact
Threshold 6: The Project site is subject to the Western Riverside County MSHCP and its survey requirements for the western burrowing owl. Although compliant with all MSHCP provisions, and although the species is absent on the property, the property contains suitable habitat for the western burrowing owl. If the species is present on the property at the time a grading permit is issued, impacts would be significant, requiring mitigation.	Mitigation Measure 4.5-1 Applies	Project Applicant/ Developer/Project Biologist	City of Moreno Valley Planning Division	Prior to the issuance of grading permit(s)	Significant Direct and Cumulative Impact Mitigated to Less than Significant

1.0 INTRODUCTION

1.1 PURPOSES OF CEQA AND THIS EIR

As stated by CEQA Guidelines §15002, the basic purposes of CEQA are to:

- Inform governmental decision makers and the public about the potential, significant environmental effects of proposed [government actions (including the discretionary approval of development projects)];
- Identify the ways that environmental damage can be avoided or significantly reduced;
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and

If a project will be approved involving significant environmental effects,

- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose.

This Environmental Impact Report (EIR, P12-064) is an informational document prepared by the City of Moreno Valley to evaluate the physical environmental effects that could be caused by constructing and operating the First Inland Logistics Center II Project (hereafter, the "Project"). The Project proposes governmental approval of Plot Plan PA12-0023 and other related discretionary and administrative actions that would be required to construct and operate the Project described in this EIR.

The Project is proposed on a 17.3-acre property located at the southwest corner of San Michele Road and North Perris Boulevard in the City of Moreno Valley, Riverside County, California. The City of Moreno Valley's Specific Plan 208, titled "Moreno Valley Industrial Area Plan" (MVIAP), designates the property for development as "Industrial." The southeastern corner of the property is located within an "Industrial Support Area" overlay that allows for commercial or industrial support land uses to be located within 300 feet of key roadway intersections, including the Nandina Avenue/ North Perris Boulevard intersection at the property's southeastern corner. The City of Moreno Valley's General Plan Land Use Map, which is intended to reflect the land use designations applied to the property by Specific Plan 208, designates the property for development with "Business Park/Light Industrial (BP)" land uses, with the southeastern corner of the property designated as "Commercial." The General Plan's commercial designation in the southeastern corner of the site is intended to correspond to the Specific Plan's "Industrial Support Area" overlay designation. Consistent with these land use designations, the property's zoning designation is "Industrial (I)."

The proposed Project is consistent with the property's land use designations as applied by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208), as well as the property's zoning designation. CEQA Guidelines §15183(a) mandates that projects which are consistent with the development density established by existing zoning, community plan, or general plan policies for which an EIR was certified, shall not require additional environmental review, except as might be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site. In this case, the subject property was evaluated as part of an EIR certified in 1989 for Specific Plan 208 (State Clearinghouse Number 1988080813) and as part of the City's General Plan Program EIR certified in 2006 (State Clearinghouse Number 2000091075). Therefore, as mandated by CEQA Guidelines §15183(a), this EIR focuses on project-specific effects that are peculiar to the proposed First Inland Logistics Center II project and its 17.3-acre property.

An Initial Study was prepared by the City of Moreno Valley pursuant to CEQA Guidelines §15063 to determine if the Project could have a significant effect on the environment. The Initial Study determined that implementation of the Project has the potential to result in significant environmental effects, and a Project EIR, as defined by CEQA Guidelines §15161, is required. As stated in CEQA Guidelines §15161, a Project EIR should "…focus primarily on the changes in the environment that would result from the development project," and "…examine all phases of the project including planning, construction, and operation."

Accordingly, and in conformance with CEQA Guidelines §15121(a), the purposes of this EIR are to: (1) disclose information by informing public agency decision makers and the public generally of the significant environmental effects associated with all phases of the Project, (2) identify possible ways to minimize or avoid those significant effects, and (3) to describe a reasonable range of alternatives to the Project that would feasibly attain most of the basic Project objectives but would avoid or substantially lessen its significant environmental effects.

1.2 SUMMARY OF THE PROJECT EVALUATED BY THIS EIR

For purposes of this EIR, the term "Project" refers to the discretionary actions required to implement the First Inland Logistics Center II Project as proposed and all of the activities associated with its implementation, including planning, construction, and ongoing operation. In summary, the Project proposes the construction and operation of one warehouse distribution building with up to 400,130 square feet (s.f.) of interior building space, as well as surface parking areas and drive aisles, loading docks, roadway improvements, utility infrastructure, landscaping, water quality/detention basins, and other site improvements.

The Project proposes the following discretionary action, which is under consideration by the City of Moreno Valley:

- Plot Plan PA12-0023 provides a site arrangement, architectural plans, and landscape design for the building that is proposed to be constructed and operated on the Project site. A maximum of 400,130 s.f. of interior building space is proposed, consisting of 394,130 s.f. of warehouse space and 6,000 s.f. of office and mezzanine space.

Refer to EIR Section 3.0, *Project Description*, for a detailed description of the proposed Project, including a listing of permits and actions that would be required of the City of Moreno Valley as well as other agencies and authorities.

1.3 PROJECT HISTORY

The proposed Project site is located within the geographical limits of the Moreno Valley Industrial Area Plan (Specific Plan (SP) 208). SP 208 was originally referred to as the Oleander Specific Plan when first approved by the City in 1989, but was renamed as the Moreno Valley Industrial Area Plan in 2001 after 40 acres of additional area was added to the Specific Plan boundaries, bringing the total land area within SP 208 to 1,540 acres. SP 208 was again amended in 2002, which consolidated the Business Park, Mixed Use, Light Industry, and Heavy Industry land use designations of the original Specific Plan into a single "Industrial" land use classification in order to increase flexibility in accommodating economic development opportunities (SP 208, 2002). This Industrial classification is applied to the 17.3-acre First Inland Logistics Center II property, which is the subject of this EIR.

The Project site was the subject of previous environmental review under CEQA as part of an EIR certified in 1989 for SP 208 (State Clearinghouse Number 1988080813). In 2008, the City of Moreno Valley approved Tentative Parcel Map No. 35859 (PA07-0165) and two Plot Plans (PA07-0166 and PA07-0167) that covered the southern portion of the Project site in addition to additional land area located to the immediate west. For that project, the City prepared a Mitigated Negative Declaration (2008 MND) in compliance with CEQA (SCH No. 2008101041). The 2008 MND concluded that all significant environmental effects could be mitigated to below established thresholds of significance. That approved project consisted of a 700,000 s.f. warehouse building west of the currently proposed Project site and an 180,000 s.f. warehouse building on the southern portion of the currently proposed Project site.

In 2011, an Addendum to the 2008 MND was prepared, hereinafter referred to as Addendum No. 1. Addendum No. 1 addressed minor design modifications to the approved buildings, parking stalls, and driveways, as well as a proposal to construct an interim truck parking lot with 213 stalls on the southern portion of the currently proposed Project site (at the approximate location of the originally approved 180,000 s.f. building). That project was constructed and the southern portion of the currently proposed Project site is now developed as an interim truck parking lot, although the original approval of an 180,000 s.f. building remains valid and could be implemented in the future.

In 2012, the City of Moreno Valley approved a site plan (P12-061) to allow the expansion of the interim truck parking lot constructed on the southern portion of the Project site across the northern portion of the Project site. For this project, the City prepared a second Addendum to the 2008 MND, hereinafter referred to as Addendum No. 2. Addendum No. 2 addressed potential environmental effects associated with the expansion of the interim truck parking lot from approximately 8.5 acres to approximately 17.0 acres to accommodate a maximum of 487 truck parking stalls, a water quality basin, and screen walls along San Michele Road and Perris Boulevard. Addendum No. 2 concluded that expansion of the interim truck parking lot and associated improvements would not result in any new or more severe impacts than previously identified in the 2008 MND, and all potential environmental impacts would be adequately reduced to below established thresholds of significance with mandatory implementation of conditions of approval and the mitigation measures identified in the 2008 MND. The parking lot expansion has not yet been constructed and under existing conditions the northern portion of the Project site remains vacant.

1.4 LEGAL AUTHORITY

This EIR was prepared in accordance with all criteria, standards, and procedures of CEQA (California Public Resource Code Section 21000 et seq.) and the CEQA Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3, Section 15000 et seq.).

Pursuant to CEQA §21067 and CEQA Guidelines Article 4 and §15367, the City of Moreno Valley is the Lead Agency under whose authority this EIR has been prepared. "Lead Agency" refers to the public agency that has the principal responsibility for carrying out or approving a project. Serving as the Lead Agency and before taking action to approve the proposed Project, the City of Moreno Valley has the obligation to: (1) ensure that this EIR has been completed in accordance with CEQA; (2) review and consider the information contained in this EIR as part of its decision making process; (3) make a statement that this EIR reflects the City of Moreno Valley's independent judgment; (4) ensure that all significant effects on the environment are avoided or substantially lessened where feasible; and, if necessary (5) make written findings for each unavoidable significant environmental effect stating the reasons why mitigation measures or project alternatives identified in this EIR are infeasible and citing the specific benefits of the proposed Project that outweigh its unavoidable adverse effects (CEQA Guidelines §§15090 through 15093).

Pursuant to CEQA Guidelines §§15040 through 15043, and upon completion of the CEQA review process, the City of Moreno Valley will have the legal authority to do any of the following:

- Approve the proposed Project;
- Require feasible changes in any or all activities involved in the Project in order to substantially lessen or avoid significant effects on the environment;
- Disapprove the Project, if necessary, in order to avoid one or more significant effects on the environment that would occur if the Project was approved as proposed; or
- Approve the Project even through the Project would cause a significant effect on the environment if the City makes a fully informed and publicly disclosed decision that: 1) there is no feasible way to lessen the effect or avoid the significant effect; and 2) expected benefits from the Project will outweigh significant environmental impacts of the Project.

This EIR fulfills the CEQA environmental review requirements for the proposed Plot Plan (PA12-0023) and all other governmental discretionary and administrative actions related to the Project.

This EIR is an informational document intended for use by the City of Moreno Valley decision makers, Trustee and Responsible agencies, and members of the general public in evaluating the physical environmental effects of the proposed Project. As mandated by CEQA Guidelines §15183(a), this EIR focuses on the specific environmental effects that are peculiar to the proposed Project and its property, because designation of the property for industrial/business park development was previously and adequately evaluated in accordance with CEQA by two prior EIRs (an EIR certified in 1989 for Specific Plan 208 (State Clearinghouse Number 1988080813) and the City's General Plan Program EIR certified in 2006 (State Clearinghouse Number 2000091075)). Additionally, physical impacts to the Project site were previously evaluated as part of the 2008 MND and subsequent Addendum No. 1 and Addendum No. 2 (State Clearinghouse Number 1988080813). As such, those analyses do not need to be repeated and the 2008 MND and its Addenda are herein incorporated by reference and available for public inspection at the location specified in Section 7.0, References.

1.5 RESPONSIBLE AND TRUSTEE AGENCIES

Section 21104 of the California Public Resource Code requires that all EIRs be reviewed by state responsible and trustee agencies (see also CEQA Guidelines §15082 and §15086(a)). As defined by CEQA Guidelines §15381, “the term ‘Responsible Agency’ includes all public agencies other than the Lead Agency which have discretionary approval power over the project.” A Trustee Agency is defined in CEQA Guidelines §15386 as “a state agency having jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California.”

For the proposed Project, the Santa Ana Regional Water Quality Control Board (RWQCB) is identified as a Trustee Agency that is responsible for the protection of water resources and water quality. The RWQCB is responsible for issuance of a National Pollution Discharge Elimination System (NPDES) Permit to ensure that during and after construction, on-site water flows do not result in siltation, other erosional actions, or degradation of surface or subsurface water quality. There are no other agencies that are identified as Responsible or Trustee Agencies for the proposed Project.

1.6 EIR SCOPE, FORMAT, AND CONTENT

1.6.1 EIR SCOPE

As a first step in complying with the procedural requirements of CEQA, an Initial Study was prepared by the City of Moreno Valley to preliminarily identify the environmental issue areas that may be adversely impacted by the Project. Following completion of the Initial Study, the City filed a NOP with the California Office of Planning and Research (State Clearinghouse) to indicate that an EIR would be prepared to evaluate the Project’s potential to impact the environment. The NOP was filed with the State Clearinghouse and distributed to Responsible Agencies, Trustee Agencies, and other interested parties on December 3, 2012, for a 30-day public review period. Because the review period extended over two federal holidays (December 25 and January 1), the response deadline was extended to January 14, 2013. The objective of distributing the NOP for public review was to solicit responses to assist the City in identifying the full scope and range of potential environmental concerns associated with the Project so that these issues could be fully examined in this EIR. Because the proposed Project does not meet the CEQA Guidelines §15206 definition of a project having statewide, regional, or areawide significance and does not meet the requirements of a project necessitating a scoping meeting as specified in CEQA Guidelines §15082(c), the City of Moreno Valley was not required to and did not hold a scoping meeting for this EIR.

As a result of the Initial Study and in consideration of all comments received by the City on the NOP, this EIR evaluates the Project's potential to cause adverse effects to the following environmental issue areas:

- Air Quality
- Greenhouse Gas Emissions
- Noise
- Transportation/Traffic
- Biological Resources

The Initial Study, NOP, public review distribution list, and written comments received by the City during the 30-day NOP public review period are provided in Technical Appendix A to this EIR. Substantive topics raised in response to the NOP are summarized below in Table 1-1, *Summary of NOP Comments*. The purpose of this table is to present the primary environmental issues of concern raised during the NOP review period. The table is not intended to list every comment received by the City during the NOP review period. Regardless of whether or not a comment is listed in the table, all applicable comments received in responses to the NOP are addressed in this EIR.

Table 1-1 Summary of NOP Comments

COMMENTER	DATE	COMMENTS
CA Department of Transportation	December 10, 2012	– Prepare a traffic impact study that includes State highway facilities where the project adds 100 or more peak hour trips. – Clearly label the traffic analysis scenarios. – Indicate and exhibit LOS with and without improvements. – Eliminate or reduce impacts to the State highway system.
Native American Heritage Commission	December 19, 2013	– Identify and avoid or reduce any substantial adverse changes in the significance of an historical resource. – Consult with local Native American contacts.
South Coast Air Quality Management District	December 20, 2012	– Identify potential adverse air quality impacts and air pollutant sources. – Quantify $PM_{2.5}$ emissions. – Analyze regional and localized air quality impacts. – Perform a mobile health risk assessment. – Apply mitigation measures that go beyond what is required by law.
Johnson & Sedlack	January 7, 2013	– Evaluate impacts to Farmland of Local Importance. – Consider all feasible mitigation for air quality impacts. – Consider significant impacts to biological resources. – Consider impacts relative to glare. – Consider geological/soils impacts. – Consider individual and cumulative, local and regional impacts to area highways.

Table 1-1 Summary of NOP Comments

COMMENTER	DATE	COMMENTS
CA Department of Toxic Substances Control	January 8, 2013	– Identify if the project would pose a threat to human health or the environment. – Conduct an investigation for hazardous materials. – Properly dispose of any contaminated soils. – Manage hazardous wastes in accord with State law.
CA Department of Fish and Wildlife	January 14, 2013	– Identify impacts to sensitive flora and fauna and jurisdictional waters. – Discuss any inconsistencies with the MSHCP. – Discuss direct, indirect, and cumulative impacts to biological resources
City of Riverside	January 14, 2013	– Analyze and mitigate for spill-over traffic impacts in the City of Riverside. – Evaluate cumulative traffic impacts, considering other projects in the vicinity.
Sierra Club San Gorgonio Chapter	undated	– Analyze cumulative effects to traffic, air quality, and greenhouse gas. – Implement AQMD recommendations. – Evaluate impacts to biological and agricultural resources. – Include an analysis of hazards and hazardous materials.

In consideration of the comments received in response to the NOP, the City of Moreno Valley has identified one area of controversy. The SCAQMD suggests that mitigation measures be applied that go beyond what is required by law. The City of Moreno Valley applies mitigation measures which it determines to be feasible and practical for the Project Applicant to implement and the City of Moreno Valley to monitor and enforce. Although some of these measures may go beyond what the law requires, the imposed measures must have an essential nexus to the Project's impacts, be feasible to implement and enforce, be legal for the City to impose, and result in a benefit to the physical environment. Due to the non-attainment status of the South Coast Air Basin for the federal 8-hour ozone standard, there is controversy regarding the feasibility of applying mitigation measures for nitrogen oxide (NOx) mobile source emissions beyond those required by federal and state law on a project-by-project basis and the resultant benefits, if any, to regional air quality.

1.6.2 EIR FORMAT AND CONTENT

This EIR contains all of the information required to be included in an EIR as specified by the CEQA Statutes and Guidelines (California Public Resources Code, Section 21000 et. seq. and California Code of Regulations, Title 14, Chapter 5). CEQA requires that an EIR contain, at a minimum, certain specified content. Table 1-2, *Location of CEQA-Required Topics*, provides a quick reference in locating the CEQA-required sections within this document.

Table 1-2 Location of CEQA-Required Topics

CEQA REQUIRED TOPIC	CEQA GUIDELINES REFERENCE	LOCATION IN THIS EIR
Table of Contents	§15122	Table of Contents
Summary	§15123	Section S.0
Project Description	§15124	Section 3.0
Environmental Setting	§15125	Section 2.0
Consideration and Discussion of Environmental Impacts	§15126	Section 4.0
Significant Environmental Effects Which Cannot be Avoided if the Proposed Project is Implemented	§15126.2(b)	Section 4.0 & Subsection 5.1
Significant Irreversible Environmental Changes Which Would be Caused by the Proposed Project Should it be Implemented	§15126.2(c)	Subsection 5.2
Growth-Inducing Impact of the Proposed Project	§15126.2(d)	Subsection 5.3
Consideration and Discussion of Mitigation Measures Proposed to Minimize Significant Effects	§15126.4	Section 4.0 & Table S-1
Consideration and Discussion of Alternatives to the Proposed Project	§15126.6	Section 6.0
Effects Not Found to be Significant	§15128	Subsection 5.4
Organizations and Persons Consulted	§15129	Section 7.0 & Technical Appendices
Discussion of Cumulative Impacts	§15130	Section 4.0

In summary, the content and format of this EIR is as follows:

- **Executive Summary**, includes all of the summary requirements pursuant to CEQA Guidelines §15123.
- **Section 1.0, Introduction**, provides introductory information about the CEQA process and the responsibilities of the City of Moreno Valley, serving as the Lead Agency for this EIR.
- **Section 2.0, Environmental Setting**, describes the environmental setting, including descriptions of the Project site's physical conditions and surrounding context. The existing setting is defined as the condition of the Project site and surrounding area at the date this EIR's NOP was released for public review (December 3, 2012).
- **Section 3.0, Project Description**, serves as the EIR's Project Description for purposes of CEQA and contains a level of specificity commensurate with the level of detail proposed by the Project,
- **Section 4.0, Environmental Analysis**, provides an analysis of potential direct, indirect, and cumulative impacts that may occur with implementation of the proposed Project. A conclusion concerning significance is reached for each discussion and mitigation measures

are presented as warranted. The environmental changes identified in Section 4.0 and throughout this EIR are referred to as "effects" or "impacts" interchangeably. The CEQA Guidelines also identify the terms "effects" and "impacts" as being synonymous (CEQA Guidelines §15358). In the environmental analysis subsections of Section 4.0, the existing conditions are disclosed that are pertinent to the subject area being analyzed, accompanied by a specific analysis of physical impacts that may be caused by implementation of the proposed Project.

The analyses are based in part upon technical reports that are appended to this EIR. Information also is drawn from other sources of analytical materials that directly or indirectly relate to the proposed Project and cited in Section 7.0, *References*. Where the analysis demonstrates that a physical adverse environmental effect may or would (without undue speculation) occur, feasible mitigation measures are recommended to reduce or avoid the significant effect. In most cases, implementation of the mitigation measures would reduce the adverse environmental impact to below a level of significance. If mitigation measures are not available or feasible to reduce an identified impact to below a level of significance, the environmental effect is identified as a significant and unavoidable adverse impact, for which a statement of overriding considerations would need to be adopted by the City of Moreno Valley pursuant to CEQA §15093.

- **Section 5.0, Other CEQA Considerations**, includes specific topics that are required by CEQA. These include a summary of the Project's significant and unavoidable environmental effects, a discussion of the significant and irreversible environmental changes that would occur should the Project be implemented, as well as potential growth-inducing impacts of the proposed Project. Section 5.0 also includes a discussion of the potential environmental effects that were found not be significant during this EIR's Initial Study and NOP process and that, therefore, do not require a detailed evaluation in this EIR.

- **Section 6.0, Project Alternatives**, describes and evaluates alternatives to the proposed Project that could reduce or avoid the Project's adverse environmental effects. CEQA does not require an EIR to consider every conceivable alternative to the Project but rather to consider a reasonable range of alternatives that will foster informed decision making and public participation. A range of four (4) alternatives is presented in Section 6.0.

- **Section 7.0, References**, cites all reference sources used in preparing this EIR and lists the agencies and persons that were consulted in preparing this EIR. Section 7.0 also lists the persons who authored or participated in preparing this EIR.

- **Technical Appendices**. CEQA Guidelines §15147 states that the "information contained in an EIR shall include summarized…information sufficient to permit full assessment of significant environmental impacts by reviewing agencies and members of the public," and that the "placement of highly technical and specialized analysis and data in the body of an EIR shall be avoided." Therefore, the detailed technical studies, reports, and supporting documentation that were used in preparing this EIR are bound separately as Technical Appendices. The Technical Appendices are available for review at the City of Moreno Valley Community and Economic Development Department, Planning Division, 14177 Frederick Street, Moreno Valley, California, 92552, during the City's regular business hours or can be requested in electronic form by contacting the City Planning Division. The individual technical studies, reports, and supporting documentation that comprise the Technical Appendices are as follows:

A:	Initial Study, Notice of Preparation, and Written Comments on the NOP
B:	Air Quality Impact Analysis
C:	Mobile Source Health Risk Assessment
D:	Greenhouse Gas Analysis
E:	Noise Study
F:	Traffic Study
G:	Biological Technical Report
G1:	Protocol Burrowing Owl Survey
G2:	Special Status Plant Species Survey Results
H:	Geotechnical Report
I:	Phase 1 Environmental Assessment

- **Documents Incorporated by Reference**. CEQA Guidelines §15150 allows for the incorporation "by reference all or portions of another document…[and is] most appropriate for including long, descriptive, or technical materials that provide general background but do not contribute directly to the analysis of a problem at hand." Documents, analyses, and reports that are incorporated into this EIR by reference are listed in Section 7.0, *References*, of this EIR. The purpose of incorporation by reference is to assist the Lead Agency in limiting the length of an EIR. Where this EIR incorporates a document by reference, the document is identified in the body of the EIR, citing the appropriate section(s) of the incorporated document and describing the relationship between the incorporated part of the referenced document and this EIR.

2.0 ENVIRONMENTAL SETTING

2.1 REGIONAL SETTING AND LOCATION

The 17.3-acre Project site is located in the City of Moreno Valley, in western Riverside County, California. Western Riverside County abuts San Bernardino County to the northeast, Orange County to the west and San Diego County to the south. The site's location in a regional context is shown on Figure 3-1, *Regional Map*, in Section 3.0, *Project Description*.

Riverside County is located in an urbanizing area of southern California commonly referred to as the Inland Empire. The Inland Empire is an approximate 28,000 square mile region comprising San Bernardino County, Riverside County, and the eastern tip of Los Angeles County. According to the Southern California Association of Governments (SCAG), this region is a fast-growing metropolitan area with large amounts of available land for future growth (SCAG, 2008a, 59-68). According to U.S Census data, the 2010 population of Riverside County was 2,189,641 (U.S. Census Bureau, 2011). SCAG forecast models predict that the population of Riverside County will grow to approximately 3.59 million persons (an approximate 1.4 million person increase) by the Year 2035 (SCAG, 2008b).

Unincorporated areas of Riverside County in the vicinity of the Project site include the unincorporated communities of Woodcrest and Mead Valley to the west and southwest, the unincorporated communities of Reche Canyon and Pigeon Pass to the north, and the unincorporated community of Lakeview and rugged terrain known as the "Badlands" to the east. The Project site is generally located to the north and northeast of the City of Perris and to the southeast of the City of Riverside. Additionally, the March Air Reserve Base (ARB) is located approximately 0.9-mile west of the site.

2.2 LOCAL SETTING AND LOCATION

The Project site is situated in the southern portion of the City of Moreno Valley. The property is rectangular-shaped and located immediately west of North Perris Boulevard, south of and adjacent to San Michele Road, approximately 1,150 feet east of Knox Street, and north of and adjacent to Nandina Avenue. Figure 3-2, *Vicinity Map*, in Section 3.0, *Project Description*, depicts the specific location of the Project site. The property encompasses Assessor Parcel Numbers (APNs) 316-200-001, 316-200-015, 316-200-019, 316-200-035, and a portion of APN 316-200-034. The Project site lies within Section 31 of Township 3 South, Range 3 West of the San Bernardino Base and Meridian.

Land within the southwestern portion of the City, including the Project site, is located with an area subject to the City's adopted Moreno Valley Industrial Area Plan (Specific Plan 208). Property in the Area Plan's boundaries was once rural in nature, but over the past decade has been transitioning into an important industrial and economic center for the City, as called for by the Area Plan. Several large-scale industrial and warehouse buildings have been developed and there are several approved development projects in this area that are pending construction. Subsection 2.3, below, describes the conditions surrounding the Project site in more detail.

2.3 SURROUNDING LAND USES AND DEVELOPMENT

As shown on Figure 2-1, *Surrounding Land Uses and Development*, the Project site is located in a portion of Moreno Valley that is developing as a center for distribution warehousing and light industrial land uses. Currently, the Project site is surrounded by a mixture of warehouse buildings, undeveloped lands, and other land uses located on properties designated and zoned for industrial development. Properties located north and south of Nandina Avenue and west of Perris Boulevard are developed or approved for development with distribution warehouse buildings. Lands located immediately south of Nandina Avenue across from the proposed Project site, in addition to lands located north of San Michele Road immediately across from the proposed Project site, are designated for industrial development pursuant to the City's General Plan and MVIAP, but are not yet entitled for development with specific projects.

Immediately abutting the proposed Project site on the west is property containing a warehouse building occupied by Harbor Freight Tools with associated parking areas and landscaping that was constructed pursuant to approved Plot Plan PA07-0166, beyond which is a warehouse distribution facility currently occupied by Modular Metal Fabrications, Inc. Lands located north of the site consist of undeveloped land, several existing non-conforming single-family residences, a automobile junk yard, and a large warehouse distribution facility currently occupied by O'Reilly Auto Parts. Land immediately east of the Project site includes undeveloped land and two warehouse distribution facilities currently occupied by El Dorado Stone and Walgreens. To the south of the proposed Project site are disturbed lands used for truck trailer parking and one non-conforming single-family residence, south of which is a warehouse distribution facility currently occupied by Harman Distribution Center.

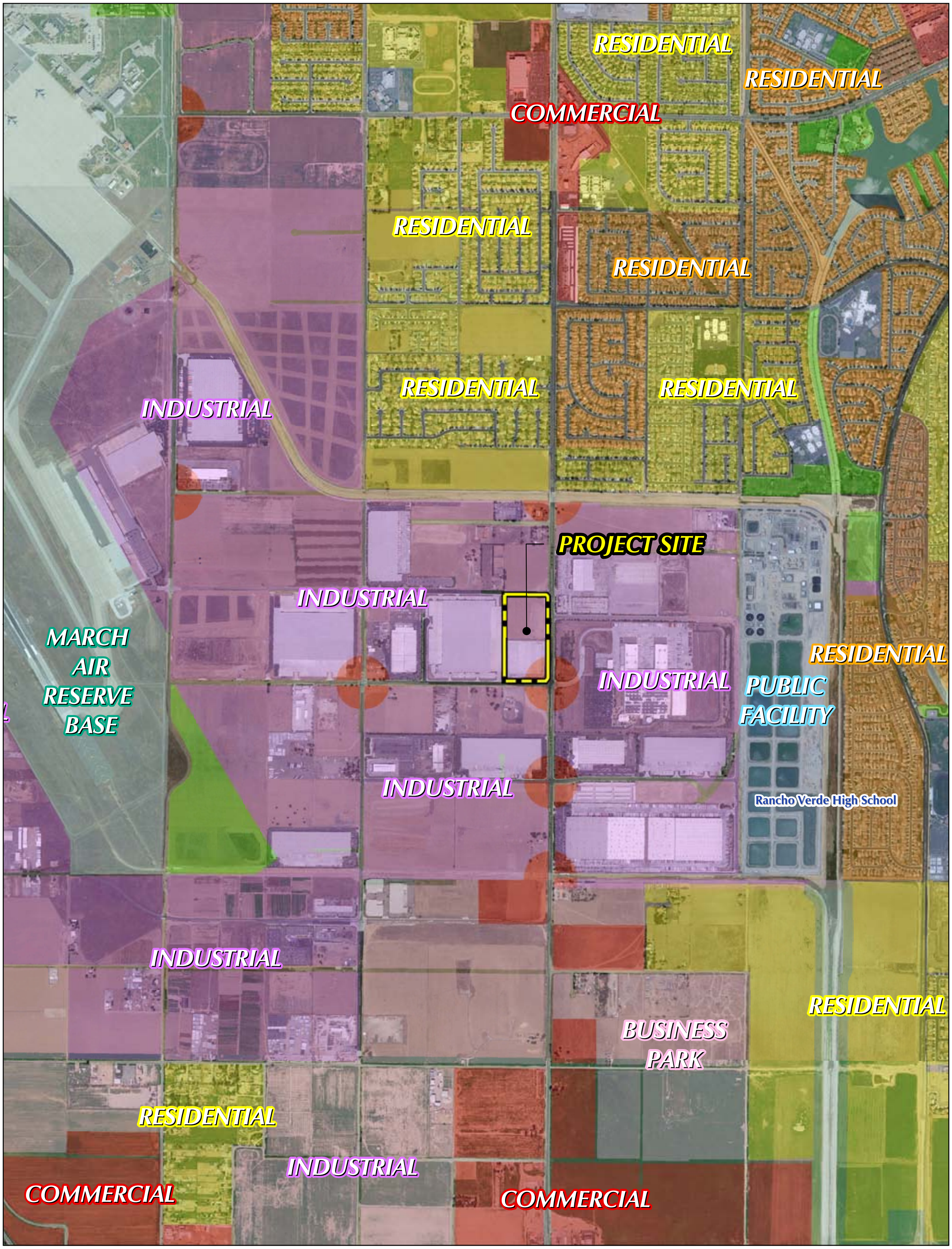
There is one school located within one (1) mile of the proposed Project site: El Potrero Elementary School, located approximately 0.7 mile northeast of the site. In addition, the March Air Reserve Base is located approximately 0.9 mile to the west

2.4 PLANNING CONTEXT

Provided in this subsection is a description of the Project site's land use designations, as applied by planning documents adopted by the City of Moreno Valley.

2.4.1 CITY OF MORENO VALLEY GENERAL PLAN

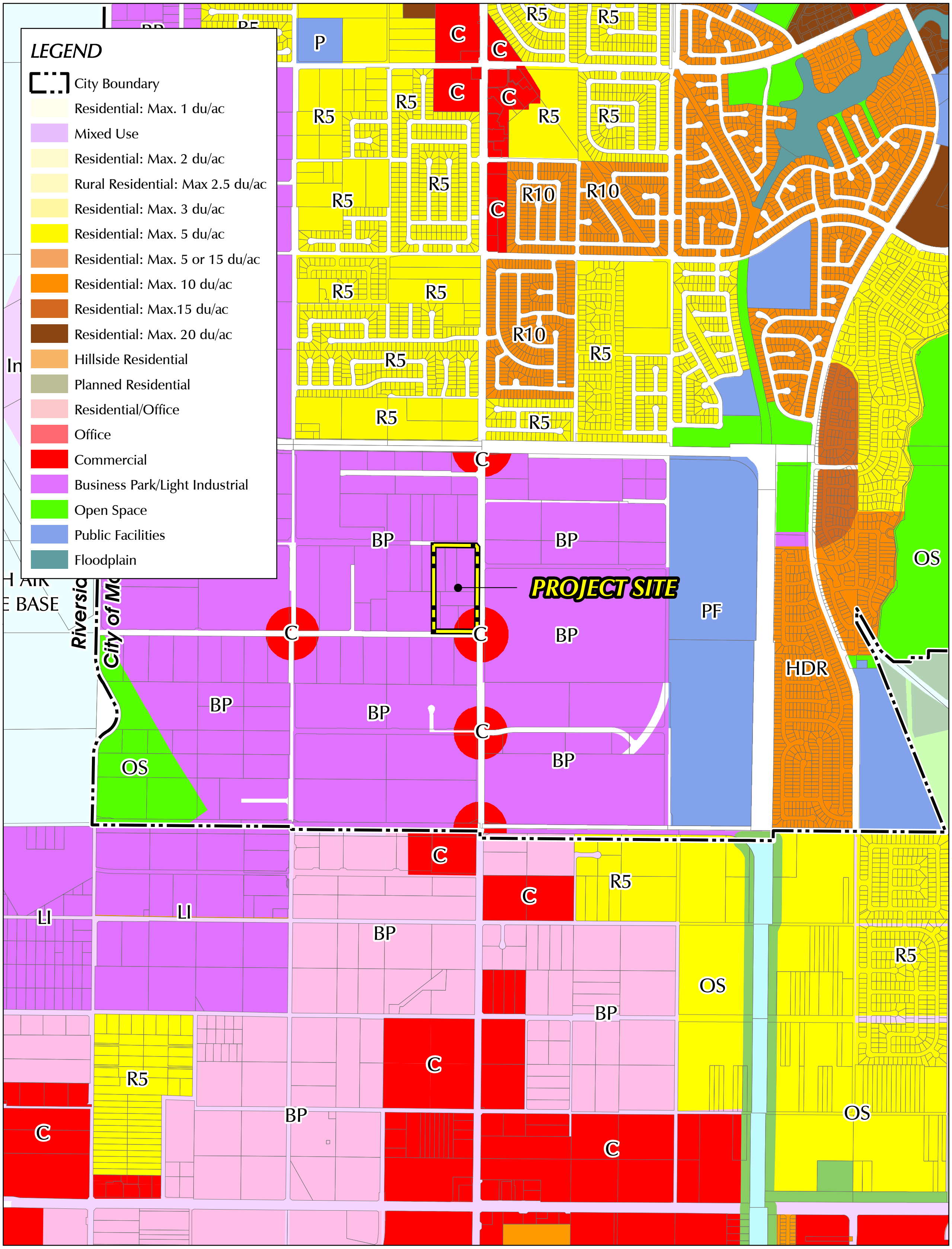
The City of Moreno Valley's prevailing planning document is its General Plan, dated July 11, 2006. As depicted on Figure 2-2, *Existing General Plan Land Use Designations*, the City's General Plan designates a majority of the Project site for Business Park/Light Industrial (BP) land uses. The southeast corner of the site is designated for Commercial (C) land uses. The Business Park/Light Industrial land use designation calls for employee intensive uses, including manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities, with a building intensity up to 1.0 floor area ratio (FAR). The Commercial land use designation calls for local retail and service commercial activities, with a building intensity up to 1.0 FAR.



Source: RCTLMA (2012), Eagle Aerial (2008), Google Earth (2012), Cities of Moreno Valley & Perris

Figure 2-1

Surrounding Land Uses and Development



Source: RCTLMA (2012), City of Moreno Valley, City of Perris

Figure 2-2

0 1,000 2,000 Feet

Existing General Plan Land Use Designations

2.4.2 MORENO VALLEY INDUSTRIAL AREA PLAN (SPECIFIC PLAN 208)

The Project site is located within the geographic boundaries of the MVIAP (Specific Plan 208). The MVIAP document is herein incorporated by reference pursuant to CEQA Guidelines §15150 and is available for review at the physical location indicated in Subsection 7.2, *Documents Incorporated by Reference*. As stated in the Area Plan, the Moreno Valley Industrial Area Plan "establishes development regulations and design standards that will ensure quality development which will positively contribute to the City's industrial employment base…" (City of Moreno Valley, 2002 I-4). The Moreno Valley Industrial Area Plan designates a majority of the subject property for Industrial land uses. The southeastern corner of the site is designated as an Industrial Support Area (see Figure 2-3, *Moreno Valley Industrial Area Plan Map*). The Industrial designation provides for a wide range of industrial land uses, while the Industrial Support Area provides for services to support industrial services without affecting the integrity of lands available for industrial uses.

2.4.3 ZONING

The development regulations and design standards specified in the MVIAP (Specific Plan 208) supersede the zoning standards contained in the City of Moreno Valley's Municipal Code. The Area Plan applies the "Industrial (I)" zoning designation to the proposed Project site, which permits a wide range of industrial and industrial/business related support uses.

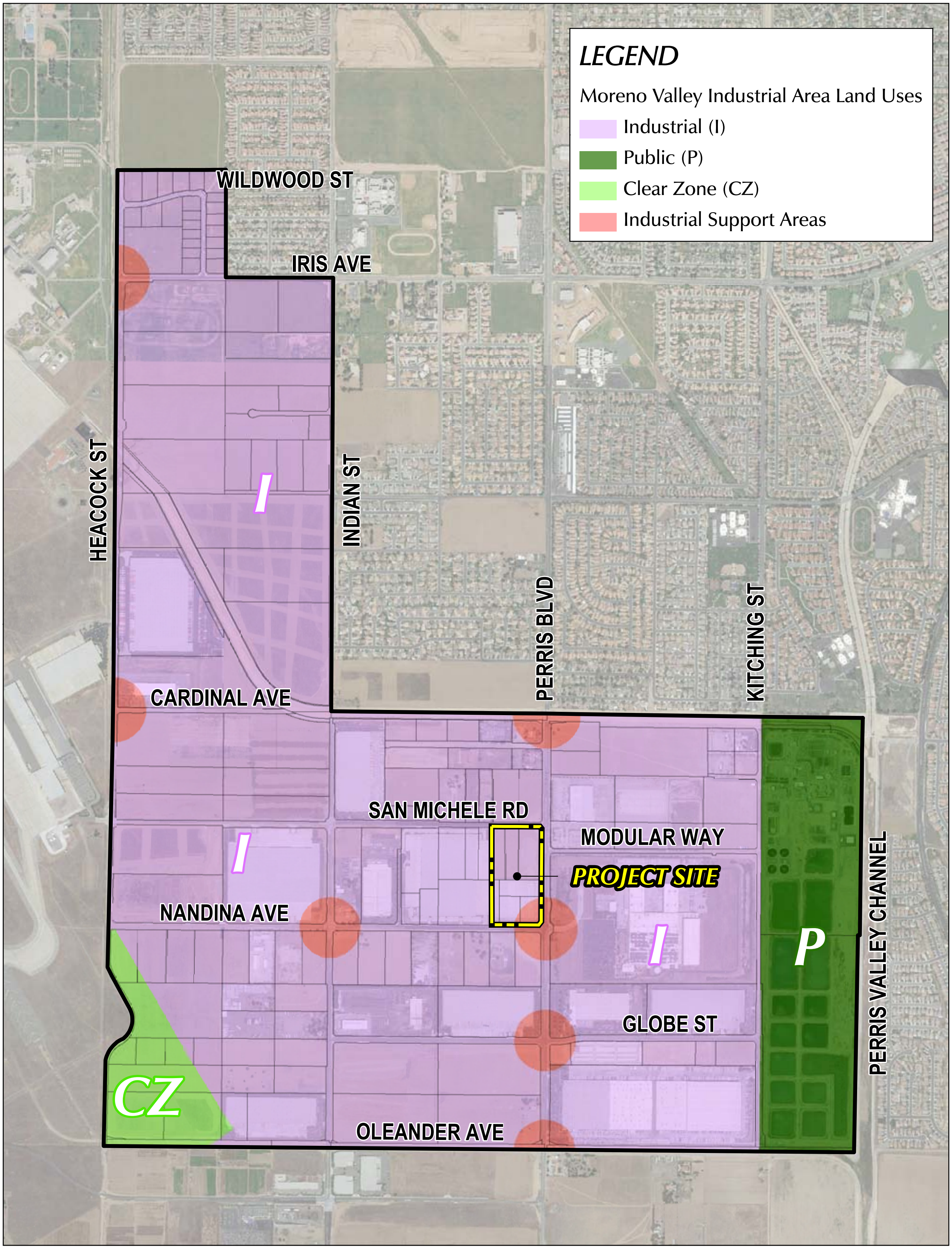
2.5 EXISTING PHYSICAL SITE CONDITIONS

Pursuant to CEQA Guidelines §15125, the physical environmental condition for purposes of establishing the setting of an EIR is the environment as it existed at the time the EIR's NOP was released for public review. The NOP for this EIR was released for public review on December 3, 2012, and the following subsections provide a description of the Project site's physical environmental condition as of that approximate date. More information regarding the Project site's environmental setting as related to the environmental topics evaluated in this EIR is provided in the various subsections of Section 4.0, *Environmental Analysis*.

2.5.1 LAND USE

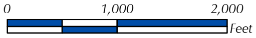
The area surrounding the Project site, as described previously in Subsection 2.3, is characterized by a mixture of undeveloped lands, warehouse buildings, and other land uses located on properties designated and zoned for industrial development by the City of Moreno Valley. The Project site is not used for agricultural production and is not located in an agricultural area. There are no Williamson Act Contract lands or Agricultural Preserves located on the site or in the immediately surrounding area.

As shown on Figure 2-4, *Aerial Photograph*, the northern half of the site (approximately 8.9 acres) is undeveloped and is routinely maintained (e.g., disced) to remove vegetation that may pose a wildland fire hazard. The southern half of the site (approximately 8.4 acres) is developed as a parking lot that is used for truck trailer parking, with a driveway access provided from Nandina Avenue and landscaping provided along Nandina Avenue and Perris Boulevard. Additional landscaping is provided at the boundary between the existing parking lot in the south and the undeveloped portion of the site in the north. There are no unique land uses or aesthetic features present on the property.



Source: RCTLMA (2012), Eagle Aerial (2008), Google Earth (2012), Moreno Valley Industrial Area Plan

Figure 2-3



Moreno Valley Industrial Area Plan Map

Source: RCTLMA (2012), Eagle Aerial (2008), Google Earth (2012)

0 0.25 0.5
Miles

Figure 2-4

Aerial Photograph

2.5.2 AIR QUALITY AND CLIMATE

The Project site is located in the 6,745-square-mile South Coast Air Basin (SCAB), which includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The SCAB is bound by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. As documented in the Project's air quality report (*Technical Appendix B* to this EIR), although the climate of the SCAB can be characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. More than 90% of the SCAB's rainfall occurs from November through April. Temperatures during the year range from an average minimum of 47°F in January to over 100°F maximum in the summer. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed "Santa Anas" each year.

The SCAB is currently not in attainment of state and/or federal standards established for Ozone (O3) one-hour and eight-hour, particulate matter (PM_{10} and $PM_{2.5}$), and Nitrogen Oxides (NO_X), and also not in attainment for Lead (Pb) in Los Angeles County (CARB, 2011). The South Coast Air Quality Management District (SCAQMD) conducts in-depth analyses of the toxic air contaminants and their resulting health risks for all of Southern California. This study, entitled, *Multiple Air Toxics Exposure Study in the South Coast Air Basin, MATES III*, predicted an excess cancer risk of 566 in one million for the vicinity of the Project site.

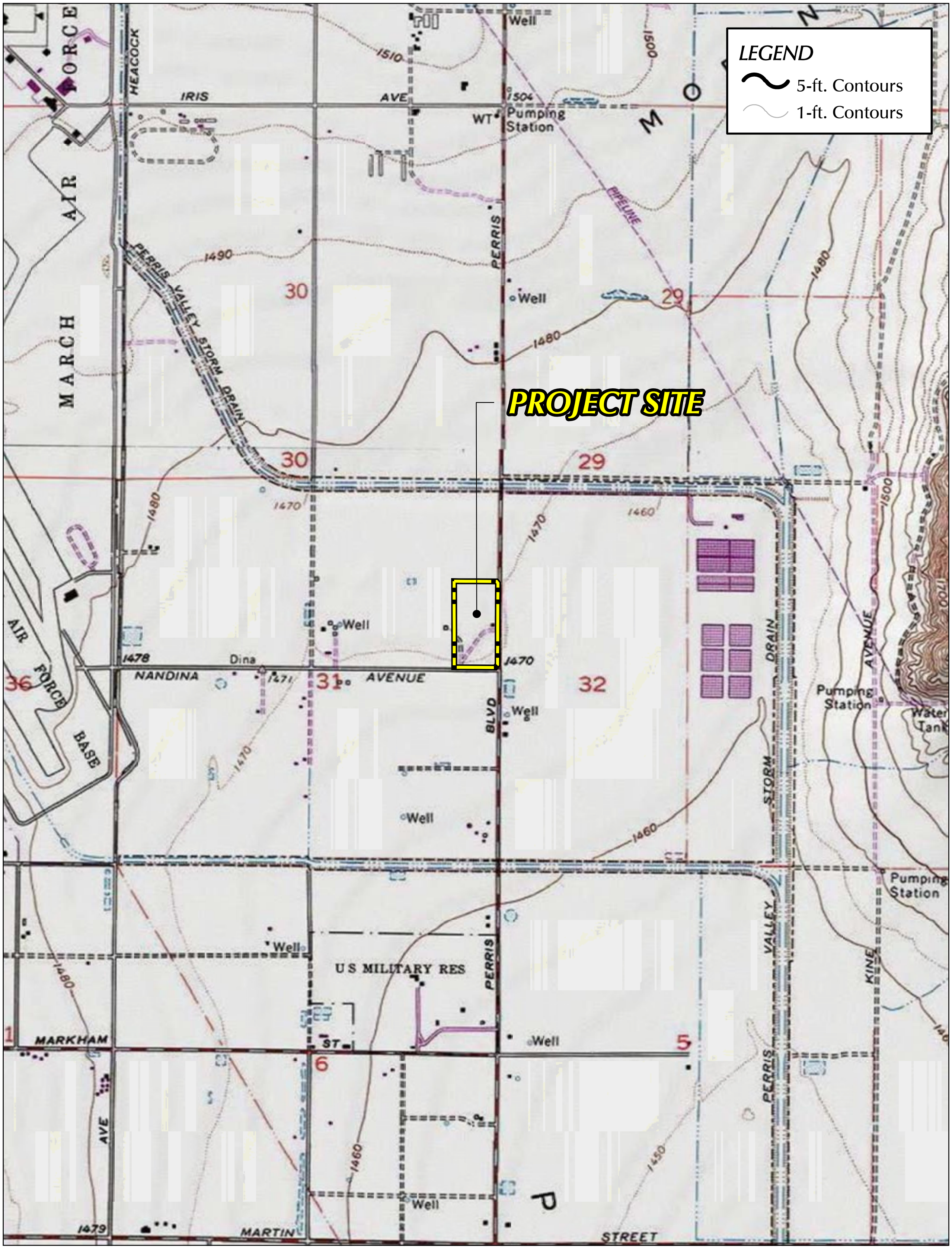
Refer to Subsection 4.1, *Air Quality*, and Subsection 4.3 *Greenhouse Gas Emissions*, for a more thorough discussion of the Project's site existing air quality and climate setting.

2.5.3 TOPOGRAPHY, GEOLOGY, AND SOILS

The proposed Project site consists of flat land. On-site elevations ranging from 1,474 feet above mean sea level (amsl) in the northwest corner to 1471 feet amsl in the southeastern corner. Figure 2-5, *Topographic Map*, depicts the Project site's existing topographic conditions. Based on prior geological investigations of the Project site that supported a prior 2008 MND and MND Addenda (SCH No. 1988080813), the property's earth materials consist of native alluvial soils extending from the ground surface to depths exceeding 25 feet, and consist of silty sands, sands, sandy silts, clayey sands, clayey silts and sandy clays. Based on information available from Eastern Municipal Water District's (EMWD's) West San Jacinto Groundwater Basin Management Plan 2010 Annual Report, groundwater is known to occur at depths of approximately 75 feet below the existing ground surface (EMWD 2011 21). The Project site is not located within an active Alquist-Priolo earthquake zone or a City-designated fault hazard zone, meaning that no active faults are mapped or known to exist on the Project site or in the immediate surrounding area. The nearest known active fault is the San Jacinto Valley section of the San Jacinto Fault zone located approximately 7.5 miles east of the Project site.

2.5.4 HYDROLOGY

The Project site is located in the Santa Ana River watershed, which drains a 2,650 square-mile area and is the principal surface flow water body within the region (SAWPA, 2010 Ch. 3). The San Jacinto River drains the area in the vicinity of the Project site. It starts in the San Jacinto Mountains



Source: RCTLMA (2012), USGS

0 1,000 2,000 Feet

Figure 2-5

Topographic Map

(approximately 30 miles southeast of the proposed Project site), runs westerly and discharges into Lake Elsinore. In wet years, the San Jacinto River will overflow the lake and connect with the Santa Ana River through the Temescal Wash (SAWPA, 2010 Ch. 3). Under existing conditions, two (2) water quality/detention basins are located on the southern portion of the Project site, located at the property's southwestern corner and parallel to the site's frontage with Nandina Avenue. These basins were constructed as part of approved Parcel Map No. 35859 (PA07-0165) and facilitate drainage flow from the southern portion of the property to the City's storm drain system.

2.5.5 BIOLOGICAL RESOURCES

The Project site contains few biological resources. The southern portion of the property is developed as a truck parking lot and the northern portion of the property is disturbed and regularly disced for fire fuel management. Regionally, the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) is a comprehensive, multi-jurisdictional Habitat Conservation Plan (HCP) focusing on the conservation of sensitive plant and animal species and their associated habitats in western Riverside County. The City of Moreno Valley approved the MSHCP on January 13, 2004. The MSHCP identifies a Criteria Area, in which habitat conservation efforts are targeted. The Project site is not located with the Criteria Area. As such, the site is not targeted for open space conservation as part of the regional plan for habitat conservation (Riverside County, 2003c, Vol. 1 Ch. 3).

2.5.6 CULTURAL RESOURCES

The Project site contains no historic resources, no known cultural or paleontological resources, and has a low potential for the discovery of subsurface resources. According to Figure 5.10-3 of the Moreno Valley General Plan Final EIR, mountainous areas in the eastern portion of the City, known as the Badlands, have the greatest potential for encountering paleontological resources in Moreno Valley (City of Moreno Valley, 2006b). The Project site is not located in close proximity to the Badlands. From an archaeological perspective, Moreno Valley is located in the traditional tribal use areas of Native American Tribes, particularly the Luiseno and Cahuilla Indians. Although no archaeological resources are known to be present on the Project site and have a low potential for being discovered beneath the surface of the site, subsurface resources still have the potential to exist.

2.5.7 TRANSPORTATION

Interstate 215 (I-215), Interstate 15 (I-15), State Route 60 (SR-60) and State Route 91 (SR-91) are major vehicular travel routes in the region of the Project site. The Project site is located approximately 1.9 miles east of I-215, easterly of the Harley Knox Boulevard interchange. From the Harley Knox Boulevard interchange, I-215 connects with I-15 approximately 24 roadway miles to the south and connects with SR-60 approximately 6.0 roadway miles to the north.

The Project site is located immediately south of San Michele Road, west of Perris Boulevard, north of Nandina Avenue, and approximately 1,150 feet east of Knox Street. Existing traffic on nearby roadways consists of both passenger vehicles and trucks accessing the existing industrial/warehouse developments in the area. The City of Moreno Valley's designated truck route includes Cactus Avenue, Frederick Street, Heacock Street, San Michele Road, Nandina Avenue, and Indian Street south of San Michele Road.

Regarding other forms of transportation, field observations indicated that there is nominal pedestrian and bicycle activity in the area (refer to *Technical Appendix F*). The Riverside Transit Agency (RTA) operates bus services along Perris Boulevard via Route 19. There is currently no commuter rail service in the City of Moreno Valley, but a route is planned along the west side of I-215 called the Perris Valley Line, with a planned station at Alessandro Boulevard, approximately 7.0 roadway miles from the Project site (RCTC, n.d.). Approximately 0.9 mile west of the Project site is the March ARB/Inland Port Airport (IPA), at which the airport is used by military and government aircraft with limited use by civilian aircraft. Although air cargo service was discontinued in 2008, the March ARB/IPA Joint Land Use Study (March JPA, 2010 Ch. 2), discloses the potential for increased general aviation use.

Refer to Subsection 4.4, *Transportation/Traffic*, for a more thorough discussion of the Project's site existing transportation setting.

2.5.8 NOISE

Primary sources of noise in the Project vicinity include vehicle noise, aircraft noise, and noise from construction and operational activities associated with development. To determine the existing acoustical setting, 24-hour noise measurements were taken in the Project study area by Urban Crossroads, Inc. at five (5) locations on October 25, 2012. Measured hourly noise levels ranged from 53.5 to 66.9 decibels (dBA Leq), resulting in Community Noise Equivalent Levels (CNELs) ranging from 61.4 CNEL to 66.9 CNEL (refer to *Technical Appendix E*).

Refer to Subsection 4.3, *Noise*, for a more thorough discussion of the Project's site existing noise setting.

2.5.9 UTILITIES AND SERVICE SYSTEMS

The Project site is located in the service area of Eastern Municipal Water District (EMWD) for domestic water and sewer service. EMWD manages the domestic water supply and delivery service within its 555 square mile service area, including the City of Moreno Valley, all or portions of six other cities, and a portion of unincorporated Riverside County. As documented in EMWD's 2010 Urban Water Management Plan, EMWD has four sources of water supply: imported water from the Metropolitan Water District (MWD), recycled water, local groundwater production, and desalted groundwater (EMWD, 2011 Ch. 3). EMWD has an adopted Water Shortage Contingency Plan (EMWD Ordinance 117.2) that applies regulations and restrictions on the delivery of and consumption of water during water shortages. Regarding sewer collection and treatment, EMWD collects and treats all of the wastewater collected in its service area to tertiary standards. Treated wastewater is disposed of by means of customer sales, discharge to Temescal Creek, and through percolation and evaporation while stored in EMWD ponds (EMWD, 2011, Ch. 3). Solid waste collection and disposal in the Project area is conducted by Waste Management of the Inland Empire, a division of Waste Management, Inc. Landfills that have the potential of receiving solid waste from the Project site include the El Sobrante Landfill, the Badlands Sanitary Landfill, and the Lamb Canyon Sanitary Landfill.

3.0 PROJECT DESCRIPTION

This section provides all of the information required by CEQA Guidelines §15124, including: a description of the Project's precise location and boundaries; a statement of the Project's objectives; a description of the Project's technical, economic, and environmental characteristics; and a description of the intended uses of this EIR including a list of government agencies that are expected to use this EIR in their decision-making processes, a list of the permits and approvals that are required to implement the Project, and a list of related environmental review and consultation requirements.

Under existing conditions, the 17.3-acre Project site contains an 8.3-acre trailer parking yard and 9.0 acres of disturbed, undeveloped land that is approved for development as a parking lot which has not yet been constructed. The proposed Project involves demolition and removal of the existing trailer yard, grading of the 17.3-acre property, and construction and operation of a warehouse building containing 400,130 square feet (s.f.) of interior building space. Associated improvements to the property include, but are not limited to loading docks, surface parking areas, drive aisles, utility infrastructure, landscaping, exterior lighting, signage, and water quality/detention basins.

This EIR (P12-064) analyzes the physical environmental effects associated with all components of the Project, including planning, construction, and operation. Approval of a Plot Plan (PA12-0023) is requested of the City of Moreno Valley to implement the proposed Project. No other discretionary actions are required on the part of the City to approve the Project; nonetheless, this EIR covers any and all other discretionary and administrative approvals that may be required of the City of Moreno Valley or other governmental agencies to fully implement the proposed Project.

3.1 PROJECT LOCATION

The Project site consists of 17.3 acres in the southern portion of the City of Moreno Valley, Riverside County, California (see Figure 3-1, *Regional Map*). From a regional perspective, the Project site is located north of the City of Perris, southeast of the City of Riverside, and south, east, and west of unincorporated areas in Riverside County. Interstate 215 (I-215) is located approximately 1.85 miles to the west of the site and State Route 60 (SR-60) is located approximately 4.85 miles to the north of the site. At the local scale, the Project site is situated south of San Michele Road, north of Nandina Avenue, west of Perris Boulevard, and about 1,150 feet east of Knox Street, as illustrated on Figure 3-2, *Vicinity Map*, and Figure 3-3, *USGS Topographic Map*. Refer to EIR Section 2.0 for more information about the Project site's regional and local setting.

3.2 STATEMENT OF OBJECTIVES

The primary objective of the proposed Project is to construct and operate a logistics center warehouse building in the City of Moreno Valley on a property designated for industrial development by the Moreno Valley Industrial Area Plan (Specific Plan 208.) The following is a list of specific objectives sought by the proposed Project.

A. To construct and operate a logistics center warehouse building in the City of Moreno Valley on a property designated for industrial development by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208.)

B. To develop a logistics center warehouse building that is feasible to construct and operate and that appeals to light industrial and warehouse distribution tenants seeking to locate in the Moreno Valley area.

C. To make efficient use of property designated for industrial development by developing a logistics center warehouse building on a property that is adjacent to existing warehouse development and that achieves a minimum floor area ratio (FAR) of 0.5.

D. To construct and operate a logistics center warehouse building within five miles of major regional transportation corridors.

E. To attract new businesses and jobs to the City of Moreno Valley, thereby providing a more equal jobs/housing balance both in the city and in Riverside County and reducing the need for members of the existing local workforce to commute outside the area for employment.

3.3 PROPOSED PLOT PLAN PA12-0023

The Project involves the construction and operation of one warehouse building containing 400,130 s.f. of interior floor space. The only discretionary action required to be approved by the City of Moreno Valley is Plot Plan PA12-0023. Other discretionary and administrative actions that would or could be necessary to implement the proposed Project are listed in Table 3-1, *Matrix of Project Approvals/Permits*. A detailed description of the proposed Project is provided in the following subsections.

Table 3-1 Matrix of Project Approvals/Permits

PUBLIC AGENCY	APPROVALS AND DECISIONS
City of Moreno Valley	
Proposed Project – City of Moreno Valley Discretionary Approvals	
City of Moreno Valley Planning Commission	• Approve, conditionally approve, or deny PA12-0023. • Reject or certify this EIR along with appropriate CEQA Findings (P12-064).
Subsequent City of Moreno Valley Discretionary and Ministerial Approvals	
City of Moreno Valley Subsequent Implementing Approvals	• Approve Final Maps, parcel mergers, lot line adjustments, or parcel consolidations, as may be appropriate. • Approve Conditional or Temporary Use Permits, if required. • Issue Grading Permits. • Issue Building Permits. • Approve Road Improvement Plans. • Issue Encroachment Permits. • Accept public right-of-way dedications.
Other Agencies – Subsequent Approvals and Permits	
Riverside County Flood Control and Water Conservation District	• Approvals for drainage infrastructure.
Eastern Municipal Water District	• Approvals for water and sewer infrastructure.
Santa Ana Regional Water Quality Control Board	• Issuance of a Construction Activity General Construction Permit. • Issuance of a National Pollution Discharge Elimination System (NPDES) Permit.

3.3.2 GENERAL DESCRIPTION OF PLOT PLAN PA12-0023

As shown on Figure 3-4, *Plot Plan PA12-0023,* the Project Applicant proposes to construct and operate a new logistics center warehouse building on a 17.3-acre property in accordance with the "Industrial" land use designation applied the property by the Moreno Valley Industrial Area Plan (MVIAP). Although the MVIAP designates an "Industrial Support Area" overlay on the southeastern corner of the site, which allows industrial support uses to occur within 300 feet of the Perris Boulevard/Nandina Avenue intersection, the Project Applicant has elected not to include industrial support uses as part of the proposed Project.

The proposed building is designed to contain 400,130 s.f. of interior floor space consisting of 394,130 s.f. of warehouse space and 6,000 s.f. of office and mezzanine space. As shown on Figure 3-5*, Plot Plan PA12-0023 Detail*, the front door and office would be positioned at the southeast corner of the building, facing the intersection of Perris Boulevard/Nandina Avenue. A total of 59 loading bays are planned for loading, unloading, and short-term parking of truck trailers. On the 17.3 acre property, 0.3 acres would be dedicated to the City of Moreno Valley for the widening of San Michele Road, so the total net parcel acreage is 17.0 acres. Over the 17.0 net acre parcel, the proposed building calculates to a floor area ratio (FAR) of 0.51.

The proposed Plot Plan also depicts the number and location of proposed driveway entrances and passenger car and trailer parking spaces. The Plot Plan specifies 159 passenger car parking spaces (including six (6) spaces accessible to persons with disabilities) and 63 spaces for trailer parking. The trailer parking spaces and the building's dock doors are proposed to have restricted access by automatic gates. Bicycle parking also would be provided on the property in compliance with the City of Moreno Valley Municipal Code Section 9.11. Two (2) driveway entrances would occur at San Michele Road and two (2) driveway entrances would occur at Nandina Avenue.

3.3.3 ARCHITECTURE

Figure 3-6, *Architectural Elevations*, depicts conceptual architectural elevations for the proposed building. The structure would be 40 feet tall, although architectural projections may exceed 40 feet. Exterior materials include concrete tilt-up panels and glass windows with blue reflective glazing. The color palette for the exterior building façades includes shades of white and gray. The building interior is designed to provide a main warehouse floor, office space, and mezzanine. Although the building has the potential to be divided for multiple tenant use, it is designed for a single user/ occupant (Cochran, 2012a).

3.3.4 CONCEPTUAL LANDSCAPE PLAN

A conceptual landscape plan accompanies the proposed Plot Plan application and is depicted on Figure 3-7, *Conceptual Landscaping Plan*. The landscape plan indicates that trees, shrubs, and groundcovers are proposed to be planted along the property's street frontages at Nandina Avenue, Perris Boulevard, and San Michele Road, at building entries and driveways, in and around proposed detention/water quality basins, around the perimeter of the building except for the west-facing façade where the loading bay doors would occur, and in the passenger car parking areas.

Proposed landscaping would be ornamental in nature, except within detention basins where plant materials would be selected to serve water quality functions. Prior to the issuance of a building permit, the Project Applicant would be required to submit specific planting and irrigation plans to the City of Moreno Valley for review and approval. The plans would be required to comply with Chapter 9.17 of the City of Moreno Valley Municipal Code, which establishes requirements for landscape design, automatic irrigation system design, and water-use efficiency.

3.3.5 INFRASTRUCTURE IMPROVEMENTS

A. Public Roadway Improvements

The existing public street network servicing and abutting the Project site consists of San Michele Road to the north, Perris Boulevard to the east, and Nandina Avenue to the south. Public roadway dedications and improvements that are proposed as part of the Plot Plan are described below.

- **Perris Boulevard**. Perris Boulevard is a north-south oriented roadway located along the Project site's eastern boundary. The proposed Project would install curb, gutter, and sidewalk improvements along its frontage as specified by the final conditions of approval for the proposed Project and applicable City of Moreno Valley standards. The Project also would provide space for a transit stop along its Perris Boulevard frontage for the construction of a turnout for mass transit vehicles.

- **San Michele Road**. San Michele Road is an east-west oriented roadway located along the northern boundary of the Project site. As part of the proposed Project, 0.3 acres of land would be conveyed to the City of Moreno Valley to widen the San Michele Road public right-of-way along the northern Project frontage. The proposed Project would improve San Michele Road along the property's frontage by adding curb, gutter, sidewalk, and pavement as will be required by the final conditions of approval for the proposed Project and applicable City of Moreno Valley standards.

A complete description of other Project-required transportation improvements is provided in EIR Subsection 4.4, *Transportation and Traffic*.

B. Water and Wastewater Conveyance Facilities

Water and wastewater service is provided to the Project site by Eastern Municipal Water District (EMWD). All proposed water and sewer facilities are required to be designed in accordance with EMWD standards and would require review and approval by EMWD prior to their installation. The locations of proposed fire hydrants also require review and approval by the Moreno Valley Fire Department prior to installation.

☐ Water Service

Fire and domestic service connections have already been provided to the site during the construction of the warehouse building located to the immediate west. Water service is available to the Project site under existing conditions via EMWD's existing 12" line located beneath Nandina Avenue. As part of the proposed Project, subsurface water lines would be installed on the property to connect with the existing system. Also, a pump house is proposed to be constructed on the site associated with the Project's fire protection system. No water line installations are proposed beyond the boundaries of the Project site.

❑ Wastewater Service

Wastewater service is available to the Project site under existing conditions via EMWD's existing 15" sewer main located beneath Nandina Avenue. A 6" lateral has already been provided to the Project site during construction of the warehouse building to the immediate west. As part of the proposed Project, subsurface conveyance lines would be installed on the property to connect with the existing system. No wastewater line installations are proposed beyond the boundaries of the Project site.

C. Drainage

Under existing conditions, two (2) water quality/detention basins are located on the southern portion of the Project site, located at the property's southwestern corner and parallel to the site's frontage with Nandina Avenue. These basins were constructed as part of approved Parcel Map No. 35859 (PA07-0165) to facilitate drainage flow from the southern portion of the property to the City's storm drain system. As part of the proposed Project, the existing basins would be modified to accommodate some additional runoff area as a new basin would be installed along Perris Boulevard.

D. Earthwork and Grading

Earthwork and grading would occur on the 17.3-acre Project site and no area of the site would be left undisturbed. According to the Plot Plan, earthwork and grading activities would result in approximately 13,300 cubic yards of cut and 42,000 cubic yards of fill. Depths of grading would extend from approximately 2.0 to 5.0 feet in depth, except in the areas of proposed detention basins that would be excavated to depths of approximately 4.0 to 5.0 feet. Import of between 28,000 and 30,000 cubic yards of earth materials is anticipated. Although the location of the borrow site is not known at this time, this EIR assumes that the borrow site will be located in close proximity to the Project site and have all necessary governmental approvals for disturbance (Cochran, 2012a). The Project site is relatively flat and proposed grading would not create manufactured slopes except around the proposed detention/water quality basins. As shown on the Plot Plan, manufactured slopes that would be created around the on-site basins would be up to approximately 4.0 feet in height with a maximum gradient of 2:1.

E. Construction Characteristics

The proposed Project would be constructed over the course of approximately eight (8) months. First, demolition of the existing parking lot would occur. It is expected that approximately 12,800 cubic yards of demolition debris would be generated, which would be processed and reused during Project construction (Webb, 2012). After demolition, the 17.3 acre parcel would be graded, the underground utility system would be installed and fine grading would occur. Next, surface materials would be poured and the building would be erected, connected to the underground utility system, and painted. Lastly, landscaping and fencing/walls would be installed. The approximate construction schedule provided by the Project Applicant is as follows (Cochran, 2012a).

- Demolition: 2 weeks
- Grading and subsurface improvements: 3 weeks

- Utility installation, building construction: 6 months
- Landscaping and fencing/wall installation: 1 month

Construction equipment is expected to operate on the Project site eight (8) hours per day, five (5) days per week. The types and numbers of heavy equipment expected to be used during construction activities are listed in the air quality technical report attached to this EIR as *Technical Appendix B.* For purposes of evaluation in this EIR, it is assumed that the new building would be operational in late 2013.

F. Operational Characteristics

At the time this EIR was prepared, the future tenant of the proposed building was unknown. For the purpose of analysis in this document, the future uses on site are assumed to be any of those uses permitted by the Moreno Valley Industrial Area Plan's "Industrial" designation and the City of Moreno Valley Municipal Code. Furthermore, this EIR assumes the proposed building would be operational 24 hours per day. The Project Applicant estimates that the building would likely be used as a warehouse for dry goods storage (Cochran, 2012a). The building is not designed to accommodate tenants that require warehouse refrigeration. Business operations would be conducted within enclosed buildings, with the exception of traffic movement, parking, and the loading and unloading of trucks at designated loading bays.

Because the building tenant is not yet known, the number of jobs that the Project would generate cannot be precisely determined; therefore, for purposes of analysis within this EIR, employment estimates are calculated using average employment density factors reported by the Southern California Association of Governments in their publication "Employment Density Study Report," (SCAG 2001). This publication reports that for every one (1) acre of warehouse land use in Riverside County, the median number of jobs supported is 11.69 (SCAG 2001, Table 9A). Thus, the proposed Project's 17.0 net acres is expected to support approximately 191 jobs. (Refer to EIR Subsection 5.3, *Growth-Inducing Impacts*, for more information about the Project's employment estimate calculations.).

3.4 STANDARD REQUIREMENTS AND CONDITIONS OF APPROVAL

The proposed Plot Plan PA12-0023 and its technical aspects were reviewed in detail by various City of Moreno Valley departments and divisions. These departments and divisions are responsible for reviewing land use applications for compliance with City codes and regulations. They also were responsible for reviewing this EIR (P12-064) for technical accuracy and compliance with CEQA. The City of Moreno Valley departments and divisions responsible for technical review include:

- Community & Economic Development Department, Building and Safety Division
- Community & Economic Development Department, Land Development Division
- Community & Economic Development Department, Planning Division
- Public Works Department, Transportation Engineering Division
- Public Works Department, Special Districts Division
- Fire Prevention Bureau
- Moreno Valley Utility

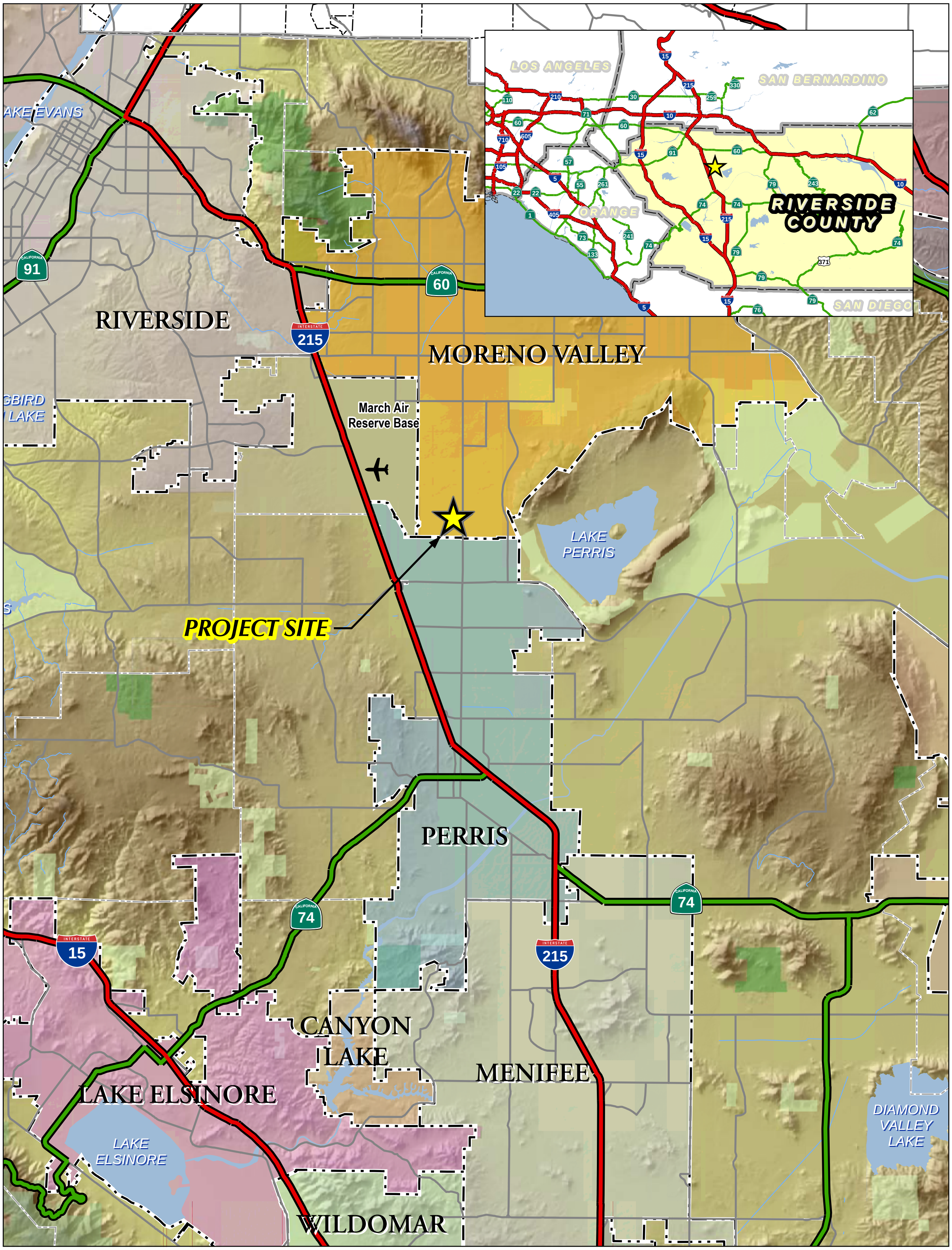
Review of proposed Plot Plan PA12-0023 by the City departments and divisions listed above will result in the production of a comprehensive set of draft Conditions of Approval that will be available for public review prior to consideration of the proposed Project by the Moreno Valley Planning Commission. These conditions will be considered by the Planning Commission in conjunction with their consideration of PA12-0023. If approved, the Project will be required to comply with all imposed Conditions of Approval.

Conditions of Approval and other applicable regulations, codes, and requirements to which the Project is required to comply and that result in the reduction or avoidance of an environmental impact are specified in each subsection of EIR Section 4.0, Environmental Analysis. These are referred to as "Project Requirements" throughout this EIR.

3.5 SUMMARY OF REQUESTED ACTIONS

The City of Moreno Valley has primary approval responsibility for the proposed Project. As such, the City serves as the Lead Agency for this EIR pursuant to CEQA Guidelines §15050. The role of the Lead Agency was previously described in detail in Subsection 1.4 of this EIR). The City Planning Commission will consider the proposed Plot Plan for approval, approval with changes, or denial. The Planning Commission's decision is final unless appealed to the City Council. The City will consider the information contained in this EIR and this EIR's Administrative Record in its decision-making processes. Upon approval of the Project and certification of this EIR, the City would conduct administrative reviews and grant ministerial permits and approvals to implement Project requirements and conditions of approval. A list of the primary actions under City jurisdiction is provided in Table 3-1, *Matrix of Project Approvals/Permits*.

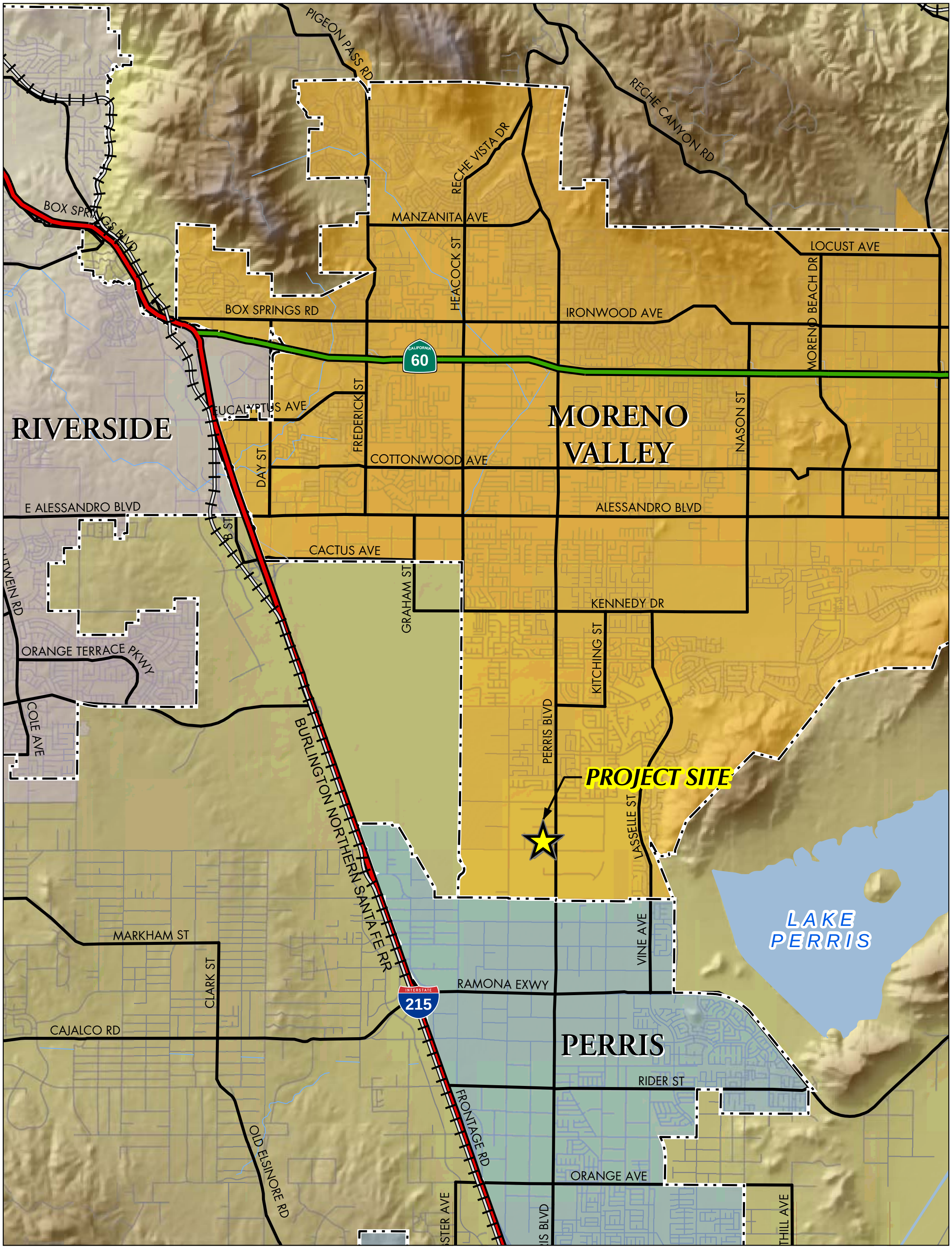
Also provided in Table 3-1 is a list of other authorities that are expected to use this EIR and a summary of the subsequent actions associated with the Project. This EIR covers all federal, state, local government and quasi-government approvals that may be needed to construct or implement the Project, whether or not they are explicitly listed in Table 3-1 or elsewhere in this EIR (CEQA Guidelines Section 15124(d)).



Source: RCTLMA (2012)

Figure 3-1

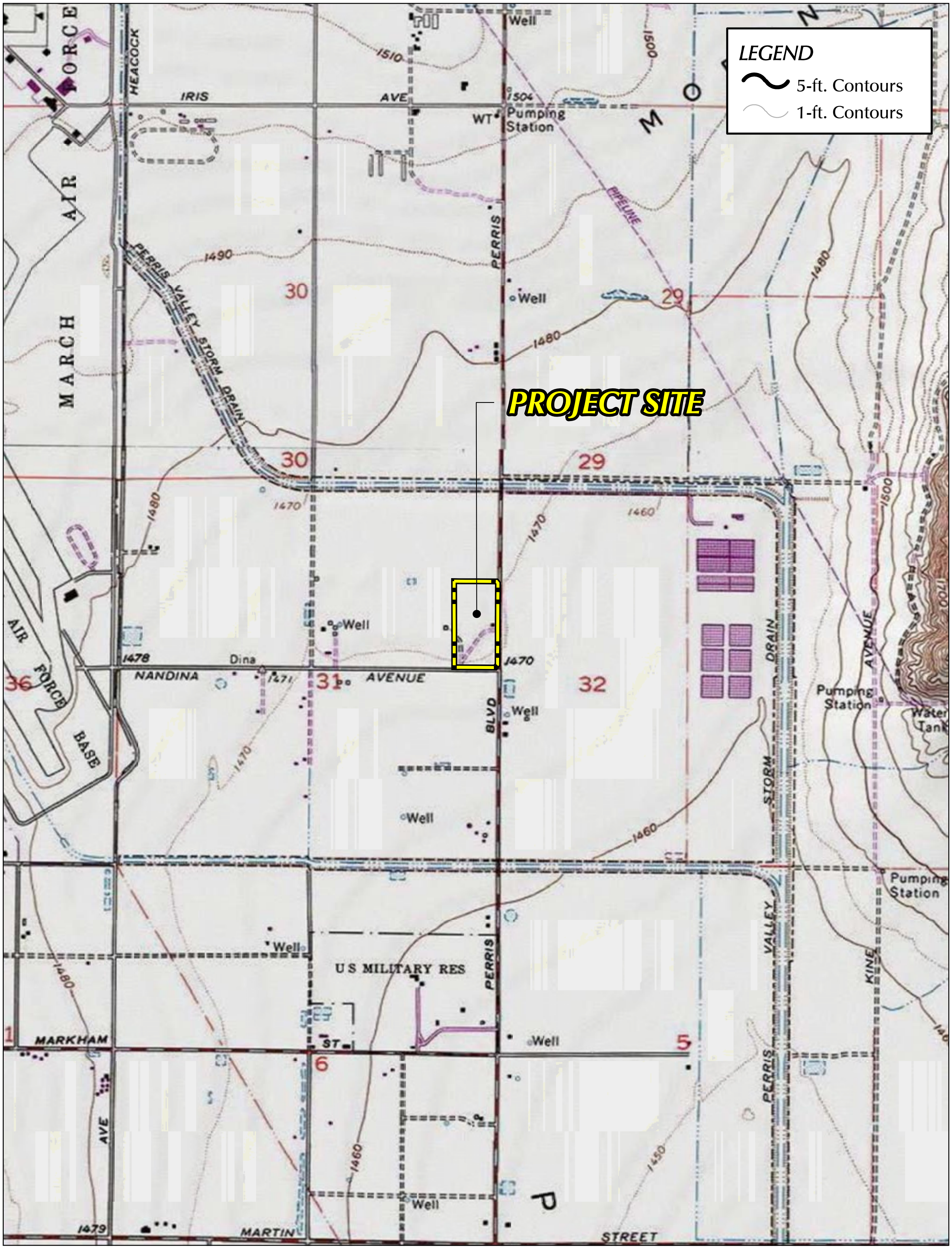
Regional Map



Source: RCTLMA (2012)

Figure 3-2

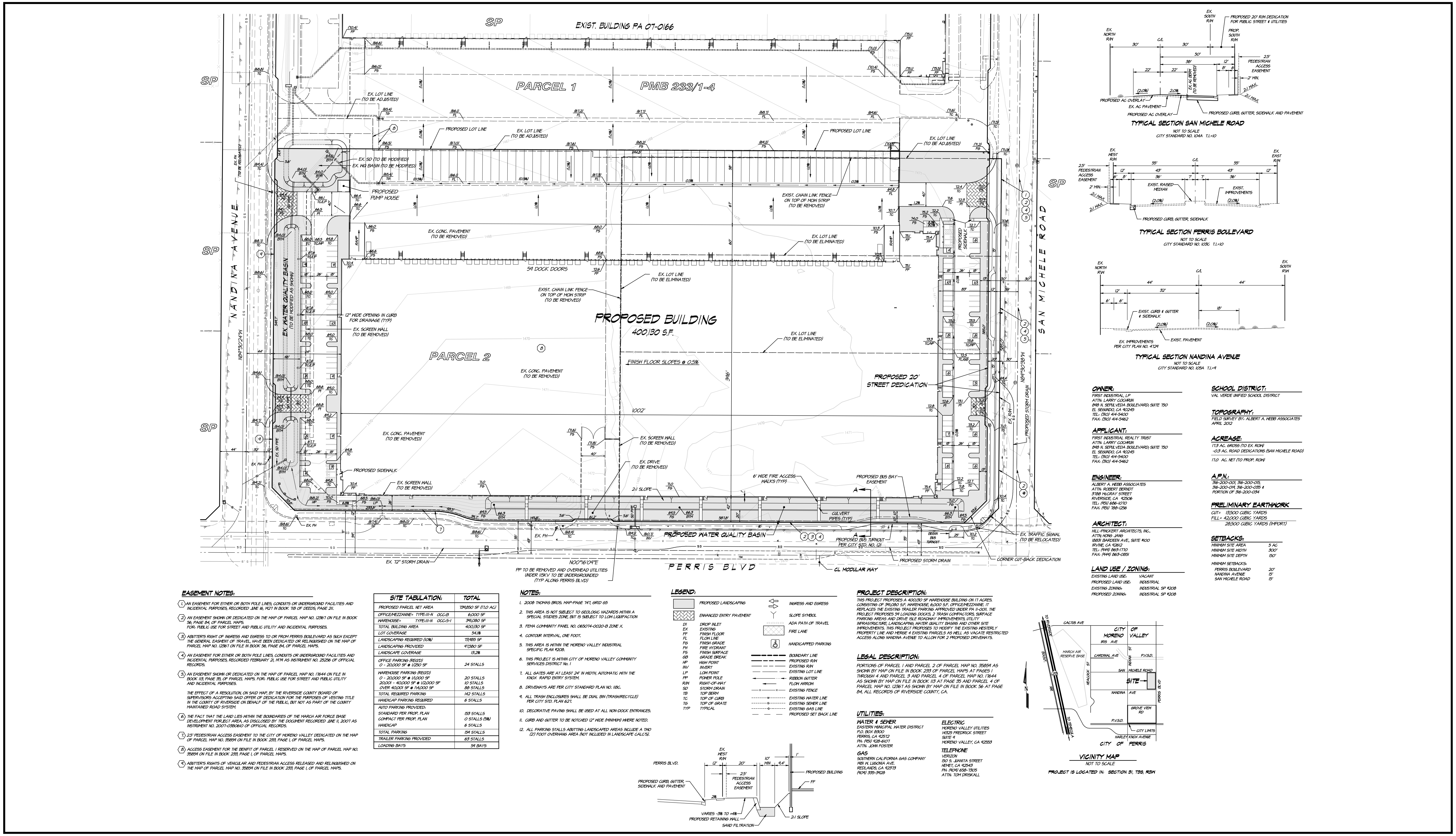
Vicinity Map



Source: RCTLMA (2012), USGS

Figure 3-3

USGS Topographic Map



EASEMENT NOTES:

1. AN EASEMENT FOR EITHER OR BOTH POLE LINES, CONDUITS OR UNDERGROUND FACILITIES AND INCIDENTAL PURPOSES, RECORDED JUNE 16, 1927 IN BOOK 718 OF DEEDS, PAGE 211.
2. AN EASEMENT SHOWN OR DEDICATED ON THE MAP OF PARCEL MAP NO. 12367 ON FILE IN BOOK 56, PAGE 84, OF PARCEL MAPS.
FOR: PUBLIC USE FOR STREET AND PUBLIC UTILITY AND INCIDENTAL PURPOSES.
3. ABUTTER'S RIGHT OF INGRESS AND EGRESS TO OR FROM PERRIS BOULEVARD AS SUCH EXCEPT THE GENERAL EASMENT OF TRAVEL, HAVE BEEN DEDICATED OR RELINQUISHED ON THE MAP OF PARCEL MAP NO. 12367 ON FILE IN BOOK 56, PAGE 84, OF PARCEL MAPS.
4. AN EASEMENT FOR EITHER OR BOTH POLE LINES, CONDUITS OR UNDERGROUND FACILITIES AND INCIDENTAL PURPOSES, RECORDED FEBRUARY 21, 1979 AS INSTRUMENT NO. 25256 OF OFFICIAL RECORDS.
5. AN EASEMENT SHOWN OR DEDICATED ON THE MAP OF PARCEL MAP NO. 17644 ON FILE IN BOOK 113, PAGE 35, OF PARCEL MAPS. FOR: PUBLIC USE FOR STREET AND PUBLIC UTILITY AND INCIDENTAL PURPOSES.

   THE EFFECT OF A RESOLUTION, ON SAID MAP, BY THE RIVERSIDE COUNTY BOARD OF SUPERVISORS ACCEPTING SAID OFFER OF DEDICATION FOR THE PURPOSES OF VESTING TITLE IN THE COUNTY OF RIVERSIDE ON BEHALF OF THE PUBLIC, BUT NOT AS PART OF THE COUNTY MAINTAINED ROAD SYSTEM.
6. THE FACT THAT THE LAND LIES WITHIN THE BOUNDARIES OF THE MARCH AIR FORCE BASE DEVELOPMENT PORJECT AREA, AS DISCLOSED BY THE DOCUMENT RECORDED JUNE 11, 2007 AS INSTRUMENT NO. 2007-0380610 OF OFFICIAL RECORDS.
7. 2.5' PEDESTRIAN ACCESS EASEMENT TO THE CITY OF MORENO VALLEY DEDICATED ON THE MAP OF PARCEL MAP NO. 35859 ON FILE IN BOOK 233, PAGE 1, OF PARCEL MAPS.
8. ACCESS EASEMENT FOR THE BENIFIT OF PARCEL 1 RESERVED ON THE MAP OF PARCEL MAP NO. 35859 ON FILE IN BOOK 233, PAGE 1, OF PARCEL MAPS.
9. ABUTTER'S RIGHTS OF VEHICULAR AND PEDESTRIAN ACCESS RELEASED AND RELINQUISHED ON THE MAP OF PARCEL MAP NO. 35859 ON FILE IN BOOK 233, PAGE 1, OF PARCEL MAPS.

SITE TABULATION:	TOTAL
PROPOSED PARCEL NET AREA	739,850 SF (17.0 AC)
OFFICE/MEZZANINE= TYPE:III-N OCC:B	6,000 SF
WAREHOUSE= TYPE:III-N OCC:S-1	391,080 SF
TOTAL BUILDING AREA	400,130 SF
LOT COVERAGE	54.1%
LANDSCAPING REQUIRED (10%)	73,985 SF
LANDSCAPING PROVIDED	97,580 SF
LANDSCAPE COVERAGE	13.2%
OFFICE PARKING (REQ'D) 0 - 20,000 SF @ 1/250 SF	24 STALLS
WAREHOUSE PARKING (REQ'D)	
0 - 20,000 SF @ 1/1,000 SF	20 STALLS
20,001 - 40,000 SF @ 1/2,000 SF	10 STALLS
OVER 40,001 SF @ 1\4,000 SF	88 STALLS
TOTAL REQUIRED PARKING	142 STALLS
HANDICAP PARKING REQUIRED	6 STALLS
AUTO PARKING PROVIDED:	
STANDARD PER PROP. PLAN	153 STALLS
COMPACT PER PROP. PLAN	0 STALLS (5%)
HANDICAP	6 STALLS
TOTAL PARKING	159 STALLS
TRAILER PARKING PROVIDED	63 STALLS
LOADING BAYS	59 BAYS

NOTES:

1. 2008 THOMAS BROS. MAP-PAGE 747, GRID G5
2. THIS AREA IS NOT SUBJECT TO GEOLOGIC HAZARDS WITHIN A SPECIAL STUDIES ZONE, BUT IS SUBJECT TO LOW LIQUIFACTION
3. FEMA COMMUNITY PANEL NO. 065074-0020-B ZONE X.
4. CONTOUR INTERVAL, ONE FOOT.
5. THIS AREA IS WITHIN THE MORENO VALLEY INDUSTRIAL SPECIFIC PLAN #208.
6. THIS PROJECT IS WITHIN CITY OF MORENO VALLEY COMMUNITY SERVICES DISTRICT No. 1
7. ALL GATES ARE AT LEAST 24' IN WIDTH, AUTOMATIC WITH THE KNOX RAPID ENTRY SYSTEM.
8. DRIVEWAYS ARE PER CITY STANDARD PLAN NO. 118C.
9. ALL TRASH ENCLOSURES SHALL BE DUAL BIN (TRASH/RECYCLE) PER CITY STD. PLAN 627.
10. DECORATIVE PAVING SHALL BE USED AT ALL NON-DOCK ENTRANCES.
11. CURB AND GUTTER TO BE NOTCHED 12" WIDE (MINIMUM) WHERE NOTED.
12. ALL PARKING STALLS ABUTTING LANDSCAPED AREAS INCLUDE A TWO (2') FOOT OVERHANG AREA (NOT INCLUDED IN LANDSCAPE CALC'S).

LEGEND:

▭	PROPOSED LANDSCAPING
▨	ENHANCED ENTRY PAVEMENT
DI	DROP INLET
EX	EXISTING
FF	FINISH FLOOR
FL	FLOW LINE
FG	FINISH GRADE
FH	FIRE HYDRANT
FS	FINISH SURFACE
GB	GRADE BREAK
HP	HIGH POINT
INV	INVERT
LP	LOW POINT
PP	POWER POLE
R/W	RIGHT-OF-WAY
SD	STORM DRAIN
TB	TOP BERM
TC	TOP OF CURB
TG	TOP OF GRATE
TYP	TYPICAL
⇄	INGRESS AND EGRESS
Y	SLOPE SYMBOL
▢▢▢▢	ADA PATH OF TRAVEL
▨	FIRE LANE
♿	HANDICAPPED PARKING
━ ━ ━	BOUNDARY LINE
━ ━ ━	PROPOSED R/W
— — —	EXISTING R/W
— — —	EXISTING LOT LINE
←	RIBBON GUTTER
←	FLOW ARROW
—×—×—	EXISTING FENCE
--W--	EXISTING WATER LINE
--S--	EXISTING SEWER LINE
--G--	EXISTING GAS LINE
— — —	PROPOSED SET BACK LINE

PROJECT DESCRIPTION:

THIS PROJECT PROPOSES A 400,130 SF WAREHOUSE BUILDING ON 17 ACRES. CONSISTING OF 391,080 S.F. WAREHOUSE, 6,000 S.F. OFFICE/MEZZANINE. IT REPLACES THE EXISTING TRAILER PARKING APPROVED UNDER PA 11-0011. THE PROJECT PROPOSES 59 LOADING DOCKS, 2 TRASH COMPACTORS, SURFACE PARKING AREAS AND DRIVE ISLE ROADWAY IMPROVEMENTS, UTILITY INFRASTRUCTURE, LANDSCAPING, WATER QUALITY BASINS AND OTHER SITE IMPROVEMENTS. THIS PROJECT PROPOSES TO MODIFY THE EXISTING WESTERLY PROPERTY LINE AND MERGE 4 EXISTING PARCELS AS WELL AS VACATE RESTRICTED ACCESS ALONG NANDINA AVENUE TO ALLOW FOR 2 PROPOSED DRIVEWAYS.

LEGAL DESCRIPTION:

PORTIONS OF PARCEL 1 AND PARCEL 2 OF PARCEL MAP NO. 35859 AS SHOWN BY MAP ON FILE IN BOOK 233 OF PARCEL MAPS AT PAGES 1 THROUGH 4 AND PARCEL 3 AND PARCEL 4 OF PARCEL MAP NO. 17644 AS SHOWN BY MAP ON FILE IN BOOK 113 AT PAGE 35 AND PARCEL 4 OF PARCEL MAP NO. 12367 AS SHOWN BY MAP ON FILE IN BOOK 56 AT PAGE 84, ALL RECORDS OF RIVERSIDE COUNTY, CA.

UTILITIES:

WATER & SEWER
EASTERN MUNICIPAL WATER DISTRICT
P.O. BOX 8300
PERRIS, CA 92572
PH: (951) 928-6107
ATTN: JOHN FOSTER

GAS
SOUTHERN CALIFORNIA GAS COMPANY
1981 W. LUGONIA AVE.
REDLANDS, CA 92373
(909) 335-3928

ELECTRIC
MORENO VALLEY UTILITIES
14325 FREDRICK STREET
SUITE 9
MORENO VALLEY, CA 92553

TELEPHONE
VERIZON
150 S. JUANITA STREET
HEMET, CA 92543
PH: (909) 658-7305
ATTN: TOM DRISKALL

OWNER:
FIRST INDUSTRIAL, LP
ATTN: LARRY COCHRUN
898 N. SEPULVEDA BOULEVARD; SUITE 750
EL SEGUNDO, CA 90245
TEL: (310) 414-5400
FAX: (310) 414-5462

APPLICANT:
FIRST INDUSTRIAL REALTY TRUST
ATTN: LARRY COCHRUN
898 N. SEPULVEDA BOULEVARD; SUITE 750
EL SEGUNDO, CA 90245
TEL: (310) 414-5400
FAX: (310) 414-5462

ENGINEER:
ALBERT A. WEBB ASSOCIATES
ATTN: ROBERT BERNDT
3788 McCRAY STREET
RIVERSIDE, CA 92506
TEL: (951) 686-1070
FAX: (951) 788-1256

ARCHITECT:
HILL-PINCKERT ARCHITECTS, INC..
ATTN; HONG JANG
18831 BARDEEN AVE., SUITE #100
IRVINE, CA 92612
TEL: (949) 863-1770
FAX: (949) 863-0851

LAND USE / ZONING:

EXISTING LAND USE:	VACANT
PROPOSED LAND USE:	INDUSTRIAL
EXISTING ZONING:	INDUSTRIAL SP #208
PROPOSED ZONING:	INDUSTRIAL SP #208

SCHOOL DISTRICT:
VAL VERDE UNIFIED SCHOOL DISTRICT

TOPOGRAPHY:
FIELD SURVEY BY: ALBERT A. WEBB ASSOCIATES
APRIL 2012

ACREAGE:
17.3 AC. GROSS (TO EX. ROW)
-0.3 AC. ROAD DEDICATIONS (SAN MICHELE ROAD)
17.0 AC. NET (TO PROP. ROW)

A.P.N.:
316-200-001, 316-200-015,
316-200-019, 316-200-035 &
PORTION OF 316-200-034

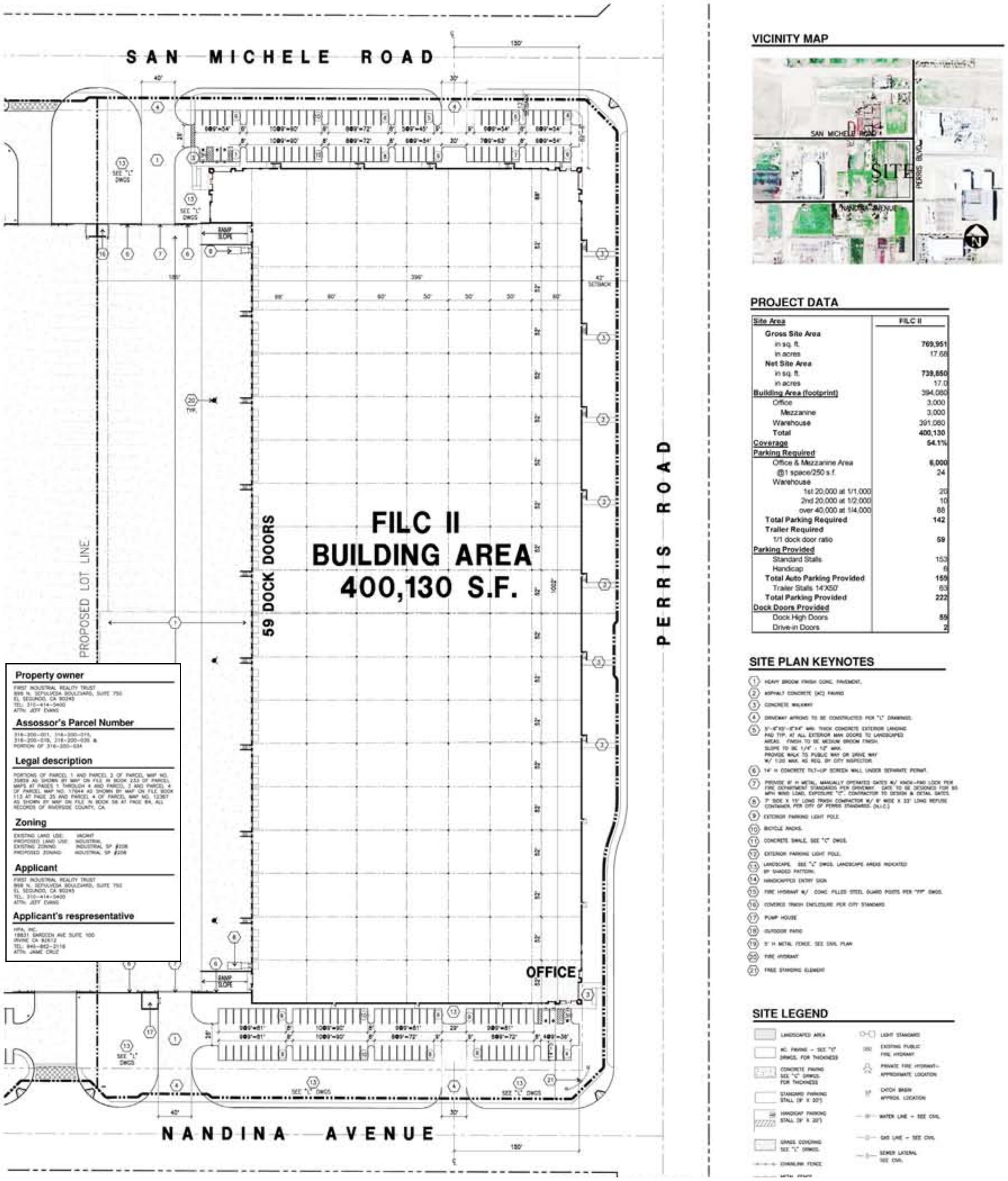
PRELIMINARY EARTHWORK
CUT= 13,500 CUBIC YARDS
FILL= 42,000 CUBIC YARDS
28,500 CUBIC YARDS (IMPORT)

SETBACKS:

MINIMUM SITE AREA	5 AC
MINIMUM SITE WIDTH	300'
MINIMUM SITE DEPTH	150'
MINIMUM SETBACKS:	
PERRIS BOULEVARD	20'
NANDINA AVENUE	15'
SAN MICHELE ROAD	15'

Source: Albert A. Webb Associates (November 2012)

FIGURE 3-4
Plot Plan PA12-0023



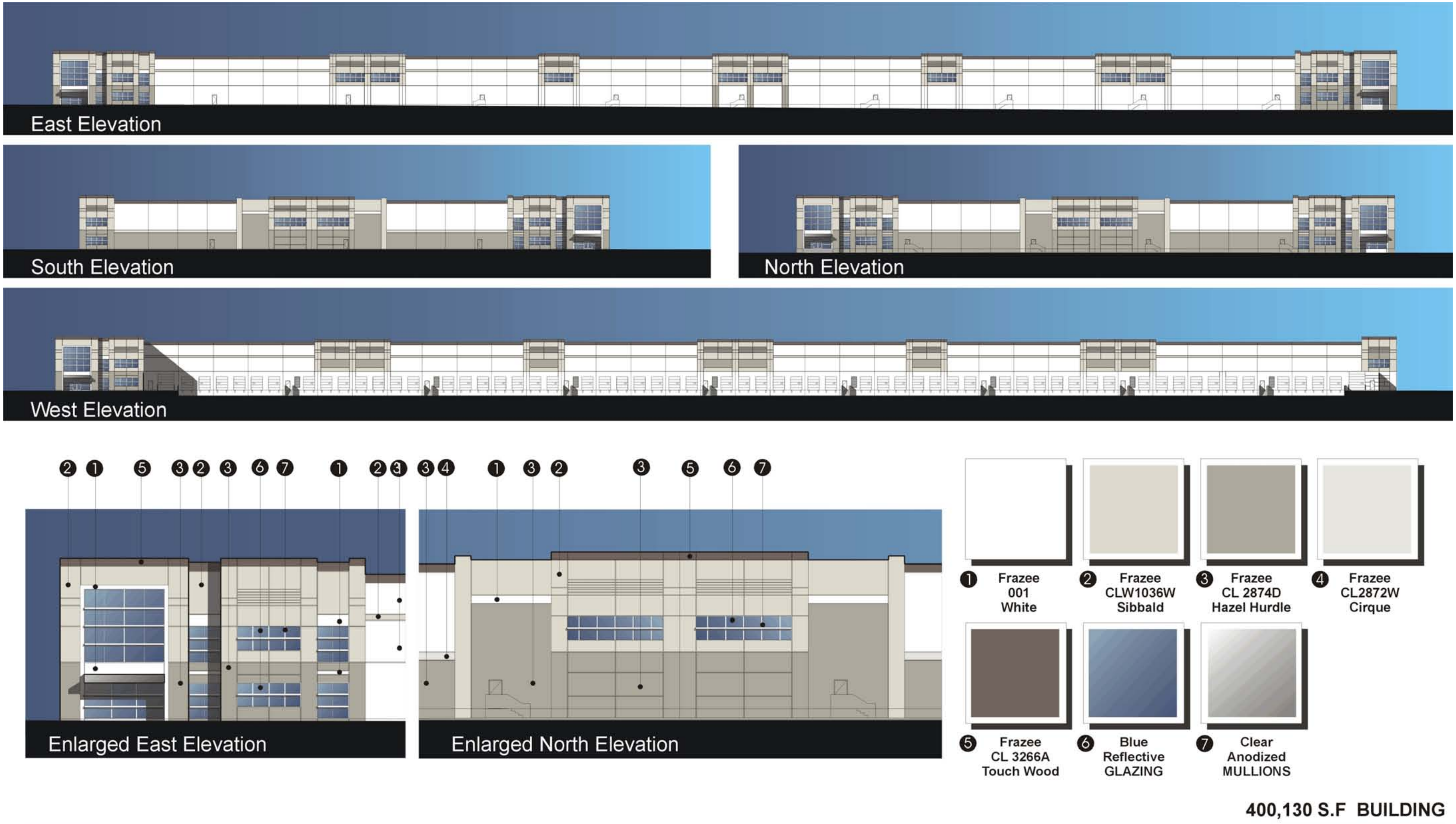
PROJECT DATA

Site Area	FILC II
Gross Site Area	
in sq. ft.	769,951
in acres	17.68
Net Site Area	
in sq. ft.	739,850
in acres	17.0
Building Area (footprint)	394,080
Office	3,000
Mezzanine	3,000
Warehouse	391,080
Total	400,130
Coverage	54.1%
Parking Required	
Office & Mezzanine Area	6,000
@1 space/250 s.f.	24
Warehouse	
1st 20,000 at 1/1,000	20
2nd 20,000 at 1/2,000	10
over 40,000 at 1/4,000	88
Total Parking Required	142
Trailer Required	
1/1 dock door ratio	59
Parking Provided	
Standard Stalls	153
Handicap	6
Total Auto Parking Provided	159
Trailer Stalls 14'X50'	63
Total Parking Provided	222
Dock Doors Provided	
Dock High Doors	59
Drive-in Doors	2

Source: HPA Architecture (May 2012)

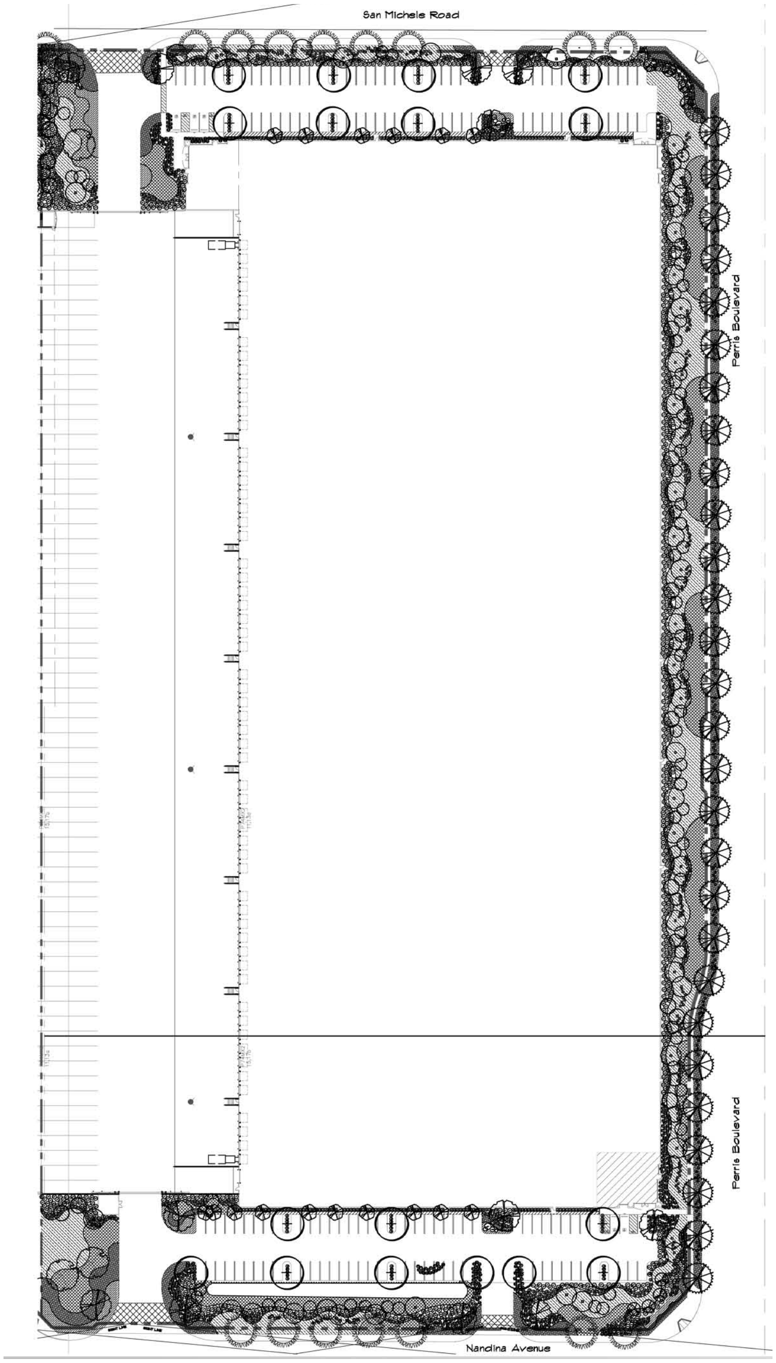
FIGURE 3-5

Plot Plan PA12-0023 Detail



Source: HPA Architecture (May 2012)

FIGURE 3-6
Architectural Elevations



PLANTING LEGEND

TREES					
SYMBOL	BOTANICAL/COMMON NAME	SIZE	QTY	WUCOLS	REMARKS
⊕	Chitalpa tashkentensis Chitalpa	24' Box	17	L	Multi
○	Koelreuteria bipinnata Chinese Flame Tree	36" Box	12	M	Multi
○	Lagerstroemia i 'Muskogee' Crape Myrtle	24' Box	8	M	Multi
○	Liquidambar styraciflua Sweetgum	15 Gal	69	M	Multi
○	Liriodendron tulipifera Tulip Tree	24' Box	28	M	
○	Pinus eldarica Afghan Pine	24' Box	17	L	
○	Platanus acerifolia London Plane	24' Box	16	M	Standard
○	Rhus lancea African Sumac	24' Box	43	L	
○	Schinus molle California Pepper	24' Box	3	L	
○	Tristania conferta Brisbane Box	15 Gal	16	L	
✱	Phoenix dactylifera Date Palm	15' bt	6	L	Skinned

SHRUBS					
SYMBOL	BOTANICAL/COMMON NAME	SIZE	QTY	WUCOLS	REMARKS
✱	Dietes bicolor Fortnight Lily	5 Gal	328	L	
○	Leptospermum s. 'Ruby Glow' New Zealand Tea Tree	5 Gal	34	L	
○	Leucophyllum f. 'Green Cloud' Texas Ranger	5 Gal	697	L	
○	Perovskia atriplicifolia Russan Sage	5 Gal	6	L	
○	Rosmarinus o. 'Tuscan Blue' Rosemary	5 Gal	403	L	
○	Salvia greggii Autumn Sage	5 Gal	363	L	
○	Senna artemisioides Feathery Cassia	5 Gal	227	L	
○	Westingia fruticosa Coast Rosemary	5 Gal	727	L	

ACCENTS					
SYMBOL	BOTANICAL/COMMON NAME	SIZE	QTY	WUCOLS	REMARKS
○	Agave vilmoriniana Agave	15 Gal	2	L	
○	Dasylerion wheeleri Desert Spoon	15 Gal	3	L	
○	Pennisetum s. 'Cupreum' Purple Fountain Grass	5 Gal	221	L	

GROUNDCOVER					
SYMBOL	BOTANICAL/COMMON NAME	SIZE	SPACING	WUCOLS	REMARKS
▨	Acacia redolens 'Low Boy' Acacia	1 Gal	6' O.C.	L	
▩	Baccharis pilularis Coyote Bush	1 Gal	24' O.C.	L	
▦	Lantana 'Gold Mound' Gold Mound Lantana	1 Gal	30' O.C.	L	
▨	Lonicera j. 'Halliana' Hall's Honeysuckle	Flats	12' O.C.	L	
▩	Myoporum parvifolium Myoporum	1 Gal	36" O.C.	L	

NOTES:

1. ALL TREES WITHIN 5' OF HARDSCAPE SHALL BE IN A SHAWTOWN OR EQUAL ROOTBARRIER.
2. CONTRACTOR TO INSTALL CONCRETE MOW CURB BETWEEN PLANTERS AND TURF AREAS. SEE PLANTING DETAIL SHEET.
3. ALL PLANTER AREAS TO RECEIVE A 2' LAYER OF MEDIUM WALK ON BARK (3/4' -1/2').

THE ROOTBALL OF ANY PLANT SHALL NOT BE PLANTED AN CLOSER THAN 2' FROM ANY HARDSCAPE, BUILDING OR WALL.

Source: Hunter Landscape (May 2012)

FIGURE 3-7
Conceptual Landscaping Plan

4.0 ENVIRONMENTAL ANALYSIS

4.0.1 SUMMARY OF EIR SCOPE

In accordance with CEQA Guidelines §§15126 - 15126.4, this EIR Section 4.0, *Environmental Analysis*, provides analyses of potential direct, indirect, and cumulative impacts that have the potential to occur from planning, constructing, and/or operating the proposed Project.

In compliance with the procedural requirements of CEQA, an Initial Study was prepared to determine the scope of environmental analysis for this EIR. Public comment on the scope was considered in the form of written comments received by the City of Moreno Valley in response to the NOP issued for this EIR. Taking all known information and public comments into consideration, five (5) primary environmental subject areas are evaluated, as listed below. Each subsection evaluates several specific subject matters related to the general topic of the subsection. The title of each subsection is not limiting; therefore, refer to each subsection for a full account of the subject matters addressed therein.

4.1 Air Quality
4.2 Greenhouse Gas Emissions
4.3 Noise
4.4 Transportation/Traffic
4.5 Biological Resources

Twelve (12) environmental subjects were determined by the City to have no potential to be significantly impacted by the Project with mandatory compliance to regulatory requirements, as concluded by the Project's Initial Study (included in *Technical Appendix A* to this EIR) and after consideration of all comments received by the City on the scope of this EIR. These 12 subjects are discussed in Subsection 5.4, *Effects Found Not to be Significant as Part of the Initial Study Process*, and include: aesthetics, agriculture resources, cultural resources, geology/soils, hazards and hazardous materials, hydrology/water quality, land use/planning, mineral resources, population and housing, public services, recreation, and utilities/service systems.

4.0.2 SCOPE OF CUMULATIVE EFFECTS ANALYSIS

CEQA requires that an EIR contain an assessment of the cumulative impacts that may be associated with a proposed project. As noted in CEQA Guidelines §15130(a), "an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable." "A cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects creating related impacts" (CEQA Guidelines §15130(a)(1)). As defined in CEQA Guidelines §15355:

> 'Cumulative Impacts' refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.
>
> *(a) The individual effects may be changes resulting from a single project or a number of separate projects.*

> *(b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.*

CEQA Guidelines §15130(b) describes two acceptable methods for identifying a study area for purposes of conducting a cumulative impact analysis. These two approaches include: "1) a list of past, present, and probable future projects producing related or cumulative impacts, including if necessary, those projects outside the control of the agency ['the list of projects approach'], or 2) a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact ['the summary of projections approach']."

The summary of projections approach is used in this EIR, except for the evaluation of cumulative traffic and vehicular-related air quality and noise impacts. The analysis of cumulative traffic impacts uses the list of projects approach, as is required to be used by the City of Moreno Valley Transportation Engineering Division's Traffic Impact Analysis Preparation Guide (August 2007). Therefore, the cumulative analysis of vehicular-related air quality and noise impacts which relies on the traffic study, inherently also encapsulates the list of projects approach.

Using the summary of projections approach, the cumulative study area includes the City of Moreno Valley, the City of Perris, the City of Riverside, and the Harvest Valley/Winchester Area Plan (HVWAP), Lakeview/Nuevo Area Plan (LNAP), and the Mead Valley Area Plan (MVAP), all of which are part of the Riverside County General Plan. These three cities and the three Riverside County Area Plans encompass portions of western Riverside County that have similar environmental characteristics as the Project area. The selected study area encompasses the Perris Valley, which is largely bounded by prominent topographic landforms, such as Reche Canyon to the north, the Badlands to the east, and the Lakeview Mountains to the southeast. This study area exhibits similar environmental characteristics as the Project site. This study area also encompasses the service areas of the Project's primary public service and utility providers. Areas outside of this study area either exhibit topographic, climatological, or other environmental circumstances that are different from those of the Project area, or are simply too far from the proposed Project site to be cumulatively considerable.

Environmental impacts associated with the buildout of the Riverside County General Plan were evaluated in a Program-level EIR certified by Riverside County in 2003 (SCH No. 2002051143). The Riverside County General Plan EIR is herein incorporated by reference, and is available for review at the County of Riverside Transportation and Land Management Agency Planning Department, 4080 Lemon Street, 12th Floor, Riverside CA 92502. Likewise, the environmental impacts associated with the buildout of the City of Perris General Plan were evaluated in a Program-level EIR that was certified by the Perris City Council on April 26, 2005 (SCH No. 2004031135). The City of Perris General Plan EIR is also incorporated by reference, and is available for review at the City of Perris Department of Community Development, 135 North "D" Street, Perris CA 92570. Finally, the environmental impacts associated with the buildout of the City of Riverside General Plan were evaluated in a Program-level EIR that was certified by the Riverside City Council in November

2007 (SCH No. 2004021108). The City of Riverside General Plan EIR is also incorporated by reference, and is available for review at the City of Riverside Community Development Department, Planning Division, 3900 Main Street, Riverside, CA 92522.

A specific cumulative study area was established using "the list of projects approach" to assess the cumulative effect of the Project's traffic and transportation impacts, as required by the City of Moreno Valley Transportation Engineering Division's Traffic Impact Analysis Preparation Guide. And, because the Project's traffic report is relied upon to evaluate vehicular-related air quality and noise impacts, the same cumulative study area was applied. The cumulative study area includes approved and pending development projects within an approximate three (3)-mile radius of the Project site, as well as several large, traffic-intensive projects falling beyond a three (3)-mile radius of the Project site. As such, the cumulative impact analysis of traffic impacts and vehicular-related air quality and noise impacts considers 53 other past, present, and reasonably foreseeable projects within this study area. The traffic and vehicular-related effects of projects physically located beyond the geographic area identified in the list of projects approach are captured as part of adding a compounded 2% annual growth rate to the analysis scenarios. This methodology presents a more reasonable approach to cumulative traffic analysis than the General Plan projection approach by recognizing development projects that actually have the potential to contribute traffic and vehicular-related air quality emissions and noise to the same intersections, roadway segments, and/or freeway segments as the proposed Project and have the potential to be made fully operational during a similar timeframe as the proposed Project. Specific development projects included in the traffic impact cumulative analysis are listed in Table 4-3 of the Project's Traffic Impact Analysis (refer to *Technical Appendix F*).

4.0.3 IDENTIFICATION OF IMPACTS

Subsections 4.1 through 4.5 of this EIR evaluate the five (5) environmental subjects warranting detailed analysis, as determined by this EIR's Initial Study. The format of discussion is standardized as much as possible in each section for ease of review. The environmental setting is discussed first, followed by a discussion of the Project's potential environmental impacts based on specified thresholds of significance used as criteria to determine whether potential environmental effects are significant. The thresholds of significance used in this EIR are based on the thresholds presented in CEQA Guidelines Appendix G and as applied by the City of Moreno Valley to create the Project's Initial Study Checklist (included in *Technical Appendix A* to this EIR). The thresholds are intended to assist the reader of this EIR in understanding how and why this EIR reaches a conclusion that an impact would or would not occur, is significant, or is less than significant. As required by CEQA Guidelines §15126.2(a), impacts are identified as direct, indirect, cumulative, short-term, long-term, on-site, and/or off-site impacts of the proposed Project.

A summarized "impact statement" is provided in each subsection following the analysis. The following terms are used to describe the level of significance related to the environmental conditions affected by the proposed Project:

- <u>No Impact</u>: An adverse change in the physical environment would not occur.

- Less Than Significant Impact: An adverse change in the physical environment would occur but the change would not be substantial or potentially substantial and would not exceed the threshold(s) of significance presented in this EIR.

- Significant Impact: A substantial or potentially substantial adverse change in the physical environment would occur and would exceed the threshold(s) of significance presented in this EIR, requiring the consideration of mitigation measures.

Each subsection also includes a listing of the applicable regulatory criteria (laws, policies, regulations, etc.) that the Project is required to comply with (if any) related to the environmental subject area under evaluation. If impacts are identified as significant after the application of regulatory criteria, feasible mitigation measures are listed that could be applied to either avoid the impact or to reduce the magnitude of the impact. The following terms are used to describe the level of significance following the application of recommended mitigation measures:

- Less Than Significant Impact With Mitigation: A substantial or potentially substantial adverse change in the physical environment would occur that would exceed the threshold(s) of significance presented in this EIR; however, the impact can be avoided or reduced to a less than significant level through the application of feasible mitigation measures.

- Significant and Unavoidable Impact: A substantial or potentially substantial adverse change in the physical environment would occur that would exceed the threshold(s) of significance presented in this EIR. Feasible mitigation measures are either not available or would not be fully effective in avoiding or reducing the impact to below a level of significance.

For any impact identified as significant and unavoidable, the City of Moreno Valley would be required to adopt a statement of overriding considerations pursuant to CEQA Guidelines §15093 in order to approve the Project despite its significant impact(s) to the environment. The statement of overriding considerations would list the specific economic, legal, social, technological, and other benefits of the Project, supported by substantial evidence in the Project's administrative record on file at the City of Moreno Valley, that outweigh the unavoidable impacts.

4.1 AIR QUALITY

This subsection is based on two technical studies that were prepared by Urban Crossroads, Inc. to evaluate the Project's potential to adversely affect local and regional air quality. These studies include the following: 1) "First Inland Logistics II Air Quality Impact Analysis" (November 14, 2012), which is included as *Technical Appendix B* to this EIR (Urban Crossroads 2012a); and 2) "First Inland Logistics II Mobile Source Health Risk Assessment" (November 14, 2012), which is included as *Technical Appendix C* to this EIR (Urban Crossroads 2012b). In addition, information used to support the analysis in this subsection was obtained from the City of Moreno Valley General Plan (Moreno Valley 2006a) and California Air Resources Board (CARB 2009).

4.1.1 EXISTING CONDITIONS

A. Atmospheric Setting

The Project site is located in the South Coast Air Basin (SCAB or "Basin") which is within the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD was created by the 1977 Lewis-Presley Air Quality Management Act, which merged four county air pollution control bodies into one regional district. Under the Act, the SCAQMD is responsible for bringing air quality in areas under its jurisdiction into conformity with federal and state air quality standards. The SCAB encompasses approximately 6,745-square miles and includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The SCAB is bound by the Pacific Ocean to the west; the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east; and the San Diego County line to the south. (Urban Crossroads, 2012a, p. 8)

B. Regional Climate and Meteorology

The regional climate has a substantial influence on air quality in the SCAB. In addition, the temperature, wind, humidity, precipitation, and amount of sunshine influence air quality. Although the climate of the SCAB can be characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. This shallow layer of sea air is an important modifier of SCAB climate. Humidity restricts visibility in the SCAB and the conversion of sulfur dioxide to sulfates is heightened in air with high relative humidity. The marine layer provides an environment for that conversion process, especially during the spring and summer months. The annual average relative humidity within the SCAB is 71% along the coast and 59% inland. Because the ocean effect is dominant, periods of heavy early morning fog are frequent and low stratus clouds are a characteristic feature. These effects decrease with distance from the coast. (Urban Crossroads, 2012a, pp. 8-9)

Due to its generally clear weather, about three-quarters of available sunshine is received in the SCAB. The remaining one-quarter is absorbed by clouds. The ultraviolet portion of this abundant radiation is a key factor in photochemical reactions. On the shortest day of the year there are approximately 10 hours of possible sunshine, and on the longest day of the year there are approximately 14-1/2 hours of possible sunshine. (Urban Crossroads, 2012a, p. 9)

The importance of wind to air pollution is considerable. The direction and speed of the wind determines the horizontal dispersion and transport of the air pollutants. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed "Santa Anas" each year. During the dry season, which coincides with the months of maximum photochemical smog concentrations, the wind flow is bimodal, typified by a daytime onshore sea breeze and a nighttime offshore drainage wind. Summer wind flows are created by the pressure differences between the relatively cold ocean and the unevenly heated and cooled land surfaces that modify the general northwesterly wind circulation over southern California. Another characteristic wind regime in the SCAB is the "Catalina Eddy," a low level cyclonic (counterclockwise) flow centered over Santa Catalina Island that results in an offshore flow to the southwest. On most spring and summer days, some indication of an eddy is apparent in coastal sections. (Urban Crossroads, 2012a, p. 9)

In the SCAB, there are two distinct temperature inversion structures that control vertical mixing of air pollution. During the summer, warm high-pressure descending (subsiding) air is undercut by a shallow layer of cool marine air. The boundary between these two layers of air is a persistent marine subsidence/inversion. This boundary prevents vertical mixing which effectively acts as an impervious lid to pollutants over the entire SCAB. The mixing height for the inversion structure is normally situated 1,000 to 1,500 feet above mean sea level. (Urban Crossroads, 2012a, p. 9)

A second inversion-type forms in conjunction with the drainage of cool air off the surrounding mountains at night followed by the seaward drift of this pool of cool air. The top of this layer forms a sharp boundary with the warmer air aloft and creates nocturnal radiation inversions. These inversions occur primarily in the winter, when nights are longer and onshore flow is weakest. They are typically only a few hundred feet above mean sea level. These inversions effectively trap pollutants, such as nitrogen oxides (NO_X) and carbon monoxide (CO) from vehicles, as the pool of cool air drifts seaward. Winter is therefore a period of high levels of primary pollutants along the coastline. (Urban Crossroads, 2012a, p. 10)

C. Air Quality Pollutants and Associated Health Effects

The federal government and State of California have established maximum permissible concentrations for common air pollutants that may pose a risk to human health or would otherwise degrade air quality and adversely affect the environment. These regulated air pollutants are referred to as "criteria pollutants." An overview of the common criteria air pollutants in the SCAB, their sources, and associated effects to human health are summarized on the following pages.

- Carbon Monoxide (CO) is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest during the winter morning, when little to no wind and surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone, motor vehicles operating at slow speeds are the primary source of CO in the Basin. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections. (Urban Crossroads, 2012a, p. 14)

  CO combines with hemoglobin to produce carboxyhemoglobin (COHb), which interferes with the transport of oxygen throughout the body. The most common symptoms associated with CO poisoning include headache, nausea, vomiting, dizziness, fatigue, and weakness. Exposure to CO can also result in chest pain. Individuals most at risk to the effects of CO include fetuses, patients with diseases involving heart and blood vessels, and patients with chronic oxygen deficiency. (Urban Crossroads, 2012a, p. 20)

- Sulfur Dioxide (SO_2) is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO_2 oxidizes in the atmosphere, it forms sulfates (SO_4). Collectively, these pollutants are referred to as sulfur oxides (SO_X). (Urban Crossroads, 2012a, p. 18)

- Nitrogen Oxides (NO_x) consist of nitric oxide (NO), nitrogen dioxide (NO_2) and nitrous oxide (N_2O) and are formed when nitrogen (N_2) combines with oxygen (O_2). Their lifespan in the atmosphere ranges from one to seven days for nitric oxide and nitrogen dioxide, to 170 years for nitrous oxide. Nitrogen oxides are typically created during combustion processes, and are major contributors to smog formation and acid deposition. NO_2 is a criteria air pollutant, and may result in numerous adverse health effects; it absorbs blue light, resulting in a brownish-red cast to the atmosphere and reduced visibility. Of the seven types of nitrogen oxide compounds, NO_2 is the most abundant in the atmosphere. As ambient concentrations of NO_2 are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of NO_2 than those indicated by regional monitors. (Urban Crossroads, 2012a, p. 18)

  Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposure to NO_X. Short-term exposure to NO_X can result in resistance to air flow and airway contraction in healthy subjects. Exposure to NO_X can result in larger decreases in lung functions in individuals with asthma or chronic obstructive pulmonary diseases (e.g., chronic bronchitis, emphysema), as these individual are more susceptible to the effects of NO_X than healthy individuals. (Urban Crossroads, 2012a, p. 21)

- Ozone (O_3) is a highly reactive and unstable gas that is formed when volatile organic compounds (VOCs) and nitrogen oxides (NO_X), both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant. (Urban Crossroads, 2012a, p. 18)

  Short-term exposure (lasting for a few hours) to ozone at levels typically observed in southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. People exercising outdoors, children, and people with preexisting lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible sub-groups for ozone effects. An increased risk for asthma has been found in children who participate in multiple sports and live in communities with high ozone levels. (Urban Crossroads, 2012a, pp. 19-20)

- Particulate Matter is a major air pollutant consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols. Particles that are 10 microns or smaller (PM_{10}) easily become airborne and can reduce visibility. Particles that are 2.5 microns or smaller ($PM_{2.5}$) are formed in the atmosphere by sulfates or nitrates, a byproduct of primary gaseous emissions of SO_2 and NO_x. (Urban Crossroads, 2012a, p. 18)

Elevated ambient concentrations of fine particulate matter (PM_{10} and $PM_{2.5}$) have been linked to respiratory infections, number and severity of asthma attacks, and increased hospital admissions. In recent years, some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in life-span, and an increased mortality from lung cancer. Daily fluctuations in $PM_{2.5}$ concentration levels have also been related to hospital admissions for acute respiratory conditions in children, to a decrease in respiratory lung volumes in normal children, and to increased medication use in children and adults with asthma. Recent studies show lung function growth in children is reduced with long-term exposure to particulate matter. The elderly, people with pre-existing respiratory or cardiovascular disease, and children appear to be more susceptible to the effects of high levels of PM_{10} and $PM_{2.5}$. (Urban Crossroads, 2012a, pp. 20-21)

- Volatile Organic Compounds (VOCs) and Reactive Organic Gasses (ROGs) are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. Both VOCs and ROGs contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. VOCs and ROGs have different levels of reactivity; that is, they do not react at the same speed or do not form ozone to the same extent when exposed to photochemical processes. VOCs and ROGs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints. VOCs and ROGs are criteria pollutants since they are a precursor to O_3, which is a criteria pollutant. The SCAQMD uses the terms VOC and ROG interchangeably. (Urban Crossroads, 2012a, p. 19)

  Odors generated by VOCs and ROGs can irritate the eye, nose, and throat, which can reduce respiratory volume. In addition, studies have shown that the VOCs and ROGs that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system. (Urban Crossroads, 2012a, p. 22)

- Lead (Pb) is a heavy metal that is highly persistent in the environment. In the past, the primary source of lead in the air was emissions from vehicles burning leaded gasoline. As a result of the removal of lead from gasoline, there have been no violations at any of the SCAQMD's regular air monitoring stations since 1982. Currently, emissions of lead are largely limited to stationary sources such as lead smelters. It should be noted that the Project is not anticipated to generate a quantifiable amount of lead emissions. Lead is a criteria air pollutant. (Urban Crossroads, 2012a, p. 19)

  Exposure to low levels of lead can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased lead levels are associated with increased blood pressure. Lead poisoning can cause anemia, lethargy, seizures, and death. Fetuses, infants, and children are more sensitive than others to the adverse effects of lead exposure. (Urban Crossroads, 2012a, pp. 21-22)

D. Existing Air Quality

Existing air quality is measured based upon ambient air quality standards. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) currently in effect, as well health effects of each pollutant regulated under these standards are shown in Table 4.1-1, *State and National Criteria Pollutant Standards, Effects, and Sources*.

The determination of whether a region's air quality is healthful or unhealthful is determined by comparing contaminant levels in ambient air samples to the state and federal standards presented in Table 4.1-1. The air quality in a region is considered to be in attainment by the state if the measured ambient air pollutant levels for O_3, CO, SO_2, NO_2, PM_{10}, and $PM_{2.5}$ are not equaled or exceeded at any time in any consecutive three-year period; and the federal standards (other than O_3, PM_{10}, $PM_{2.5}$, and those based on annual averages or arithmetic mean) are not exceeded more than once per year. The O_3 standard is attained when the fourth highest eight-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when 99 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. (Urban Crossroads, 2012a, pp. 10-11)

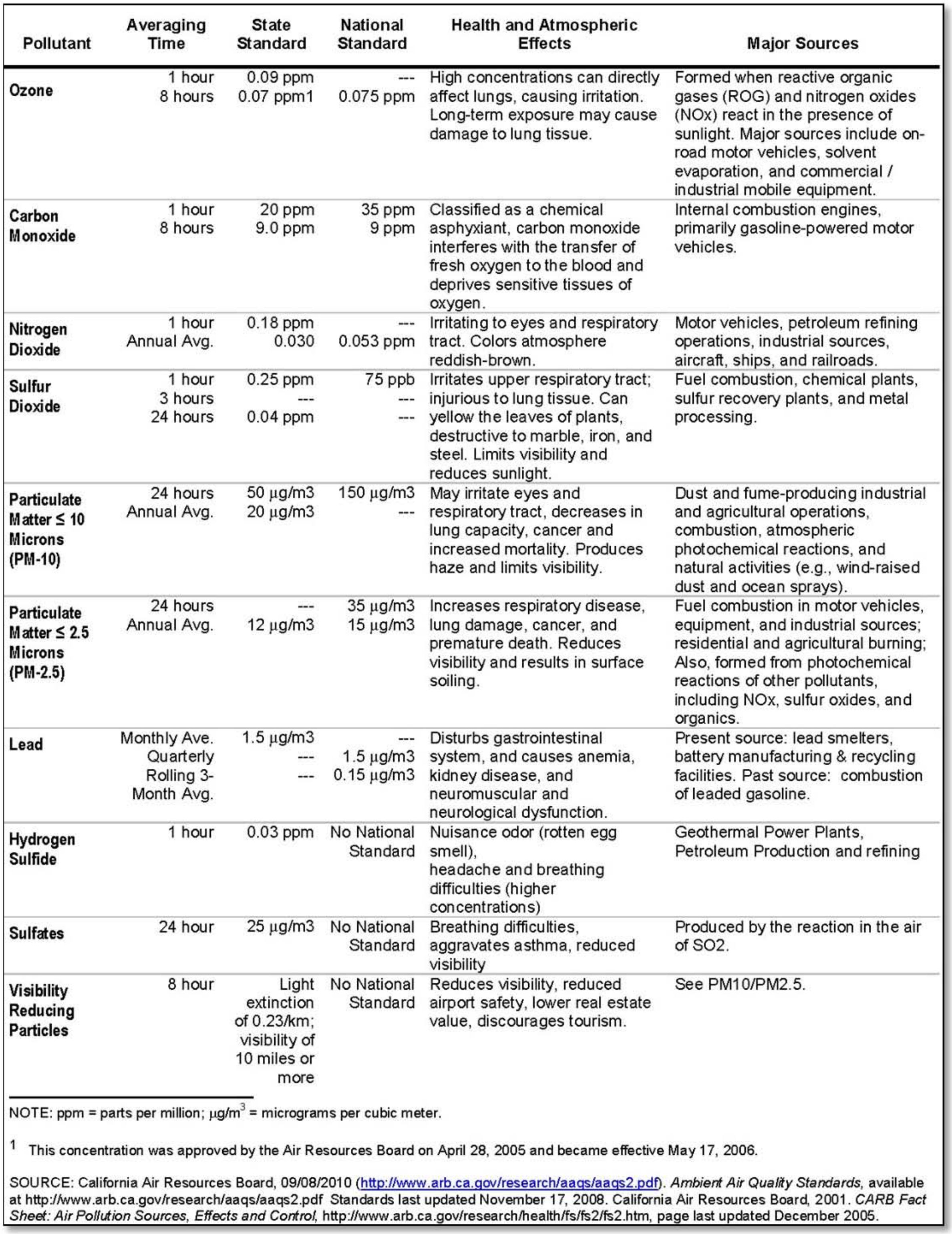
❑ Regional Air Quality

The SCAQMD monitors levels of various criteria pollutants at 30 monitoring stations throughout the air district. In 2010, the federal and state standards were exceeded on one or more days for O_3, PM_{10}, and $PM_{2.5}$ at most monitoring locations. No areas of the SCAB exceeded federal or state standards for SO_2, CO, or sulfates. Table 4.1-2, *Attainment Status of Criteria Pollutants in the SCAB*, summarizes the attainment designations for the SCAB. (Urban Crossroads, 2012a, p. 14)

❑ Local Air Quality

The nearest long-term air quality monitoring site for O_3 and PM_{10} is the SCAQMD Perris monitoring station, located approximately 5.4 miles south of the Project site. Data for CO, NO_2, and $PM_{2.5}$ was obtained from the Metropolitan Riverside County 2 monitoring station. It should be noted that the Metropolitan Riverside County 2 monitoring station was utilized in lieu of the Perris monitoring station only in instances where data was not available from the Perris station. The three (3) years of most recent available data presented in Table 4.1-3, *Project Area Air Quality Monitoring Summary (2008-2010),* shows the number of days that standards were exceeded for the study area, which was chosen to be representative of the local air quality at the Project site. Additionally, data for SO_2 has been omitted because attainment is regularly met in the SCAB and few monitoring stations measure SO_2 concentrations. (Urban Crossroads, 2012a, p. 14)

Table 4.1-1 State and National Criteria Pollutant Standards, Effects, and Sources



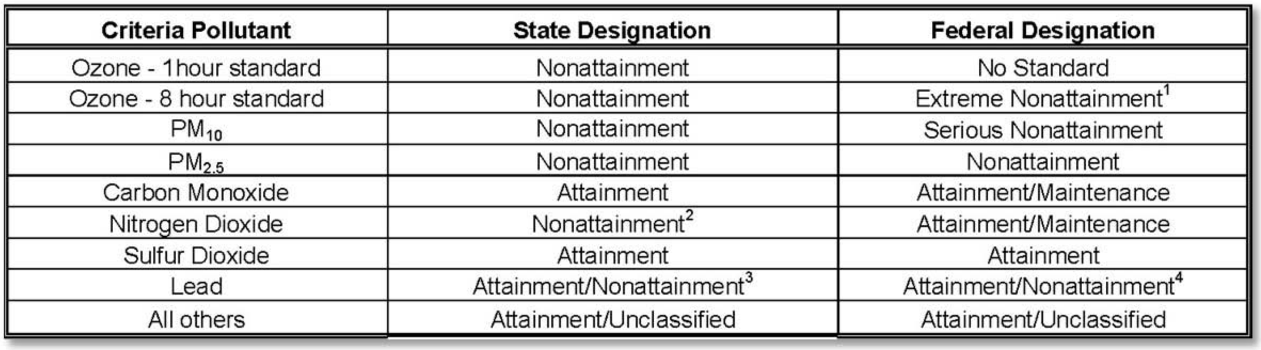
Pollutant	Averaging Time	State Standard	National Standard	Health and Atmospheric Effects	Major Sources
Ozone	1 hour 8 hours	0.09 ppm 0.07 ppm1	--- 0.075 ppm	High concentrations can directly affect lungs, causing irritation. Long-term exposure may cause damage to lung tissue.	Formed when reactive organic gases (ROG) and nitrogen oxides (NOx) react in the presence of sunlight. Major sources include on-road motor vehicles, solvent evaporation, and commercial / industrial mobile equipment.
Carbon Monoxide	1 hour 8 hours	20 ppm 9.0 ppm	35 ppm 9 ppm	Classified as a chemical asphyxiant, carbon monoxide interferes with the transfer of fresh oxygen to the blood and deprives sensitive tissues of oxygen.	Internal combustion engines, primarily gasoline-powered motor vehicles.
Nitrogen Dioxide	1 hour Annual Avg.	0.18 ppm 0.030	--- 0.053 ppm	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown.	Motor vehicles, petroleum refining operations, industrial sources, aircraft, ships, and railroads.
Sulfur Dioxide	1 hour 3 hours 24 hours	0.25 ppm --- 0.04 ppm	75 ppb --- ---	Irritates upper respiratory tract; injurious to lung tissue. Can yellow the leaves of plants, destructive to marble, iron, and steel. Limits visibility and reduces sunlight.	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
Particulate Matter ≤ 10 Microns (PM-10)	24 hours Annual Avg.	50 µg/m3 20 µg/m3	150 µg/m3 ---	May irritate eyes and respiratory tract, decreases in lung capacity, cancer and increased mortality. Produces haze and limits visibility.	Dust and fume-producing industrial and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
Particulate Matter ≤ 2.5 Microns (PM-2.5)	24 hours Annual Avg.	--- 12 µg/m3	35 µg/m3 15 µg/m3	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and results in surface soiling.	Fuel combustion in motor vehicles, equipment, and industrial sources; residential and agricultural burning; Also, formed from photochemical reactions of other pollutants, including NOx, sulfur oxides, and organics.
Lead	Monthly Ave. Quarterly Rolling 3-Month Avg.	1.5 µg/m3 --- ---	--- 1.5 µg/m3 0.15 µg/m3	Disturbs gastrointestinal system, and causes anemia, kidney disease, and neuromuscular and neurological dysfunction.	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
Hydrogen Sulfide	1 hour	0.03 ppm	No National Standard	Nuisance odor (rotten egg smell), headache and breathing difficulties (higher concentrations)	Geothermal Power Plants, Petroleum Production and refining
Sulfates	24 hour	25 µg/m3	No National Standard	Breathing difficulties, aggravates asthma, reduced visibility	Produced by the reaction in the air of SO2.
Visibility Reducing Particles	8 hour	Light extinction of 0.23/km; visibility of 10 miles or more	No National Standard	Reduces visibility, reduced airport safety, lower real estate value, discourages tourism.	See PM10/PM2.5.

NOTE: ppm = parts per million; µg/m^3 = micrograms per cubic meter.

[1] This concentration was approved by the Air Resources Board on April 28, 2005 and became effective May 17, 2006.

SOURCE: California Air Resources Board, 09/08/2010 (http://www.arb.ca.gov/research/aaqs/aaqs2.pdf). *Ambient Air Quality Standards*, available at http://www.arb.ca.gov/research/aaqs/aaqs2.pdf Standards last updated November 17, 2008. California Air Resources Board, 2001. *CARB Fact Sheet: Air Pollution Sources, Effects and Control*, http://www.arb.ca.gov/research/health/fs/fs2/fs2.htm, page last updated December 2005.

Table 4.1-2 Attainment Status of Criteria Pollutants in the SCAB



Criteria Pollutant	State Designation	Federal Designation
Ozone - 1hour standard	Nonattainment	No Standard
Ozone - 8 hour standard	Nonattainment	Extreme Nonattainment[1]
PM_{10}	Nonattainment	Serious Nonattainment
$PM_{2.5}$	Nonattainment	Nonattainment
Carbon Monoxide	Attainment	Attainment/Maintenance
Nitrogen Dioxide	Nonattainment[2]	Attainment/Maintenance
Sulfur Dioxide	Attainment	Attainment
Lead	Attainment/Nonattainment[3]	Attainment/Nonattainment[4]
All others	Attainment/Unclassified	Attainment/Unclassified

Source: California Air Resources Board 2010 (http://www.arb.ca.gov/regact/2010/area10/area10.htm, http://www.arb.ca.gov/desig/feddesig.htm)

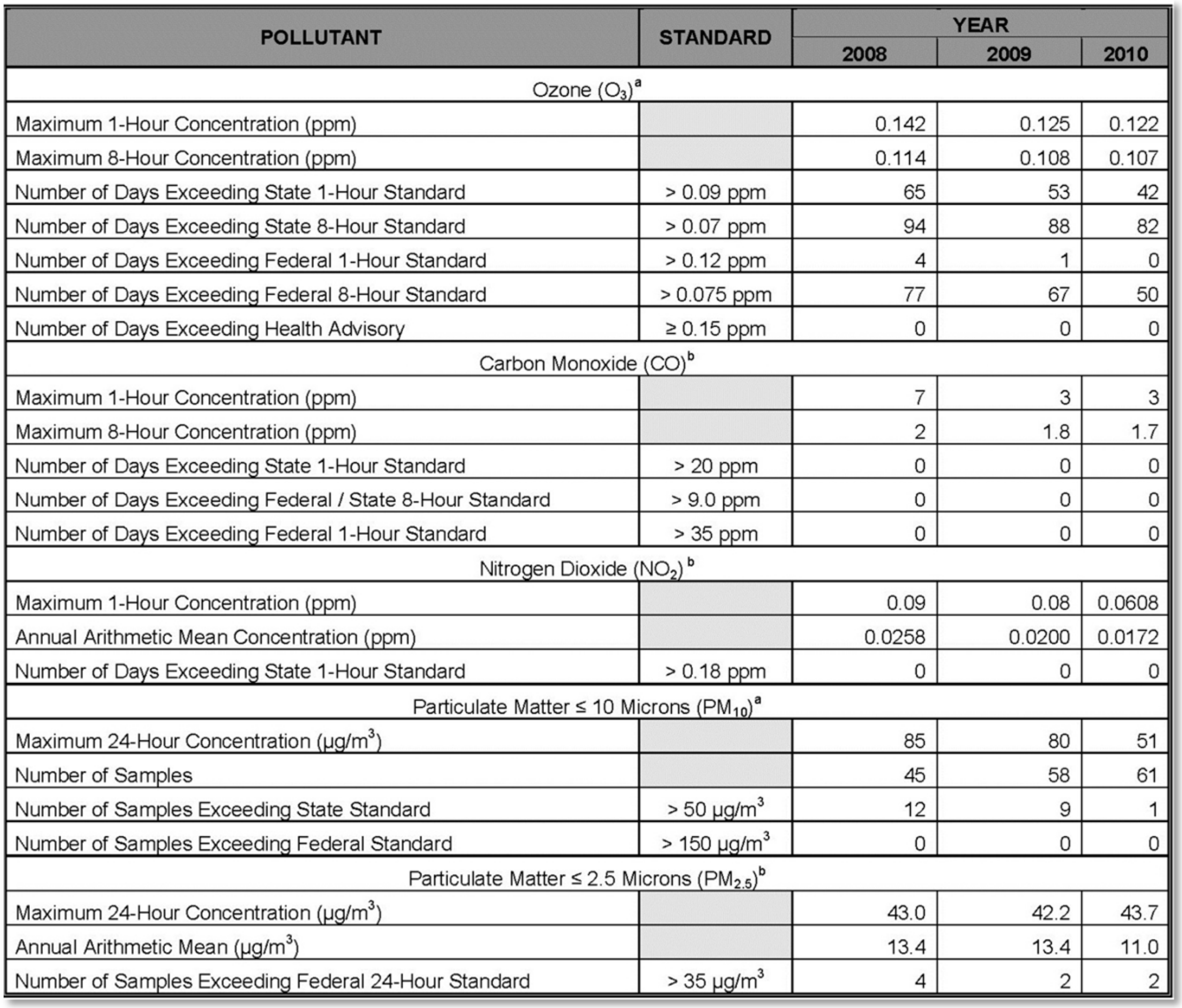
1 The USEPA approved redesignation from Severe 17 to Extreme Nonattainment on May 5, 2010 to be effective June 4, 2010.

2 The SCAB was reclassified from attainment to nonattainment for nitrogen dioxide on March 25, 2010.

3 Los Angeles County was reclassified from attainment to nonattainment for lead on March 25, 2010; the remainder of the SCAB is in attainment of the State Standard.

4 The Los Angeles County portion of the SCAB is classified as nonattainment; the remainder of the SCAB is in attainment of the State Standard.

Table 4.1-3 Project Area Air Quality Monitoring Summary (2008-2010)



POLLUTANT	STANDARD	YEAR		
		2008	2009	2010
Ozone (O_3)[a]				
Maximum 1-Hour Concentration (ppm)		0.142	0.125	0.122
Maximum 8-Hour Concentration (ppm)		0.114	0.108	0.107
Number of Days Exceeding State 1-Hour Standard	> 0.09 ppm	65	53	42
Number of Days Exceeding State 8-Hour Standard	> 0.07 ppm	94	88	82
Number of Days Exceeding Federal 1-Hour Standard	> 0.12 ppm	4	1	0
Number of Days Exceeding Federal 8-Hour Standard	> 0.075 ppm	77	67	50
Number of Days Exceeding Health Advisory	≥ 0.15 ppm	0	0	0
Carbon Monoxide (CO)[b]				
Maximum 1-Hour Concentration (ppm)		7	3	3
Maximum 8-Hour Concentration (ppm)		2	1.8	1.7
Number of Days Exceeding State 1-Hour Standard	> 20 ppm	0	0	0
Number of Days Exceeding Federal / State 8-Hour Standard	> 9.0 ppm	0	0	0
Number of Days Exceeding Federal 1-Hour Standard	> 35 ppm	0	0	0
Nitrogen Dioxide (NO_2)[b]				
Maximum 1-Hour Concentration (ppm)		0.09	0.08	0.0608
Annual Arithmetic Mean Concentration (ppm)		0.0258	0.0200	0.0172
Number of Days Exceeding State 1-Hour Standard	> 0.18 ppm	0	0	0
Particulate Matter ≤ 10 Microns (PM_{10})[a]				
Maximum 24-Hour Concentration ($\mu g/m^3$)		85	80	51
Number of Samples		45	58	61
Number of Samples Exceeding State Standard	> 50 $\mu g/m^3$	12	9	1
Number of Samples Exceeding Federal Standard	> 150 $\mu g/m^3$	0	0	0
Particulate Matter ≤ 2.5 Microns ($PM_{2.5}$)[b]				
Maximum 24-Hour Concentration ($\mu g/m^3$)		43.0	42.2	43.7
Annual Arithmetic Mean ($\mu g/m^3$)		13.4	13.4	11.0
Number of Samples Exceeding Federal 24-Hour Standard	> 35 $\mu g/m^3$	4	2	2

a. Perris Monitoring Station (SRA 24) data.
b. Metropolitan Riverside County 2 (SRA 23/Magnolia) data.
Source: SCAQMD (www.aqmd.gov)

❑ Air Quality Conditions at Project Site

The Project site consists of an existing truck trailer parking lot and vacant land. While the southern portion of the site (developed as a parking lot) generates air emissions under existing conditions, such emissions are primarily associated with operation of the adjacent warehouse building to the west that was previously evaluated in an MND and Addenda prepared in accordance with CEQA (SCH No. 2008101041). According to the MND and its Addenda, operation of the parking lot does not exceed applicable SCAQMD regional and localized significance thresholds (Moreno Valley 2010, pp. 68-71).

The northern portion of the property is vacant under existing conditions and does not generate quantifiable air emissions. Maintenance activities for fire fuel management (i.e., discing) may generate temporary fugitive dust emissions of PM_{10} and $PM_{2.5}$; however, because detailed information is not available and given the infrequent and intermittent nature of site maintenance activities, temporary fugitive dust emissions that may be generated during discing cannot be accurately calculated and would be speculative in nature.

Absent additional information, existing air quality conditions at the Project site are assumed to be similar to local ambient conditions (presented in Table 4.1-3).

E. Applicable Environmental Regulations

The following is a brief description of the federal, state, and local environmental laws and related regulations governing air quality emissions.

❑ Federal Regulations

The U.S. Environmental Protection Agency (EPA) is responsible for setting and enforcing the National Ambient Air Quality Standards (NAAQS) for O_3, CO, NO_x, SO_2, PM_{10}, and lead. The U.S. EPA has jurisdiction over emissions sources that are under the authority of the federal government including aircraft, locomotives, and emissions sources outside state waters (Outer Continental Shelf). The U.S. EPA also establishes emission standards for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission requirements of the CARB.

The Federal Clean Air Act (CAA) was first enacted in 1955 and was amended numerous times in subsequent years (1963, 1965, 1967, 1970, 1977, and 1990). The CAA establishes the federal air quality standards, the NAAQS, and specifies future dates for achieving compliance. The CAA also mandates that states submit and implement State Implementation Plans (SIPs) for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards will be met.

The 1990 amendments to the CAA that identify specific emission reduction goals for areas not meeting the NAAQS require a demonstration of reasonable further progress toward attainment and incorporate additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA most directly applicable to the development of the Project site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions).

Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants: O_3, NO_2, SO_2, PM_{10}, CO, $PM_{2.5}$, and lead. The NAAQS were amended in July 1997 to include an additional standard for O_3 and to adopt a NAAQS for $PM_{2.5}$. Table 4.1-1 (previously presented) provides the NAAQS within the SCAB.

Mobile source emissions are regulated in accordance with Title II provisions. These provisions require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas. Automobile manufacturers are also required to reduce tailpipe emissions of hydrocarbons and NOx, which is a collective term that includes all forms of nitrogen oxides (NO, NO_2, NO_3) emitted as byproducts of the combustion process.

❑ California Regulations

The CARB, which became part of the California EPA in 1991, is responsible for ensuring implementation of the California CAA (AB 2595), responding to the federal CAA, and for regulating emissions from consumer products and motor vehicles. The California CAA mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources in order to attain the state ambient air quality standards by the earliest practical date. The CARB established the California Ambient Air Quality Standards (CAAQS) for all pollutants for which the federal government has NAAQS and, in addition, establishes standards for sulfates, visibility, hydrogen sulfide, and vinyl chloride. However at this time, hydrogen sulfide and vinyl chloride are not measured at any monitoring stations in the SCAB because they are not considered to be a regional air quality problem. Generally, the CAAQS are more stringent than the NAAQS.

All air pollution control districts have been formally designated as attainment or non-attainment for each CAAQS. Serious non-attainment areas are required to prepare air quality management plans that include specified emission reduction strategies in an effort to meet clean air goals.

❑ Air Quality Management Planning

Currently, the NAAQS and CAAQS are exceeded in most parts of the SCAB. In response, and in conformance with California Health & Safety Code §40702 et seq. and the California CAA, the SCAQMD has adopted an Air Quality Management Plan (AQMP) to plan for the regional improvement of air quality. AQMPs are updated regularly in order to more effectively reduce emissions and accommodate growth. Each version of the plan is an update of the previous plan and has a 20-year horizon with a revised baseline. The SCAQMD Governing Board adopted the AQMP applicable to evaluation in this EIR on June 1, 2007. On the date the NOP for this EIR was released for public review (December 3, 2012), SCAQMD’s 2012 AQMP was not yet adopted, so the 2007 AQMP is applicable for evaluation. The 2012 AQMP was adopted by the SCAQMD’s Governing Board on December 7, 2012.

As reported in the Executive Summary of the 2012 AQMP, air quality in the Basin is improving. “Over the years, the air quality in the Basin has improved significantly, thanks to the comprehensive control strategies implemented to reduce pollution from mobile and stationary sources.” (SCAQMD, 2012, p ES-2). However, the 2012 AQMP also reports that the Basin exceeds the federal 8-hour ozone standard more frequently than any other location in the United States. In response, the 2012 AQMP recommends a strategy to reduce NOx emissions in the Basin.

4.1.2 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to air quality if the Project or any Project-related component would:

1. *Conflict with or obstruct implementation of the applicable air quality plan;*
2. *Violate any air quality standard or contribute substantially to an existing or projected air quality violation;*
3. *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);*
4. *Expose sensitive receptors to substantial pollutant concentrations; or*
5. *Create objectionable odors affecting a substantial number of people.*

Within the context of the above significance thresholds, emissions generated by a development project would be significant under Thresholds 2 and 3 if they exceeded the regional thresholds established by the SCAQMD for criteria pollutants and would be significant pursuant to Threshold 4 if they exceeded the localized thresholds established by the State of California and the SCAQMD for criteria pollutants. The criteria applicable to the proposed Project are summarized in Table 4.1-4, *Regional and Localized Thresholds for Criteria Pollutants*. Pursuant to SCAQMD guidance, any project in the SCAB with daily emissions that would exceed any of the thresholds summarized in Table 4.1-4 would be considered as having a significant impact to air quality on both a direct (individual) and cumulative basis. (Urban Crossroads, 2012a, pp. 25-26)

In addition, pursuant to the thresholds established by the SCAQMD, any project that would emit toxic air contaminants, like diesel particulate matter, and expose receptor populations to an incremental cancer risk of greater than 10 in one million would be evaluated as having a significant impact to air quality under Threshold 4. (Urban Crossroads, 2012b)

4.1.3 IMPACT ANALYSIS

A. *Methodology for Estimating Project-Related Construction Emissions*

❑ Maximum Daily Emissions

The California Emissions Estimator Model™ (CalEEMod™), released by the SCAQMD on February 3, 2011, was used to estimate emissions of criteria pollutants NO_x, VOC, PM_{10}, $PM_{2.5}$, SO_X, and CO, associated with construction activities proposed by the Project. Construction-related emissions would be expected from the following construction activities:

- Demolition
- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coatings (Painting)
- Construction Workers Commuting

Table 4.1-4 Regional and Localized Thresholds for Criteria Pollutants

POLLUTANT	CONSTRUCTION	OPERATIONAL
Maximum Daily Emissions (Regional Thresholds)		
NO_X	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM_{10}	150 lbs/day	150 lbs/day
$PM_{2.5}$	55 lbs/day	55 lbs/day
SO_X	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
Ambient Air Quality for Criteria Pollutants (Localized Thresholds)		
NO_2 (1-hour average)	0.18 ppm	0.18 ppm
PM_{10} (24-hour average)	10.40 µg/m^3	2.50 µg/m^3
$PM_{2.5}$ (24-hour average)	10.40 µg/m^3	2.50 µg/m^3
CO (1-hour average)	20 ppm	20 ppm
CO (8-hour average)	9 ppm	9 ppm

NOTE: ppm = parts per million; µg/m3 = micrograms per cubic meter.

The southern portion of the Project site is currently occupied with an 8.4-acre truck parking yard. This parking area and associated surface improvements would be demolished to construct the proposed Project. The Project Applicant plans to demolish the asphaltic and concrete surfaces, which would be pulverized and stockpiled onsite for subsequent use in Project construction activities. The Project Applicant estimates that demolition activities would occur over a period of two (2) weeks but the air quality analysis conservatively assumes that demolition activates would occur over three (3) working weeks.

The duration of construction activity and associated equipment was estimated based on construction of similar projects in the City of Moreno Valley[1], CalEEMod™ defaults, and information provided by the Project Applicant. A detailed summary of construction equipment assumptions by phase is provided in Table 4.1-5, *Construction Equipment Assumptions*.

Dust is typically a major concern during rough grading activities. Because such emissions are not amenable to collection and discharge through a controlled source, they are called “fugitive emissions.” Emissions rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.). CalEEMod™ was used to calculate fugitive dust emissions resulting from this phase of activity. For purposes of modeling the Project’s construction-related air emissions, demolition is expected to occur within the month of January 2013; Site Preparation is expected to occur from January 2013 through February 2013; Grading activities are expected to occur within the month of February 2013; Building Construction is expected to occur from February 2013 through October 2013; Paving is expected to

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[1] VIP Moreno Valley Final Environmental Impact Report (June 27, 2012): http://www.moval.org/misc/vip-eir060420.shtml.

Table 4.1-5 Construction Equipment Assumptions

Operation	Crushing/Processing	Water Trucks	Concrete/Industrial Saws	Scraper	Grader	Rubber Tired Dozer	Tractor / Loader / Backhoe	Excavator	Pavers	Paving Equipment	Rollers	Forklift	Cranes	Air Compressor	Generator Set	Welder
Demolition	1		1			2		3								
Site Preparation		3				3	4									
Grading		3		2	1	1	2	2								
Building Construction							3					3	2		1	1
Paving									2	2	2					
Architectural Coating														1		

occur from October 2013 through November 2013; and Architecture Coatings are expected to occur from November 2013 through December 2013. This construction schedule represents a “worst-case” analysis scenario; should construction occur any time after these respective dates, construction-related emissions would decrease because emission factors for construction equipment decrease as the analysis year increases due to increasingly stringent regulatory requirements.

Construction emissions for construction worker vehicles traveling to and from the Project site, as well as vendor trips (construction and earth materials delivered to the Project site), were estimated based on information from the Project Applicant and the CalEEMod™ defaults. Refer to Appendix A of the Air Quality Impact Analysis (*Technical Appendix B* to this EIR) for more details on the methodology and assumptions utilized to estimate Project-related construction emissions.

☐ Localized Emissions

Localized emissions associated with Project-related construction activities were estimated and evaluated in accordance with SCAQMD’s Final Localized Significance Threshold Methodology. For the proposed Project, the Source Receptor Area (SRA) for Perris Valley was utilized as the baseline for ambient air quality. The SCAQMD produced look-up tables for projects that disturb less than or equal to 5 acres in size; however, the tables can be used as screening criteria for larger projects to determine whether or not dispersion modeling may be required. This approach is conservative as it assumes that all on-site emissions would occur within a 5-acre area and would over-predict potential localized impacts (i.e., more pollutant emissions occurring within a smaller area and within closer proximity to potential sensitive receptors). If a project exceeds the LST look-up values, then the SCAQMD recommends that project specific air quality modeling be performed. (Urban Crossroads, 2012a, pp. 38-39)

B. Methodology for Estimating Project-Related Operational Emissions

☐ Maximum Daily Emissions

SCQAMD’s CalEEMod™ was used to estimate emissions of criteria pollutants, NO_X, VOC, PM^{10}, $PM_{2.5}$, SO_X, and CO, associated with long-term operation of the proposed Project. Operational emissions would be expected from the following primary sources:

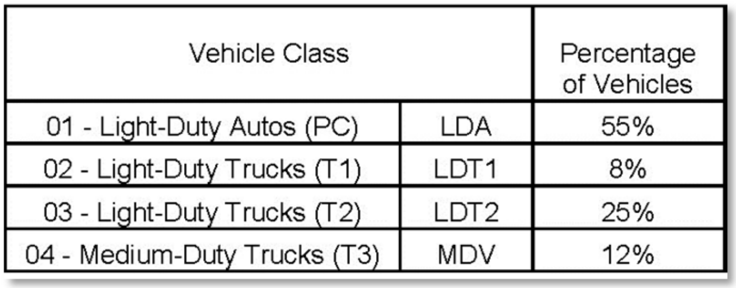
- Vehicles
- Combustion Emissions associated with Natural Gas and Electricity
- Fugitive Dust related to Vehicular Travel
- Landscape Maintenance Equipment
- Architectural Coatings (Painting)

Trip characteristics from the Project's Traffic Impact Analysis (*Technical Appendix E* to this EIR) were used to estimate Project-related operational vehicular emissions. It should be noted that the Project's traffic study presents the total Project vehicle trips in terms of Passenger Car Equivalents (PCEs) in an effort to recognize and acknowledge the effects of heavy vehicles at the study area intersections. For purposes of the air quality study the PCE trips were not used; rather, to be more representative of actual air emissions, the actual number of passenger cars (including light trucks) and heavy trucks are used in the analysis. The vehicle fleet mix, in terms of actual vehicles, as derived from the traffic study for the Project is comprised of approximately 46% passenger cars (265 passenger cars) and approximately 54% total trucks (311 trucks) (Urban Crossroads, 2012a, p. 30). The total traffic generation in vehicles is 576 per day.

The Project's total traffic generation in vehicles was divided by the total number of square feet for the Project to derive the trip generation rate for input into the modeling program. For analysis purposes, the total 576 vehicles is divided by the total square footage for the proposed building (400,130 square feet) to derive an aggregate trip generation rate (1.44 trips per thousand square feet) for input into the model. Similarly, total truck trips (by axle) were summed; the total sum of all trucks was then divided by each category of trucks (by axle) to determine axle-specific truck percentage for the Project as a whole. The distribution of passenger cars was apportioned in accordance with the CalEEMod™ model default distribution and is summarized on Table 4.1-6, *Passenger Car Percentage Breakdown*. The distribution of truck traffic was apportioned in accordance with the CARB's *Assessment of Heavy-Duty Gasoline and Diesel Vehicles in California*, and is summarized on Table 4.1-7, *Heavy Duty Truck Percentage Breakdown*.

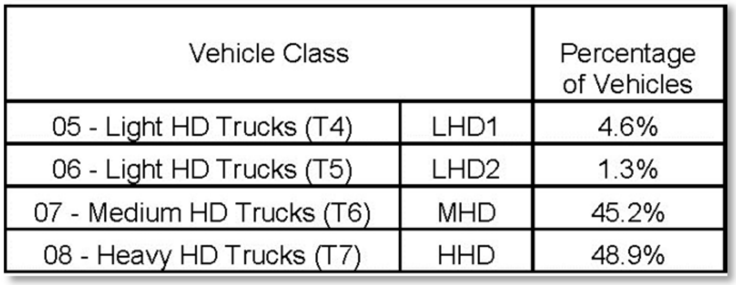
The Project's Air Quality Impact Analysis (*Technical Appendix B* to this EIR) uses a conservative approach for estimating long-term operational emissions associated with vehicle use. Per the SCAQMD 1993 CEQA Handbook, a one-way trip length of 17 miles was assumed for passenger car trips. For heavy duty trucks, the one-way trip length was derived using a formula that assumed that 50% of all Project-related heavy duty trucks would travel to the Port of Los Angeles/Long Beach (approximately 78 miles from the Project site), and the remaining 50% of all Project-related heavy duty trucks would be distributed equally to one of the following locations at far edges of the SCAB: Banning Pass; San Diego County Line; Cajon Pass; and Downtown Los Angeles. Using this formula, the average Project-related one-way heavy duty truck trip would be 61 miles. Weighting the average trip length by the Project's estimated vehicle fleet mix resulted in an average weighted one-way trip length of 40.76 miles. The weighted one-way trip used in the evaluation of the Project's operational emissions is higher than the recommended values of the SCAQMD and Southern California Association of Governments (SCAG) and likely overstates the Project's long-term impact. (Urban Crossroads, 2012a, p. 34)

Table 4.1-6 Passenger Car Percentage Breakdown



Vehicle Class		Percentage of Vehicles
01 - Light-Duty Autos (PC)	LDA	55%
02 - Light-Duty Trucks (T1)	LDT1	8%
03 - Light-Duty Trucks (T2)	LDT2	25%
04 - Medium-Duty Trucks (T3)	MDV	12%

Table 4.1-7 Heavy Duty Truck Percentage Breakdown



Vehicle Class		Percentage of Vehicles
05 - Light HD Trucks (T4)	LHD1	4.6%
06 - Light HD Trucks (T5)	LHD2	1.3%
07 - Medium HD Trucks (T6)	MHD	45.2%
08 - Heavy HD Trucks (T7)	HHD	48.9%

Using the vehicle mix one-way trip length described above, the Project's operational vehicular emissions were derived from vehicle miles traveled (VMT). VMT for a given project is calculated by multiplying the total number of vehicle trips to/from the Project site by the average trip length (in miles). This likely results in the over-estimation and double-counting of emissions for distribution warehouse centers like the proposed Project because the proposed land use is likely to attract (divert) existing vehicle trips that are already on the circulation system as opposed to generating new trips. There are no known methodologies, however, for estimating the net effect of redistributed truck trips on freight truck vehicle miles within the region.

Project-related long-term operational emissions associated with use of natural gas and electricity, fugitive dust related to vehicular travel, operation of landscape maintenance equipment, and the application of architectural coatings were estimated using CalEEMod™ model defaults.

Please refer to Appendix A of the Air Quality Impact Analysis (*Technical Appendix B* to this EIR) for more details on the methodology and assumptions utilized to estimate Project-related operational emissions.

❑ Localized Emissions

The LST analysis includes on-site sources only; however, the CalEEMod™ outputs do not separate on-site and off-site emissions from mobile sources. In an effort to establish a maximum potential impact scenario for analytic purposes, the emission inputs represent all on-site Project-related stationary (area) sources and five percent (5%) of the Project-related mobile sources. Considering that the weighted trip length used in CalEEMod™ for the Project is approximately 40.76 miles, 5% of this total would represent an on-site travel distance for each car and truck of approximately two

(2.0) miles or 10,560 feet; thus the 5% assumption is conservative and would tend to overstate the actual impact. (Urban Crossroads, 2012a, p. 41)

A CO "Hot Spot" Analysis was not performed to evaluate the effect of Project-related vehicular emissions on localized concentrations of CO at intersections in the vicinity of the Project site. CO attainment was thoroughly analyzed as part of the SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan). As discussed in the 2003 AQMP, CO "Hot Spots" are typically associated with idling vehicles at extremely busy intersections (i.e., intersections with an excess of 100,000 vehicle trips per day) in areas with unusual meteorological and topographical conditions. In the 1992 CO Plan, a CO hot spot analysis was conducted for four busy intersections in Los Angeles at the peak morning and afternoon time periods. As a result of this analysis, the SCAB has been designated as attainment for CO since 2007 (SCAQMD 2007) and even very busy intersections do not result in exceedances of the CO standard. Based on an analysis of the busiest intersections within the Project's vicinity, it was determined that none of the intersections in the vicinity of the Project would have peak hourly traffic volumes exceeding those at the intersections modeled in the 1992 CO Plan/2003 AQMP analysis. Therefore, Project-related vehicular emissions would not result in a substantial contribution of CO concentrations at intersections in the vicinity of the Project site and a CO "Hot Spot" analysis is not warranted. (Urban Crossroads, 2012a, pp. 42-44)

The nearest sensitive receptor land use (defined as a place where an individual could remain for 24-hours) would be the residence approximately 656 feet/200 meters north of the Project boundary, south of Rivard Road and west of Perris Boulevard. Accordingly, LSTs for receptors at 656 feet/200 meters are utilized in the analysis and provide for a conservative (i.e. "health protective") standard of care, as any receptors located further away would be exposed to a lesser impact. (Urban Crossroads, 2012a, p. 40)

C. Methodology for Estimating Project-Related Diesel Particulate Emissions

Diesel particulate emissions were estimated using the 2011 version of the Emission FACtor model (EMFAC) developed by the CARB. EMFAC 2011 is a mathematical model that calculates emission rates from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB for projections of changes in future emissions from on-road mobile sources. The EMFAC 2011 model quantifies annual diesel particulate exposure for different receptor populations using a variety of factors including vehicle activity, vehicle speed, temperature and relative humidity. Refer to Pages 9 through 13 of the Project's Mobile Source Health Risk Assessment (*Technical Appendix C* to this EIR) for a detailed description of the model inputs and equations used in the estimation of Project-related diesel particulate emissions. (Urban Crossroads, 2012b, pp. 9-13)

The effect of Project-related diesel particulate emissions was quantified in accordance with the SCAQMD's *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*. Pursuant to SCAQMD's recommendations, the AEROMOD model was used (Urban Crossroads, 2012b, p. 13). Refer to Pages 13 through 17 of the Project's Mobile Source Health Risk Assessment (*Technical Appendix C* to this EIR) for a detailed description of the model inputs and equations used in the estimation of average particulate concentrations associated with operations at the Project site.

Health risks associated with exposure to diesel particulate emissions are defined in terms of the probability of developing cancer as a result of exposure to a chemical at a given concentration. The cancer risk probability is determined through a series of equations to calculate unit risk factor, cancer potency factor, and chronic daily intake. The equations and input factors utilized in the Project analysis were obtained from the California EPA, Office of Environmental Health Hazard (Urban Crossroads, 2012b, p. 17). Refer to Pages 17 through 19 of the Project's Mobile Source Health Risk Assessment (*Technical Appendix C* to this EIR) for a detailed description of the variable inputs and equations used in the estimation of receptor population health risks associated with operations at the Project site.

The project level threshold of significance for toxic air contaminants is 10 in one million for both direct and cumulative impacts, which is consistent with AQMD guidance. The AQMD published a report on how to address direct and cumulative impacts from air pollution: *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution* (August 2003). In this report the AQMD states (Page D-3):

> *"…the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR. The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for toxic air contaminant (TAC) emissions. The project specific (project increment) significance threshold is HI > 1.0 while the cumulative (facility-wide) is HI > 3.0. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.*
>
> *Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."*

Threshold 1: Would the proposed Project conflict with or obstruct implementation of the applicable air quality plan?

Because the 2012 AQMP was not adopted at the time the NOP for this EIR was distributed for public on December 3, 2012, the applicable air quality plan for the Project's evaluation in this EIR is the 2007 AQMP. The 2007 AQMP projects long-term air quality conditions for the SCAB. The air quality conditions presented in the 2007 AQMP are based in part on the growth forecasts that were used as inputs for SCAG's regional transportation model. The growth forecasts utilized in the 2007 AQMP are based on the growth projections identified by SCAG in its 2004 Regional Transportation Plan (RTP). The RTP assumed that development in the various incorporated and unincorporated areas within the SCAB would occur in accordance with the adopted general plans for these areas. In addition, the air quality conditions presented in the 2007 AQMP are based on the assumption that future development projects would implement strategies to reduce emissions generated during the construction and operational phases of development. Accordingly, if a proposed project is consistent with these growth forecasts, and if available emissions reduction strategies are implemented as effectively as possible on a project-specific basis, then the project would be considered to be consistent with the AQMP.

The SCAQMD has established criteria for determining consistency with the 2007 AQMP. These criteria are defined in Chapter 12, Sections 12.2 and 12.3 of the SCAQMD CEQA Air Quality Handbook and are discussed below. These are the same consistency criteria that are used to determine consistency with the 2012 AQMP as well. Because the City of Moreno Valley's General Plan designates the Project site as "Industrial" and that land use designation did not change between the time of the 2007 AQMP and 2012 AQMP, the growth forecast used for the Project site in both the 2007 and 2012 AQMPs is the same.

- ***Consistency Criterion No. 1****: The proposed project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.*

The violations to which Consistency Criterion No. 1 refers are the CAAQS and NAAQS. Violations of the CAAQS and NAAQS would occur if localized significance thresholds (LSTs) were exceeded. As evaluated as part of the Project LST analysis (refer to Threshold 4, below), the Project's mitigated localized construction-source emissions would not exceed applicable LSTs; therefore, a violation would not occur. Similarly, the Project LST analysis demonstrates that Project operational-source emissions would not exceed applicable LSTs.

However, as discussed under the analysis of Thresholds 2 and 3 (below), Project operations would result in or cause exceedances of certain SCAQMD regional thresholds. Although operational emissions would be generated in excess of SCAQMD's regional threshold criteria, these emissions are accounted for in the AQMP and the AQMP air quality attainment goals. That is, land uses and development proposed by the Project are consistent with land uses and development intensities reflected in the currently adopted City of Moreno Valley General Plan, and are therefore within the scope of air quality considerations reflected in the AQMP. Moreover, the Project's urban location and proximity to local and regional transportation facilities acts to reduce vehicle miles traveled and associated mobile-source (vehicular) emissions. Additionally, Project incorporation of mandatory energy-efficient technologies as required by the California Building Standards Code, and mandatory compliance with SCAQMD emissions reduction rules and control requirements, act to reduce stationary-source air emissions. These Project attributes and features are consistent with and support AQMP air pollution reduction strategies and promote timely attainment of AQMP air quality standards.

On the basis of the preceding discussion, the Project is determined to be consistent with the first criterion.

- ***Consistency Criterion No. 2***: *The proposed project will not exceed the assumptions in the AQMP in 2011 or increments based on the years of project buildout phase.*

Assumptions of the AQMP used in projecting future emissions levels are based in part on land use data provided by lead agency general plan documentation. Projects that propose general plan amendments and changes of zone may increase the intensity of use and/or result in higher traffic volumes, thereby resulting in increased stationary area source emissions and/or vehicle source emissions when compared to the AQMP assumptions. If however, a project does not exceed the growth projections in the applicable general plan, then the project is considered to be consistent with the growth assumptions in the AQMP.

The Project site is designated as “Industrial” by the Moreno Valley General Plan and uses proposed by the Project are consistent with this designation. The Project also does not plan to increase the development intensity beyond that currently anticipated for the subject site as reflected in Moreno Valley’s Specific Plan 208. Because the land use proposed by the Project is consistent with the adopted General Plan, the Project is in compliance with Consistency Criterion No. 2.

In summary, because the proposed Project satisfies both of the two aforementioned criteria for determining consistency, the Project is deemed consistent with the AQMP and an impact due to a conflict with or obstruction of the applicable air quality management plan would not occur.

Threshold 2: ***Would the proposed Project violate any air quality standard or contribute substantially to an existing or projected air quality violation?***

Threshold 3: ***Would the proposed Project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?***

☐ Construction Emissions

Applying the methodology presented previously in Subsection 4.1.3A, the estimated maximum daily construction emissions are summarized on Table 4.1-8, *Emissions Summary of Construction Activities (Without Mitigation)*. As shown, emissions resulting from Project construction would exceed criteria pollutant thresholds established by the SCAQMD for emissions of VOCs and NO_x (before mitigation). In addition, the SCAB does not attain state criteria for NO_x concentrations, as previously presented in Table 4.1-2. Furthermore, NO_x and VOCs are precursors for O_3, and the SCAB is identified as a federal and state non-attainment area for O_3 (see Table 4.1-2). As such, near-term construction activities would violate the air quality standard for VOCs and NO_x, would contribute to an existing regional air quality violation, and would cumulatively contribute to the net increase of two criteria pollutants (O_3 and NO_x) for which the region is non-attainment. Accordingly, construction-related emissions of VOCs and NOx are therefore considered a significant direct and cumulative impact for which mitigation would be required.

Table 4.1-8 Emissions Summary of Construction Activities (Without Mitigation)

Year	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions	**81.55**	**111.99**	**63.63**	**0.14**	**68.68**	**12.64**
SCAQMD Regional Threshold	75	100	550	150	150	55
Significant?	**YES**	**YES**	**NO**	**NO**	**NO**	**NO**

Note: Please refer to Appendix A of the Project's Air Quality Impact Analysis (*Technical Appendix B* to this EIR) for the CalEEMod™ output files and additional hand calculations for the estimated emissions.

❑ Operational Emissions

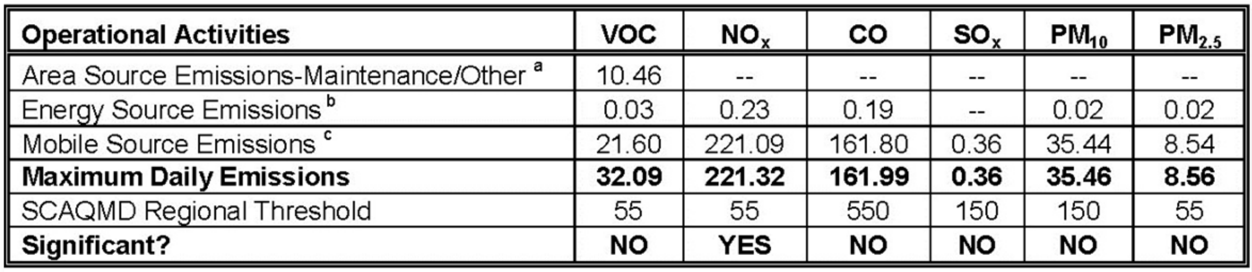
The Project-related operations emissions, along with a comparison of SCAQMD significance thresholds, are shown on Table 4.1-9, *Summary of Peak Operational Emissions (Without Mitigation)*. As shown, the Project's long-term operational emissions would exceed the SCAQMD threshold of significance for NO_x. In addition, the SCAB does not attain state criteria for NO_x concentrations, as previously presented above. Furthermore, NO_x is a precursor for O_3, and the SCAB is identified as a federal and state non-attainment area for O_3 (see Table 4.1-2). As such, the Project's long-term operational activities would violate the air quality standard for NO_x, would contribute to an existing regional air quality violation, and would cumulatively contribute to the net increase of a criteria pollutant (NO_x) for which the region is non-attainment. These impacts are concluded to be significant on a direct and cumulative basis and mitigation would be required.

Regarding area source emissions, the proposed Project is designed to meet or surpass California Building Code Title 24 energy efficiency requirements, thereby acting to reduce area-source emissions to the extent feasible. However, emissions of NO_x are primarily the result of mobile source emissions (vehicles traveling to and from the Project site). The Project's location proximate to major local roadways and regional freeway facilities (namely Harley Knox Boulevard (a designated truck route) and the I-215 Freeway) acts to reduce vehicle miles traveled with correlating reductions in vehicle source emissions. (Urban Crossroads, 2012a, p. 38)

Federal and state agencies regulate and enforce vehicle emission standards. CARB's Diesel Risk Reduction Plan (DRRP) led to the adoption of new state regulatory standards for all new on-road, off-road, and stationary diesel-fueled engines and vehicles to reduce diesel particulate matter (DPM) emissions by about 90 percent overall from year 2000 levels. Specifically, the operation of diesel fueled vehicles are currently subject to the California Code of Regulations Title 13, Division 3, Chapter 1, Article 4.5, Section 2025, "Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles" and to California Code of Regulations Title 13, Division 3, Chapter 10, Article 1, Section 2485, "Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling." Reductions in pollutant emissions are anticipated to continue to accrue for the foreseeable future as current and more stringent state and federal regulations are implemented and older, less controlled vehicles and equipment are retired or retrofitted with required pollution control devices. The City of Moreno Valley does not have the resources to impose and enforce restrictions on engine use and vehicle emissions above and beyond the requirements of state and federal law. And, even if the City were to apply more stringent emission restrictions on individual projects, such a restriction would merely entice the vehicles fleet operators that do not meet the stricter restriction to operate at another

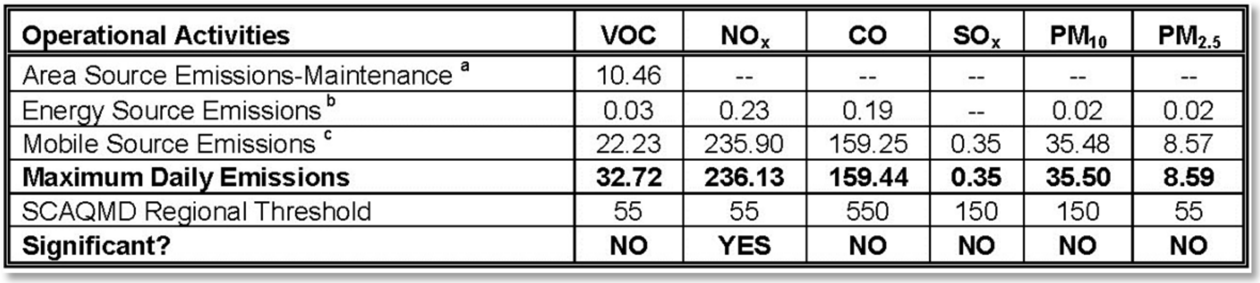
Table 4.1-9 Summary of Peak Operational Emissions (Without Mitigation)

SUMMER MONTHS



Operational Activities	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Area Source Emissions-Maintenance/Other [a]	10.46	--	--	--	--	--
Energy Source Emissions [b]	0.03	0.23	0.19	--	0.02	0.02
Mobile Source Emissions [c]	21.60	221.09	161.80	0.36	35.44	8.54
Maximum Daily Emissions	**32.09**	**221.32**	**161.99**	**0.36**	**35.46**	**8.56**
SCAQMD Regional Threshold	55	55	550	150	150	55
Significant?	**NO**	**YES**	**NO**	**NO**	**NO**	**NO**

WINTER MONTHS



Operational Activities	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Area Source Emissions-Maintenance [a]	10.46	--	--	--	--	--
Energy Source Emissions [b]	0.03	0.23	0.19	--	0.02	0.02
Mobile Source Emissions [c]	22.23	235.90	159.25	0.35	35.48	8.57
Maximum Daily Emissions	**32.72**	**236.13**	**159.44**	**0.35**	**35.50**	**8.59**
SCAQMD Regional Threshold	55	55	550	150	150	55
Significant?	**NO**	**YES**	**NO**	**NO**	**NO**	**NO**

building or in another location in the SCAB where the mobile source restriction does not apply, thereby resulting in no improvement to regional air quality.

Threshold 4: Would the proposed Project expose sensitive receptors to substantial pollutant concentrations?

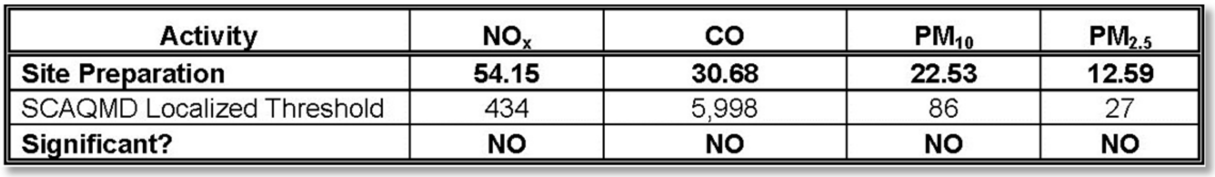
During construction and long-term operation, the Project has the potential to expose nearby sensitive receptors to pollutant concentrations. The following provides an analysis based on the applicable localized significance thresholds established by the State of California and SCAQMD.

❑ Construction-Related Localized Emissions

Table 4.1-10, *Localized Significance Summary for Construction Activities (Without Mitigation)*, presents the results of the localized significance analysis for construction-related emissions. Detailed localized emissions model outputs are presented in Attachment A to the Air Quality Impact Analysis (*Technical Appendix B* to this EIR). As shown, during site preparation and grading activities, Project-related construction emissions would not exceed the SCAQMD Localized Threshold for NO_x, CO, PM_{10}, or $PM_{2.5}$. Localized emission levels would be further reduced with the incorporation of the construction-related mitigation measures presented below in Subsection 4.1.7. (Refer to Tables 3-9 and 3-11 of the Project's Air Quality Impact Analysis (*Technical Appendix B* to this EIR) for a summary of construction-related localized emissions following the incorporation of mitigation). Accordingly, construction of the proposed Project would not result in the exposure of any sensitive receptors to substantial pollutant concentrations, and impacts would be less than significant.

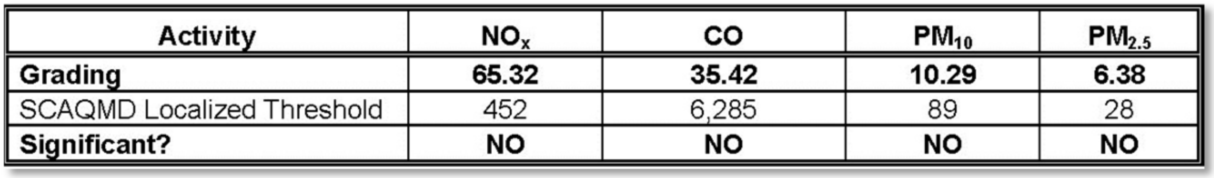
Table 4.1-10 Localized Significance Summary for Construction Activities (Without Mitigation)

SITE PREPARATION



Activity	NO_x	CO	PM_{10}	$PM_{2.5}$
Site Preparation	**54.15**	**30.68**	**22.53**	**12.59**
SCAQMD Localized Threshold	434	5,998	86	27
Significant?	**NO**	**NO**	**NO**	**NO**

GRADING



Activity	NO_x	CO	PM_{10}	$PM_{2.5}$
Grading	**65.32**	**35.42**	**10.29**	**6.38**
SCAQMD Localized Threshold	452	6,285	89	28
Significant?	**NO**	**NO**	**NO**	**NO**

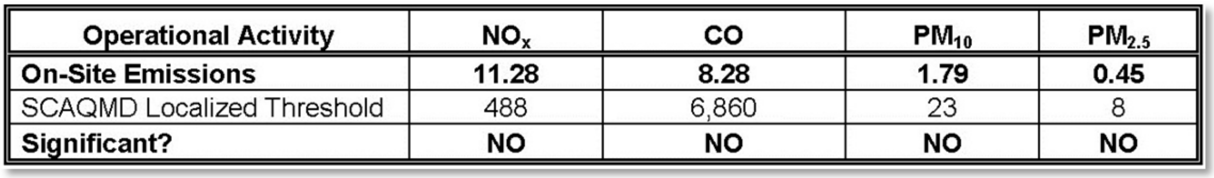
❑ Operational-Related Localized Emissions

o Criteria Pollutant Emissions

Table 4.1-11, *Localized Significance Summary for Operational Activities (Without Mitigation)*, presents the results of the long-term localized significance threshold analysis. Detailed operational localized emissions model outputs are presented in Attachment A to the Air Quality Impact Analysis (*Technical Appendix B* to this EIR).

Results of the analysis indicate that estimated Project-related long-term operational emissions would not exceed localized emissions thresholds established by the SCAQMD. In addition, the proposed Project has no potential to cause or contribute to any CO "hotspots." (Urban Crossroads, 2012a, p. 47) Accordingly, under long-term operating conditions, the proposed Project would not expose any sensitive receptors to substantial Project-related pollutant concentrations, and impacts would be less than significant.

Table 4.1-11 Localized Significance Summary for Operational Activities (Without Mitigation)



Operational Activity	NO_x	CO	PM_{10}	$PM_{2.5}$
On-Site Emissions	**11.28**	**8.28**	**1.79**	**0.45**
SCAQMD Localized Threshold	488	6,860	23	8
Significant?	**NO**	**NO**	**NO**	**NO**

Source Receptor Area: 24, 5 acres, 200 meter distance, on-site traffic 5% of total.

o Diesel Particulate Emissions

The SCAQMD has conducted an in-depth analysis of the toxic air contaminants and their resulting health risks for all of Southern California. This study, entitled, *Multiple Air Toxics Exposure Study in the South Coast Air Basin, MATES III*, predicted an excess cancer risk of 566 in one million for the Project area. Project-related Diesel Particulate Matter (DPM) cancer risks were evaluated under three

(3) operational scenarios as part of the Project's Mobile Health Risk Assessment (*Technical Appendix C* to this EIR), which are discussed below.

For the Residential Exposure Scenario, results indicate that particulate emissions generated from the Project would not create a significant health risk to residential land uses in the Project area. At the maximally exposed individual receptor (MEIR), the maximum risk is estimated to be 4.64 in one million, which does not exceed the SCAQMD DPM-source cancer risk (risk) threshold of 10 in one million. (Urban Crossroads, 2012b, p. 19) Accordingly, diesel particulate emissions would result in a less than significant impact to residential receptors.

For the Worker Exposure Scenario, results indicate that particulate emissions generated from the Project would not pose a significant health risk to workers in the project area. At the maximally exposed individual worker (MEIW), the maximum risk is estimated to be 1.23 in one million, which does not exceed the risk threshold of 10 in one million. (Urban Crossroads, 2012b, pp. 19-20) Accordingly, diesel particulate emissions would result in a less than significant impact to future Project site workers and other workers in the area.

For the School Child Exposure Scenario, results indicate that particulate emissions generated from the Project would not create a significant health risk to school children in the Project area. At the maximally exposed individual school child (MEISC), the maximum risk is estimated to be 0.08 in one million, which does not exceed the SCAQMD risk threshold of 10 in one million. (Urban Crossroads, 2012b, p. 20) Accordingly, diesel particulate emissions would result in a less than significant impact to school children.

An evaluation of the potential noncarcinogenic effects of chronic exposures also was conducted. For purposes of this analysis the hazard index for the respiratory endpoint totaled less than one for all receptors in the Project vicinity, and thus is less than significant. (Urban Crossroads, 2012b, p. 20) Refer to Page 20 of the Project's Mobile Source Health Risk Assessment (*Technical Appendix C* to this EIR) for a detailed description of the variable inputs and equations used in the estimation of potential noncarcinogenic effects.

Threshold 5: Would the proposed Project create objectionable odors affecting a substantial number of people?

The potential for the Project to generate objectionable odors has also been considered. Land uses generally associated with odor complaints include:

- Agricultural uses (livestock, farming)
- Wastewater treatment plants
- Food processing plants
- Chemical plants
- Composting operations
- Refineries
- Landfills
- Dairies
- Fiberglass molding facilities

The Project does not propose land uses typically associated with emitting objectionable odors. Potential odor sources associated with the Project may result from construction equipment exhaust and the application of asphalt and architectural coatings during construction activities (which are not typically objectionable), and the temporary storage of typical solid waste (refuse) associated with the Project's long-term operational uses.

Standard construction procedures would minimize odor impacts resulting from construction activity. Additionally, any construction odor emissions generated would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction activity; and, a substantial number of people are not concentrated around the Project site and could thus not be affected. For these reasons, it is concluded that construction-related odors would be less than significant because odors would be short term, not objectionable, and not affect a substantial population. For long-term operational conditions, Project-generated refuse would be required to be stored in covered containers and removed at regular intervals in compliance with the City of Moreno Valley's solid waste regulations. The Project would also be required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisances. Therefore, impacts due to odors associated with the Project construction and long-term operation would be less than significant.

4.1.4 CUMULATIVE IMPACT ANALYSIS

The proposed Project would implement the Moreno Valley General Plan and Moreno Valley Industrial Area Plan land use designations applied to the Project site. As such, the Project would be consistent with the growth forecasts used in the SCAQMD's 2007 AQMP to predict future air quality conditions in the SCAB. Accordingly, emissions that would be generated by the Project are assumed to be accounted for in the AQMP, and the Project would not conflict with or obstruct the implementation of the SCAQMD AQMP on a cumulative basis.

The Project area is designated as an extreme non-attainment area for O_3, and a non-attainment area for PM_{10} and $PM_{2.5}$. The Project-specific evaluation of emissions demonstrates that the proposed Project would exceed the SCAQMD regional thresholds for VOCs and NO_x during construction activities, and would exceed the SCAQMD regional threshold for NO_x under long-term operating conditions. Because NO_x and VOCs are a precursor for O_3, the Project's near- and long-term emissions would cumulatively contribute to criteria pollutants for which the Project region is in non-attainment (i.e., NO_x and O_3) and would violate the SCAQMD air quality standards for VOCs and NO_x during construction and NO_x during long-term operation. These impacts are concluded to be cumulatively significant, the Project's contribution would be cumulatively considerable, and mitigation would be required.

As demonstrated in the analysis of Threshold 4, above, air emissions generated by the Project during construction and operation would not violate the SCAQMD Localized Thresholds for NO_x, CO, PM_{10}, or $PM_{2.5}$. In addition, Project-related operational emissions of diesel particulates would not result in significant mobile-source health risks to any nearby sensitive receptors. There are currently no proposals for new construction adjacent to the proposed Project site; accordingly, there is no potential for cumulatively significant localized impacts during construction. Under long-term operating conditions, Project operations also would be far below the SCAQMD Localized Significance Thresholds. Therefore, it is reasonable to conclude that even when combined with localized emissions from future developments within close proximity to the Project site, such emissions would not exceed SCAQMD thresholds. Accordingly, long-term operation of the Project would not expose nearby sensitive receptors to substantial localized pollutant concentrations, and a cumulative considerable impact would not occur.

The SCAQMD has conducted an in-depth analysis of the toxic air contaminants and their resulting health risks for all of Southern California. This study, entitled, *Multiple Air Toxics Exposure Study in the South Coast Air Basin, MATES III,* predicted an excess cancer risk of 566 in one million for the Project area. DPM is included in this cancer risk along with all other toxic air contaminant (TAC) sources. DPM accounts for 83.6% of the total risk shown in MATES-III. The total risk derived by the MATES-III study was added to the Project source risks to determine the cumulative risks in the Project area, which is summarized in Table 4.1-12, *Cumulative Cancer Risk.* As shown in Table 4.1-12, the highest cumulative with Project cancer risks for residential receptors would be 570.64 in one million (or an increase of 4.64 in one million over background conditions). For workers, the highest cumulative with Project risk would be 567.23 in one million (or an increase of 1.23 in one million over background conditions). The highest cumulative with Project cancer risks for school children would be 566.08 in one million (or an increase of 0.08 in one million over background conditions). In all cases, the Project's incremental contribution to cancer risk would be below the 10 in one million threshold set by SCAQMD; accordingly, the proposed Project would result in a less than significant cumulative impact due to DPM emissions and their attendant cancer risk. (Urban Crossroads, 2012b, pp. 21-22)

Table 4.1-12 Cumulative Cancer Risk

	Cancer Risk as Maximum Sensitive Receptor (risk in one million)		
	Background	**Project Site**	**Total Cumulative Risk**
Maximum Impact to All Receptors Without Project	566	N/A	566
Maximum Impact to Nearest Residential With Project	566	4.64	570.64
Maximum Impact to Nearest Worker With Project	566	1.23	567.23
Maximum Impact to Nearest School With Project	566	0.08	566.08

Source: (Urban Crossroads, 2012b, Table 2-7)

The proposed Project would not involve a land use that is associated with the generation of odors, and construction odors would occur only in the near-term and would be short-term and intermittent in nature. There also are no odor emitters in the Project's cumulative study area which, when combined with Project-related odors, could affect a substantial number of people. Since the Project has no potential to create substantial amounts of odor during long-term operation, and since it is reasonable to conclude that no adjacent properties would be under development simultaneously with the proposed Project, the Project would not result in a significant odor-related impact under near- or long-term conditions.

4.1.5 APPLICABLE PROJECT REQUIREMENTS

The following is a list of requirements and/or conditions to which the Project would be required to adhere. Compliance with these measures was assumed throughout the above analysis of air quality impacts.

PR 4.2-1 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 402, "Nuisance."

PR 4.2-2 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 403, "Fugitive Dust." Rule 403 requires implementation of best available dust control measures during construction activities that generate fugitive dust, such as earth moving activities, grading, and equipment travel on unpaved roads.

PR 4.2-3 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 431.2, "Sulfur Content of Liquid Fuels."

PR 4.2-4 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 1113, "Architectural Coatings."

PR 4.2-5 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 1186, "PM_{10} Emissions from Paved and Unpaved Roads, and Livestock Operations."

PR 4.2-6 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 1186.1, "Less-Polluting Street Sweepers."

PR 4.2-7 The Project is required to comply with California Code of Regulations Title 13, Division 3, Chapter 1, Article 4.5, Section 2025, "Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles."

PR 4.2-8 The Project is required to comply with California Code of Regulations Title 13, Division 3, Chapter 10, Article 1, Section 2485, "Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling."

PR 4.2-9 The Project is required to comply with California Code of Regulations Title 24, "California Building Standards Code" and the "California Green Building Code."

4.1.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold 1: No Impact. The proposed Project would not conflict with or obstruct implementation of the SCAQMD's AQMP.

Thresholds 2 and 3: Significant Direct and Cumulative Impact (Near- and Long-Term). Emissions during Project construction (near-term) would violate the SCAQMD regional thresholds for VOCs and NO_x. In addition, emissions during Project operation (long term) are projected to exceed the SCAQMD regional threshold for NO_x. Near-term emissions of VOCs and near- and long-term emissions of NO_x also would contribute to an existing air quality violation in the SCAB (i.e., non-attainment status for O_3) because both VOCs and NO_x are precursors for O_3. As such, Project-related air emissions would violate SCAQMD air quality standards and contribute to the non-attainment status of a criteria pollutant (i.e., O_3). These Project-related air emissions are concluded to be a significant impact on a direct and cumulative basis.

Threshold 4: Less than Significant Impact. Near-term construction and long-term operation of the proposed Project would not expose nearby sensitive receptors to substantial pollutant concentrations of any criteria pollutant or diesel particulate matter. As such, a less than significant impact would occur.

Threshold 5: Less than Significant Impact. The Project does not propose land uses or operational activities associated with emitting objectionable odors. Any odor emissions generated during Project construction would be short term, not objectionable, and not affect a substantial population. Therefore, impacts due to odors would be less than significant.

4.1.7 MITIGATION MEASURES

Although Project-related particulate matter emissions (PM_{10} and $PM_{2.5}$) would be less than significant, the following mitigation measures are recommended to further reduce the Project's less than significant impact.

MM 4.1-1 Prior to grading permit issuance, the City shall verify that the following notes are specified on the grading plan to ensure implementation of SCAQMD Rule 403. Project contractors shall be required to comply with these notes and maintain written records of such compliance that can be inspected by the City of Moreno Valley upon request.

a) All clearing, grading, earth-moving, and excavation activities shall cease when winds exceed 25 miles per hour.

b) All unpaved roads and disturbed areas shall be watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day.

c) The contractor shall ensure that traffic speeds on unpaved roads and areas where soil is exposed are reduced to 15 miles per hour or less.

d) Public streets shall be swept at the end of each workday using a street sweeper meeting SCAQMD Rule 1186.1 if visible soil is carried onto paved public roads.

e) The cargo area of all vehicles hauling soil, sand, or other loose earth materials shall be covered.

MM 4.1-2 Prior to the start of grading, the construction contractor shall post legible, durable, weather-proof signs at the property's frontage with Perris Boulevard, San Michelle Road, and Nandina Avenue stating the name and phone number of an authorized individual to be contacted to resolve dust complaints. Proof of sign posting in the form of photographs shall be placed on file with the City of Moreno Valley. These signs shall remain posted on the property until grading is complete. All legitimate dust complaints shall be resolved in 24 hours.

The following measure is recommended to reduce the Project's significant near-term construction-related impact associated with the emission of NO_X and NO_X contributions to the SCAB's non-attainment status for O_3. This measure also would further reduce the Project's less than significant impact associated with near-term diesel particulate matter emissions.

MM 4.1-3 Prior to grading permit and building permit issuance, the City shall verify that the following notes are specified on all grading and building plans. Project contractors shall be required to comply with these notes and permit periodic inspection of the construction site by City of Moreno Valley staff to confirm compliance.

a) Mass grading shall be limited to no more than 4.0 acres per day.

b) During construction activity, diesel engines shall not idle in excess of five (5) minutes.

c) All equipment that is greater than or equal to 100 horsepower shall be CARB Tier 3 Certified or better.

d) Temporary traffic control for construction vehicles entering and exiting the site shall be implemented pursuant to the requirements of the California Manual on Uniform Traffic Control Devices.

The following measure is recommended to reduce the Project's significant near-term construction-related impact associated with the emission of VOCs and VOC contributions to the SCAB's non-attainment status for O_3.

MM 4.1-4 Prior to building permit issuance, the City shall verify that the following note is specified on all building plans. Project contractors shall be required to comply with these notes and maintain written records of such compliance that can be inspected by the City of Moreno Valley upon request.

a) All surface coatings shall consist of Zero-Volatile Organic Compound paints (no more than 150 gram/liter of VOC) and/or be applied with High Pressure Low Volume (HPLV) applications consistent with SCAQMD Rule 1113. Alternatively, building materials may be used that do not require painting or are delivered to the construction site pre-painted.

The following measures are recommended to reduce the Project's significant long-term operational-related impact associated with the emission of NO_X and NO_X contributions to the SCAB's non-attainment status for O_3. These measures also would further reduce the Project's less than significant impact associated with long-term diesel particulate matter emissions.

MM 4.1-5 Legible, durable, weather-proof signs shall be placed at truck access gates, loading docks, and truck parking areas that identify applicable California Air Resources Board (CARB) anti-idling regulations. At a minimum each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) instructions for drivers of diesel trucks to restrict idling to no more than three (3) minutes; and 3) telephone numbers of the building facilities manager and the CARB to report violations. Prior to occupancy permit issuance, the City shall conduct a site inspection to ensure that the signs are in place.

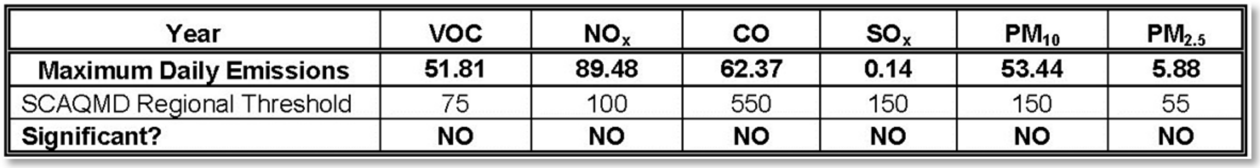
MM 4.1-6 Prior to the issuance of building permits, the City shall verify that the parking lot striping and security gating plan allows for adequate truck stacking at gates to prevent queuing of trucks outside the property.

MM 4.1-7 Prior to the issuance of occupancy permits, the Project's property owner shall provide documentation to the Planning Division verifying that provisions are included in the building's lease agreement that inform tenants about the availability of: 1) alternatively fueled cargo handling equipment; 2) grant programs for diesel fueled vehicle engine retrofit and/or replacement; 3) designated truck parking locations in the City of Moreno Valley; and 4) access to alternative fueling stations in the City of Moreno Valley that supply compressed natural gas (closest station is located on Indian Street, south of Nanina Avenue).

4.1.8 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Thresholds 2 and 3: Significant Direct and Cumulative Impact (Long-Term). As shown in Table 4.1-13, *Emissions Summary of Construction Activities (With Mitigation)*, with incorporation of the mandatory and applicable Project Requirements listed in Subsection 4.1.5 and Mitigation Measures MM 4.1-3 and MM 4.1-4, the Project's near-term construction-related emissions of NO_x and VOCs would be reduced to below the SCAQMD regional thresholds of significance. Accordingly, construction-related emissions would not violate any applicable air quality standard, would not substantially contribute to an existing regional air quality violation, and would not result in a cumulatively considerable contribution to the net increase of any criteria pollutants for which the region is non-attainment. Therefore, near-term construction-related air quality impacts would be reduced to a level below significant.

Table 4.1-13 Emissions Summary of Construction Activities (With Mitigation)



Year	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions	**51.81**	**89.48**	**62.37**	**0.14**	**53.44**	**5.88**
SCAQMD Regional Threshold	75	100	550	150	150	55
Significant?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

Note: Please refer to Appendix A of the Project's Air Quality Impact Analysis (*Technical Appendix B* to this EIR) for the CalEEMod™ output files and additional hand calculations for the estimated emissions.

Although implementation of mandatory and applicable Regulatory Requirements and Mitigation Measures MM 4.1-5 and MM 4.1-6 would reduce long-term operational emissions of NO_x, Project-related operational emissions of NO_x would remain above regional significance thresholds, primarily from mobile source emissions. No other mitigation measures are available that are feasible for the Project Applicant to implement and the City of Moreno Valley to enforce given the City's human and financial capacities. As such, it is concluded that the Project's long-term emissions of NO_x would directly violate SCAQMD air quality standards. In addition, the Project's long-term emissions of NO_x would cumulatively contribute to an existing air quality violation in the SCAB (i.e., O_3 concentrations), as well as cumulatively contribute to the net increase of a criteria pollutant for which the SCAB is non-attainment (i.e., federal and state O_3 concentrations). Accordingly, the Project's long-term emissions of NO_x are concluded to result in a significant and unavoidable impact on both a direct and cumulative basis.

4.2 GREENHOUSE GAS EMISSIONS

This subsection assesses the Project's potential to generate GHG emissions that could contribute to GCC and its associated environmental effects. The analysis in this subsection is based in part on information contained in the report titled, "First Inland Logistics II GHG Analysis," prepared by Urban Crossroads, Inc. and dated November 14, 2012, and included as *Technical Appendix D* to this EIR (Urban Crossroads, 2012c).

4.2.1 EXISTING CONDITIONS

A. *Introduction to Global Climate Change*

Global climate change (GCC) is defined as the change in average meteorological conditions on the Earth with respect to temperature, precipitation, and storms. GCC is a controversial environmental issue in the United States, and much debate exists within the scientific community about whether or not GCC is occurring naturally or as a result of human activity. Some data suggests that GCC has occurred over the course of thousands or millions of years. These historical changes to the Earth's climate have occurred naturally without human influence, as in the case of an ice age. However, many scientists believe that the climate shift taking place since the industrial revolution (1900) is occurring at a quicker rate and magnitude than in the past. Scientific evidence suggests that GCC is the result of increased concentrations of greenhouse gasses (GHGs) in the Earth's atmosphere, including carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated gases. Many scientists believe that this increased rate of climate change is the result of GHGs resulting from human activity and industrialization over the past 200 years. (Urban Crossroads, 2012c, p. 6)

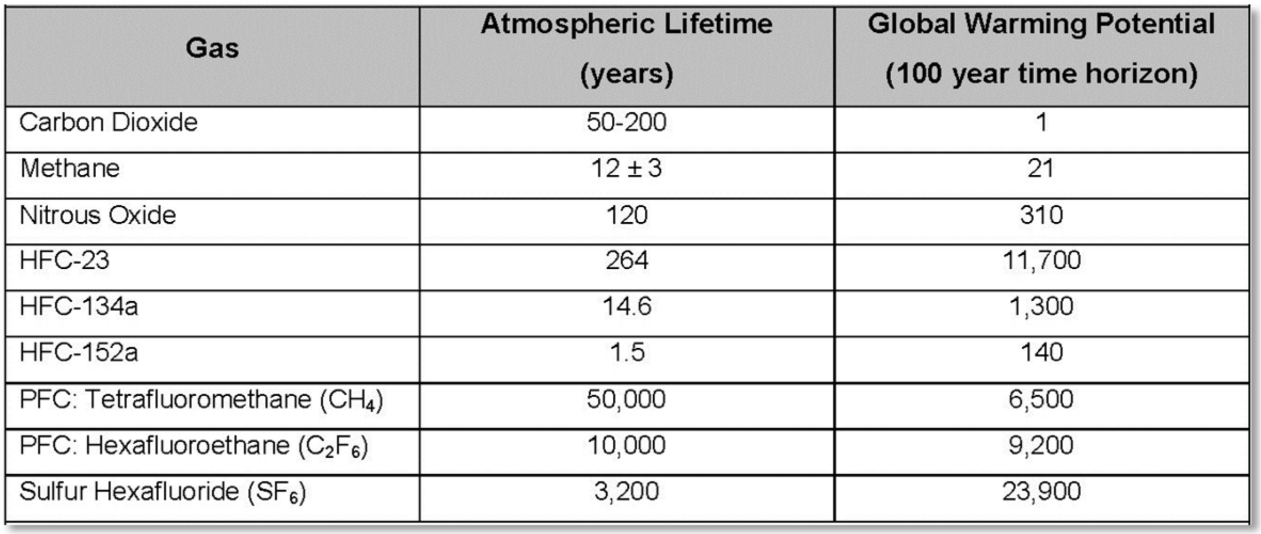
Man-made global warming, if it does exist, cannot be solved by the actions of California or the actions of the industrialized world alone due to the serious and undeniable projected increases in emissions in the developing world. Regardless, an individual project like the proposed Project evaluated in this EIR cannot generate enough GHG emissions to effect a discernible change in global climate. The proposed Project may participate in the potential for GCC by its incremental contribution of GHG emissions combined with all other sources of GHGs, which when taken together constitute potential influences on the global climate. (Urban Crossroads, 2012c, p. 6)

B. *Greenhouse Gases*

Emissions of CO_2, CH_4, and N_2O are the focus of evaluation in this subsection because these gases are the primary contributors to GCC from development projects. Although other substances such as fluorinated gases also contribute to GCC, sources of fluorinated gases are not well defined and no accepted emissions factors or methodology exist to accurately calculate these gases. (Urban Crossroads, 2012c, p. 9)

GHGs have varying global warming potential (GWP) values; GWP values represent the potential of a gas to trap heat in the atmosphere. CO_2 is utilized as the reference gas for GWP, and thus has a GWP of 1. The atmospheric lifetime and GWP of selected GHGs are summarized in Table 4.2-1, *Global Warming Potentials and Atmospheric Lifetime of Select GHGs*. As shown in the table below, GWPs range from 1 for CO_2 to 23,900 for sulfur hexafluoride (SF_6).

Table 4.2-1 Global Warming Potentials and Atmospheric Lifetime of Select GHGs



Gas	Atmospheric Lifetime (years)	Global Warming Potential (100 year time horizon)
Carbon Dioxide	50-200	1
Methane	12 ± 3	21
Nitrous Oxide	120	310
HFC-23	264	11,700
HFC-134a	14.6	1,300
HFC-152a	1.5	140
PFC: Tetrafluoromethane (CH_4)	50,000	6,500
PFC: Hexafluoroethane (C_2F_6)	10,000	9,200
Sulfur Hexafluoride (SF_6)	3,200	23,900

Source: U.S. EPA 2006 (http://www.epa.gov/nonco2/econ-inv/table.html)

Provided below is a description of the various gases that contribute to GCC. For more information about these gasses and their associated human health effects, refer to *Technical Appendix D,* pages 10-13 and the reference sources cited therein.

- Water Vapor: Water vapor (H_20) is the most abundant, important, and variable GHG in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. A climate feedback is an indirect, or secondary, change, either positive or negative, that occurs within the climate system in response to a forcing mechanism. The feedback loop in which water is involved is critically important to projecting future climate change.

  As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to ‘hold’ more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a “positive feedback loop.” The extent to which this positive feedback loop will continue is unknown in the scientific community because there are also dynamics that hold the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it will eventually also condense into clouds, which are more able to reflect incoming solar radiation (thus allowing less energy to reach the Earth’s surface and heat it up). There are no human health effects from water vapor itself; however, when some pollutants come in contact with water vapor, they can dissolve and the water vapor can then act as a pollutant-carrying agent.

- Carbon Dioxide: Carbon dioxide (CO_2) is an odorless and colorless GHG that is emitted from natural and manmade sources. Natural sources include: the decomposition of dead organic matter; respiration of bacteria, plants, animals and fungus; evaporation from oceans; and volcanic outgassing. Manmade sources include: the burning of coal, oil, natural gas, and wood. Since the industrial revolution began in the mid-1700s, the sort of human activity that increases CO_2 emissions has increased dramatically in scale and distribution. As an example, prior to the industrial revolution, CO_2 concentrations were fairly stable at 280 parts per million (ppm). Today, they are around 370 ppm, an increase of more than 30%. Left unchecked, the concentration of CO_2 in the atmosphere is projected to increase to a minimum of 540 ppm by 2100 as a direct result of manmade sources. Exposure to CO_2 in high concentrations can cause human health effects, but outdoor levels are not high enough to adversely affect human health.

- Methane: Methane (CH_4) is an extremely effective absorber of radiation, though its atmospheric concentration is less than CO_2 and its lifetime in the atmosphere is brief (10-12 years), compared to other GHGs. Methane has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of methane. Other anthropocentric sources include fossil-fuel combustion and biomass burning. No health effects are known to occur from exposure to methane.

- Nitrous Oxide: Nitrous oxide (N_2O), also known as laughing gas, is a colorless GHG. Nitrous oxide can cause dizziness, euphoria, and sometimes slight hallucinations. In small doses, it is considered harmless. However, in some cases, heavy and extended use can cause Olney's Lesions (brain damage). Concentrations of nitrous oxide also began to rise at the beginning of the industrial revolution. In 1998, the global concentration was 314 parts per billion (ppb). Nitrous oxide is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used as an aerosol spray propellant (i.e., in whipped cream bottles). It is also used in potato chip bags to keep chips fresh. It is used in rocket engines and in race cars. Nitrous oxide can be transported into the stratosphere, be deposited on the Earth's surface, and be converted to other compounds by chemical reaction.

- Chlorofluorocarbons: Chlorofluorocarbons (CFCs) are gases formed synthetically by replacing all hydrogen atoms in methane or ethane (C_2H_6) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble and chemically unreactive in the troposphere (the level of air at the Earth's surface). CFCs have no natural source, but were first synthesized in 1928. They were used for refrigerants, aerosol propellants and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and was extremely successful, so much so that levels of the major CFCs are now remaining steady or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.

- Hydrofluorocarbons: Hydrofluorocarbons (HFCs) are synthetic, man-made chemicals that are used as a substitute for CFCs. Out of all the GHGs, they are one of three groups with the highest global warming potential. The HFCs with the largest measured atmospheric abundances are (in order), HFC-23 (CHF_3), HFC-134a (CF_3CH_2F), and HFC-152a (CH_3CHF_2). Prior to 1990, the only substantial emissions were of HFC-23. HFC-134a emissions are increasing due to its use as a refrigerant. The U.S. Environmental Protection Agency (EPA) estimates that concentrations of HFC-23 and HFC-134a are now about 10 parts per trillion (ppt) each; and that concentrations of HFC-152a are about 1 ppt. No health effects are known to result from exposure to HFCs, which are manmade for applications such as automobile air conditioners and refrigerants.

- Perfluorocarbons: The two primary sources of perfluorocarbons (PFCs) are aluminum production and semiconductor manufacture. PFCs have stable molecular structures and do not break down through chemical processes in the lower atmosphere. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6). The U.S. EPA estimates that concentrations of CF_4 in the atmosphere are over 70 ppt. No health effects are known to result from exposure to PFCs.

- Sulfur Hexafluoride: Sulfur hexafluoride (SF_6) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It also has the highest GWP of any gas evaluated (23,900). The U.S. EPA indicates that concentrations in the 1990s were about 4 ppt. In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing. Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

C. GHG Emissions Inventories

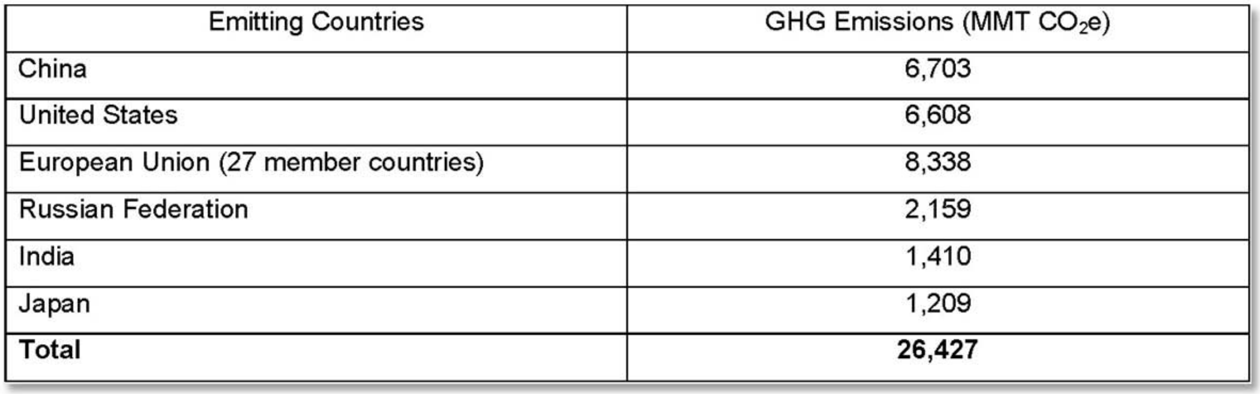
❑ Global

Worldwide anthropogenic (man-made) GHG emissions are tracked by the Intergovernmental Panel on Climate Chang (IPPC) for industrialized nations (referred to as Annex I) and developing nations (referred to as Non-Annex I). Man-made GHG emissions data for Annex I nations are available through 2009. Man-made GHG emissions data for Non-Annex I nations are available through 2007. For the Year 2009 the sum of these emissions totaled approximately 40,084 million metric tons of CO_2 equivalent ($MMTCO_2e$). Emissions from the top five countries and the European Union accounted for approximately 65 percent of the total global GHG emissions, according to the most recently available data (see Table 4.2-2, *Top GHG Producer Countries and the European Union*). The GHG emissions in more recent years may differ from the inventories presented in Table 4.2-2; however, the data is representative of currently available inventory data. (Urban Crossroads, 2012c, pp. 6-7)

❑ United States

As noted in Table 4.2-2, the United States, as a single country, was the number two producer of GHG emissions in 2009. The primary GHG emitted by human activities in the United States was CO_2, representing approximately 83% of total GHG emissions. Carbon dioxide from fossil fuel combustion, the largest source of US GHG emissions, accounted for approximately 78% of the GHG emissions. (Urban Crossroads, 2012c, p. 7)

Table 4.2-2 Top GHG Producer Countries and the European Union



Emitting Countries	GHG Emissions (MMT CO$_2$e)
China	6,703
United States	6,608
European Union (27 member countries)	8,338
Russian Federation	2,159
India	1,410
Japan	1,209
Total	**26,427**

Source: (Urban Crossroads, 2012c, Table 2-1)

❑ State of California

CARB compiles GHG inventories for the State of California. Based upon the 2008 GHG inventory data (i.e., the latest year for which data are available) for the 2000-2008 GHG emissions inventory, California emitted 474 MMTCO$_2$e including emissions resulting from imported electrical power in 2008. Based on the CARB inventory data and GHG inventories compiled by the World Resources Institute, California's total statewide GHG emissions rank second in the United States (Texas is number one) with emissions of 417 MMTCO$_2$e excluding emissions related to imported power.

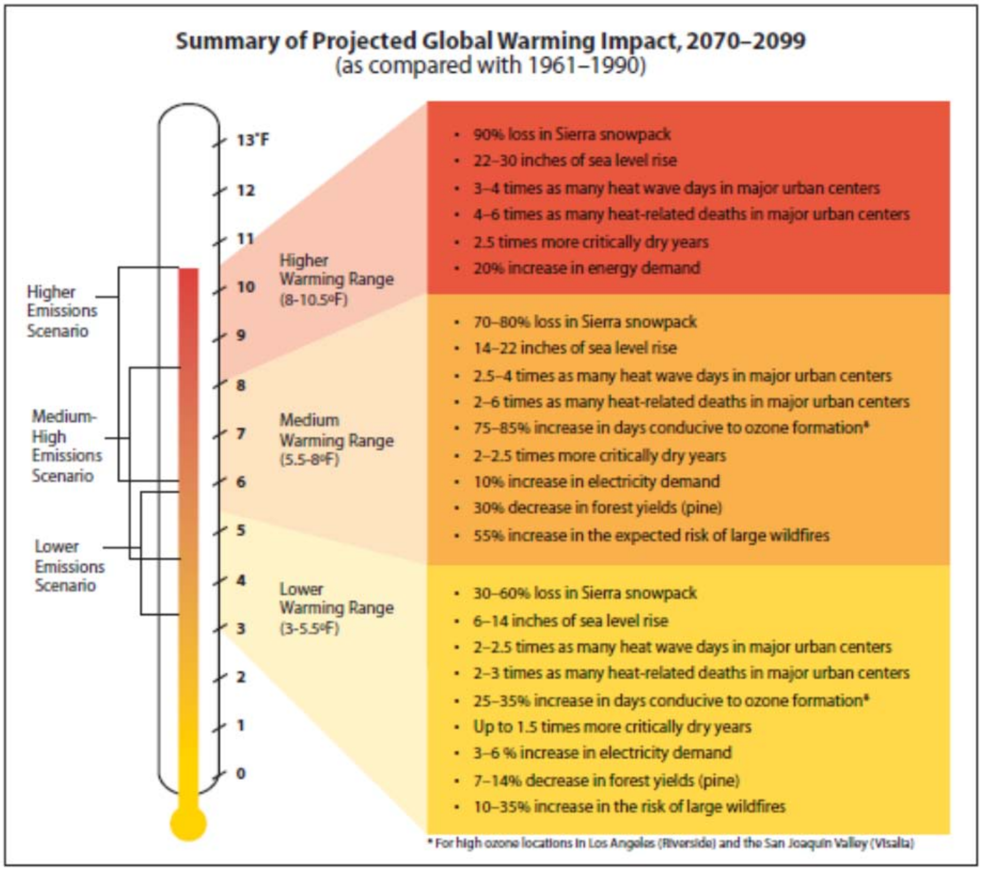
D. Effects of Climate Change in California

The California Environmental Protection Agency (CalEPA) published a report titled "Scenarios of Climate Change in California: An Overview" (Climate Scenarios report) in February 2006 (California Climate Change Center 2006), that is generally instructive about the statewide impacts of global warming. The Climate Scenarios report uses a range of emissions scenarios developed by the Intergovernmental Panel on Climate Change (IPCC) to project a series of potential warming ranges (i.e., temperature increases) that may occur in California during the 21st century: lower warming range (3.0-5.5°F); medium warming range (5.5-8.0°F); and higher warming range (8.0-10.5°F). The Climate Scenarios report then presents an analysis of future climate in California under each warming range, that while uncertain, present a picture of the impacts of GCC trends in California. (Urban Crossroads, 2012c, p. 13)

In addition, most recently on August 5, 2009, the State's Natural Resources Agency released a public review draft of its "California Climate Adaptation Strategy" report that details many vulnerabilities arising from climate change with respect to matters such as temperature extremes, sea level rise, wildfires, floods and droughts and precipitation changes. This report responds to the Governor's Executive Order S-13-2008 that called on state agencies to develop California's strategy to identify and prepare for expected climate impacts. (Urban Crossroads, 2012c, p. 14)

According to the reports, substantial temperature increases arising from increased GHG emissions potentially could result in a variety of impacts to the people, economy, and environment of California associated with a projected increase in extreme conditions, with the severity of the impacts depending on the actual future emissions of GHGs and associated warming. Figure 4.2-1, *Summary of Projected Global Warming Impact (2070-2099)*, presents the potential impacts of global warming.

Figure 4.2-1 Summary of Projected Global Warming Impact (2070-2099)



Source: (Urban Crossroads, 2012c, Figure 1)

Under the emissions scenarios of the Climate Scenarios and California Climate Adaption Strategy reports, the impacts of global warming in California have the potential to include, but are not limited to, the following areas. For more information, refer to *Technical Appendix D*, pages 13-17 and the reference sources cited therein.

❑ Public Health

The potential health effects related directly to the emissions of CO_2, CH_4, and N_2O as they relate to development projects such as the proposed Project are still being debated in the scientific community. Their cumulative effects to GCC have the potential to cause adverse effects to human health. Increases in Earth's ambient temperatures would result in more intense heat waves, causing more heat-related deaths. Scientists also purport that higher ambient temperatures would increase disease survival rates and result in more widespread disease. Climate change will likely cause shifts in weather patterns, potentially resulting in droughts and food shortages in some areas. (Urban Crossroads, 2012c, p. 17)

☐ Air Quality/General Thermal Effects

According to CalEPA, higher temperatures may increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation could increase from 25% to 35% under the lower warming range to 75% to 85% under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become difficult to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances, depending on wind conditions. The Climate Scenarios report indicates that large wildfires could become more frequent if GHG emissions are not substantially reduced. (Urban Crossroads, 2012c, p. 14)

In addition, under the higher warming range scenario, there could be up to 100 more days per year with temperatures above 90°F in Los Angeles and 95°F in Sacramento by 2100. This is a large increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures could increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat. (Urban Crossroads, 2012c, p. 14)

☐ Water Resources

A vast network of man-made reservoirs and aqueducts captures and transports water throughout the state from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages. Additionally, if temperatures continue to increase, more precipitation could fall as rain instead of snow, and the snow that does fall could melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70% to 90%. The loss of snowpack could pose challenges to water managers and hamper hydropower generation. It could also adversely affect winter tourism. The State's water supplies are also at risk from rising sea levels. An influx of saltwater could degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta – a major fresh water supply. (Urban Crossroads, 2012c, p. 15)

☐ Agriculture

Increased temperatures could cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. California farmers could possibly lose as much as 25% of the water supply they need. Although higher CO_2 levels can stimulate plant production and increase plant water-use efficiency, California's farmers could face greater water demand for crops and a less reliable water supply as temperatures rise. Crop growth and development could change, as could the intensity and frequency of pest and disease outbreaks. Rising temperatures could aggravate ozone (O_3) pollution, which makes plants more susceptible to disease and pests and interferes with plant growth. Faster growth can result in less-than-optimal development for many crops, so rising temperatures could worsen the quantity and quality of yield for a number of California's agricultural products. In addition, continued GCC could shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Continued

GCC could alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates. (Urban Crossroads, 2012c, pp. 15-16)

☐ Forests and Landscapes

Climate change has the potential to intensify the current threat to forests and landscapes by increasing the risk of wildfire and altering the distribution and character of natural vegetation. However, because wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks would not be uniform throughout the state. In contrast, wildfires in northern California could increase by up to 90 percent due to decreased precipitation. Moreover, continued GCC has the potential to alter natural ecosystems and biological diversity within the state. For example, alpine and subalpine ecosystems could decline by as much as 60% to 80% by the end of the century as a result of increasing temperatures. The productivity of the state's forests has the potential to decrease as a result of GCC. (Urban Crossroads, 2012c, p. 16)

☐ Rising Sea Levels

Rising sea levels, more intense coastal storms, and warmer water temperatures could increasingly threaten the state's coastal regions. Under the higher warming range scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate low-lying coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats. Under the lower warming range scenario, sea level could rise 12-14 inches. (Urban Crossroads, 2012c, pp. 16-17)

E. Regulatory Setting

Below is an account of the regulatory programs, policies, laws, and regulations that are applicable to GHG emissions and GCC in California. For more information, refer to *Technical Appendix D*, pages 19-30 and the reference sources cited therein.

☐ International Regulation and the Kyoto Protocol

In 1988, the United Nations created the IPCC to provide scientific information regarding climate change to policymakers. The IPCC does not conduct research itself, but rather compiles information from a variety of sources into reports regarding climate change and its impacts. The IPCC has thereafter periodically released reports on climate change, and in 2007 released its Fourth Assessment Report ("AR4"), which concluded that "[w]arming of the climate system is unequivocal," and that "[m]ost of the observed increase in global average temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic GHG concentrations." However, since 2007, AR4 has been the subject of a variety of reports and studies which have discredited its findings. Flaws have been identified and show that the IPCC was careless in the ways in which it compiled the report and the methods in which it continues to promote the theory of man-made or anthropogenic climate change. As a result, the report lacks scientific reliability and does not provide credible evidence to support the theory that GCC is occurring a result of human activity. Also, a scientific consensus does not exist on whether the Earth is even warming, in part due to defective data collection methods and recent reports of stabilization or cooling. Although most scientists and researchers acknowledge that there may have been some warming in the past 100 years, this does not confirm the anthropogenic theory promoted by the IPCC. Rather, there are other theories that may better explain what the Earth is experiencing, such as solar activity.

Regardless, in 1992, the United States joined other countries around the world in signing the United Nations' Framework Convention on Climate Change (UNFCCC) agreement with the goal of controlling GHG emissions. As a result, the Climate Change Action Plan was developed to address the reduction of GHGs in the United States. The Plan currently consists of more than 50 voluntary programs for member nations to adopt.

The Kyoto protocol is a treaty made under the UNFCCC and was the first international agreement to regulate GHG emissions. Some have estimated that if the commitments outlined in the Kyoto protocol are met, global GHG emissions could be reduced an estimated five (5) percent from 1990 levels during the first commitment period of 2008-2012. Notably, while the United States is a signatory to the Kyoto protocol, Congress has not ratified the Protocol and the United States is not bound by the Protocol's commitments. Since the United States declined to ratify the Kyoto Protocol, it has become increasingly clear that global climate change, if it exists and is anthropogenic, cannot be addressed without limiting greenhouse gas emissions from developing, as well as developed countries. According to many sources, China has already surpassed the United States as the world's largest GHG emitter.

☐ Federal Regulation and the Clean Air Act

Coinciding with a 2009 meeting in Copenhagen, on December 7, 2009, the U.S. EPA issued an Endangerment Finding under Section 202(a) of the Clean Air Act, opening the door to federal regulation of GHGs. The Endangerment Finding notes that GHGs threaten public health and welfare and are subject to regulation under the Clean Air Act. To date, the U.S. EPA has not promulgated regulations on GHG emissions, but it has already begun to develop them.

Previously the EPA had not regulated GHGs under the Clean Air Act because it asserted that the Act did not authorize it to issue mandatory regulations to address GCC and that such regulation would be unwise without an unequivocally established causal link between GHGs and the increase in global surface air temperatures. In Massachusetts v. Environmental Protection Agency et al. (127 S. Ct. 1438 (2007)), however, the U.S. Supreme Court held that GHGs are pollutants under the Clean Air Act and directed the U.S. EPA to decide whether the gases endangered public health or welfare. The EPA had also not moved aggressively to regulate GHGs because it expected Congress to make progress on GHG legislation, primarily from the standpoint of a cap-and-trade system. However, proposals circulated in both the House of Representative and Senate have been controversial and it may be some time before the U.S. Congress adopts major climate change legislation. The U.S. EPA's Endangerment Finding paves the way for federal regulation of GHGs with or without Congress.

☐ Title 24 Standards

Although GCC did not become an international concern until the 1980s, efforts to reduce energy consumption began in California in response to the oil crisis in the 1970s, resulting in the incidental reduction of GHG emissions. In order to manage the state's energy needs and promote energy efficiency, Assembly Bill (AB) 1575 created the California Energy Commission (CEC) in 1975.

The CEC first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods. The latest revisions were adopted in 2008 and became effective on January 1, 2010.

Part 11 of the Title 24 Building Standards Code is referred to as the California Green Building Standards Code (CALGreen Code). The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality." The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC). Unless otherwise noted in the regulation, all newly constructed buildings in California are subject of the requirements of the CALGreen Code.

☐ California Assembly Bill No. 1493 (AB 1493)

AB 1493 required the California Air Resources Board (CARB) to develop and adopt GHG emission standards for automobiles. The Legislature declared in AB 1493 that global warming was a matter of increasing concern for public health and environment in California. Further, the legislature stated that technological solutions to reduce GHG emissions would stimulate the California economy and provide jobs.

To meet the requirements of AB 1493, CARB approved amendments to the California Code of Regulations (CCR) adding GHG emission standards to California's existing motor vehicle emission standards in 2004. Amendments to CCR Title 13 Sections 1900 (CCR 13 1900) and 1961 (CCR 13 1961) and adoption of Section 1961.1 (CCR 13 1961.1) require automobile manufacturers to meet fleet average GHG emission limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes beginning with the 2009 model year. Emission limits are further reduced each model year through 2016.

In December 2004 a group of car dealerships, automobile manufacturers, and trade groups representing automobile manufacturers filed suit against CARB to prevent enforcement of CCR 13 1900 and CCR 13 1961 as amended by AB 1493 and CCR 13 1961.1 (*Central Valley Chrysler-Jeep et al. v. Catherine E. Witherspoon, in her official capacity as Executive Director of the California Air Resources Board, et al.*). The suit, heard in the U.S. District Court for the Eastern District of California, contended that California's implementation of regulations that in effect regulate vehicle fuel economy violates various federal laws, regulations, and policies. In January 2007, the judge hearing the case accepted a request from the State Attorney General's office that the trial be postponed until a decision is reached by the U.S. Supreme Court on a separate case addressing GHGs. In the Supreme Court Case, *Massachusetts vs. EPA*, the primary issue in question is whether the federal CAA provides authority for U.S. EPA to regulate CO_2 emissions. In April 2007, the U.S. Supreme Court ruled in Massachusetts' favor, holding that GHGs are air pollutants under the CAA. On December 11, 2007, the judge in the Central Valley Chrysler-Jeep case rejected each plaintiff's arguments and ruled in California's favor. On December 19, 2007, the U.S. EPA denied California's waiver request. California filed a petition with the Ninth Circuit Court of Appeals challenging USEPA's denial on January 2, 2008.

President Obama's administration subsequently directed the U.S. EPA to re-examine their decision. On May 19, 2009, challenging parties, automakers, the State of California, and the federal government reached an agreement on a series of actions that would resolve these current and potential future disputes over the standards through model year 2016. In summary, the U.S. EPA and the U.S. Department of Transportation agreed to adopt a federal program to reduce GHGs and improve fuel economy, respectively, from passenger vehicles in order to achieve equivalent or greater GHG benefits as the AB 1493 regulations for the 2012-2016 model years. Manufacturers agreed to ultimately drop current and forego similar future legal challenges, including challenging a waiver grant, which occurred on June 30, 2009. The State of California committed to (1) revise its standards to allow manufacturers to demonstrate compliance with the fleet-average GHG emission standard by "pooling" California and specified State vehicle sales; (2) revise its standards for 2012–2016 model year vehicles so that compliance with U.S. EPA-adopted GHG standards would also comply with California's standards; and (3) revise its standards, as necessary, to allow manufacturers to use emissions data from the federal Corporate Average Fuel Economy (CAFE) program to demonstrate compliance with the AB 1493 regulations. Both of these programs are aimed at light-duty auto and light-duty trucks.

☐ Executive Order S-3-05

Executive Order S-3-05, which was signed by Governor Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra Nevada's snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the Executive Order established total GHG emission targets. Specifically, emissions are to be reduced to the 1990 level by 2020, and to 80% below the 1990 level by 2050. The Executive Order directed the Secretary of CalEPA to coordinate a multi-agency effort to reduce GHG emissions to the target levels. The Secretary also is required to submit biannual reports to the Governor and state Legislature describing: (1) progress made toward reaching the emission targets; (2) impacts of global warming on California's resources; and (3) mitigation and adaptation plans to combat these impacts. To comply with the Executive Order, the Secretary of the CalEPA created a Climate Action Team (CAT) made up of members from various state agencies and commission. CAT released its first report in March 2006. The report proposed to achieve the targets by building on voluntary actions of California businesses, local government and community actions, as well as through state incentive and regulatory programs.

☐ California Assembly Bill 32 (AB 32)

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Climate Solutions Act of 2006. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by the year 2020. This reduction will be accomplished through an enforceable statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires that CARB adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrives at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state achieves reductions in GHG emissions necessary to meet the cap. AB 32 also includes guidance to institute emissions reductions in an economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions.

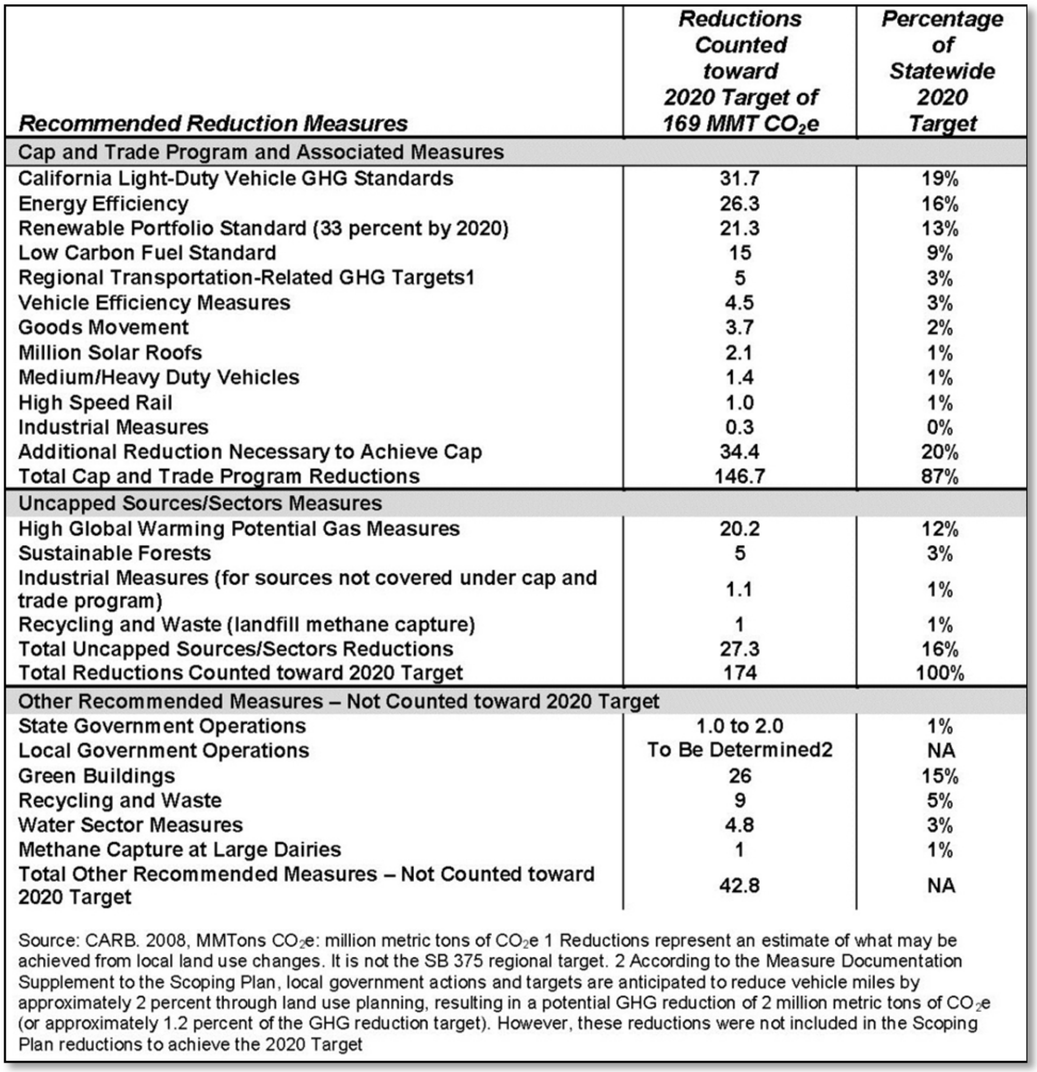
In November 2007, CARB completed its estimates of 1990 GHG levels. Net emission 1990 levels were estimated at 427 million metric tons (MMTs) (emission sources by sector were: transportation – 35%; electricity generation – 26%; industrial – 24%; residential – 7%; agriculture – 5%; and commercial – 3%). Accordingly, 427 MMTs of CO_2 equivalent was established as the emissions limit for 2020. For comparison, CARB's estimate for baseline GHG emissions was 473 MMT for 2000 and 532 MMT for 2010. "Business as usual" conditions (without the 30% reduction to be implemented by CARB regulations) for 2020 were projected to be 596 MMTs.

On December 11, 2008, CARB adopted a scoping plan to reduce GHG emissions to 1990 levels. Table 4.2-3, *Scoping Plan GHG Reduction Measures Toward 2020 Target*, shows the proposed reductions from regulations and programs outlined in the Scoping Plan. While local government operations were not accounted for in achieving the 2020 emissions reduction, local land use changes are estimated to result in a reduction of 5 MMTs of CO_2e, which is approximately 3% of the 2020 GHG emissions reduction goal. In recognition of the critical role local governments will play in successful implementation of AB 32, CARB is recommending GHG reduction goals of 15% of 2006 levels by 2020 to ensure that municipal and community-wide emissions match the state's reduction target. According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2% through land use planning, resulting in a potential GHG reduction of 2 MMTs of CO_2e (or approximately 1.2 percent of the GHG reduction target).

❑ California Senate Bill No. 1368 (SB 1368)

In 2006, the State Legislature adopted Senate Bill 1368 (SB 1368), which was subsequently signed into law by the Governor. SB 1368 directs the California Public Utilities Commission (CPUC) to adopt a GHG emission performance standard (EPS) for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than five years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. Due to the carbon content of its fuel source, a coal-fired plant cannot meet this standard because such plants emit roughly twice as much carbon as natural gas, combined cycle plants. Accordingly, the new law will effectively prevent California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. Thus, SB 1368 will lead to

Table 4.2-3 Scoping Plan GHG Reduction Measures Toward 2020 Target



Recommended Reduction Measures	*Reductions Counted toward 2020 Target of 169 MMT CO_2e*	*Percentage of Statewide 2020 Target*
Cap and Trade Program and Associated Measures		
California Light-Duty Vehicle GHG Standards	31.7	19%
Energy Efficiency	26.3	16%
Renewable Portfolio Standard (33 percent by 2020)	21.3	13%
Low Carbon Fuel Standard	15	9%
Regional Transportation-Related GHG Targets1	5	3%
Vehicle Efficiency Measures	4.5	3%
Goods Movement	3.7	2%
Million Solar Roofs	2.1	1%
Medium/Heavy Duty Vehicles	1.4	1%
High Speed Rail	1.0	1%
Industrial Measures	0.3	0%
Additional Reduction Necessary to Achieve Cap	34.4	20%
Total Cap and Trade Program Reductions	146.7	87%
Uncapped Sources/Sectors Measures		
High Global Warming Potential Gas Measures	20.2	12%
Sustainable Forests	5	3%
Industrial Measures (for sources not covered under cap and trade program)	1.1	1%
Recycling and Waste (landfill methane capture)	1	1%
Total Uncapped Sources/Sectors Reductions	27.3	16%
Total Reductions Counted toward 2020 Target	174	100%
Other Recommended Measures – Not Counted toward 2020 Target		
State Government Operations	1.0 to 2.0	1%
Local Government Operations	To Be Determined2	NA
Green Buildings	26	15%
Recycling and Waste	9	5%
Water Sector Measures	4.8	3%
Methane Capture at Large Dairies	1	1%
Total Other Recommended Measures – Not Counted toward 2020 Target	42.8	NA

Source: CARB. 2008, MMTons CO_2e: million metric tons of CO_2e 1 Reductions represent an estimate of what may be achieved from local land use changes. It is not the SB 375 regional target. 2 According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 million metric tons of CO_2e (or approximately 1.2 percent of the GHG reduction target). However, these reductions were not included in the Scoping Plan reductions to achieve the 2020 Target

dramatically lower GHG emissions associated with California energy demand, as SB 1368 will effectively prohibit California utilities from purchasing power from out of state producers that cannot satisfy the EPS standard required by SB 1368.

☐ Senate Bill 97 (SB 97)

Pursuant to the direction of SB 97, the California Office of Planning and Research (OPR) released preliminary draft CEQA Guideline amendments for GHG emissions on January 8, 2009, and submitted its final proposed guidelines to the Secretary for Natural Resources on April 13, 2009. The Natural Resources Agency adopted the Guideline amendments and they became effective on March 18, 2010.

The adopted CEQA Guidelines specify that a lead agency shall have discretion to determine whether to use a quantitative model or methodology, or in the alternative, rely on a qualitative analysis or performance based standards. CEQA Guideline §15064.4(a) specifically states that "a lead agency shall have discretion to determine, in the context of a particular project, whether to: (1) use a model or methodology to quantify GHG emissions resulting from a project, and which model or methodology to use…; or (2) rely on a qualitative analysis or performance based standards."

CEQA emphasizes that the effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impacts (see CEQA Guidelines §15130[f]). CEQA Guidelines §15064.4(b) provides direction for lead agencies for assessing the significance of impacts of GHG emissions. The CEQA Guidelines do not identify a threshold of significance for GHG emissions, nor do they prescribe assessment methodologies or specific mitigation measures. Instead, they call for a "good-faith effort, based on available information, to describe, calculate or estimate the amount of GHG emissions resulting from a project." The Guidelines encourage lead agencies to consider many factors in performing a CEQA analysis and preserve lead agencies' discretion to make their own determinations based upon substantial evidence.

☐ Executive Order S-01-07

On January 18, 2007 California Governor Arnold Schwarzenegger, through Executive Order S-01-07, mandated a statewide goal to reduce the carbon intensity of California's transportation fuel by at least ten percent by 2020. The order also requires that a California-specific Low Carbon Fuel Standard (LCFS) be established for transportation fuels.

☐ Senate Bills 1078 and 107 and Executive Order S-14-08

SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20% of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010. In November 2008 Governor Schwarzenegger signed Executive Order S-14-08, which expands the state's Renewable Energy Standard to 33% renewable power by 2020.

☐ Senate Bill 375 (SB 375)

SB 375, signed in September 2008 (Chapter 728, Statutes of 2008), aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 requires metropolitan planning organizations (MPOs) to adopt a sustainable communities strategy (SCS) or alternative planning strategy (APS) that will prescribe land use allocation in that MPO's regional transportation plan. CARB, in consultation with MPOs, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight (8) years but can be updated every four (4) years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB also is charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, transportation projects are not be eligible to received programmed funding.

☐ CARB's Preliminary Draft Staff Proposal for Interim Significance Thresholds

Separate from its Scoping Plan approved in December of 2008, CARB issued a Staff Proposal in October 2008, as its first step toward developing recommended statewide interim thresholds of significance for GHGs that may be adopted by local agencies for their own use. CARB staff's objective in this proposal is to develop a threshold of significance that will result in the vast majority (approximately 90% statewide) of GHG emissions from new industrial projects being subject to CEQA's requirement to impose feasible mitigation. The proposal does not attempt to address every type of project that may be subject to CEQA, but instead focuses on common project types that, collectively, are responsible for substantial GHG emissions – specifically, industrial, residential, and commercial projects. CARB is developing these thresholds in these sectors to advance climate objectives, streamline project review, and encourage consistency and uniformity in the CEQA analysis of GHG emissions throughout the state. These draft thresholds are under revision in response to comments. There is currently no timetable for finalized thresholds at this time.

As currently proposed by CARB, the threshold consists of a quantitative threshold of 7,000 metric tons (MT) of CO_2e per year for operational emissions (excluding transportation), and performance standards for construction and transportation emissions. These performance standards have not yet been adopted and do not apply to projects in which CARB is not the lead agency. Further, CARB's proposal sets forth draft thresholds for industrial projects that have high operational stationary GHG emissions, such as manufacturing plants, or uses that utilize combustion engines. The proposed Project evaluated in this EIR does not propose or require these types of uses.

☐ South Coast Air Quality Management District Recommendations for Significance Thresholds

In April 2008, the South Coast Air Quality Management District (SCAQMD), in order to provide guidance to local lead agencies on determining the significance of GHG emissions identified in CEQA documents, convened a "GHG CEQA Significance Threshold Working Group." The goal of the working group is to develop and reach consensus on an acceptable CEQA significance threshold for GHG emissions that would be utilized on an interim basis until CARB (or some other state agency) develops statewide guidance on assessing the significance of GHG emissions under CEQA.

Initially, SCAQMD staff presented the working group with a significance threshold that could be applied to various types of projects—residential; non-residential; industrial; etc. However, the threshold is still under development. In December 2008, staff presented the SCAQMD Governing Board with a significance threshold for stationary source projects where it is the lead agency. This threshold uses a tiered approach to determine a project's significance, with 10,000 metric tons of carbon dioxide equivalent ($MTCO_2e$) as a screening numerical threshold for stationary sources.

In September 2010, the Working Group released additional revisions that recommended a threshold of 3,500 $MTCO_2e$ for residential projects, 1,400 $MTCO_2e$ for commercial projects, and 3,000 $MTCO_2e$ for mixed use projects. Additionally the working group identified project-level efficiency target of 4.8 $MTCO_2e$ per service population as a 2020 target and 3.0 $MTCO_2e$ per service population as a 2035 target. The recommended area-wide or plan-level target for 2020 was 6.6 $MTCO_2e$ and the plan-level target for 2035 was 4.1 $MTCO_2e$. The SCAQMD has not established a timeline for formal consideration of these thresholds.

The SCAQMD also adopted Rules 2700, 2701, and 2702 that address GHG reductions. However, these rules address boilers and process heaters, forestry, and manure management projects, none of which are proposed or required by the proposed Project.

☐ City of Moreno Valley

On October 9, 2012, the Moreno Valley City Council approved an Energy Efficiency and Climate Action Strategy and related Greenhouse Gas Analysis. The Energy Efficiency and Climate Action Strategy document identifies potential programs and policies to reduce overall City energy consumption and increase the use of renewable energy. The majority of the policies are directed at municipal operations of the City, but the document also contains recommended policies for the community at large (including private development projects). These recommended policies include but are not limited to: energy efficiency, water use reduction, trip reduction, solid waste diversion, and educational policies.

The proposed Project is required to comply with several Project Requirements as outlined in Subsection 4.2.5, below. As such, the Project would not impede or conflict with implementation of the City's Energy Efficiency and Climate Action Strategy and would have a less than significant impact.

4.2.2 BASIS FOR DETERMINING SIGNIFICANCE

In order to assess the significance of a proposed Project's environmental impacts it is necessary to identify quantitative or qualitative thresholds which, if exceeded, would constitute a finding of significance. As discussed above in Subsection 4.2.1, while Project-related GHG emissions can be estimated, the direct impacts of such emissions on GCC cannot be determined on the basis of available science. There is no evidence at this time that would indicate that the emissions from a project the size of the proposed Project would directly or indirectly affect global climate.

AB 32 states, in part, that "[g]lobal warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California." Because global warming is the result of GHG emissions, and GHGs are emitted by innumerable sources worldwide, the proposed Project would not result in a direct impact to global warming; rather, Project-related impacts to GCC only could be potentially significant on a cumulative basis. Therefore, the analysis below focuses on the Project's potential to contribute to GCC in a cumulatively considerable way.

The CEQA Guidelines indicate that a project would result in a significant impact on climate change if a project were to:

1. *Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or*

2. *Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.*

AB 32 is the primary plan, policy or regulation adopted in the State of California to reduce GHG emissions; thus, the proposed Project would have a significant cumulative impact associated with GHG emissions if it does not comply with the regulations developed under AB 32. For purposes of analysis within this subsection, the significance of the proposed Project's GHG emissions impacts is based upon whether or not the Project can demonstrate compliance with the CARB Scoping Plan prepared in response to California Assembly Bill 32 (AB 32) and the State of California's Climate

Action Team Report (2006), prepared in response to the California Governor's Executive Order S-3-05. This approach is consistent with past practice in the City of Moreno Valley.

4.2.3 IMPACT ANALYSIS

A. *Methodology for Estimating Project-Related GHG Emissions*

CEQA Guidelines §15064.4(b)(1) states that a lead agency may use a model or methodology to quantify GHG emissions associated with a project. On February 3, 2011, the SCAQMD released the California Emissions Estimator Model (CalEEMod™). The purpose of this model is to estimate air quality and GHG emissions from direct and indirect sources and quantify applicable air quality and GHG reductions achieved from mitigation measures. As such, the February 2011 CalEEMod™ was used for estimating Project-related emissions. The CalEEMod™ model includes GHG emissions from the following source categories: construction, area, energy, mobile, waste, water. (Urban Crossroads, 2012c, p. 33)

A full life-cycle analysis (LCA) is not included in the Project's GHG Analysis (*Technical Appendix D*) due to the lack of consensus guidance on LCA methodology. Life-cycle analysis (i.e., assessing economy-wide GHG emissions from the processes in manufacturing and transporting all raw materials used in the project development and infrastructure) depends on emission factors or econometric factors that are not well established for all processes. At this time a LCA, would be extremely speculative and thus was not prepared. (Urban Crossroads, 2012c, p. 33)

B. *Methodology for Estimating Project-Related Construction Emissions*

Construction activities associated with the proposed Project would result in emissions of CO_2 and CH_4 from the following construction activities:

- Demolition
- Site Preparation
- Grading
- Paving
- Building Construction
- Architectural Coatings (Painting)
- Construction Workers Commuting

Based on information about the Project's anticipated construction characteristics and schedule as supplied by the Project Engineer and Project Applicant (Cochran, 2012a), the approximate construction scheduling for each phase of construction was input into the CalEEMod™ model and defaults for all other assumptions were utilized. A summary of the assumptions used in the construction modeling is provided below.

The Project site is currently occupied with an 8.4-acre truck parking yard. This parking area and associated surface improvements would be demolished to construct the proposed Project. The Project Applicant plans to demolish the asphaltic and concrete surfaces, which would be pulverized and stockpiled onsite for subsequent use in Project construction activities. The Project Applicant estimates that demolition activities would occur over a period of two (2) weeks but the air quality analysis conservatively assumes that demolition activates would occur over three (3) working weeks.

The duration of construction activity and associated equipment was estimated based on construction of similar projects in the City of Moreno Valley, CalEEMod™ model defaults, and information provided by the Project Applicant. Refer to specific detailed modeling inputs/outputs contained in Appendix “A” of *Technical Appendix D* to this EIR. A detailed summary of construction equipment assumptions by phase is provided in Table 4.1-5 of Subsection 4.1, Air Quality.

In accordance with SCAQMD recommendations, the Project’s construction phase GHG emissions were quantified and amortized over the life of the Project. To amortize the emissions over the life of the Project, the SCAQMD recommends calculating the total GHG emissions for the construction activities, dividing it by the Project life (i.e., 30 years) then adding that number to the annual operational phase GHG emissions. Accordingly, within this analysis construction-source emissions were amortized over a 30 year period and added to the annual operational phase GHG emissions. (Urban Crossroads, 2012c, p. 34)

For purposes of modeling the Project’s GHG emissions, demolition is expected to occur within the month of January 2013; Site Preparation is expected to occur from January 2013 through February 2013; Grading activities are expected to occur within the month of February 2013; Building Construction is expected to occur from February 2013 through October 2013; Paving is expected to occur from October 2013 through November 2013; and Architecture Coatings are expected to occur from November 2013 through December 2013. This construction schedule represents a “worst-case” analysis scenario; should construction occur any time after these respective dates, construction-related emissions would decrease because emission factors for construction equipment decrease as the analysis year increases due to increasingly stringent regulatory requirements. (Urban Crossroads, 2012c, p. 34)

Construction emissions for construction worker vehicles traveling to and from the Project site, as well as vendor trips (construction and earth materials delivered to the Project site), were estimated based on information from the Project Applicant and the CalEEMod™ defaults. (Urban Crossroads, 2012c, p. 34)

C. Methodology for Estimating Project-Related Operational Emissions

Operational activities associated with the proposed Project would result in emissions of CO_2, CH_4, and N_2O from the following primary sources, which are discussed below:

- Building Energy Use (Combustion Emissions Associated with Natural Gas and Electricity)
- Water Supply, Treatment and Distribution
- Solid Waste
- Vehicles

o Building Energy Use

GHGs are emitted from buildings as a result of activities for which electricity and natural gas are typically used as energy sources. Combustion of any type of fuel emits CO_2 and other GHGs directly into the atmosphere; these emissions are considered direct emissions associated with a building. GHGs are also emitted during the off-site generation of electricity from fossil fuels; these emissions are considered to be indirect emissions. Unless otherwise noted, CalEEMod™ default parameters were used. (Urban Crossroads, 2012c, pp. 35-36)

- *Water Supply, Treatment and Distribution*

Indirect GHG emissions result from the off-site production of electricity used to convey, treat and distribute water and wastewater. The amount of electricity required to convey, treat and distribute water depends on the volume of water as well as the sources of the water. The Project's water demand was estimated based on data available from the Eastern Municipal Water District (EMWD) for similar developments projects. The Project is estimated to result in a demand for approximately 12,110 gallons of potable water per day (or approximately 13.6 acre-feet per year). (Urban Crossroads, 2012c, p. 36)

- *Solid Waste*

The Project would result in the generation and disposal of solid waste. A large percentage of this waste would be diverted from landfills by a variety of means, such as reducing the amount of waste generated, recycling, and/or composting. The remainder of the waste not diverted will be disposed of at a landfill. GHG emissions from landfills are associated with the anaerobic breakdown of material. Using solid waste generation rates for light industrial/warehouse uses reported by CalRecycle24, GHG emissions associated with the disposal of solid waste associated with the proposed Project were calculated by the CalEEMod™. (Urban Crossroads, 2012c, p. 36)

- *Vehicles*

GHG emissions also would result from mobile sources associated with the Project. These mobile source GHG emissions are generated by typical daily operation of motor vehicles by visitors, employees, and customers. For detailed information about the assumptions and methodology used to estimate GHG emission, refer to *Technical Appendix D*, pp. 6-41, and the reference sources cited therein.

Trip characteristics from the Project's Traffic Impact Analysis (*Technical Appendix E* to this EIR) were used to estimate Project-related operational vehicular emissions. The same methodology was applied as described in EIR Subsection 4.1, Air Quality. In summary, the actual number of passenger cars (including light trucks) and heavy trucks are used in the analysis instead of PCEs as used in the traffic report. The vehicle fleet mix, in terms of actual vehicles, was derived from the traffic study with the total traffic generation in vehicles calculated at 576 per day. The operational emissions evaluation is based on a conservative analysis year of 2013 (Project buildout). This analysis year was selected as it is the most conservative from an emissions generating standpoint because GHG emissions from vehicles would decrease as the analysis year increases due to implementation of regulatory requirements and vehicle fleet turnover contained in the EMFAC model. (Urban Crossroads, 2012c, p. 39)

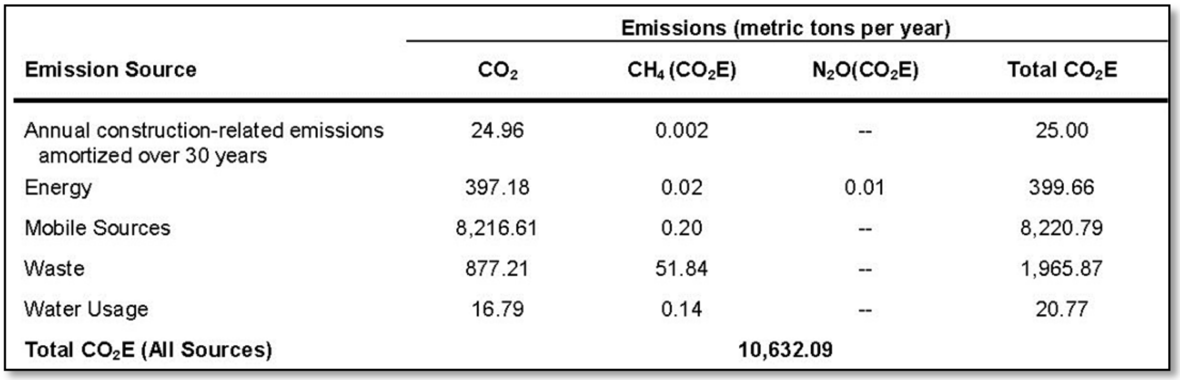
As discussed in EIR Subsection 4.1, Air Quality, air emissions (including GHG emissions) calculated for the proposed Project and disclosed in this EIR is likely overstated because no credit for, or reduction in, emissions is assumed based on diversion of existing trips. (Urban Crossroads, 2012c, p. 39). For passenger car trips, a one-way trip length of 17 miles was assumed as contained in the SCAQMD CEQA Handbook (SCAQMD 1993) for Riverside County for the year 2010 (this trip length was used in lieu of the CalEEMod™ model defaults because it is more conservative). For heavy duty trucks, an average trip length of 61 miles is used. The resulting weighted average trip length of 40.76 miles was entered into the CalEEMod™ model calculations. (Urban Crossroads, 2012c, p. 41). For more information, tables calculating percentage of trips by vehicle class are shown in *Technical Appendix D*.

Threshold 1: Would the proposed Project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Threshold 2: Would the proposed Project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?

A summary of the proposed Project's projected annual operational GHG emissions, including the amortized construction Table 4.2-4, *Total Annual Project GHG Emissions*. The operational GHG emissions for the Project, including the amortized construction emissions, are estimated to be 10,632.09 MT per year. (Urban Crossroads, 2012c, p. 42)

Table 4.2-4 Total Annual Project GHG Emissions



Emission Source	Emissions (metric tons per year)			
	CO_2	CH_4 (CO_2E)	N_2O(CO_2E)	Total CO_2E
Annual construction-related emissions amortized over 30 years	24.96	0.002	--	25.00
Energy	397.18	0.02	0.01	399.66
Mobile Sources	8,216.61	0.20	--	8,220.79
Waste	877.21	51.84	--	1,965.87
Water Usage	16.79	0.14	--	20.77
Total CO_2E (All Sources)		**10,632.09**		

Source: CalEEMod™ model output, See Appendix "A" of EIR *Technical Appendix D* for detailed model outputs.
Note: Totals obtained from CalEEMod™ and may not total 100% due to rounding.

As indicated in §15064(b) of the State CEQA Guidelines, the determination of significance of GHGs is not "ironclad;" rather, the "determination of whether a project may have a significant effect on the environment calls for a "careful judgment" by the lead agency (City of Moreno Valley) "based on the extent possible on scientific and factual data." The City of Moreno Valley has not adopted a numeric threshold of significance for emissions of GHGs.

As previously noted, CARB does not have an adopted numerical threshold of significance for projects like the proposed Project. Further, CARB's current proposal sets forth draft thresholds for industrial projects that have high operational stationary GHG emissions, such as manufacturing plants or uses that utilize combustion engines, and does not address mobile source emissions. Similarly, the SCAQMD thresholds are currently in draft form and are not adopted. Nevertheless, comparison of the GHG emissions from the Project's area sources (construction, energy, waste, and water usage) indicates that the Project's emissions from such sources would be well below the proposed CARB and SCAQMD thresholds for stationary sources. With regard to GHG emissions from mobile sources, as discussed above, the estimation of the Project's impact on mobile source GHG emissions is highly speculative, because the methodology to quantify mobile source GHG emissions assumes that all of the vehicle trips to and from the Project site would be new, rather than redistributed vehicle trips from other areas. No methods or models exist to estimate the Project's net contribution to regional or global vehicle miles traveled. Because the estimation of the Project's contribution to mobile source GHG emissions is highly speculative, and based on the absence of applicable thresholds for mobile source GHG emissions, use of a quantitative threshold of significance is not meaningful. Accordingly, a qualitative analysis is used to determine significance, based on consistency with regional and state GHG plans.

As previously indicated and consistent with past practice in the City of Moreno Valley, the significance of the Project's GCC impacts is based upon whether or not the Project can demonstrate compliance with the CARB Scoping Plan and the State of California's Climate Action Team Report (2006). The analysis below sets out the factual basis for the City's determination regarding the effect of Project-related GHGs. The analysis is specific to this Project, and may not necessarily apply to other projects within the City of Moreno Valley.

☐ Consistency with the CARB Scoping Plan

AB 32 requires California to reduce its GHG emissions by approximately 29% below business as usual. CARB identified reduction measures to achieve this goal as set forth in the CARB Scoping Plan. Thus, projects that are consistent with the CARB Scoping Plan are also consistent with the 29% reduction below business as usual required by AB 32.

The proposed Project would generate GHG emissions from a variety of sources which would all emit CO_2, CH_4 and N_2O. GHGs could also be indirectly generated by incremental electricity consumption and waste generation from the proposed Project.

Table 4.2-5, *Recommended Actions for Climate Change Proposed Scoping Plan*, presents the 39 Recommended Actions (qualitative measures) identified to date by CARB in its Climate Change Proposed Scoping Plan. Of the 39 measures identified, those that would be considered to be applicable to the Project would primarily be those actions related to transportation, electricity and natural gas use, green building design and industrial uses. Table 4.2-5 identifies which CARB Recommended Actions apply to the Project, and of those, whether the Project is consistent therewith.

Consistency of the Project with the Scoping Plan measures is discussed below by each source-type. It also should be noted that certain measures and enforcement actions listed below are beyond the control of the Project Applicant and the City of Moreno Valley. Notwithstanding, implementation and enforcement of these measures by the State or other responsible entity will act to reduce area-wide GHG emissions.

o *Transportation*

CARB's Scoping Plan identifies nine transportation-related recommended actions. Action T-1 concerns improvements to light-duty vehicle technology for the purposes of reducing GHG emissions. This action focuses on legislating improved controls for vehicle manufacturers and would not generally be considered applicable to the proposed Project. Implementation of the Pavley

Table 4.2-5 Recommended Actions for Climate Change Proposed Scoping Plan

ID #	Sector	Strategy Name	Applicable to Project?	Will Project Conflict With Implementation?
T-1	Transportation	Pavley I and II – Light-Duty Vehicle GHG Standards	NO	NO
T-2	Transportation	Low Carbon Fuel Standard (Discrete Early Action)	NO	NO
T-3	Transportation	Regional Transportation-Related GHG Targets	NO	NO
T-4	Transportation	Vehicle Efficiency Measures	NO	NO
T-5	Transportation	Ship Electrification at Ports (Discrete Early Action)	NO	NO
T-6	Transportation	Goods-movement Efficiency Measures	NO	NO
T-7	Transportation	Heavy Duty Vehicle Greenhouse Gas Emission Reduction Measure – Aerodynamic Efficiency (Discrete Early Action)	NO	NO
T-8	Transportation	Medium and Heavy-Duty Vehicle Hybridization	NO	NO
T-9	Transportation	High Speed Rail	NO	NO
E-1	Electricity and Natural Gas	Increased Utility Energy efficiency programs More stringent Building and Appliance Standards	YES	NO
E-2	Electricity and Natural Gas	Increase Combined Heat and Power Use by 30,000GWh	NO	NO
E-3	Electricity and Natural Gas	Renewable Portfolio Standard	NO	NO
E-4	Electricity and Natural Gas	Million Solar Roofs	YES	NO
CR-1	Electricity and Natural Gas	Energy Efficiency	YES	NO
CR-2	Electricity and Natural Gas	Solar Water Heating	NO	NO
GB-1	Green Buildings	Green Buildings	YES	NO
W-1	Water	Water Use Efficiency	YES	NO
W-2	Water	Water Recycling	NO	NO
W-3	Water	Water System Energy Efficiency	YES	NO
W-4	Water	Reuse Urban Runoff	NO	NO
W-5	Water	Increase Renewable Energy Production	NO	NO
W-6	Water	Public Goods Charge (Water)	NO	NO
I-1	Industry	Energy Efficiency and Co-benefits Audits for Large Industrial Sources	YES	NO
I-2	Industry	Oil and Gas Extraction GHG Emission Reduction	NO	NO
I-3	Industry	GHG Leak Reduction from Oil and Gas Transmission	NO	NO
I-4	Industry	Refinery Flare Recovery Process Improvements	NO	NO
I-5	Industry	Removal of Methane Exemption from Existing Refinery Regulations	NO	NO
RW-1	Recycling and Waste Management	Landfill Methane Control (Discrete Early Action)	NO	NO
RW-2	Recycling and Waste Management	Additional Reductions in Landfill Methane – Capture Improvements	NO	NO
RW-3	Recycling and Waste Management	High Recycling/Zero Waste	NO	NO
F-1	Forestry	Sustainable Forest Target	NO	NO
H-1	High Global Warming Potential Gases	Motor Vehicle Air Conditioning Systems (Discrete Early Action)	NO	NO
H-2	High Global Warming Potential Gases	SF_6 Limits in Non-Utility and Non-Semiconductor Applications (Discrete Early Action)	NO	NO
H-3	High Global Warming Potential Gases	Reduction in Perflourocarbons in Semiconductor Manufacturing (Discrete Early Action)	NO	NO
H-4	High Global Warming Potential Gases	Limit High GWP Use in Consumer Products (Discrete Early Action, Adopted June 2008)	NO	NO
H-5	High Global Warming Potential Gases	High GWP Reductions from Mobile Sources	NO	NO
H-6	High Global Warming Potential Gases	High GWP Reductions from Stationary Sources	NO	NO
H-7	High Global Warming Potential Gases	Mitigation Fee on High GWP Gases	NO	NO
A-1	Agriculture	Methane Capture at Large Dairies	NO	NO

Source: (Urban Crossroads, 2012c, Table 3-5) standards is dependent on implementation by the State on vehicle fuel economy standards. Implementation of such a standard is not within the purview of this Project. Therefore, the proposed Project would not conflict with measures concerning the Pavley standards.

Action T-2 concerns implementation of a low carbon fuel standard. To reduce the carbon intensity of transportation fuels, CARB is developing a Low Carbon Fuel Standard (LCFS), which would reduce the carbon intensity of California's transportation fuels by at least ten percent by 2020 as called for by Governor Schwarzenegger in Executive Order S-01-07. LCFS will incorporate compliance mechanisms that provide flexibility to fuel providers in how they meet the requirements to reduce GHG emissions. Implementation of such a standard is not within the purview of this Project. Therefore, the proposed Project would not conflict with measures concerning the use of low carbon fuels.

Action T-3 addressees regional transportation targets for reducing GHG emissions. SB 375 requires CARB to develop, in consultation with MPOs, passenger vehicle GHG emissions reduction targets for 2020 and 2035. It sets forth a collaborative process to establish these targets, including the appointment by CARB of a Regional Targets Advisory Committee to recommend factors to be considered and methodologies for setting GHG emissions reduction targets. SB 375 also provides incentives – relief from certain California Environmental Quality Act (CEQA) requirements for development projects that are consistent with regional plans that achieve the targets. Implementation of such a standard is not within the purview of this Project. Therefore, the proposed Project would not conflict with measures concerning SB 375.

Action T-4 is concerned with vehicle efficiency measures. The California Integrated Waste Management Board (CIWMB) with various partners continues to conduct a public awareness campaign to promote sustainable tire practices. CARB is pursuing a regulation to ensure that tires are properly inflated when vehicles are serviced. In addition, CEC in consultation with CIWMB is developing an efficient tire program focusing first on data gathering and outreach, then on potential adoption of minimum fuel-efficient tire standards, and lastly on the development of consumer information requirements for replacing tires. CARB is also pursuing ways to reduce engine load via lower friction oil and reducing the need for air conditioner use. CARB is actively engaged in the regulatory development process for the tire inflation component of this measure. Implementation of such a standard is not within the purview of this Project. Therefore, the proposed Project would not conflict with applicable measures.

Action T-5 addresses electrification of ships at ports and is not applicable to the proposed Project.

Action T-6 also primarily addresses port operations and is not applicable to the proposed Project.

Action T-7 requires existing trucks/trailers to be retrofitted with the best available technology and/or CARB-approved technology. Implementation of such a standard is not within the purview of the proposed Project because various trucks fleets from numerous commercial entities may access the site and cannot be feasibly monitored or controlled by the Project Applicant, City of Moreno Valley, or future Project tenant. Therefore, this measure is not applicable to the proposed Project.

Action T-8 focuses on hybridization of medium- and heavy-duty vehicles. The implementation approach to Action T-8 is to adopt a regulation and/or incentive program that reduces GHG emissions by encouraging hybrid technology as applied to vocational applications that have significant urban, stop-and-go driving, idling, and power take-off operations in their duty cycle. Such applications include parcel delivery trucks and vans. Implementation of such a standard is not within the purview of the proposed Project since various trucks fleets from numerous commercial entities may access the site. Therefore, the proposed Project would not conflict with this measure.

Action T-9 concerns implementation of a high speed rail system. This measure is not applicable to the Project.

o *Electricity and Natural Gas*

Action E-1 and CR-1, together with Action GB-1 (Green Building), aims to reduce electricity demand by increased efficiency of Utility Energy Programs and adoption of more stringent building and appliance standards. The Project will comply with or surpass mandatory Title 24 Energy Efficiency Standards in effect at the time of Project construction. Therefore, the proposed Project would not conflict with this measure.

Action E-2 encourages an increase in the use of combined heat and power (CHP) use, or co-generation, facilities. California has supported CHP for many years, but market and other barriers continue to keep CHP from reaching its full market potential. Increasing the deployment of efficient CHP will require a multi-pronged approach that includes addressing significant barriers and instituting incentives or mandates where appropriate. Implementation of such a standard is not within the purview of the proposed Project; therefore, the proposed Project would not conflict with this measure.

Action E-3 concerns Renewable Portfolio Standards for utilities and does not apply to development projects.

Action E-4 strives to promote solar generated electricity. Because the proposed building would be designed to accommodate renewable energy sources, such as photovoltaic solar electricity systems, appropriate to the architectural design, the proposed Project would not conflict with the recommended measure.

Action CR-2 strives to promote solar water heaters (SWH). The ARB recommends that California pursue approaches with the goal of developing a viable SWH industry for 2020 and beyond. Implementation of such a standard is not within the purview of the Project; therefore, the proposed Project would not conflict with this measure.

o *Water Use*

Implementation of all but two of the Recommended Actions related to water use are not within the purview of the proposed Project. The two measures that apply are measures W-1 (Water Use Efficiency) and W-3 (Water System Energy Efficiency). However, because the proposed Project would not exceed the audit threshold of 25,000 MT CO_2 from on-site combustion and related activities, the proposed Project is consistent with and would not obstruct the recommended actions.

o *Industrial Use*

All but one of the Recommended Actions related to industrial use are specific to oil and gas extraction, refining and transmission and are not applicable to the proposed Project. The one other Action I-1 targets large emitters of GHGs (in excess of 0.5 million metric tons (MMT)/year of CO_2e (equivalent)) for auditing. Because the proposed Project would not exceed the audit threshold, the proposed Project is consistent with and would not obstruct the recommended actions.

☐ Consistency with GHG Emission Reduction Strategies Set Forth in the 2006 Climate Action Team (CAT) Report

Table 4.2-6, *Project Compliance with Applicable 2006 CAT Report GHG Emissions Reduction Strategies*, sets forth the emission reduction strategies set forth in the 2006 CAT Report along with an explanation as to how the Project is consistent therewith. Table 4.2-6 also notes whether the strategy is applicable to the Project.

As indicated in Table 4.2-6, the proposed Project would be consistent with or would not conflict with any of the identified CAT strategies. Although implementation of the CAT strategies would reduce GHG emissions to the extent possible, it is not possible to specifically quantify the reduction in GHG that will result from implementation of CAT strategies and programs. However, a project that is consistent with CAT strategies is consistent with the strategies suggested to reduce California's emissions to the levels proposed by Executive Order S-3-05 and AB 32, and therefore would result in a less than significant impact on GCC.

☐ Conclusion

As indicated previously in EIR Subsection 4.2.2, in the absence of an adopted quantitative threshold of significance, and for purposes of analysis within this Subsection, the applicable threshold of significance is whether or not the Project would be consistent with the CARB Scoping Plan and the 2006 CAT Report.

As indicated in the above discussion and analysis, the proposed Project would be consistent with, or otherwise not in conflict with, the CARB Scoping Plan recommended measures and actions and the GHG emission reduction strategies set forth in the 2006 CAT Report. Because the proposed Project would be consistent with both the CARB Scoping Plan and the 2006 CAT Report, Project-related GHG emissions would not be substantial and would not directly or indirectly result in a significant impact on the environment. This conclusion reflects a conservative analysis of Project-related impacts as the analysis presented previously in this subsection does not credit the Project for a reduction of GHG emissions that would result from implementation of Project design features or the mitigation measures specified in EIR Section 4.1, *Air Quality* (which also would serve to reduce Project-related GHG emissions). Therefore, the proposed Project would not result in a significant impact to the environment as a result of Project-related GHG emissions.

In addition, there are currently no plans, policies, or regulations that are applicable to the proposed Project and that have been adopted for the purpose of reducing the emissions of GHGs. Although there are no applicable plans, policies, or regulations that are applicable to the proposed Project, the

Table 4.2-6 Project Compliance with Applicable 2006 CAT Report GHG Emissions Reduction Strategies

Strategy	Remarks
California Air Resource Board	
Vehicle Climate Change Standards AB 1493 (Pavley) required the state to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of climate change emissions emitted by passenger vehicles and light duty trucks. Regulations were adopted by the ARB in September 2004.	The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Other Light Duty Vehicle Technology New standards would be adopted to phase in beginning in the 2017 model.	
Heavy-Duty Vehicle Emission Reduction Measures Increased efficiency in the design of heavy-duty vehicles and an education program for the heavy-duty vehicle sector.	
Diesel Anti-Idling In July 2004, the CARB adopted a measure to limit diesel-fueled commercial motor vehicle idling.	Compliant. Heavy-duty diesel trucks that access the project site will be required to limit idling to no more than five minutes.
Hydrofluorocarbon Reduction 1) Ban retail sale of HFC in small cans; 2) Require that only low GWP refrigerants be used in new vehicular systems; 3) Adopt specifications for new commercial refrigeration; 4) Add refrigerant leak-tightness to the pass criteria for vehicular Inspection and Maintenance programs; 5) Enforce federal ban on releasing HFCs.	The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Transportation Refrigeration Units (TRUs), Off-Road Electrification, Port Electrification Strategies to reduce emissions from TRUs, increase off-road electrification, and increase use of shore-side/port electrification.	The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions. Further, no refrigerated truck units will access the Project site, nor does the Project proposed refrigerated warehousing.
Alternative Fuels: Biodiesel Blends CARB would develop regulations to require the use of 1 to 4 percent biodiesel displacement of California diesel fuel.	The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Reduced Venting and Leaks in Oil and Gas Systems Rule considered for adoption by the Air Pollution Control Districts for improved management practices.	The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Hydrogen Highway The California Hydrogen Highway Network (CA H_2 Net) is a State initiative to promote the use of hydrogen as a means of diversifying the sources of transportation energy.	The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Integrated Waste Management Board	
Achieve 50 percent Statewide Recycling Goal Achieving the State's 50 percent waste diversion mandate as established by the Integrated Waste Management Act of 1989, (AB 939, Sher, Chapter	Compliant. The project is required to comply with the City's Source Reduction and Recycling Element (SRRE). To this end, the Project design includes provisions for tenants

Table 4.2-6 Project Compliance with Applicable 2006 CAT Report GHG Emissions Reduction Strategies (Cont'd)

1095, Statutes of 1989), will reduce climate change emissions associated with energy intensive material extraction and production as well as methane emission from landfills. A diversion rate of 48 percent has been achieved on a statewide basis. Therefore, a 2 percent additional reduction is needed.	to recycle. In accordance with the California Solid Waste Reuse and Recycling Act of 1991 (Cal Pub Res. Code § 42911), the Project would provide adequate areas for collecting and loading recyclable materials where solid waste is collected. The collection areas are required to be shown on construction drawings and be in place before occupancy permits are issued.
Zero Waste - High Recycling Additional recycling beyond the State's 50 percent recycling goal.	
Department of Forestry	
Forest Management Strategies for storing more carbon through forest management activities can involve a range of management activities such as increasing either the growth of individual trees, the overall age of trees prior to harvest, or dedicating land to older age trees.	The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Forest Conservation Conservation projects are designed to minimize/prevent the climate change emissions that are associated with the conversion of forestland to non-forest uses by adding incentives to maintain an undeveloped forest landscape.	The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Fuels Management/Biomass Large, episodic, unnaturally hot fires are an increasing trend on California's wild lands because of decades of fire suppression activities, sustained drought, and increasing insect, disease, and invasive plans infestations. Actions taken to reduce wildfire severity through fuel reduction and biomass development would reduce climate change emissions from wildfire, increase carbon sequestration, replace fossil fuels, and provide significant economic development opportunities.	The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Urban Forestry A new statewide goal of planting 5 million trees in urban areas by 2020 would be achieved through the expansion of local urban forestry programs.	The Project does not involve or propose a formal urban forestry program. Nor has the City adopted or implemented an urban forestry program. Notwithstanding, the Project will construct landscaping improvements, including tree plantings, consistent with the City's landscape design guidelines.
Afforestation/Reforestation Projects Reforestation projects focus on restoring native tree cover on lands that were previously forested and are now covered with other vegetative types.	The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Department of Water Resources	
Water Use Efficiency Approximately 19 percent of all electricity, 30 percent of all natural gas, and 88 million gallons of diesel are used to convey, treat, distribute and use water and wastewater. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions.	Compliant. The Project shall implement U.S. EPA Certified WaterSense labeled or equivalent faucets and high-efficiency toilets (HETs), and implement water-conserving shower heads where applicable.
California Energy Commission (CEC)	
Building Energy Efficiency Standards in Place and in Progress	Compliant. Project will be compliant with incumbent California

Table 4.2-6 Project Compliance with Applicable 2006 CAT Report GHG Emissions Reduction Strategies (Cont'd)

Public Resources Code 25402 authorizes the CEC to adopt and periodically update its building energy efficiency standards (that apply to newly constructed buildings and additions to and alterations to existing buildings).	Code of Regulations, Title 24 (Energy Efficiency Standards for Residential and Nonresidential Buildings).
Appliance Energy Efficiency Standards in Place and in Progress Public Resources Code 25402 authorizes the Energy Commission to adopt and periodically update its appliance energy efficiency standards (that apply to devices and equipment using energy that are sold or offered for sale in California).	Compliant. Appliances purchased for use in the Project will be consistent with all applicable energy efficiency standards.
Fuel-Efficient Replacement Tires & Inflation Programs State legislation (Chapter 912, Statues of 2001) directed the Energy Commission to investigate and to recommend ways to improve fuel efficiency of vehicle tires. The bill established a statewide program to encourage the production and use of more fuel efficient tires.	Not Applicable. The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Cement Manufacturing Cost-effective reductions to reduce energy consumption and to lower carbon dioxide emissions in the cement industry.	Not Applicable. The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Municipal Utility Strategies Includes energy efficiency programs, renewable portfolio standard, combined heat and power, and transitioning away from carbon-intensive generation.	Not Applicable. The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Alternative Fuels: non-Petroleum Fuels Increasing the use of non-petroleum fuels in California's transportation sector, as recommended in the CEC=s 2003 and 2005 Integrated Energy Policy Reports.	Not Applicable. The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Business Transportation and Housing	
Smart Land Use and Intelligent Transportation Systems (ITS) Smart land use strategies encourage jobs/housing proximity, promote transit-oriented development, and encourage high-density residential/commercial development along transit corridors. ITS is the application of advanced technology systems and management strategies to improve operational efficiency of transportation systems and movement of people, goods and services. Governor Schwarzenegger is finalizing a comprehensive 10-year strategic growth plan with the intent of developing ways to promote, through state investments, incentives and technical assistance, land use, and technology strategies that provide for a prosperous economy, social equity, and a quality environment.	Compliant. The Project is proximate to serving transportation corridors, thereby promoting operational efficiencies.

Table 4.2-6 Project Compliance with Applicable 2006 CAT Report GHG Emissions Reduction Strategies (Cont'd)

Measures to Improve Transportation Energy Efficiency Builds on current efforts to provide a framework for expanded and new initiatives including incentives, tools and information that advance cleaner transportation and reduce climate change emissions.	Compliant. The Project promotes transportation efficiencies through its location proximate to serving transportation corridors. Moreover, distribution warehouse uses such as those proposed by the Project act to consolidate regional transport and delivery of goods, thereby reducing VMT within the region, further improving transportation efficiencies. trips
Department of Food and Agriculture	
Conservation tillage/cover crops Conservation tillage and cover crops practices are increasingly being used by California farmers for a variety of reasons, including improved soil tilth, improved water use efficiency, reduced tillage requirements, saving labor and fuel, and reduced fertilizer inputs.	The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Enteric Fermentation Cattle emit methane from digestion processes. Changes in diet could result in a reduction in emissions.	Not Applicable. The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
State and Consumer Services Agency	Not Applicable.
Green Buildings Initiative Green Building Executive Order, S-20-04 (CA 2004), sets a goal of reducing energy use in public and private buildings by 20 percent by the year 2015, as compared with 2003 levels.	Compliant. The Project will meet or surpass Title 24 Energy Efficiency standards, acting to reduce area source GHG emissions. Further, State mandated programs (Pavely et al.) will act to substantively reduce mobile-source GHG emissions. Additionally, the Project is required to comply with the mandatory provisions of the California Green Building Standards Code (CALGreen) pursuant to the California Code of Regulations, Title 24, which became effective on January 1, 2011.
Public Utilities Commission (PUC)	
Accelerated Renewable Portfolio Standard The Governor has set a goal of achieving 33 percent renewables in the State's resource mix by 2020. The joint PUC/Energy Commission September 2005 Energy Action Plan II (EAP II) adopts the 33 percent goal.	Not Applicable. The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
California Solar Initiative Installation of 1 million solar roofs or an equivalent 3,000 MW by 2017 on homes and businesses; increased use of solar thermal systems to offset the increasing demand for natural gas; use of advanced metering in solar applications; and creation of a funding source that can provide rebates over 10 years through a declining incentive schedule.	Compliant. Project buildings will be designed to accommodate renewable energy sources, such as photovoltaic solar energy systems as is economically and physically feasible.
Investor-Owned Utility This strategy includes energy efficiency programs, combined heat and power initiative, and electricity sector carbon policy for investor owned utility.	Not Applicable. The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.

Source: State of California, Environmental Protection Agency, Climate Action Team, 2006.

Project would nonetheless be consistent with the CARB Scoping Plan and the 2006 CAT Report strategies for reducing GHG emissions. Therefore, the proposed Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and a significant impact would not occur.

4.2.4 CUMULATIVE IMPACT ANALYSIS

GCC occurs as the result of global emissions of GHGs. An individual project proposal does not have the potential to result in significant GCC-related effects in the absence of cumulative sources of GHGs. The CEQA Guidelines also emphasize that the effects of GHG emissions are cumulative, and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis (See CEQA Guidelines §15130[f]).

Accordingly, the Project-specific impact analysis provided above in Subsection 4.2.3 reflects a cumulative impact analysis of the Project's GHG emissions, and concludes that because the proposed Project would comply with all applicable GHG-reduction strategies set forth by the CARB Scoping Plan and 2006 CAT Report, the proposed Project's GHG emissions would not be cumulatively considerable. In addition, the analysis in EIR Subsection 4.2.3 demonstrates that the proposed Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHGs. Therefore, Project-related emissions of GHGs would be less than significant on both a direct and cumulative basis.

4.2.5 APPLICABLE PROJECT REQUIREMENTS

PR 4.2-1 The Project is required to comply with mandatory regulatory requirements imposed by the State of California and the SCAQMD aimed at the reduction of air quality emissions. Those that are applicable to the Project and that would assist in the reduction of Project-related GHG emissions include, but are not limited to the following:

a) Global Warming Solutions Act of 2006 (AB32).

b) Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies (SB 375).

c) Pavely Fuel Efficiency Standards (AB1493), which establishes fuel efficiency ratings for new vehicles.

d) California Code of Regulations Title 13, Division 3 addressing diesel exhaust emissions. Specifically, Chapter 1, Article 4.5, §2025, "Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles" and Chapter 10, Article 1, §2485, "Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling."

e) California Code of Regulations Title 24 (California Building Code), which establishes energy efficiency requirements for new construction.

f) California Code of Regulations Title 20 (Appliance Energy Efficiency Standards), which establishes energy efficiency requirements for appliances.

g) Title 17 California Code of Regulations (Low Carbon Fuel Standard). Requires carbon content of fuel sold in California to be 10% less by 2020.

h) California Water Conservation in Landscaping Act of 2006 (AB1881), which requires local agencies to adopt the Department of Water Resources updated Water Efficient Landscape Ordinance or equivalent by January 1, 2010 to ensure efficient landscapes in new development and reduced water waste in existing landscapes.

i) Statewide Retail Provider Emissions Performance Standards (SB 1368), requiring energy generators to achieve performance standards for GHG emissions.

j) Renewable Portfolio Standards (SB 1078). Requires electric corporations to increase the amount of energy obtained from eligible renewable energy resources to 20 percent by 2010 and 33 percent by 2020

k) South Coast Air Quality Management District Rule 1118 "PM10 Emissions from Paved and Unpaved Roads, and Livestock Operations," and Rule 1186.1 "Less Polluting Street Sweepers."

PR 4.2-2 The Project will provide on-site bicycle storage pursuant to City of Moreno Valley Municipal Code §9.11.060.B, Off-Street Bicycle Parking Requirements.

PR 4.2-3 The Project will comply with all applicable provisions of the City of Moreno Valley Municipal Code Chapter 6.02 "Refuse Collection, Transfer and Disposal" and Chapter 8.80 "Recycling and Diversion of Construction and Demolition Waste."

4.2.6 SIGNIFICANCE OF IMPACTS PRIOR TO MITIGATION

Thresholds 1 and 2: Less than Significant Impact. The proposed Project would not generate GHG emissions, either directly or indirectly, in quantities that may have a direct or cumulatively considerable significant impact on the environment. In addition, the proposed Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

4.2.7 MITIGATION MEASURES

Impacts would not be significant; therefore, mitigation measures are not required. Regardless, to ensure that the Project will comply with applicable GHG emission reduction strategies specified in California's 2006 Climate Action Team report, the following mitigation measures are recommended.

MM 4.2-1 Prior to the approval of building permits, the City shall review the building plans to ensure that the building's mechanical/electrical/plumbing (MEP) plans specify the installation of U.S. EPA Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and water-conserving shower heads (if showers are proposed).

MM 4.2-2 Prior to the approval of building permits, the City shall review the building plans to ensure that the building's roof is structurally designed to accommodate the future addition of photovoltaic solar panels.

4.3 NOISE

The following analysis is based on a technical noise study prepared by Urban Crossroads, Inc. entitled "First Industrial Logistics II Noise Impact Analysis, City of Moreno Valley, California," dated October 31, 2012, and included as *Technical Appendix E* to this EIR. The report considers potential noise impacts associated with construction and operation of the proposed Project.

4.3.1 EXISTING CONDITIONS

A. Study Area Description

The Project site is located in the City of Moreno Valley. The Project Applicant is proposing a high cube industrial warehouse building containing 400,130 square feet of interior building space located on the northwest corner of Perris Boulevard and Nandina Avenue. Existing development near the Project site contains a mix of single-family residential, industrial, office, and warehouse land uses as previously described in EIR Section 2.0, *Environmental Setting*. The March Air Reserve Base is located approximately 0.9-mile west of the Project site. The locations of the nearest sensitive receptors to the Project site are depicted on Figure 4.3-1, *Off-Site Noise Sensitive Receptors.*

B. Noise Fundamentals

☐ Noise Definitions

Noise is simply defined as "unwanted sound." Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm, or when it has adverse effects on health. Because the range of sound that the human ear can detect is so large, the scale used to measure sound intensity is based on multiples of 10, the logarithmic scale. The unit of measure in which a sound intensity is described is the decibel (dB). Each interval of 10 dB indicates a sound energy 10 times greater than before, which is perceived by the human ear as being roughly twice as loud. A-weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise sources by discriminating against very low and very high frequencies of the audible spectrum; dBA is adjusted to reflect only those frequencies which are audible to the human ear. (Urban Crossroads, 2012d, p. 4)

The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at three feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA at approximately 100 feet (Urban Crossroads, 2012d, p. 4). Figure 4.3-2, *Typical Noise Levels and Their Subjective Loudness and Effects,* presents a summary of typical noise levels and their subjective loudness and effects.

Environmental noise descriptors are generally based on averages, rather than instantaneous noise levels. The most commonly used figure is the equivalent level (Leq.). Leq. represents a steady sound level containing the same total energy as a time-varying level over a given measurement interval. Leq. may represent any desired length of time; however, one hour is the most commonly used in environmental work. (Urban Crossroads, 2012d, p. 4).

Peak hour noise levels, while useful, do not completely describe a given noise environment. Noise levels lower than peak hour levels may be disturbing if they occur during times when quiet is most desirable, namely evening and nighttime (sleeping) hours. To account for this, the Community Noise Equivalent Level (CNEL), representing a composite 24 hour noise level, is utilized (Urban Crossroads, 2012d, p. 4).

The CNEL is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time of day corrections require the addition of five (5) dB to sound levels in the evening from 7 p.m. to 10 p.m., and the addition of 10 dB to sound levels at night between 10 p.m. and 7 a.m. These additions are made to account for the noise sensitive time periods during the evening and nighttime hours when sound appears louder. CNEL does not represent the actual sound level heard at any particular time, but rather represents the total sound exposure (Urban Crossroads, 2012d, p. 4).

☐ Effects of Noise

Harmful effects of noise can include speech interference, sleep disruption, and loss of hearing. High background noise levels can affect performance and learning processes through: distraction; reduced accuracy; increased fatigue, annoyance, and irritability; the inability to concentrate; and sleep prevention. Several factors determine whether a particular noise will interfere with sleep. These factors include the noise level and characteristics, the stage of sleep, the individual's age, and motivation to waken.

Approximately 10% of the population has a very low tolerance for noise and will object to any noise not of their own making. Consequently, even in the quietest environment, some complaints will occur. Another 25% of the population will not complain even in very severe noise environments. Thus, a variety of reactions can be expected from people exposed to any given noise environment. Despite this variability in behavior on an individual level, the population as a whole can be expected to exhibit the following responses to changes in noise levels. An increase or decrease of 1.0 dBA cannot be perceived except in carefully controlled laboratory experiments, a change of 3.0 dBA may be perceptible, and a change of 5 dBA is often necessary before any noticeable change in community response (i.e. complaints) would be expected (Urban Crossroads, 2012d, p. 7).

☐ Traffic Noise Prediction

According to the *Highway Traffic Noise Analysis and Abatement Policy and Guidance* provided by the Federal Highway Administration, the level of traffic noise depends on three primary factors: (1) the volume of the traffic, (2) the speed of the traffic, and (3) the vehicle mix within the flow of traffic. Generally, the loudness of traffic noise is increased by heavier traffic volumes, higher speeds, and a greater number of trucks. A doubling of the traffic volume, assuming that the speed and vehicle mix do not change, results in a noise level increase of 3 dBA. The vehicle mix on a given roadway may also have an effect on community noise levels. As the number of medium and heavy trucks increases and becomes a larger percentage of the vehicle mix, adjacent noise level impacts will increase. Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires on the roadway (Urban Crossroads, 2012d, p. 6).

☐ Ground Absorption of Noise

To account for the ground-effect attenuation (absorption) of noise, two types of site conditions are commonly used in traffic noise models: soft site and hard site conditions. Soft site conditions account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation. A drop-off rate of 4.5 dBA per doubling of distance is typically observed over soft ground with landscaping, as compared with a 3.0 dBA drop-off rate over hard ground such as asphalt, concrete, stone, and very hard packed earth. Caltrans research has shown that the use of soft site conditions is more appropriate for the application of the FHWA traffic noise prediction model used in this analysis (Urban Crossroads, 2012d, p. 6).

❑ Noise Control and Noise Barrier Attenuation

Noise control is the process of obtaining an acceptable noise environment for a particular observation point or receptor by controlling the noise source, transmission path, receptor, or all three. This concept is known as the source-path-receptor concept. In general, noise control measures can be applied to any and all of these three elements (Urban Crossroads, 2012d, p. 6).

Effective noise barriers can reduce noise levels by 10 to 15 dBA, cutting the loudness of traffic noise in half. A noise barrier is most effective when placed close to the noise source or receptor. Noise barriers, however, do have limitations. For a noise barrier to work, it must be high enough and long enough to block the view of the noise source (Urban Crossroads, 2012d, p. 6).

❑ Land Use Compatibility

Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches, and residences are considered to be more sensitive to noise intrusion than are commercial or industrial activities. Ambient noise levels can also affect the perceived desirability or livability of a development. For these reasons, land use compatibility with the noise environment is an important consideration in the planning and design process (Urban Crossroads, 2012d, p. 7).

C. Noise Analysis Methodology

❑ 24-Hour Noise Readings

Mobile, or transportation-related noise impacts, are measured using the 24-hour CNEL to assess the land use compatibility for community noise exposure. 24-hour noise readings for the Project were recorded by Urban Crossroads, Inc. on Thursday, October 25th, 2012 using five (5) Quest DL Pro data logging Type 2 noise dosimeters. All noise meters were programmed in “fast” mode to record noise levels in A-weighted form. The sound level meters and microphone were equipped with a widescreen during all measurements (Urban Crossroads, 2012d, p. 12).

❑ Construction Equipment Reference Noise Levels

In January 2006, the Federal Highway Administration (FHWA) published a national database of construction equipment reference noise emission levels. The database provides a comprehensive list of the noise generating characteristics for specific types of construction equipment. In addition, the database provides an acoustical usage factor to estimate the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation (Urban Crossroads, 2012d, p. 33).

Noise levels generated by heavy construction equipment can range from approximately 70 dBA to noise levels in excess of 100 dBA when measured at 50 feet. These noise levels diminish with distance from the construction site at a rate of 6 dBA per doubling of distance. For example, a noise level of 78 dBA measured at 50 feet from the noise source to the receptor would be reduced to 72 dBA at 100 feet from the source to the receptor, and would be further reduced to 66 dBA at 200 feet from the source to the receptor (Urban Crossroads, 2012d, pp. 33-34).

❑ FHWA Traffic Noise Prediction Model and Model Inputs

Future roadway noise impacts from vehicular traffic were projected using a computer program that replicates the FHWA and Model Inputs Traffic Noise Prediction Model- FHWA-RD-77-108 (the "FHWA Model"). The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). Adjustments are then made to the REMEL to account for the roadway classification (e.g., collector, secondary, major, or arterial), the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), the total average daily traffic (ADT), the travel speed, the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume, the roadway grade, the angle of view (e.g., whether the roadway view is blocked), the site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping), and the percentage of total ADT which flows each hour throughout a 24-hour period (Urban Crossroads, 2012d, p. 16)

Table 4.3-1, *Off –Site Road Parameters*, presents the FHWA Model roadway parameters used by Urban Crossroads, Inc. in the noise analysis. Per the recommendation of Caltrans, soft site conditions were used to develop the noise contours to analyze the traffic noise conditions in the study area. The Existing average daily traffic (ADT) volumes are derived from the First Inland Logistics II Traffic Impact Analysis (*Technical Appendix F*).

Table 4.3-2, Hourly Traffic Flow Distribution1, presents the hourly traffic flow distributions (vehicle mix) used for the noise analysis (which is reflective of the vehicle mix required by the California Department of Public Health). The vehicle mix provides the hourly distribution percentages of automobile, medium trucks, and heavy trucks for input into the FHWA Model (Urban Crossroads, 2012d, p. 16).

D. Existing Noise Conditions

To determine the existing noise level environment, five (5) long-term 24-hour measurements were taken in the Project study area. Figure 4.3-3, *Noise Measurement Locations*, shows the location of the Project site and the noise level measurement locations (locations L1 through L5). The noise level measurements were recorded by Urban Crossroads, Inc. on Thursday, October 25th, 2012, representing the typical ambient noise environment for the study area (Urban Crossroads, 2012d, p. 12). The results of the noise level measurements are presented in Table 4.3-3, *Long-Term (Ambient) Noise Level Measurements*, and are summarized below.

- Site L1 is located near the southern property line of the residential tract to the north of the Project site, approximately 85 feet east of Perris Boulevard and 165 feet north of Rivard Road. The hourly noise levels at Site L1 range from 58.8 to 63.0 dBA Leq and produce a 24-hour CNEL noise level of 64.7 dBA CNEL.

- Site L2 is located next to a house roughly 100 feet north of the Project boundary along San Michele Road and 660 feet west of Perris Boulevard. The hourly noise levels at Site L2 range from 53.5 to 55.9 dBA Leq and produce a 24-hour CNEL noise level of 61.7 dBA CNEL.

- Site L3 is located approximately 140 feet east of the Project boundary on the southeast corner of Perris Boulevard and Modular Way. The hourly noise levels at Site L3 range from 58.8 to 62.3 dBA Leq and produce a 24-hour CNEL noise level of 66.9 dBA CNEL.

- Site L4 is located near a house approximately 100 feet south of the Project boundary along Nandina Avenue and 760 feet west of Perris Boulevard. The hourly noise levels at Site L4 range from 53.6 to 56.1 dBA Leq and produce a 24-hour CNEL noise level of 61.4 dBA CNEL.

- Site L5 is located on the proposed east Project driveway 140 feet west of Perris Boulevard and 325 feet south of Modular Way. The hourly noise levels at Site L5 range from 54.2 to 58.4 dBA Leq and produce a 24-hour CNEL noise level of 62.6 dBA CNEL.

The results of the noise level measurements show that the ambient noise levels in the study area near Perris Boulevard currently exceed the City of Moreno Valley transportation related exterior noise levels of 65 dBA CNEL for noise-sensitive receptors (Urban Crossroads, 2012d, p. 14).

❑ Existing Noise Contours

Existing CNEL noise contours are shown for the 55, 60, 65, and 70 dBA noise levels in Table 4.3-4, *Existing Without Project Conditions Noise Contours*. Noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway. The noise contours do not take into account the effect of any existing noise barriers or topography that may affect ambient noise levels.

❑ Existing Vibration

Groundbourne vibration is usually localized to areas within about 100 feet from the vibration source. There are no existing sources of groundborne vibration (such as a railroad line) on or within 100 feet of the Project site.

E. Existing Noise Standards (Policies and Regulations)

Local noise guidelines are often based on the broader guidelines established by state and federal agencies. Following is a description of the existing noise regulatory setting for the proposed Project because a majority of the Project's traffic distribution (and associated vehicular noise) is projected to route through the City of Moreno Valley and the City of Perris, the noise criteria for the City of Moreno Valley and City of Perris are presented below.

❑ California Office of Planning and Research General Plan Guidelines

The City of Moreno Valley General Plan does not include any standards for measuring impacts associated with traffic noise. Rather, noise is considered in the Environmental Safety section of the General Plan Safety Element. While the General Plan provides background and noise fundamentals, it does not identify criteria to assess the impacts associated with off-site transportation related noise impacts. Therefore, for purposes of evaluating traffic-related noise impacts within the City of Moreno Valley, the analysis in this EIR instead relies on the noise criteria derived from the standards provided in the General Plan Guidelines, a publication of the California Office of Planning and Research. These standards are used by many California cities and counties and specify the maximum noise levels allowable for new developments. A copy of the General Plan Guidelines is provided as Appendix 3.2 to the Project's Noise Impact Analysis (see *Technical Appendix* E) (Urban Crossroads, 2012d, p. 3.2).

The purpose of the transportation noise criteria is to protect, create, and maintain an environment free from noise and vibration that may jeopardize the health or welfare of sensitive receptors, or degrade quality of life. For the nearby noise sensitive areas, the exterior noise levels should remain below 65 dBA CNEL and for interior areas the noise levels should remain below 45 dBA CNEL. For purposes of analysis within this section, the closest noise sensitive uses within the Project's study area are shown on Figure 4.3-1.

☐ City of Moreno Valley Noise Ordinance

The Noise Ordinance included in Chapter 11.80 of the City of Moreno Valley's Municipal Code provides performance standards and noise control guidelines for determining and mitigating non-transportation or stationary noise source impacts.

Section 11.80.030.C, *Nonimpulsive Sound Decibel Limits*, provides the following restriction:

> *No person shall maintain, create, operate or cause to be operated on private property any source of sound in such a manner as to create any nonimpulsive sound which exceeds the limits set forth for the source land use category (as defined in Section 11.80.020) in Table 11.80.030-2 when measured at a distance of two hundred (200) feet or more from the real property line of the source of the sound, if the sound occurs on privately owned property, or from the source of the sound, if the sound occurs on public right-of-way, public space or other publicly owned property. Any source of sound in violation of this subsection shall be deemed prima facie to be a noise disturbance. (Moreno Valley n.d. Section 11.80.030.C)*

Table 11.80.030-2 of the City's Noise Ordinance, Max*imum Sound Levels (in dBA) For Source Land Uses*, shows that the daytime and nighttime standards for commercial uses (including the logistics center/warehouse uses proposed by the Project) are 65 dBA and 60 dBA, respectively (Moreno Valley Municipal Code Table 11.80.030-2).

The City of Moreno Valley also has established exterior noise limits to control noise impacts associated with construction activities. Noise Ordinance Section 11.80.030.D.7, *Construction and Demolitions*, states: "No person shall operate or cause operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between the hours of eight p.m. and seven a.m. the following day such that the sound there from creates a noise disturbance, except for emergency work by public service utilities or for other work approved by the city manager or designee" (Moreno Valley Municipal Code Section 11.80.030.D.7).

❑ City of Perris General Plan Noise Element

The City of Perris General Plan standards also are derived from standards contained in the General Plan Guidelines, a publication of the California Office of Planning and Research. The Noise Element includes standards for land use compatibility for community noise exposure. Goal 1 of the City's Noise Element requires that the State of California Noise/Land Use Compatibility Criteria shall be used in determining land use compatibility for new development. At different exterior noise levels, individual land uses are identified as "normally acceptable," "conditionally acceptable," "normally unacceptable," and "clearly unacceptable." The City of Perris General Plan's Land Use/Noise Compatibility Guidelines, which are presented as General Plan Exhibit N-1, are designed to ensure noise compatibility of proposed land uses with the predicted future noise environment and illustrate the ranges of allowable exterior noise levels for various land uses based on the 2003 State of California General Plan Guidelines (Perris, City of 2005).

The City of Perris utilizes the CNEL scale as the criterion for assessing the compatibility of residential land uses with transportation related noise sources. For noise sensitive uses such as residential uses, the exterior noise level standard is 65 dBA CNEL and the interior noise standard is 45 dBA CNEL. Commercial uses are not considered noise sensitive uses and are evaluated with respect to the Noise/Land Use Compatibility Criteria that defines an ambient noise level ranging from 65 dBA CNEL to 75 dBA CNEL as conditionally acceptable (Perris, City of 2005).

4.3.2 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to noise if the Project or any Project-related component would:

1. *Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;*

2. *Expose persons to or generate excessive groundborne vibration or groundborne noise levels;*

3. *Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;*

4. *Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;*

5. *For a project located within an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels; or*

6. *For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.*

❑ Community Noise Assessment Criteria

While the CEQA Guidelines, City of Moreno Valley and City of Perris noise standards provide direction on noise compatibility and establish noise standards by land use type, they do not define the levels at which increases above the ambient noise levels are considered substantial. However, the

FHWA and Caltrans both identify changes in noise levels of greater than 3 dBA as “barely perceptible,” while changes of 5 dBA are considered “readily perceptible” (Urban Crossroads, 2012d, p. 10).

In a community situation, the noise exposure is extended over a long time period, and changes in noise levels occur over years rather than the immediate comparison made in a laboratory situation. The level at which changes in community noise levels become discernible is likely to be some value greater than 1 dBA, and 3 dBA appears to be appropriate for most people (Urban Crossroads, 2012d, p. 10). On this basis, and for the purposes of the proposed Project’s noise analysis, a substantial increase in noise levels attributable to operations of the Project would occur:

- If ambient conditions are below applicable standards, and Project-generated noise at receptor land uses would result in:
    - An exceedance of the suggested land uses/noise compatibility guidelines for surface transportation sources presented in the long range plans of the City of Moreno Valley or City of Perris (mobile sources); or
    - An exceedance of the exterior noise standards defined in the City of Moreno Valley Noise Ordinance (area/stationary sources);
- If ambient noise conditions exceed applicable Noise Ordinance Standards and Project-generated noise would create a “barely perceptible” 3 dBA or greater permanent increase in ambient exterior noise levels.
- If noise resulting from Project-related construction activities exceeds the City of Moreno Valley Noise Ordinance.

4.3.3 IMPACT ANALYSIS

Threshold 1:	***Would the proposed Project expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?***
Threshold 3:	***Would the proposed Project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?***
Threshold 4:	***Would the proposed Project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?***

A. Short-Term Construction Noise Impacts

Construction activities associated with the Project, especially those involving heavy equipment, would initially create short-term noise increases in the vicinity of the Project site, representing a short-term effect on ambient noise levels. Noise generated by construction equipment, including trucks, power tools, concrete mixers and portable generators can reach high levels. Project construction is expected to occur in six (6) stages: demolition, site preparation, grading, building construction, paving, and architectural coating. Grading activities typically represent one of the highest potential sources for noise impacts.

Table 4.3-5, *Demolition Construction Noise Levels1*, shows that during the short-term demolition stage of construction, the exterior noise levels at a distance of 200 feet are estimated at 74.4 dBA Leq. Table 4.3-6, *Site Preparation Noise Levels1*, shows that during the short-term site preparation stage of construction, exterior noise levels at a distance of 200 feet are estimated at 87.1 dBA Leq. Noise level impacts associated with the grading work would result in construction related noise levels of 87.8 dBA Leq. at a distance of 200 feet as shown on Table 4.3-7, *Grading Construction Noise Levels1*. Building construction activity would result in noise level impacts from heavy equipment that would be operational during the physical building construction. Table 4.3-8, *Building Construction Noise Levels1*, shows that during the short-tern building construction stage of construction, noise levels are estimated at 83.3 dBA Leq. at a distance of 200 feet. Paving activities include the movement of any remaining material as well as necessary curb and gutter work, road base material placement and blacktop. Table 4.3-9, *Paving Construction Noise Levels1*, shows that during the short-term paving stage of construction, noise levels at nearby noise sensitive uses are estimated at 80.9 dBA Leq. at a distance of 200 feet. Table 4.3-10, *Architectural Coating Noise Levels1*, shows that during the short-term architectural coating stage of construction, noise levels at a distance of 200 feet are estimated at 74.0 dBA Leq.

The City of Moreno Valley Municipal Code does not specifically address construction noise; however, it does provide noise level limits for the source land use category when measured at a distance of 200 feet. Because the source land use is other than residential, the 65 dBA Leq. at a distance of 200 feet is used as the limit for this analysis to assess the Project construction noise level impacts. As shown in Table 4.3-5 through Table 4.3-10, the six (6) phases of construction related noise levels, the noise impacts associated with the proposed Project are expected to create temporary noise impacts at receptors surrounding the Project site when certain activities occur near the Project property line. Though construction noise is temporary, intermittent and of short duration, the Project's construction would create a significant noise impact because noise levels in excess of 65dBA Leq would occur beyond 200 feet of the property line.

B. Long-Term Operational Noise Impacts

☐ Transportation-Related Noise Impacts

Generally, traffic noise impacts are analyzed both to ensure that a project would not adversely impact the acoustic environment of the surrounding community and also to ensure that a project site is not exposed to an unacceptable level of noise resulting from the ambient noise environment acting upon the property. The proposed Project would consist of a high cube industrial warehouse building and is not considered to be sensitive to noise exposure.

To assess the off-site long-term transportation CNEL noise level impacts associated with development of the proposed Project, noise contours were developed based on the First Inland Logistics II Traffic Impact Analysis (*Technical Appendix F* to this EIR). Noise contour boundaries represent the equal levels of noise exposure and are measured in CNEL from the center of the roadway. Traffic noise contour boundaries are typically measured at distances of 100 feet from a roadway centerline. Noise contours were developed for four (4) scenarios: Existing Without Project, Existing With Project, Year (2017) Without Project, and Year (2017) With Project.

Noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway for the 70, 65, 60 and 55 dBA noise levels. The distance from the centerline of the roadway to the CNEL contour boundaries for roadways in the proposed Project's vicinity are presented in Table 4.3-4, Table 4.3-11, *Existing With Project Conditions Noise Contours*, Table 4.3-12, *Year 2017 Without Project Conditions Noise Contours*, and Table 4.3-13, *Year 2017 With Project Conditions Noise Contours*. Noise contours do not take into account the effect of any existing noise barriers or topography that may affect ambient noise levels.

Table 4.3-14, *Existing Off-Site Project Related Traffic Noise Impacts*, presents a comparison of existing without and with Project conditions CNEL noise levels. Table 4.3-11 identifies that the unattenuated exterior noise levels range from 41.9 to 67.3 dBA CNEL at 100 feet from each roadway's centerline. As shown on Table 4.3-14, the Project would generate an unmitigated exterior noise level increase ranging from 0.0 dBA CNEL to 1.6 dBA CNEL. Based on the thresholds of significance, the proposed Project would have a less than significant off-site traffic noise level impact on the study area roadway segments for existing conditions.

Table 4.3-15, *Year 2017 Off-Site Project Related Traffic Noise Impacts*, presents a comparison of the Year 2017 without and with Project conditions CNEL noise levels. Table 4.3-12 identifies the unattenuated exterior noise levels range from 42.5 to 69.4 dBA CNEL at 100 feet from each roadway's centerline. As shown on Table 4.3-15 the Project would generate an unmitigated exterior noise level increase ranging from 0.0 dBA CNEL to 0.6 dBA CNEL. Based on the thresholds of significance, the proposed Project would have a less than significant off-site traffic noise level impact on the study area roadway segments for Year 2017 conditions.

In summary, long-term operation of the proposed Project would not cause a temporary or periodic noise impact associated with vehicular noise. Furthermore, applying the thresholds of significance, the Project would generate a less than significant off-site traffic noise level impact on the study area roadway segments; therefore, no mitigation is required.

❑ Stationary Noise Impacts

The proposed Project would include a 400,130 square foot high cube industrial warehouse building. Stationary noise impacts associated with operation of the Project would include idling trucks, delivery truck activities, and roof-top air conditioning units. The projected noise levels used for analysis assume the worst-case noise environment with the idling trucks, delivery truck activities, and roof-top air conditioning units all operating simultaneously. In reality, these noise levels would vary throughout the day.

o *Loading Dock Activities*

In order to evaluate the noise impacts associated with tractor trailer (truck) unloading/loading activities, reference noise level measurements were taken at a large commercial center located at the intersection of Goldenwest Street and Edinger Avenue in Huntington Beach, CA by Urban Crossroads, Inc. on April 14, 2011. The primary noises generated by tractor trailer unloading is the noise of the truck arriving, backing into the dock area, detaching the cab, attaching the cab to the empty trailer, and exiting the loading dock. The noise level was measured at 77.3 dBA Leq. at a distance of 20 feet from the tractor trailer (Urban Crossroads, 2012d, p. 30).

- *Truck Pass-By*

In order to evaluate the noise impacts associated with truck (tractor trailer) pass-bys, reference noise level measurements were taken at a large commercial center located at the intersection of Goldenwest Street and Edinger Avenue in Huntington Beach, CA by Urban Crossroads, Inc. on April 14, 2011. The measurement included the exiting of the tractor trailer. The noise level was measured at 69.5 dBA Leq. at a distance of 30 feet from the tractor trailer (Urban Crossroads, 2012d, p. 30).

- *Air Condenser Units*

Rooftop mechanical ventilation units are proposed to be installed on the industrial building proposed within the Project site. To assess the mechanical ventilation system (packaged heat pump) noise impacts, typical outdoor sound power levels were provided by Trane (a manufacturer of HVAC systems). The noise ratings provided by Trane indicate that the packaged heat pumps of an air conditioning unit will produce noise levels ranging from 75 to 82 dBA when measured at a distance of three (3) feet (Urban Crossroads, 2012d, p. 30).

To predict the worst-case future noise environment, a continuous noise level of 73 dBA at 10 feet was used to represent the roof-top mechanical ventilation system. The type of air conditioning unit that would be used for the Project’s buildings is designed to provide cooling during the peak summer daytime periods, so it is unlikely that all units would operate continuously throughout the noise sensitive nighttime periods. Even though the mechanical ventilation system will cycle on and off throughout the day, this approach presents the worst-case noise condition (Urban Crossroads, 2012d, p. 30).

- *Project-Related Stationary Source Noise Impacts*

Based upon the reference noise levels provided on Table 4.3-16, *Reference Noise Level Measurements1*, it is possible to estimate the stationary source noise levels from the proposed Project at a distance 200 feet from the property line, which allows for a comparison with the noise standards provided in the City of Moreno Valley Noise Ordinance. Noise level projections were calculated based on the Project’s site plan (described in EIR Section 3.0) showing the spatial relationship between the potential on-site noise sources and the closest property line. Table 4.3-17, *Project Only Stationary Source Impact Noise Level Projections*, presents the unmitigated exterior noise levels associated with the proposed Project at a distance of 200 feet from the property line. As shown in Table 4.3-17, the unmitigated hourly noise levels are expected to range from 31.4 to 53.0 dBA Leq. The expected operational noise level impacts associated with the Project are below the daytime and nighttime exterior noise level standards for commercial uses of 65 dBA Leq. and 60 dBA Leq., respectively. Therefore, the Project would create a less than significant stationary source noise level impact.

Threshold 2: Would the proposed Project expose persons to or generate excessive groundborne vibration or groundborne noise levels?

The Project would not generate groundborne vibration, except for the potential for vibration to occur during the construction phase from the use of large construction equipment. According to the *Transportation and Construction-Induced Vibration Guidance Manual* prepared for Caltrans, ground-borne vibration from construction activities and equipment such as D-8 and D-9 Caterpillars bulldozers, earthmovers, and haul trucks at distances of 10 feet do not create vibration amplitudes that cause structural damage to nearby structures. The proposed Project is not expected to employ any pile driving or rock blasting equipment during construction activities, and because the nearest receivers are located over 50 feet from the nearest point of construction activities, impacts from groundborne vibration during near-term construction would be less than significant (Urban Crossroads, 2012d, pp. 40-42)

Long-term operational activities at the proposed Project site will not include nor require equipment, facilities, or activities that would result in perceptible groundborne vibrations, thus long-term operation of the Projection would create no groundborne impacts.

Threshold 5: ***For a project located within an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the proposed Project expose people residing or working in the project area to excessive noise levels?***

Threshold 6: ***For a project within the vicinity of a private airstrip, would the proposed Project expose people residing or working in the project area to excessive noise levels?***

The Project site is located approximately 0.9-mile east of March Air Reserve Base. According to the *Air Installation Compatible Use Zone Study for March Air Reserve Base* (Department of the Air Force, 2005), and as presented in Figure 4.3-4, *March Reserve Air Base Noise Contours,* the Project site is located outside of the 60 dBA CNEL noise contour. According to the California Division of Aeronautics Noise Standards (California Code of Regulations, Title 21, Section 5000 et. seq.), a noise level of 65 dBA CNEL is considered the "…level of noise acceptable to a reasonable person residing in the vicinity of an airport." Residential land uses are considered more sensitive to noise than the logistics center/warehouse distribution uses proposed by the Project. Aircraft operations would not, therefore, expose people on the Project site to noise levels in excess of 65 dBA CNEL and impacts would be less than significant.

Although the Project site is located near the March Air Reserve Base, this airfield is not a private airfield and there are no other private airfields or airstrips in the vicinity of the Project site. In addition, a private airstrip is not proposed as part of the Project. Therefore, the proposed Project would not expose people to excessive noise levels associated with operations at a private airstrip or helipad; no impacts would result from excessive noise generated by a private airstrip. There would be no impact.

4.3.4 CUMULATIVE IMPACT ANALYSIS

☐ Substantial Noise Increase or Violations (Thresholds 1, 3, and 4)

A. Near-Term Cumulative Construction-Related Noise Impacts

During Project construction, noise levels produced by construction equipment would exceed the City of Moreno Valley's Noise Ordinance. The peak noise level anticipated during construction activities would occur during mass grading of the site, which would result in Project-related noise levels of 87.8 dBA Leq at a distance of 200 feet from the noise source, whereas the Noise Ordinance specifies 65 dBA Leq at a distance of 200 feet. Sensitive noise receptors located between the Project site boundary and approximately 2,774 feet from boundary would experience noise levels during daytime hours above 65 dBA Leq at some point during construction activities, assuming a clear line-of-site condition. It is not possible to construct the Project and impose any feasible mitigation measures to reduce construction noise to below 65 dBA Leq at a distance of 200 feet from the property boundary.

As indicated previously in EIR Subsection 2.3, some of the properties located in the immediate vicinity of the Project site are vacant or contain non-conforming uses and are anticipated to develop with industrial and warehouse uses consistent with their General Plan land use and zoning designations. In the event that construction activities occur on any properties surrounding the site simultaneous with Project-related construction activities, and that also contribute construction noise to sensitive receptors within 2,774 feet of the Project boundary, a cumulative impact would occur and the Project's construction-related noise contribution to the overall noise level would be cumulatively considerable. Such noise level increases would represent a cumulatively considerable substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project. Because construction noise would be temporary in nature, Project construction activities would not result in a cumulatively considerable substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.

B. Long-Term Cumulative Operational Noise Impacts

Table 4.3-15, *Year 2017 Off-Site Project Related Traffic Noise Impacts*, presents a comparison of the Year 2017 without and with Project conditions CNEL noise levels along roadway segments in the Project's study area. Table 4.3-12 identifies that un-attenuated exterior noise levels range from 42.5 to 69.4 dBA CNEL at 100 feet from each roadway's centerline. Noise levels at 100 feet without the Project that exceed 65 dBA CNEL (the standard for noise-sensitive uses) would occur on Harley Knox Boulevard from west of I-215 to west of Indian Street, on Indian Street between Nandina Avenue and Harley Knox Boulevard, and on Perris Boulevard between San Michelle Road and Nandina Avenue. Along Harley Knox Boulevard, the Project's contribution is 0.1 dBA CNEL. Along Indian Street the Project's contribution is 0.2 dBA CNEL. And, along Perris Boulevard the Project's contribution is 0.0 dBA CNEL. Because there are no sensitive noise receptors located or planned to be located along these road segments and because the Project's noise contribution is well below a level perceptible to the human ear, noise impacts would be less than cumulatively significant and the Project's contribution would be less than cumulatively considerable.

C. Stationary Noise Impacts (Cumulative Conditions)

As indicated previously in Table 4.3-17, *Project Only Stationary Source Impact Noise Level Projections*, noise levels associated with operation of the proposed Project at a distance of 200 feet from the property line is expected to be 54.2 dBA Leq, without attenuation. Walls proposed around the Project's perimeter would attenuate most of this operational noise. The expected operational noise level impacts associated with the Project are below the daytime and nighttime exterior noise level standard of 65 dBA Leq. and 60 dBA Leq., respectively even without the presence of perimeter walls. Therefore, the Project would create a less than significant stationary source noise level impact.

Existing and planned land uses surrounding the Project are similar in operational character to the warehouse building proposed by the Project. The long-term operation of adjacent uses would be expected to produce operational noise levels that are similar to those of the proposed Project (i.e., 48.5 dBA at 200 feet). Due to the internal mechanism of the human ear and how it receives and processes noise, when two sound sources of equal intensity or power are measured together, their combined effect (intensity level) is 3 dBA higher than the level of either separately. Thus, two noise sources that individually produce 52 dBA will measure 55dBA when the noise sources are combined (absent any other sound alerting factor). Therefore, long-term operation of the proposed Project would not result in the exposure of sensitive receptors to cumulative noise levels in excess of the City's Noise Ordinance standards. Long-term operation of the proposed Project also would not result in a substantial cumulative increase in ambient noise levels. Furthermore, there are no components of the Project's long-term operational characteristics that could produce substantial amounts of temporary or periodic ambient noise levels that could impact nearby sensitive receptors. Accordingly, non-transportation related impacts due to long-term operation of the proposed Project under cumulative conditions would have a less than significant cumulative impact and the Project's contribution would be less than cumulatively considerable.

❑ Vibration Impacts (Threshold 2)

There are no existing or projected sources of groundborne vibration immediately surrounding the Project site. Additionally, the types of construction equipment that would be used to build the proposed Project would not create vibration amplitudes that cause structural damage to nearby structures or that generate excessive groundborne vibration or groundborne noise levels. Accordingly, there would be no cumulative groundborne vibration impact during Project construction and the Project's contribution to vibration, if any, would be less than cumulatively considerable. Under long-term operating conditions, the Project would not involve the use of equipment, facilities, or activities that would result in perceptible groundborne vibration. There would be no significant cumulative impact and the Project would have no potential to contribute to a long-term groundborne noise or vibration impact.

❑ Public and Private Airport-Related Noise Levels (Thresholds 5 and 6)

The proposed Project does not involve the construction or operation of any public airports or public use airports. Airport-related noise levels from the March ARB affecting the Project site are not considered excessive; as such, nearby airport operations would not expose future on-site workers to excessive noise levels. There are no conditions associated with the proposed Project that could result in contributing to airport noise or exposure of additional people to unacceptable levels of airport noise. Accordingly, the Project would have no potential to cumulatively contribute to impacts associated with noise from a public airport or public use airport. Additionally, there are no private airfields or airstrips in the vicinity of the proposed Project site, and the Project would not involve the construction or operation of such facilities. Therefore, implementation of the proposed Project would not expose people residing or working in the Project area to cumulatively excessive noise levels associated with private airstrips, and has no potential to cumulatively contribute to impacts associated with noise from a private airstrip.

4.3.5 APPLICABLE PROJECT REQUIREMENTS

The following is a requirement to which the Project would be required to adhere. Compliance with this requirement was assumed throughout the above noise analysis.

PR 4.3-1 The Project will comply with the City of Moreno Valley Noise Ordinance (Moreno Valley Municipal Code Chapter 11.80).

4.3.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Thresholds 1, 3, and 4: Significant Direct and Cumulative Impact (Near-Term). During Project construction, noise levels beyond 200 feet from the property boundary would exceed levels specified in the City of Moreno Valley Noise Ordinance. Existing sensitive receptors (residential) located within 2,774 feet of the Project boundary with a clear line of site to the construction activity would experience noise levels above 65 dBA leq at some point during the construction process. Additionally, in the event that Project construction activities occur simultaneously with other construction activities that affect the same sensitive receptors, cumulative construction-related noise would also be significant.

Under long-term operating conditions, the Project would not generate traffic-related or stationary noise levels above the standards given in the City of Moreno Valley Noise Ordinance or in any adjacent jurisdiction's General Plan. Long-term impacts would be less than significant.

Threshold 2: Less than Significant Impact. Near-term construction activities and long-term operation of the proposed Project would not expose persons to or generate excessive groundborne vibration or groundborne noise levels.

Threshold 5: Less than Significant Impact. The Project would not expose people to excessive noise levels associated with the operation of an airport.

Threshold 6: No Impact. There are no private airstrips in the vicinity of the Project site; as such, the Project has no potential to expose people residing or working in the area to excessive noise levels associated with operation of a private airstrip.

4.3.7 MITIGATION MEASURES

MM 4.3-1 Prior to grading or building permit issuance, the City shall review grading and building plans to ensure that the following notes are included. Project contractors shall be required to comply with these notes and maintain written records of such compliance that can be inspected by the City of Moreno Valley upon request.

a) All construction activities, including but not limited to haul truck deliveries, shall be limited to between the hours of 7:00 a.m. and 8:00 p.m.

b) Construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards.

c) All stationary construction equipment and equipment staging areas shall be placed as close as possible to the center of the western property line.

d) All haul truck deliveries shall use City-approved haul routes. Should alternate routes be necessary, haul trucks shall not use roadways that pass noise-sensitive land uses or residential dwellings unless approved by the City of Moreno Valley.

4.3.8 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Thresholds 1, 3, and 4: Significant Direct and Cumulative Impact (Near-Term). Project construction activities would expose off-site properties within 2,274 feet of the Project boundary with direct lines of site to construction activities to daytime noise levels exceeding 65 dBA leq. Mitigation Measure MM 4.3-1 requires construction practices that would minimize noise levels to sensitive receptors, but not to below a level of significance on either a direct or cumulative basis. Additional feasible mitigation measures are not available to further reduce Project-related construction noise levels, resulting in a significant and unavoidable short-term impact.

Table 4.3-1 Off –Site Road Parameters

ID	Roadway	Segment	Roadway Section[1]	Vehicle Speed (MPH)
1	Harley Knox Boulevard	West of I-215 Freeway	4D	55
2	Harley Knox Boulevard	I-215 SB Ramps to I-215 NB Ramps	4D	55
3	Harley Knox Boulevard	I-215 NB Ramps to Western Way	4U	45
4	Harley Knox Boulevard	East of Western Way	4U	45
5	Harley Knox Boulevard	West of Patterson Avenue	4U	45
6	Harley Knox Boulevard	East of Patterson Avenue	2D	45
7	Harley Knox Boulevard	West of Indian Street	4D	55
8	Harley Knox Boulevard	East of Indian Street	4D	55
9	Western Way	North of Harley Knox Boulevard	2U	40
10	Patterson Avenue	North of Harley Knox Boulevard	2U	40
11	Patterson Avenue	South of Harley Knox Boulevard	2U	40
12	Indian Street	North of Nandina Avenue	2D	45
13	Indian Street	South of Nandina Avenue	4D	55
14	Indian Street	North of Harley Knox Boulevard	4D	55
15	Indian Street	South of Harley Knox Boulevard	4D	55
16	Knox Street	North of Nandina Avenue	2D	45
18	Perris Boulevard	South of San Michele Road	4D	55
19	Perris Boulevard	North of Nandina Avenue	4D	55
20	Perris Boulevard	South of Nandina Avenue	4D	55
21	San Michele Road	West of Driveway 1	2D	45
22	San Michele Road	Driveway 1 to Driveway 3	2D	45
23	San Michele Road	Driveway 3 to Perris Boulevard	2D	45
24	Nandina Avenue	West of Indian Street	2U	40
25	Nandina Avenue	Indian Street to Knox Street	2D	45
26	Nandina Avenue	Knox Street to Driveway 2	2D	45
27	Nandina Avenue	Driveway 2 to Driveway 4	2U	40
28	Nandina Avenue	Driveway 4 to Perris Boulevard	2U	40

[1] Source: First Inland Logistics II Traffic Impact Analysis by Urban Crossroads, Inc. in October 2012.

Table 4.3-2 Hourly Traffic Flow Distribution[1]

Motor-Vehicle Type	Daytime (7 am to 7 pm)	Evening (7 pm to 10 pm)	Night (10 pm to 7 am)	Total % Traffic Flow
City Roadways				
Automobiles	77.5%	12.9%	9.6%	97.42%
Medium Trucks	84.8%	4.9%	10.3%	1.84%
Heavy Trucks	86.5%	2.7%	10.8%	0.74%

[1] Typical Southern California Vehicle Mix.

Table 4.3-3 Long-Term (Ambient) Noise Level Measurements

Observer Location[1]	Date	Description	Hourly Noise Level (Leq dBA)[2] Daytime (7am to 10pm)	Hourly Noise Level (Leq dBA)[2] Nighttime (10pm to 7am)	CNEL
L1	10/25/2012	Located approximately 85 feet east of Perris Boulevard and 165 feet north of Rivard Road. Near the residential tract to the north.	63.0	58.8	67.3
L2	10/25/2012	Located next to a house roughly 100 feet north of the project boundary along San Michele Road and 660 feet west of Perris Boulevard.	55.9	53.5	61.7
L3	10/25/2012	Located approximately 140 feet east of the project boundary on the southeast corner of Perris Boulevard and Modular Way.	62.3	58.8	66.9
L4	10/25/2012	Located near a house approximately 100 feet south of the project boundary along Nandina Avenue and 760 feet west of Perris Boulevard.	56.1	53.6	61.4
L5	10/25/2012	Located on the east project driveway 140 feet west of Perris Boulevard and 325 feet south of Modular Way.	58.4	54.2	62.6

[1] See Exhibit 4-A for the noise measurement locations.

[2] Energy (logarithmic) average hourly noise levels. The long-term noise level measurements printouts are included in Appendix 4.1.

Table 4.3-4 Existing Without Project Conditions Noise Contours

ID	Road	Segment	CNEL at 100 Feet (dBA)	Distance to Contour (Feet)			
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
1	Harley Knox Boulevard	West of I-215 Freeway	63.2	RW	76	164	353
2	Harley Knox Boulevard	I-215 SB Ramps to I-215 NB Ramps	64.6	RW	94	202	436
3	Harley Knox Boulevard	I-215 NB Ramps to Western Way	63.8	RW	83	178	384
4	Harley Knox Boulevard	East of Western Way	63.5	RW	80	172	370
5	Harley Knox Boulevard	West of Patterson Avenue	63.5	RW	80	171	369
6	Harley Knox Boulevard	East of Patterson Avenue	63.2	RW	76	163	351
7	Harley Knox Boulevard	West of Indian Street	64.9	RW	98	212	457
8	Harley Knox Boulevard	East of Indian Street	61.9	RW	62	134	290
9	Western Way	North of Harley Knox Boulevard	51.5	RW	RW	RW	58
10	Patterson Avenue	North of Harley Knox Boulevard	41.9	RW	RW	RW	RW
11	Patterson Avenue	South of Harley Knox Boulevard	51.6	RW	RW	RW	59
12	Indian Street	North of Nandina Avenue	57.6	RW	RW	70	150
13	Indian Street	South of Nandina Avenue	62.2	RW	65	139	300
14	Indian Street	North of Harley Knox Boulevard	63.0	RW	74	160	344
15	Indian Street	South of Harley Knox Boulevard	55.8	RW	RW	RW	113
16	Knox Street	North of Nandina Avenue	47.1	RW	RW	RW	RW
18	Perris Boulevard	South of San Michele Road	66.5	59	127	273	588
19	Perris Boulevard	North of Nandina Avenue	67.3	66	141	304	656
20	Perris Boulevard	South of Nandina Avenue	67.3	66	141	304	656
21	San Michele Road	West of Driveway 1	57.4	RW	RW	67	144
22	San Michele Road	Driveway 1 to Driveway 3	57.4	RW	RW	67	144
23	San Michele Road	Driveway 3 to Perris Boulevard	57.4	RW	RW	67	144
24	Nandina Avenue	West of Indian Street	51.6	RW	RW	RW	59
25	Nandina Avenue	Indian Street to Knox Street	55.7	RW	RW	RW	111
26	Nandina Avenue	Knox Street to Driveway 2	54.1	RW	RW	RW	86
27	Nandina Avenue	Driveway 2 to Driveway 4	51.0	RW	RW	RW	RW
28	Nandina Avenue	Driveway 4 to Perris Boulevard	51.0	RW	RW	RW	RW

[1] "RW" = Location of the respective noise contour falls within the right-of-way of the road

Table 4.3-5 Demolition Construction Noise Levels[1]

Equipment Type	Quantity	Usage Factor[2]	Hours Of Operation[3]	Reference Noise Level @ 50 Feet (Lmax dBA)	Cumulative Level @ 200 Feet (dBA)
Concrete/Industrial Saw	1	20%	1.6	90.0	71.0
Rubber Tired Dozers	2	40%	3.2	79.0	66.0
Excavators	3	40%	3.2	81.0	69.8
Crushing/Processing	1	15%	1.2	83.0	62.7
Cumulative Hourly Noise Levels 200 Feet (Leq dBA)					74.4
Distance to 65 dBA Leq Contour (Feet)					593

[1] Source: FHWA's Roadway Construction Noise Model, January 2006.

[2] Estimates the fraction of time each piece of equipment is operating at full power during a construction operation.

[3] Represents the actual hours of peak construction equipment activity out of a typical 8 hour workday.

Table 4.3-6 Site Preparation Noise Levels[1]

Equipment Type	Quantity	Usage Factor[2]	Hours Of Operation[3]	Reference Noise Level @ 50 Feet (Lmax dBA)	Cumulative Level @ 200 Feet (dBA)
Water Trucks	3	40%	3.2	78.0	78.8
Scrapers	2	40%	3.2	85.0	84.0
Graders	1	40%	3.2	85.0	81.0
Rubber Tired Dozers	1	40%	3.2	79.0	63.0
Tractors/Loaders/Backhoes	2	40%	3.2	78.0	77.0
Cumulative Hourly Noise Levels 200 Feet (Leq dBA)					87.1
Distance to 65 dBA Leq Contour (Feet)					2,534

[1] Source: FHWA's Roadway Construction Noise Model, January 2006.

[2] Estimates the fraction of time each piece of equipment is operating at full power during a construction operation.

[3] Represents the actual hours of peak construction equipment activity out of a typical 8 hour workday.

Table 4.3-7 Grading Construction Noise Levels[1]

Equipment Type	Quantity	Usage Factor[2]	Hours Of Operation[3]	Reference Noise Level @ 50 Feet (Lmax dBA)	Cumulative Level @ 200 Feet (dBA)
Water Trucks	3	40%	3.2	78.0	78.8
Scrapers	2	40%	3.2	85.0	84.0
Graders	1	40%	3.2	85.0	81.0
Rubber Tired Dozers	1	40%	3.2	79.0	63.0
Excavator	2	40%	3.2	81.0	80.0
Tractors/Loaders/Backhoes	2	40%	3.2	78.0	77.0
Cumulative Hourly Noise Levels 200 Feet (Leq dBA)					87.8
Distance to 65 dBA Leq Contour (Feet)					2,774

[1] Source: FHWA's Roadway Construction Noise Model, January 2006.

[2] Estimates the fraction of time each piece of equipment is operating at full power during a construction operation.

[3] Represents the actual hours of peak construction equipment activity out of a typical 8 hour workday.

Table 4.3-8 Building Construction Noise Levels[1]

Equipment Type	Quantity	Usage Factor[2]	Hours Of Operation[3]	Reference Noise Level @ 50 Feet (Lmax dBA)	Cumulative Level @ 200 Feet (dBA)
Tractors/Loaders/Backhoes	3	40%	3.2	78.0	78.8
Forklifts	3	20%	1.6	75.0	72.8
Cranes	2	16%	1.3	81.0	76.1
Generator Sets	1	50%	4.0	81.0	78.0
Welders	1	40%	3.2	74.0	70.0
Cumulative Hourly Noise Levels 200 Feet (Leq dBA)					83.2
Distance to 65 dBA Leq Contour (Feet)					1,622

[1] Source: FHWA's Roadway Construction Noise Model, January 2006.

[2] Estimates the fraction of time each piece of equipment is operating at full power during a construction operation.

[3] Represents the actual hours of peak construction equipment activity out of a typical 8 hour workday.

Table 4.3-9 Paving Construction Noise Levels[1]

Equipment Type	Quantity	Usage Factor[2]	Hours Of Operation[3]	Reference Noise Level @ 50 Feet (Lmax dBA)	Cumulative Level @ 200 Feet (dBA)
Pavers	2	50%	4.0	77.0	77.0
Paving Equipment	2	40%	3.2	76.0	75.0
Rollers	2	20%	1.6	80.0	76.0
Cumulative Hourly Noise Levels 200 Feet (Leq dBA)					80.9
Distance to 65 dBA Leq Contour (Feet)					1,242

[1] Source: FHWA's Roadway Construction Noise Model, January 2006.

[2] Estimates the fraction of time each piece of equipment is operating at full power during a construction operation.

[3] Represents the actual hours of peak construction equipment activity out of a typical 8 hour workday.

Table 4.3-10 Architectural Coating Noise Levels[1]

Equipment Type	Quantity	Usage Factor[2]	Hours Of Operation[3]	Reference Noise Level @ 50 Feet (Lmax dBA)	Cumulative Level @ 200 Feet (dBA)
Air Compressors	1	40%	3.2	78.0	74.0
Cumulative Hourly Noise Levels 200 Feet (Leq dBA)					74.0
Distance to 65 dBA Leq Contour (Feet)					565

[1] Source: FHWA's Roadway Construction Noise Model, January 2006.

[2] Estimates the fraction of time each piece of equipment is operating at full power during a construction operation.

[3] Represents the actual hours of peak construction equipment activity out of a typical 8 hour workday.

Table 4.3-11 Existing With Project Conditions Noise Contours

ID	Road	Segment	CNEL at 100 Feet (dBA)	Distance to Contour (Feet)			
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
1	Harley Knox Boulevard	West of I-215 Freeway	63.2	RW	76	164	353
2	Harley Knox Boulevard	I-215 SB Ramps to I-215 NB Ramps	64.8	RW	97	209	450
3	Harley Knox Boulevard	I-215 NB Ramps to Western Way	64.0	RW	86	185	399
4	Harley Knox Boulevard	East of Western Way	63.8	RW	83	179	386
5	Harley Knox Boulevard	West of Patterson Avenue	63.8	RW	83	179	385
6	Harley Knox Boulevard	East of Patterson Avenue	63.5	RW	79	170	367
7	Harley Knox Boulevard	West of Indian Street	65.2	RW	104	223	480
8	Harley Knox Boulevard	East of Indian Street	61.9	RW	62	134	290
9	Western Way	North of Harley Knox Boulevard	51.5	RW	RW	RW	58
10	Patterson Avenue	North of Harley Knox Boulevard	41.9	RW	RW	RW	RW
11	Patterson Avenue	South of Harley Knox Boulevard	51.7	RW	RW	RW	60
12	Indian Street	North of Nandina Avenue	58.0	RW	RW	73	157
13	Indian Street	South of Nandina Avenue	62.8	RW	71	153	331
14	Indian Street	North of Harley Knox Boulevard	63.6	RW	80	173	373
15	Indian Street	South of Harley Knox Boulevard	56.0	RW	RW	RW	116
16	Knox Street	North of Nandina Avenue	47.1	RW	RW	RW	RW
18	Perris Boulevard	South of San Michele Road	66.6	59	127	274	589
19	Perris Boulevard	North of Nandina Avenue	67.2	65	140	302	651
20	Perris Boulevard	South of Nandina Avenue	67.3	66	141	305	656
21	San Michele Road	West of Driveway 1	57.9	RW	RW	72	156
22	San Michele Road	Driveway 1 to Driveway 3	57.4	RW	RW	66	142
23	San Michele Road	Driveway 3 to Perris Boulevard	57.4	RW	RW	67	145
24	Nandina Avenue	West of Indian Street	51.6	RW	RW	RW	59
25	Nandina Avenue	Indian Street to Knox Street	56.8	RW	RW	61	132
26	Nandina Avenue	Knox Street to Driveway 2	55.6	RW	RW	RW	110
27	Nandina Avenue	Driveway 2 to Driveway 4	51.0	RW	RW	RW	RW
28	Nandina Avenue	Driveway 4 to Perris Boulevard	51.2	RW	RW	RW	56

[1] "RW" = Location of the respective noise contour falls within the right-of-way of the road

Table 4.3-12 Year 2017 Without Project Conditions Noise Contours

ID	Road	Segment	CNEL at 100 Feet (dBA)	Distance to Contour (Feet)			
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
1	Harley Knox Boulevard	West of I-215 Freeway	65.5	RW	108	232	499
2	Harley Knox Boulevard	I-215 SB Ramps to I-215 NB Ramps	68.2	76	163	351	757
3	Harley Knox Boulevard	I-215 NB Ramps to Western Way	67.6	70	150	323	695
4	Harley Knox Boulevard	East of Western Way	67.5	68	147	317	684
5	Harley Knox Boulevard	West of Patterson Avenue	67.5	68	147	317	683
6	Harley Knox Boulevard	East of Patterson Avenue	67.4	67	144	309	666
7	Harley Knox Boulevard	West of Indian Street	69.4	91	196	423	911
8	Harley Knox Boulevard	East of Indian Street	64.6	RW	94	202	436
9	Western Way	North of Harley Knox Boulevard	51.9	RW	RW	RW	62
10	Patterson Avenue	North of Harley Knox Boulevard	42.5	RW	RW	RW	RW
11	Patterson Avenue	South of Harley Knox Boulevard	52.4	RW	RW	RW	67
12	Indian Street	North of Nandina Avenue	63.7	RW	82	177	381
13	Indian Street	South of Nandina Avenue	67.5	68	146	314	676
14	Indian Street	North of Harley Knox Boulevard	67.7	71	152	328	706
15	Indian Street	South of Harley Knox Boulevard	61.5	RW	58	125	270
16	Knox Street	North of Nandina Avenue	51.2	RW	RW	RW	56
18	Perris Boulevard	South of San Michele Road	68.5	80	172	371	800
19	Perris Boulevard	North of Nandina Avenue	69.0	86	185	399	859
20	Perris Boulevard	South of Nandina Avenue	68.9	85	182	392	845
21	San Michele Road	West of Driveway 1	59.6	RW	RW	94	202
22	San Michele Road	Driveway 1 to Driveway 3	59.4	RW	RW	91	196
23	San Michele Road	Driveway 3 to Perris Boulevard	59.4	RW	RW	91	197
24	Nandina Avenue	West of Indian Street	58.6	RW	RW	81	174
25	Nandina Avenue	Indian Street to Knox Street	59.5	RW	RW	92	199
26	Nandina Avenue	Knox Street to Driveway 2	58.4	RW	RW	78	168
27	Nandina Avenue	Driveway 2 to Driveway 4	56.1	RW	RW	55	118
28	Nandina Avenue	Driveway 4 to Perris Boulevard	56.1	RW	RW	55	119

[1] "RW" = Location of the respective noise contour falls within the right-of-way of the road

Table 4.3-13 Year 2017 With Project Conditions Noise Contours

ID	Road	Segment	CNEL at 100 Feet (dBA)	Distance to Contour (Feet)			
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
1	Harley Knox Boulevard	West of I-215 Freeway	65.5	RW	108	232	499
2	Harley Knox Boulevard	I-215 SB Ramps to I-215 NB Ramps	68.3	77	165	356	768
3	Harley Knox Boulevard	I-215 NB Ramps to Western Way	67.7	71	152	328	707
4	Harley Knox Boulevard	East of Western Way	67.6	70	150	323	696
5	Harley Knox Boulevard	West of Patterson Avenue	67.6	69	150	323	695
6	Harley Knox Boulevard	East of Patterson Avenue	67.5	68	146	315	678
7	Harley Knox Boulevard	West of Indian Street	69.5	93	200	431	928
8	Harley Knox Boulevard	East of Indian Street	64.6	RW	94	202	436
9	Western Way	North of Harley Knox Boulevard	51.9	RW	RW	RW	62
10	Patterson Avenue	North of Harley Knox Boulevard	42.5	RW	RW	RW	RW
11	Patterson Avenue	South of Harley Knox Boulevard	52.4	RW	RW	RW	67
12	Indian Street	North of Nandina Avenue	63.8	RW	83	179	385
13	Indian Street	South of Nandina Avenue	67.6	70	150	324	697
14	Indian Street	North of Harley Knox Boulevard	67.9	73	157	337	727
15	Indian Street	South of Harley Knox Boulevard	61.5	RW	59	126	272
16	Knox Street	North of Nandina Avenue	51.2	RW	RW	RW	56
18	Perris Boulevard	South of San Michele Road	68.6	80	173	372	801
19	Perris Boulevard	North of Nandina Avenue	69.0	86	185	399	860
20	Perris Boulevard	South of Nandina Avenue	68.9	85	182	393	846
21	San Michele Road	West of Driveway 1	59.8	RW	RW	97	208
22	San Michele Road	Driveway 1 to Driveway 3	59.4	RW	RW	91	196
23	San Michele Road	Driveway 3 to Perris Boulevard	59.5	RW	RW	92	198
24	Nandina Avenue	West of Indian Street	58.6	RW	RW	81	174
25	Nandina Avenue	Indian Street to Knox Street	60.0	RW	RW	100	215
26	Nandina Avenue	Knox Street to Driveway 2	59.0	RW	RW	86	185
27	Nandina Avenue	Driveway 2 to Driveway 4	56.1	RW	RW	55	119
28	Nandina Avenue	Driveway 4 to Perris Boulevard	56.2	RW	RW	56	120

[1] "RW" = Location of the respective noise contour falls within the right-of-way of the road

Table 4.3-14 Existing Off-Site Project Related Traffic Noise Impacts

ID	Road	Segment	CNEL at 100 Feet (dBA)			Potential Significant Impact?[1]
			No Project	With Project	Project Addition	
1	Harley Knox Boulevard	West of I-215 Freeway	63.2	63.2	0.0	No
2	Harley Knox Boulevard	I-215 SB Ramps to I-215 NB Ramps	64.6	64.8	0.2	No
3	Harley Knox Boulevard	I-215 NB Ramps to Western Way	63.8	64.0	0.3	No
4	Harley Knox Boulevard	East of Western Way	63.5	63.8	0.3	No
5	Harley Knox Boulevard	West of Patterson Avenue	63.5	63.8	0.3	No
6	Harley Knox Boulevard	East of Patterson Avenue	63.2	63.5	0.3	No
7	Harley Knox Boulevard	West of Indian Street	64.9	65.2	0.3	No
8	Harley Knox Boulevard	East of Indian Street	61.9	61.9	0.0	No
9	Western Way	North of Harley Knox Boulevard	51.5	51.5	0.0	No
10	Patterson Avenue	North of Harley Knox Boulevard	41.9	41.9	0.0	No
11	Patterson Avenue	South of Harley Knox Boulevard	51.6	51.7	0.0	No
12	Indian Street	North of Nandina Avenue	57.6	58.0	0.3	No
13	Indian Street	South of Nandina Avenue	62.2	62.8	0.6	No
14	Indian Street	North of Harley Knox Boulevard	63.0	63.6	0.5	No
15	Indian Street	South of Harley Knox Boulevard	55.8	56.0	0.2	No
16	Knox Street	North of Nandina Avenue	47.1	47.1	0.0	No
18	Perris Boulevard	South of San Michele Road	66.5	66.6	0.0	No
19	Perris Boulevard	North of Nandina Avenue	67.3	67.2	0.0	No
20	Perris Boulevard	South of Nandina Avenue	67.3	67.3	0.0	No
21	San Michele Road	West of Driveway 1	57.4	57.9	0.5	No
22	San Michele Road	Driveway 1 to Driveway 3	57.4	57.4	0.0	No
23	San Michele Road	Driveway 3 to Perris Boulevard	57.4	57.4	0.1	No
24	Nandina Avenue	West of Indian Street	51.6	51.6	0.0	No
25	Nandina Avenue	Indian Street to Knox Street	55.7	56.8	1.1	No
26	Nandina Avenue	Knox Street to Driveway 2	54.1	55.6	1.6	No
27	Nandina Avenue	Driveway 2 to Driveway 4	51.0	51.0	0.0	No
28	Nandina Avenue	Driveway 4 to Perris Boulevard	51.0	51.2	0.3	No

[1] A significant impact occurs when the noise level exceeds 65 dBA CNEL and the project generates a noise level increase of greater than 3.0 dBA.

Table 4.3-15 Year 2017 Off-Site Project Related Traffic Noise Impacts

ID	Road	Segment	CNEL at 100 Feet (dBA)			Potential Significant Impact?[1]
			No Project	With Project	Project Addition	
1	Harley Knox Boulevard	West of I-215 Freeway	65.5	65.5	0.0	No
2	Harley Knox Boulevard	I-215 SB Ramps to I-215 NB Ramps	68.2	68.3	0.1	No
3	Harley Knox Boulevard	I-215 NB Ramps to Western Way	67.6	67.7	0.1	No
4	Harley Knox Boulevard	East of Western Way	67.5	67.6	0.1	No
5	Harley Knox Boulevard	West of Patterson Avenue	67.5	67.6	0.1	No
6	Harley Knox Boulevard	East of Patterson Avenue	67.4	67.5	0.1	No
7	Harley Knox Boulevard	West of Indian Street	69.4	69.5	0.1	No
8	Harley Knox Boulevard	East of Indian Street	64.6	64.6	0.0	No
9	Western Way	North of Harley Knox Boulevard	51.9	51.9	0.0	No
10	Patterson Avenue	North of Harley Knox Boulevard	42.5	42.5	0.0	No
11	Patterson Avenue	South of Harley Knox Boulevard	52.4	52.4	0.0	No
12	Indian Street	North of Nandina Avenue	63.7	63.8	0.1	No
13	Indian Street	South of Nandina Avenue	67.5	67.6	0.2	No
14	Indian Street	North of Harley Knox Boulevard	67.7	67.9	0.2	No
15	Indian Street	South of Harley Knox Boulevard	61.5	61.5	0.0	No
16	Knox Street	North of Nandina Avenue	51.2	51.2	0.0	No
18	Perris Boulevard	South of San Michele Road	68.5	68.6	0.0	No
19	Perris Boulevard	North of Nandina Avenue	69.0	69.0	0.0	No
20	Perris Boulevard	South of Nandina Avenue	68.9	68.9	0.0	No
21	San Michele Road	West of Driveway 1	59.6	59.8	0.2	No
22	San Michele Road	Driveway 1 to Driveway 3	59.4	59.4	0.0	No
23	San Michele Road	Driveway 3 to Perris Boulevard	59.4	59.5	0.0	No
24	Nandina Avenue	West of Indian Street	58.6	58.6	0.0	No
25	Nandina Avenue	Indian Street to Knox Street	59.5	60.0	0.5	No
26	Nandina Avenue	Knox Street to Driveway 2	58.4	59.0	0.6	No
27	Nandina Avenue	Driveway 2 to Driveway 4	56.1	56.1	0.0	No
28	Nandina Avenue	Driveway 4 to Perris Boulevard	56.1	56.2	0.1	No

[1] A significant impact occurs when the noise level exceeds 65 dBA CNEL and the project generates a noise level increase of greater than 3.0 dBA.

Table 4.3-16 Reference Noise Level Measurements[1]

Noise Source	Duration (mm:ss)[4]	Distance From Source (Feet)	Noise Source Height (Feet)	Drop-Off Rate[5] (Leq dBA)	Noise Level (Leq dBA)
Loading Dock Activities[1]	1:00	20.0	8.0	6.0	77.3
Truck Pass-By[2]	1:00	30.0	8.0	6.0	69.5
Air Condenser Units[3]	-	10.0	5.0	6.0	73.0

[1] As measured by Urban Crossroads, Inc. on 4/14/11.

[2] As measured by Urban Crossroads, Inc. on 4/14/11.

[3] Data provided by the Krack Technical Bulletin: 0607_469 Rev 0509

[4] Noise measurement duration is consistent will approximate time for each event to occur.

[5] Noise level (dBA) drop-off rate per doubling of distance.

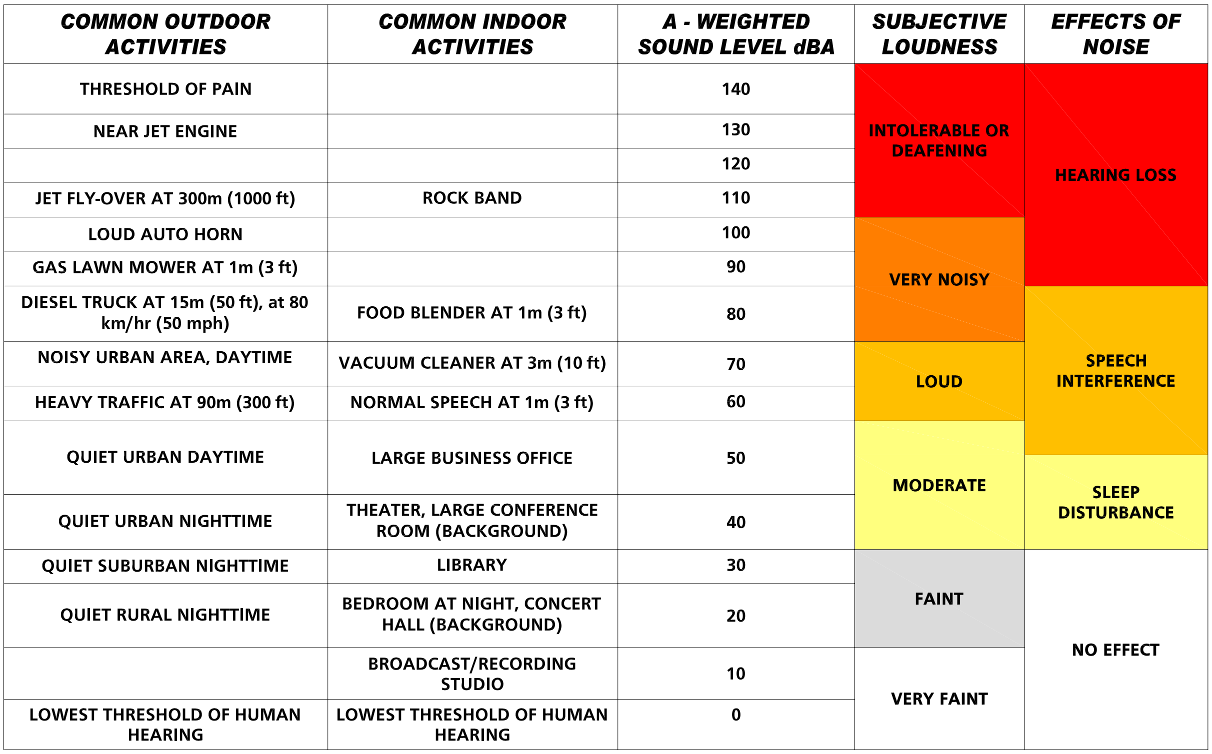
Table 4.3-17 Project Only Stationary Source Impact Noise Level Projections

Noise Source	Reference Noise Level Distance (Feet)	Reference Noise Level (dBA)	Distance From Source To Property Line (Feet)	Source Noise Level At Property Line (dBA)	Reference Noise Level At 200 Feet From Property Line
Loading Dock Activities	20'	77.3	60.0	67.8	47.8
Truck Pass-By	30'	69.5	30.0	69.5	53.0
Air Condenser Units	10'	73.0	60.0	57.4	31.4
Overall Unmittigated Noise Level At 200 Feet From Property Line:					**54.2**

Source: RCTLMA (2012), Google Earth (2012)

Figure 4.3-1

Off-Site Noise Sensitive Receptors



COMMON OUTDOOR ACTIVITIES	COMMON INDOOR ACTIVITIES	A - WEIGHTED SOUND LEVEL dBA	SUBJECTIVE LOUDNESS	EFFECTS OF NOISE
THRESHOLD OF PAIN		140	INTOLERABLE OR DEAFENING	HEARING LOSS
NEAR JET ENGINE		130		
		120		
JET FLY-OVER AT 300m (1000 ft)	ROCK BAND	110		
LOUD AUTO HORN		100	VERY NOISY	
GAS LAWN MOWER AT 1m (3 ft)		90		
DIESEL TRUCK AT 15m (50 ft), at 80 km/hr (50 mph)	FOOD BLENDER AT 1m (3 ft)	80		SPEECH INTERFERENCE
NOISY URBAN AREA, DAYTIME	VACUUM CLEANER AT 3m (10 ft)	70	LOUD	
HEAVY TRAFFIC AT 90m (300 ft)	NORMAL SPEECH AT 1m (3 ft)	60		
QUIET URBAN DAYTIME	LARGE BUSINESS OFFICE	50	MODERATE	
QUIET URBAN NIGHTTIME	THEATER, LARGE CONFERENCE ROOM (BACKGROUND)	40		SLEEP DISTURBANCE
QUIET SUBURBAN NIGHTTIME	LIBRARY	30	FAINT	NO EFFECT
QUIET RURAL NIGHTTIME	BEDROOM AT NIGHT, CONCERT HALL (BACKGROUND)	20		
	BROADCAST/RECORDING STUDIO	10	VERY FAINT	
LOWEST THRESHOLD OF HUMAN HEARING	LOWEST THRESHOLD OF HUMAN HEARING	0		

SOURCE: NOISE TECHNICAL SUPPLEMENT BY CALTRANS

Source: Urban Crossroads (10-31-12)

FIGURE 4.3-2

Typical Noise Levels and Their Subjective Loudness and Effects

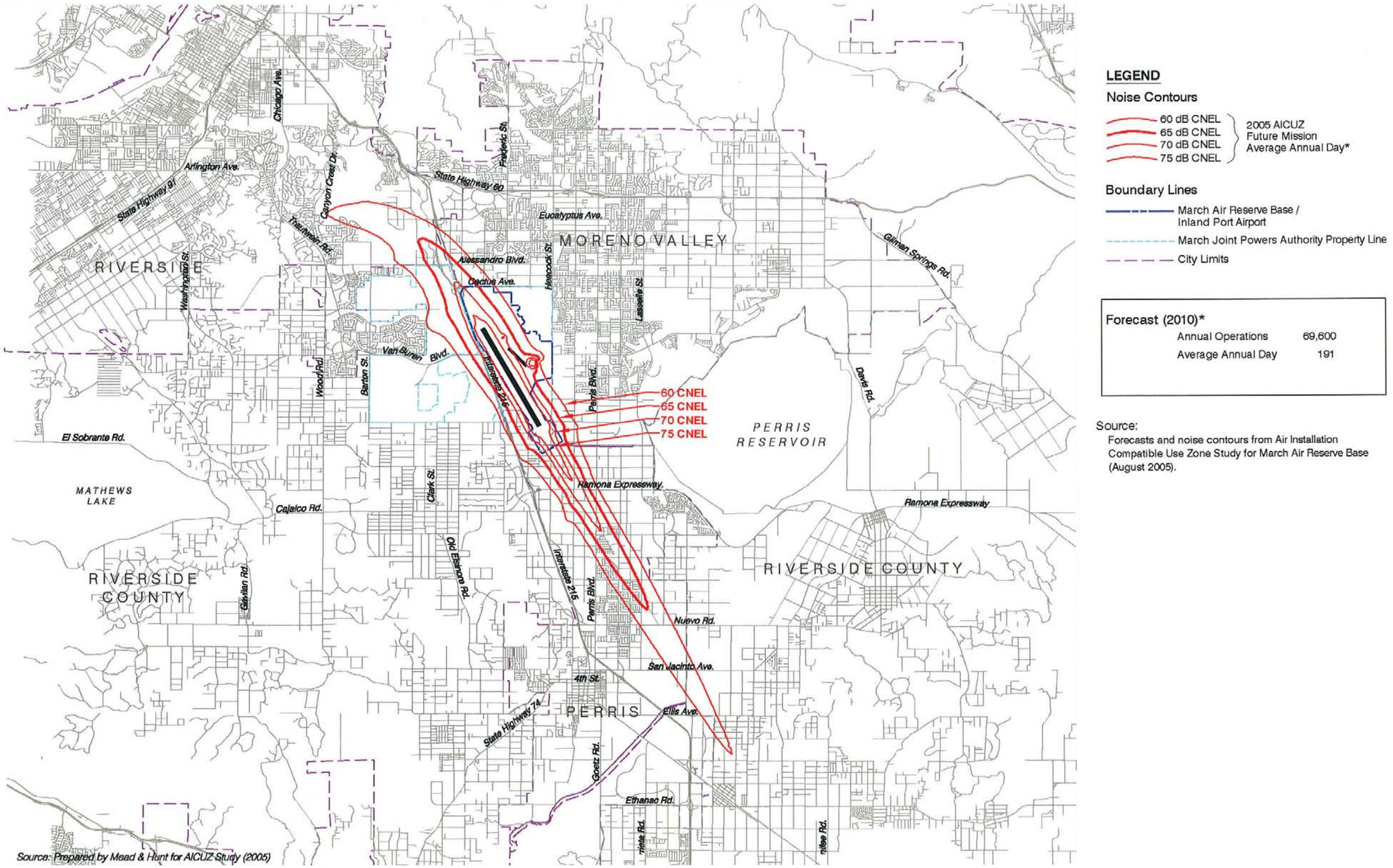
Item No. E.1

LEGEND:

(L5) = LONG-TERM, 24-HOUR, NOISE MEASUREMENT LOCATION

Source: Urban Crossroads (10-31-12)

FIGURE 4.3-3
Noise Measurement Locations



Forecast (2010)*

Annual Operations	69,600
Average Annual Day	191

Source:
Forecasts and noise contours from Air Installation Compatible Use Zone Study for March Air Reserve Base (August 2005).

FIGURE 4.3-4
March Reserve Air Base Noise Contours

4.4 TRANSPORTATION/TRAFFIC

The following analysis is based on a technical traffic study prepared by Urban Crossroads, Inc., titled "First Inland Logistics II Traffic Impact Analysis, City of Moreno Valley, California" and dated January 3, 2013 (*Technical Appendix F*). The report considers potential traffic impacts associated with construction and operation of the proposed Project and recommends improvements to mitigate impacts considered significant in comparison to stated thresholds. The traffic study was prepared in accordance with the City of Moreno Valley Transportation Engineering Division's *Traffic Impact Analysis Preparation Guide* (dated August 2007).

4.4.1 STUDY AREA DESCRIPTION

The study area for purposes of determining traffic impacts, as shown on Figure 4.4-1, *Project Study Area/ Intersection Locations,* is defined in conformance with the requirements of the City of Moreno Valley's Traffic Impact Analysis (TIA) Preparation Guide. Based on these guidelines, the minimum area to be studied shall include any intersection of "Collector" or higher classification street, with "Collector" or higher classification streets, at which the proposed Project would add 50 or more peak hour trips. The "50 peak hour trip" criteria utilized by the City of Moreno Valley is consistent with the methodology employed by other jurisdictions throughout Riverside County and generally represents a threshold of trips at which a typical intersection would have the potential to be impacted. Although each intersection may have unique operating characteristics, this traffic engineering rule of thumb is a valid and proven way to establish a study area (Urban Crossroads, 2013, p. 4). Intersections and connecting roadway segments that would not receive more than 50 peak hour trips from the Project are not included in the study area. Based on a comparison of the trip generation information provided in Table 4.4-1, *Project Trip Generation Summary,* with the trip distribution patterns depicted on Figure 4.4-2, *Project (Passenger Car) Trip Distribution,* and Figure 4.4-3, *Project (Truck) Trip Distribution,* the proposed Project would not contribute more than 50 peak hour trips to any road segments or intersections located within the City of Riverside or unincorporated Riverside County; thus, intersections and roadway segments in those jurisdictions do not warrant analysis.

A. Roadway Segments

A total of 28 roadway segments are identified in the study area for analysis based on a review of the key roadway segments in which the Project is anticipated to contribute 50 or more peak hour trips. Table 4.4-2, *Roadway Segment Analysis Locations,* provides a summary of the study area roadway segments, each with an ID number and jurisdiction noted. There are no future roadway segments that would be constructed as part of the Project. Refer to Figure 4.4-1, *Project Study Area/ Intersection Locations,* for Project study area roadway locations.

B. Intersections

A total of 13 intersections, as shown in Table 4.4-3, *Intersection Analysis Locations* are included in the Project study area based on the City's TIA analysis methodology and input from the City of Moreno Valley Traffic Engineering Division. An ID number is assigned to each intersection and jurisdictional locations are identified in Table 4.4-3. Intersections that would be developed as part of the Project and do not currently exist also are identified in Table 4.4-3.

C. Freeway Mainline Segments

Consistent with California Department of Transportation (Caltrans) traffic study guidelines, there are four (4) freeway mainline analysis locations in the Project study area, including segments on Interstate 215 (I-215 Freeway) on either side of the Harley Knox Boulevard interchange where the proposed Project is anticipated to contribute 100 or more two-way peak hour trips. The study area freeway mainline segments are identified in Table 4.4-4, *Freeway Mainline Segments*. All freeway mainline segments are under the jurisdiction of Caltrans.

D. Freeway Merge/Diverge Ramp Junctions

There are four (4) merge/diverge ramp junction locations in the Project's study area for the I-215 Freeway for both northbound and southbound directions of flow as shown in Table 4.4-5, *Freeway Merge/Diverge Ramp Junctions*. All freeway ramp junctions are under the jurisdiction of Caltrans.

4.4.2 EXISTING CONDITIONS

Regional access is provided to the Project site via I-215, which is located approximately 1.9 miles west of the site, and State Route 60 (SR-60), located approximately 4.9 miles north of the site. The 17.3-acre Project site is located in the City of Moreno Valley, immediately north of Nandina Avenue, immediately south of San Michele Road, and immediately east of Perris Boulevard. Figure 4.4-4, *City of Moreno Valley General Plan Circulation Element*, and Figure 4.4-5, *City of Moreno Valley General Plan Roadway Cross-Sections*, show the City's roadway designations and cross-sections for the major roads surrounding the Project site in the City of Moreno Valley.

A. Existing Traffic Counts

Manual AM and PM peak hour turning movement counts at study area intersections were collected by Urban Crossroads, Inc. in January 2010, March 2011, and October 2011. The counts include the vehicle classifications as shown below, per City of Moreno Valley TIA requirements:

- Passenger Cars
- 2-Axle Trucks
- 3-Axle Trucks
- 4 or More Axle Trucks

To represent the impact that large trucks, buses, and recreational vehicles have on traffic flow, all trucks were converted into Passenger Car Equivalents (PCEs) for the purpose of conducting the traffic analysis. By their size alone, these vehicles occupy the same space as two or more passenger cars. In addition, the time it takes for large vehicles to accelerate and slowdown is also much longer than for passenger cars, and varies depending on the type of vehicle and number of axles. For the purpose of the Project's traffic impact analysis in *Technical Appendix F* and this EIR Subsection, a PCE factor of 1.5 was applied to 2-axle trucks, 2.0 for 3-axle trucks, and 3.0 for 4+-axle trucks to estimate each turning movement.

Existing (2012) average daily traffic (ADT) volumes on arterial highways throughout the study area are shown on Figure 4.4-6, *Existing (2012) Average Daily Traffic (ADT)*. Existing (2012) ADT volumes are based upon factored intersection peak hour counts collected by Urban Crossroads, Inc. using the following formula for each intersection leg:

PM Peak Hour (Approach Volume + Exit Volume) x 12 = Leg Volume

Based on a comparison of PM peak hour traffic count data to 24-hour traffic counts collected along roadway segments in close proximity to the study area, Urban Crossroads determined that the PM peak hour volumes are approximately eight (8) percent of the total 24-hour daily volume on select segments. As such, it was determined that the above equation could be utilized to approximate the ADT volume on the study area segments based on the same relationship (i.e., eight percent PM peak-to-daily relationship). Existing (2012) AM and PM peak hour intersection volumes are shown on Figure 4.4-7, *Existing (2012) AM Peak Hour Intersection Volumes*, and Figure 4.4-8, *Existing (2012) PM Peak Hour Intersection Volumes*, respectively. All of the traffic volumes illustrated on the exhibits and used in the traffic analysis are shown in terms of PCE (Urban Crossroads, 2013, p. 43).

B. Existing Roadway Conditions

Based on the methodology presented below in Subsection 4.4.3B, all 28 existing roadway segments in the study area operate at an acceptable level of service (LOS) (with 26 segments operating at LOS "A"). Existing (2012) ADT is shown on Figure 4.4-6. Table 4.4-6, *Existing (2012) Conditions Roadway Volume/Capacity Analysis*, summarizes the Existing (2012) conditions roadway segment capacity based on the methodology presented in Subsection 4.4.3B. All of the existing study area roadways operate at acceptable LOS during peak hours.

C. Existing Intersection Conditions

Figure 4.4-9, *Existing Number of Through Traffic Lanes and Intersection Controls*, shows the characteristics of each of the existing nine (9) Project study area intersections. (The other four (4) intersections in the study area, as shown in Table 4.4-8, *Intersection Analysis for Existing (2012) Conditions*, are future planned intersections that do not currently exist.) Based on the methodology presented in Subsection 4.4.3B, all of the existing study area intersections operate at acceptable LOS during peak hours. Existing (2012) AM and PM peak hour intersection volumes are shown on Figure 4.4-7 and Figure 4.4-8.

D. Existing Freeway Ramp Conditions

Ramp merge and diverge operations were evaluated for Existing (2012) baseline conditions. The results, as shown in Table 4.4-9, *I-215 Freeway Ramp Junction Merge/Diverge Analysis For Existing (2012) Baseline Conditions*, indicate that the I-215 Freeway ramp merge and diverge areas at Harley Knox Boulevard currently operate at LOS "E" or better during the peak hours under Existing (2012) baseline traffic conditions.

E. Existing Freeway Segment Conditions

Existing (2012) mainline directional volumes for the I-215 Freeway for the AM and PM peak hours are shown on Figure 4.4-10, *Existing (2012) Baseline I-215 Freeway Mainline Volumes*. As shown in

Table 4.4-10, *Existing (2012) Baseline Conditions Basic Freeway Segment Analysis*, I-215 Freeway segments in the study operate at an acceptable LOS during the peak hours for Existing (2012) traffic conditions.

F. Existing Mass Transit

The Project study area is served by the Riverside Transit Agency (RTA) with bus services along Perris Boulevard via Route 19. The nearest stops to the Project site for RTA Route 19 are on Perris Boulevard, south of San Michele Road (for southbound direction), north of Nandina Avenue (for the northbound direction) and south of Nandina Avenue (for the southbound direction). (Urban Crossroads, 2013, pp. 29, 38)

G. Existing Bicycle and Pedestrian Facilities

Field observations conducted by Urban Crossroads, Inc. in May 2012 indicate nominal pedestrian and bicycle activity within the study area (Urban Crossroads, 2013, p. 35). Figure 4.4-11, *City of Moreno Valley Master Plan of Trails,* shows that there are no trails or planned trails within the study area. Figure 4.4-12, *City of Moreno Valley Bike Plan,* shows planned bikeway routes in the area. A Class III bikeway is planned within the vicinity of the Project site along Indian Street north of San Michele Road and along San Michele Road west of Indian Street (Urban Crossroads, 2013, p. 38).

H. Existing Truck Routes

Figure 4.4-13, *City of Moreno Valley Truck Routes*, shows the designated truck route map for the City. Harley Knox Boulevard, Perris Boulevard, Indian Street, San Michele Road and Nandina Avenue are all designated truck routes. The map is used to predict the route of truck traffic under future conditions (Urban Crossroads, 2013, p. 38).

I. Existing Regional Transportation Programs and Plans

Provided below is a discussion of existing planning efforts, programs, and policies regarding transportation that have applicability to the proposed Project.

☐ County of Riverside Congestion Management Program (CMP)

The Riverside County CMP was prepared by the Riverside County Transportation Commission (RCTC) in accordance with Proposition 111, passed in June 1990. The CMP was established in the State of California to more directly link land use, transportation, and air quality and to prompt reasonable growth management programs that would more effectively utilize new and existing transportation funds, alleviate traffic congestion and related impacts, and improve air quality. Deficiencies along the CMP system must be identified when they occur so that improvement measures can be identified. Understanding the reason for these deficiencies and identifying ways to reduce the impact of future growth and development along a critical CMP corridor is intended to conserve scarce funding resources and help target those resources appropriately. In the vicinity of the Project site, I-215 is the only CMP Roadway (Riverside County Transportation Commission, 2010, pp. 2-5).

❑ City of Moreno Valley General Plan Circulation Element

The purpose of the City of Moreno Valley's Circulation Element is to ensure a complete, balanced, and well-maintained circulation system that relies on vehicular travel and transit, and incorporates alternative modes including bikeways and pedestrian facilities (City of Moreno Valley, 2006a). A primary objective of the Circulation Element is to ensure that the effects of future new development on the City's transportation system are understood and that the improvements needed to support new growth are planned and properly funded. Refer to Figure 4.4-4 and Figure 4.4-5 for illustrations of the City's Circulation Element exhibits.

❑ Riverside County Integrated Project (RCIP)

The RCIP is Riverside County's comprehensive, three-part, integrated program to determine future habitat conservation, transportation, and housing and economic needs in Riverside County. The RCIP addresses traffic congestion by addressing future traffic and multi-model circulation issues through the Community & Environmental Transportation Acceptability Process (CETAP). This element of RCIP identifies the locations for new transportation facilities that will help benefit commuters and serve Riverside County's growing economy. Selection of new transportation corridors are intended to be integrated with decisions on land use and environmentally sensitive areas (County of Riverside, 2003a).

❑ Regional Transportation Plan (RTP)

The Southern California Association of Governments (SCAG) is a regional agency established pursuant to California Government Code §6500, also referred to as the Joint Powers Authority law. SCAG is designed as a Council of Governments (COG), a Regional Transportation Planning Agency (RTPA), and a Metropolitan Planning Organization (MPO). The Project site is within SCAG's regional authority. In 2012, SCAG prepared a Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) with goals to: 1) align the plan investments and policies with improving regional economic development and competitiveness; 2) maximize mobility and accessibility for all people and goods in the region; 3) ensure travel safety and reliability for all people and goods in the region; 4) preserve and ensure a sustainable regional transportation system; 5) maximize the productivity of the transportation system; 6) protect the environment and health of residents by improving air quality and encouraging active transportation; 7) encourage and incentivize energy efficiency; 8) encourage land use and growth patterns that facilitate transit and non-motorized transportation; and 9) maximize the security of the transportation system (Southern California Association of Governments, 2012, p. 29). Performance measures and funding strategies also are included to ensure that the adopted goals are achieved through implementation.

4.4.3 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to transportation/traffic if the Project or any Project-related component would:

1. *Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;*

2. *Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;*

3. *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;*

4. *Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment);*

5. *Result in inadequate emergency access; or*

6. *Conflict with adopted policies or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.*

A. Determining Significance of Impacts

❑ Roadway Segments and Intersections

Based on the *City of Moreno Valley TIA Preparation Guide*, a significant direct traffic impact under CEQA occurs when the addition of project traffic causes an intersection that operates at an acceptable level of service (i.e., typically LOS "D" or better) to fall to an unacceptable level of service (i.e., typically LOS "E" or "F"). For purposes of determining the significance of impacts in this Subsection:

- If an intersection is projected to operate at an acceptable level of service without the Project and the addition of Project traffic as measured by 50 or more peak hour trips is expected to cause the intersection to operate at an unacceptable level of service the impact is considered a significant direct impact.
- If an intersection is projected to operate at an unacceptable level of service without the Project, and the Project contributes 50 or more peak hour trips, the impact is considered a significant direct impact.
- A significant cumulative impact is identified when a roadway segment or intersection is projected to operate at an unacceptable LOS with the addition of future traffic and a Project-related traffic increase of 50 or more peak hour trips. Cumulative traffic impacts are created as a result of a combination of the proposed Project together with other future developments contributing to the overall traffic impacts requiring additional improvements to maintain acceptable LOS operations with or without the Project. The Project's contribution to a cumulatively significant impact can be reduced to less-than-significant if the Project is required to implement or fund its fair share of improvements designed to alleviate the potential cumulative impact. If full funding of future cumulative improvements is not reasonably assured, a temporary unmitigated cumulative impact may occur until the needed improvement is fully funded and constructed.

☐ Freeway Segments and Ramp Junctions

RCTC has determined that freeway segments and ramp junctions that operate below LOS "E" should be identified and improved to an acceptable LOS; however, specific criteria to identify project-related impacts are not specified by RCTC or in the Caltrans Traffic Impact Study guidelines.

For the purposes of the analysis in this Subsection and in accordance with the adopted Riverside County CMP, if a freeway segment is projected to operate at an acceptable level of service (i.e., LOS "E" or better) without the Project and the Project is expected to cause the facility to operate at an unacceptable level of service (i.e., LOS "F"), the Project's direct impact is considered significant. If the facility would operate at a deficient LOS without the Project, the addition of 100 ADT or more of Project traffic would be considered a cumulative impact.

B. Methodology

☐ Level of Service

Traffic operations of roadway facilities are described using the term "Level of Service" (LOS). LOS is a qualitative description of traffic flow based on several factors such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined ranging from LOS "A," representing completely free-flow conditions, to LOS "F," representing breakdown in flow resulting in stop-and-go conditions. LOS "E" represents operations at or near capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow.

The definition of an intersection deficiency in the City of Moreno Valley is based on the City of Moreno Valley General Plan Circulation Element. The City of Moreno Valley General Plan states that target LOS "C" or LOS "D" be maintained along City roads (including intersections) wherever possible. Figure 4.4-14, *City of Moreno Valley Level of Service (LOS) Standards,* and Table 4.4-11, *Moreno Valley Roadway Segment Capacity LOS Thresholds*, shows the LOS standards and capacities within the City. Table 4.4-12, *Perris Roadway Segment Capacity LOS Thresholds1*, summarizes the City of Perris daily roadway segment capacities thresholds.

Caltrans, the County of Riverside, and the City of Perris have established explicit LOS performance criteria related to determining the significance of impacts on the roadway system within their jurisdictions. Generally, LOS "D" is considered to be the limit of acceptable traffic operations during the peak hour in these jurisdictions. LOS "D" is therefore used as the significance threshold in this Subsection for these jurisdictions, except for the intersections of I-215 Southbound Ramps/Harley Knox Boulevard and I-215 Northbound Ramps/Harley Knox Boulevard, which allow LOS "E" (per City of Perris General Plan Circulation Element Policy II.A). Daily roadway segment capacities thresholds for the City of Perris are summarized in Table 4.4-12. RCTC has adopted LOS "E" as the minimum standard for intersections and segments along the CMP System of Highways and Roadways. Therefore, for the purposes of the traffic impact analysis, LOS "E" is considered to be the limit of acceptable traffic operations for the I-215 Freeway mainline segments and ramp junctions (Urban Crossroads, 2013, p. 27).

☐ Roadway Segment Capacity Analysis

Roadway segment operations are evaluated using the City of Moreno Valley Daily Roadway Capacity Values provided in the *City of Moreno Valley TIA Preparation Guide*. Per the TIA

Preparation Guide, daily roadway segments in the City of Moreno Valley should maintain the LOS capacities illustrated in Figure 4.4-14. Daily roadway segment capacities thresholds for the City of Perris are summarized in Table 4.4-12, *Perris Roadway Segment Capacity LOS Thresholds1*.

The daily roadway segment capacities for each type of roadway are summarized in Table 4.4-11 and Table 4.4-12. Roadway segment capacities are approximate figures only, and are used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet future traffic demands. These roadway capacities are "rule of thumb" estimates for planning purposes. As such, where the ADT-based roadway segment analysis indicates a deficiency (unacceptable LOS), a review of the more detailed peak hour intersection analysis and progression analysis is undertaken. The more detailed peak hour intersection analysis explicitly accounts for factors that affect roadway capacity. Therefore, roadway segment widening is typically only recommended if the peak hour intersection analysis indicates the need for additional through lanes. (Urban Crossroads, 2013, p. 20)

☐ Intersection Capacity Analysis

The intersection LOS analysis is based on the traffic volumes calculated for the peak hour conditions. The following peak hours were selected for analysis because these hours typically experience the most traffic during a 24-hour period:

- Weekday AM Peak Hour (peak hour between 7:00 AM and 9:00 AM)
- Weekday PM Peak Hour (peak hour between 4:00 PM and 6:00 PM)

For signalized intersections, the City of Moreno Valley requires operations analysis based on the methodology described in Chapter 16 of the Highway Capacity Manual (HCM). Intersection LOS operations are based on an intersection's average control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections, LOS is directly related to the average control delay per vehicle and is correlated to a LOS designation as described in Table 4.4-13, *Signalized Intersection LOS Thresholds*. For a more detailed discussion of intersection capacity analysis see Section 2.2 of *Technical Appendix F*.

For unsignalized intersections, the City of Moreno Valley requires that operations be evaluated using the methodology described in Chapter 17 of the HCM. The LOS rating is based on the weighted average control delay expressed in seconds per vehicle, as shown in Table 4.4-7. At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. For all-way stop controlled intersections, LOS is computed for the intersection as a whole. (Urban Crossroads, 2013, p. 19)

☐ Traffic Signal Warrant Analysis

The term "signal warrants" refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or ascertain the potential need for installation of a traffic signal at an otherwise unsignalized intersection. The signal warrant criteria presented in the latest edition of the Federal Highway Administration's (FHWA) *Manual on Uniform Traffic Control Devices* (MUTCD), as amended by the *MUTCD 2003 California Supplement*, is used for all study area intersections.

Traffic signal warrant analyses were performed at the following unsignalized study area intersections: Western Way / Harley Knox Boulevard, Knox Street / Nandina Avenue, Driveway 1 / San Michele Road, Driveway 2 / Nandina Avenue, Driveway 3 / San Michele Road, and Driveway 4 / Nandina Avenue. A signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this threshold condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. Signal warrants do not necessarily correlate with level of service. An intersection may satisfy a signal warrant condition and operate at or above LOS "C" or operate below LOS "C" and not meet a signal warrant. For more information on signal warrant methodology, refer to Section 2.6 of *Technical Appendix F* (Urban Crossroads, 2013, pp. 23, 24).

❑ Freeway Mainline Segment Analysis

The study area includes segments of the I-215 Freeway, from north of and south of Harley Knox Boulevard, and includes the freeway-to-arterial interchanges of the I-215 Freeway with the Harley Knox Boulevard ramps. Consistent with Caltrans requirements, the progression of vehicles has been assessed to determine potential queuing lengths at the freeway ramp intersections on Harley Knox Boulevard and the I-215 Freeway.

The traffic progression analysis tool and HCM intersection analysis program, HCS+ software, was used to assess the potential needs of the intersections with traffic added from the proposed Project. The performance measure preferred by Caltrans to calculate LOS is density. Density is expressed in terms of passenger cars per mile per lane. Table 4.4-11 illustrates the freeway segment LOS thresholds for each density range utilized for this analysis. For more information on queuing analysis methodology, refer to Section 2.4 of *Technical Appendix F*.

The Riverside County Transportation Commission (RCTC) has plans in place for the widening of the I-215 Freeway through the study area; however, a schedule for the widening of I-215 between Nuevo Road in the City of Perris and Box Springs Road in the City of Riverside has not be set, due to the state's ongoing budget challenges. The I-215 North Project will add a carpool lane (high-occupancy vehicle land) in each direction to a 10.75-mile section of the I-215 freeway. As such, the future expansion of the I-215 Freeway has been assumed for "with improvements" conditions only and not assumed as the base condition in the basic freeway segment analysis (Urban Crossroads, 2013, p. 22).

❑ Freeway Merge/Diverge Ramp Junction Analysis

The study area, I-215 from north of and south of Harley Knox Boulevard, was broken into four (4) segments defined by the freeway-to-arterial interchange locations. The merge/diverge analysis is based on the HCM Ramps and Ramp Junctions analysis method and performed using HCS+ software. The results (reported in passenger car/mile/lane) are calculated based on the existing number of travel lanes, number of lanes at the on- and off-ramps both at the analysis junction and at upstream and downstream locations (if applicable), and acceleration/deceleration lengths at each merge/diverge point. Table 4.4-14, *Freeway Mainline LOS Thresholds*, presents the merge/diverge area LOS thresholds for each density range utilized for this analysis (Urban Crossroads, 2013, p. 23).

Meters are not installed at the Harley Knox Boulevard/I-215 ramps; therefore, a ramp meter analysis is not required.

❑ Background Traffic

Future year traffic forecasts are based upon five (5) years of background (ambient) growth at 2% per year for 2017 traffic conditions. The ambient growth factor is intended to approximate regional traffic growth. The total ambient growth is 10.4% for 2017 traffic conditions (compounded growth of 2% per year over five years). This ambient growth rate is added to existing traffic volumes to account for area-wide growth not reflected by known cumulative development projects analyzed by *Technical Appendix F*. According to information published by the Riverside County Center for Demographic Research (RCCDR) and used as the basis for completing the *Western Riverside Council of Governments (WRCOG) Transportation Uniform Mitigation Fee (TUMF) Nexus Study – 2009 Program Update*, the population of Western Riverside County is projected to increase by 62% in the period between 2007 and 2035, a compounded rate of approximately 1.73% annually. During the same period, employment in Western Riverside County is expected to increase by 111% or 2.71% annually. Therefore, the use of an annual growth rate of 2.0% is consistent with the anticipated regional growth in traffic volumes (Urban Crossroads, 2013, p. 57).

❑ Cumulative Impact Analysis

CEQA Guidelines §15130 requires that an EIR include the discussion of a Project's cumulative impacts. For the purpose of analyzing the proposed Project's cumulative effects on traffic, and in accordance with the *City of Moreno Valley's TIA Preparation Guide* (dated August 2007), a comprehensive list of 53 other known approved or reasonably foreseeable development projects in the study area was compiled. See Figure 4.4-15, *Cumulative Development Projects Location Map*, for locations of the development projects considered. Information about each development project can be found in Section 4.6 of *Technical Appendix F*. These 52 projects are calculated to generate 248,824 net passenger car equivalent (PCE) trip-ends per day during a typical weekday with approximately 21,484 net PCE vehicle trips during the AM peak hour and 25,545 net PCE vehicle trips during the PM peak hour. For specific projects not listed that fall outside of the study area, the traffic from those projects is captured by the 2.0% compounded annual growth rate.

Based on the identified trip distribution patterns for the cumulative development projects on arterial highways throughout the study area, cumulative development ADT volumes, AM peak hour, and PM peak hour intersection turning movement volumes are shown on Figure 4.4-16, *Cumulative Development Average Daily Traffic (ADT), Figure 4.4-17*, *Cumulative Development AM Peak Hour Intersection Volumes*, and Figure 4.4-18, *Cumulative Development PM Peak Hour Intersection Volumes*, respectively.

4.4.4 IMPACT ANALYSIS

Threshold 1: Would the proposed Project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

The Project proposes to construct two (2) driveways onto San Michele Road, construct two (2) driveways onto Nandina Avenue, and improve the site-adjacent roadways Nandina Avenue, Perris Boulevard, and San Michele Road. The proposed roadway improvements are described in Section 3.0, *Project Description*, and will be enforced as part of the Project's Conditions of Approval, which will be issued by the City of Moreno Valley prior to consideration of the proposed Project by the City Council. The construction of these roadway improvements is assumed throughout the analyses. The analysis of Threshold 1 focuses on potential impacts to local roadways, based on acceptable LOS standards established by the City of Moreno Valley General Plan and the general plans of surrounding jurisdictions. Refer to Threshold 2 for Analysis of potential impacts to I-215 based on acceptable LOS standards established by the Riverside County Congestion Management Plan.

A. Project Trip Generation and Distribution

Trip generation represents the amount of traffic that is attracted to and produced by a development project. Determining traffic generation for a specific project is therefore based upon forecasting the amount of traffic that is expected to be both attracted to and produced by the specific land uses proposed for a given development. In an effort to accurately estimate the number of vehicle trips that the proposed Project would generate, estimations are based on trip generation rates collected by the Institute of Transportation Engineers (ITE) and presented in ITE's most recent edition of *Trip Generation* (8th Edition, 2008). Detailed information about the methodology used to determine the Project's trip generation is provided in Section 4.1 of *Technical Appendix F*.

Assumed to be built and fully operational by Year 2017, the Project is proposed to consist of 400,130 square feet of high-cube/distribution warehouse use. Using that development potential, the proposed Project would produce an estimated 1,066 daily vehicle trips, including 67 during the AM Peak Hour and 74 during the PM Peak Hour. A summary of the Project's trip generation is provided in Table 4.4-1. The traffic reducing potential of using public transit, walking, or bicycling by employees of the Project has not been considered, which have the potential to reduce the forecasted traffic volumes. Because these factors were not considered in the analysis (and would reduce the volume of Project-related vehicular traffic if considered), the analysis of impacts to transportation/traffic in this subsection represents a conservative analysis of potential impacts.

Trip distribution is the process of identifying the probable destinations, directions, or traffic routes that would be utilized by Project traffic. The potential interaction between the planned land uses and surrounding regional access routes are considered, to identify the routes where Project traffic would distribute. The Project trip distribution was developed based on anticipated travel patterns to and from the Project site for both passenger cars and truck traffic. The truck trip distribution patterns were developed based on the anticipated travel patterns for high-cube warehousing trucks. The total volume on each roadway was divided by the Project's total traffic generation to indicate the percentage of Project traffic that would use each component of the regional roadway system in each relevant direction. The Project passenger car trip distribution pattern is graphically depicted on Figure 4.4-2, and the Project truck trip distribution pattern is graphically depicted on Figure 4.4-3.

The assignment of traffic from the Project area to the adjoining roadway system is based on the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of Project occupancy (2017). Based on the identified Project traffic generation and trip distribution patterns, Project ADT volumes for the weekday are shown on Figure 4.4-19, *Project Only Average Daily Traffic (ADT),* and Project AM and PM peak hour intersection turning movement volumes are shown on Figure 4.4-20, *Project Only AM Peak Hour Intersection Volumes,* and Figure 4.4-21, *Project Only PM Peak Hour Intersection Volumes,* respectively. Detailed information about the methodology used to determine the Project's trip distribution is provided in Section 4.2 of *Technical Appendix F.*

B. Analysis Scenarios

Pursuant to the City of Moreno Valley's *TIA Preparation Guide*, all traffic impact analyses must be "…projected to the year that the project is estimated to be complete (minimum of five years)." (City of Moreno Valley, 2007). The Notice of Preparation for this EIR was distributed for public review on December 3, 2012; thus, the opening year for the proposed Project is assumed to be five years later (Year 2017). Therefore, for the purpose of the traffic impact analysis presented below, potential impacts to traffic and circulation are assessed for each of the following:

- Existing (2012) plus Project Conditions (1 scenario) (E+P)
- Opening Year (2017) without Project and Opening Year (2017) with Project (2 scenarios) – ambient growth only (E+A and E+A+P, respectively).
- Opening Year Cumulative (2017) without Project and Opening Year Cumulative (2017) with Project (2 scenarios) – ambient growth and cumulative development projects (E+A+C and E+A+C+P, respectively).

Information for Existing (2012) conditions is disclosed above in Subsection 4.4.2 and represents the baseline traffic conditions as they existed at the time this analysis was prepared (2012).

The Existing (2012) plus Project (E+P) analysis determines direct Project-related traffic impacts that would occur on the existing roadway system in the theoretical scenario of the Project being placed upon existing conditions. Because the Project would not be fully built and occupied until after 2012, the E+P scenario is presented to disclose direct impacts as required by CEQA.

The Opening Year (2017) analysis determines the Project-related traffic impacts based on a comparison of the Existing plus Ambient Growth plus Project (E+A+P) traffic conditions to the Existing (2012) and Existing plus Ambient Growth (E+A) conditions. The Opening Year (2017) conditions analysis uniquely identifies the specific traffic impacts associated with the development of the proposed Project. To account for background traffic, a total ambient growth from Existing (2012) conditions of 10.4% (2% per year over 5 years, compounded annually) is included for Opening Year (2017) conditions. Cumulative development projects are not included as part of the Opening Year (2017) analysis. The Opening Year (2017) analysis is intended to identify the direct impacts associated solely with the development of the proposed Project based on the expected background growth within the study area.

The Opening Year Cumulative (2017) conditions analysis is utilized to determine if improvements funded through local and regional transportation mitigation fee programs such as the TUMF program, City of Moreno Valley Development Impact Fee (DIF) program, or other approved funding mechanism can accommodate the cumulative traffic at the target LOS identified in the City of Moreno Valley General Plan or planning documents of other jurisdictions. If the funded improvements can provide the target LOS, then the Project's payment into the TUMF and DIF is considered to be adequate cumulative mitigation as imposed through Conditions of Approval applied to the Project by the City of Moreno Valley. If other improvements are needed beyond the funded improvements (such as localized improvements to non-TUMF or non-DIF facilities), they are identified as such.

To account for background traffic in Opening Year Cumulative (2017), 53 other known cumulative development projects in the study area are included in addition to the 10.4% ambient. This comprehensive list of cumulatively projects was compiled from information provided by the City of Moreno Valley Planning Department.

C. Existing (2012) Plus Project Traffic Analysis (E+P)

For purposes of full disclosure and in an effort to satisfy CEQA Guidelines §15125(a), this subsection presents an analysis of existing traffic volumes plus traffic generated by the proposed Project (Existing plus Project, or E+P). The reason this particular analysis scenario is provided is to disclose the potential for direct impacts to the existing environment as required by CEQA. The E+P scenario rarely materializes as an actual scenario in the real world. The time period between the date when a Notice of Preparation for an EIR is issued and the date project buildout occurs can often be a period of several years or more. During this time period, conditions are not static. Other projects are being constructed, the transportation network is evolving, and traffic patterns are changing. Therefore, the E+P scenario is very unlikely to materialize in real world conditions and thus does not accurately describe the environment that exists when a particular project is constructed and becomes operational. Regardless, the E+P scenario is analyzed to satisfy CEQA requirements to identify the Project's impacts to the existing environment.

Average daily traffic (ADT) for the E+P conditions is shown on Figure 4.4-22, *Existing Plus Project Average Daily Traffic (ADT),* and AM and PM peak hour intersection turning movement volumes for E+P are shown on Figure 4.4-23, *Existing Plus Project AM Peak Hour Intersection Volumes*, and Figure 4.4-24, *Existing Plus Project PM Peak Hour Intersection Volumes*.

☐ E+P Roadway Segments Analysis

Roadway segment capacities for E+P conditions were analyzed based on the methodology discussed in Subsection 4.4.3B. Out of 28 study area roadway segments (Table 4.4-2), all segments would operate at an acceptable LOS (with 25 segments operating at LOS "A") with the addition of Project traffic to the existing condition. Table 4.4-15, *Existing Plus Project Conditions Roadway Volume/Capacity Analysis, s*ummarizes the E+P conditions roadway segment capacity analysis based on the LOS thresholds identified in Table 4.4-12 and Table 4.4-11; therefore, impacts to study area roadway segments under the E+P condition would be less than significant.

❑ E+P Intersections Analysis

E+P peak hour traffic operations were evaluated for study area intersections based on the methodologies presented in Subsection 4.4.3B. In the E+P condition, of the 9 existing study area intersections, all intersections would operate at an acceptable LOS D or better during the peak hours. Table 4.4-16, *Intersection Analysis for Existing Plus Project Conditions*, summarizes the AM and PM peak hour study area intersection LOS for the Existing (2012) conditions plus the Project. Therefore, impacts to study area intersections under the E+P scenario would be less than significant.

D. Opening Year Traffic Analysis (Opening Year (2017))

The Opening Year (2017) conditions analysis determines the Project-related traffic impacts based on a comparison of the Existing plus Ambient Growth plus Project (E+A+P) traffic conditions to the Existing (2012) and Existing plus Ambient Growth (E+A) conditions. The Opening Year (2017) conditions analysis uniquely identifies the specific traffic impacts associated with the development of the proposed Project. The Opening Year (2017) analysis is intended to identify the project-specific impacts associated solely with the development of the proposed Project based on the expected background growth within the study area (Urban Crossroads, 2013, p. 81).

The intersection lane configurations and traffic controls assumed to be in place for Opening Year (2017) conditions are consistent with those assumed for existing conditions (see previous Figure 4.4-6) with the following exceptions:

- The analysis for the intersection of Perris Boulevard at San Michele Road assumes the following geometrics, which are anticipated to be in place by Year 2013: one northbound left turn lane, two northbound through lanes, one northbound shared through-right turn lane, one southbound left turn lane, two southbound though lanes, one southbound shared through-right turn lane, one eastbound left turn lane, one eastbound through lane, one eastbound right turn lane, one westbound left turn lane, one westbound through lane and one westbound right turn lane.
- The analysis for the intersection of Perris Boulevard at Nandina Avenue assumes the following geometrics, which are anticipated to be in place by Year 2013: one northbound left turn lane, two northbound through lanes, one northbound shared through-right turn lane, one southbound left turn lane, three southbound through lanes, one southbound right turn lane with overlap phasing, one eastbound left turn lane, one eastbound through lane, one eastbound shared through-right turn lane, one westbound left turn lane, one westbound through lane and one westbound right turn lane.
- At Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for Opening Year (2017) with Project conditions only.

ADT volumes for the Opening Year (2017) Without Project (E+A) conditions are shown on Figure 4.4-25, *Opening Year (2017) Without Project Average Daily Traffic (ADT)*, and AM and PM peak hour intersection turning movement volumes for Opening Year (2017) Without Project (E+A) conditions are shown on Figure 4.4-26, *Opening Year (2017) Without Project AM Peak Hour*

Intersection Volumes, and Figure 4.4-27, *Opening Year (2017) Without Project PM Peak Hour Intersection Volumes.* ADT volumes for the Opening Year (2017) With Project (E+A+P) conditions are shown on Figure 4.4-28, *Opening Year (2017) With Project Average Daily Traffic (ADT)*, and AM and PM peak hour intersection turning movement volumes for Opening Year (2017) With Project (E+A+P) conditions are shown on Figure 4.4-29, *Opening Year (2017) With Project AM Peak Hour Intersection Volumes*, and Figure 4.4-30, *Opening Year (2017) With Project PM Peak Hour Intersection Volumes*.

☐ Opening Year (2017) Roadway Segments Analysis

Roadway segment capacities for Opening Year (2017) Without Project (E+A) and with Project (E+A+P) conditions were determined based on the methodology discussed in Subsection 4.4.3B. Table 4.4-17, *Opening Year (2017) Conditions Roadway Volume/Capacity Analysis1*, summarizes the Opening Year (2017) Without Project (E+A) and With Project (E+A+P) conditions roadway segment capacity analysis based on the LOS thresholds identified in Table 4.4-11. As shown in Table 4.4-17, all 28 roadway segments within the study area would operate at an acceptable LOS under the E+A scenario. With the addition of Project traffic for Opening Year (2017) (E+A+P), all 28 roadway segments would continue to operate at an acceptable LOS; therefore, the proposed Project would result in a less than significant impact to study area road segments under opening year (2017) conditions.

☐ Opening Year (2017) Intersections Analysis

Opening Year (2017) Without Project (E+A) and With Project (E+A+P) peak hour traffic operations were evaluated for study area intersections based on the methodologies presented in Subsection 4.4.3B. Table 4.4-18, *Intersection Analysis for Opening Year (2017) Conditions*, summarizes the Opening Year (2017) Without Project (E+A) peak hour traffic operations. As shown in Table 4.4-18, all 13 study area intersections would operate at an acceptable LOS during peak hours in the E+A condition.

As shown on Table 4.4-18, with the addition of Project traffic (E+A+P) and implementation of improvements to Perris Boulevard by the Project Applicant along the Project site’s frontage, all 13 study area intersections would operate at an acceptable LOS D or better. The Project would not contribute to a deficient LOS at any study area intersection; therefore, the Project’s impact to intersections is less than significant (Urban Crossroads, 2013, pp. 81-90).

E. Opening Year Cumulative Traffic Analysis (Cumulative (2017))

As discussed in Subsection 4.02, CEQA requires that an EIR contain an assessment of the cumulative impacts that may be associated with a proposed project. The Opening Year Cumulative (2017) analysis determines the Project-related traffic impacts based on a comparison of the traffic volumes expected in 2017 without and with development of the proposed Project, including background traffic from cumulative development projects. To account for background traffic, 53 other known cumulative development projects in the study area were included in addition to 10.4% of ambient growth (refer to Subsection 4.4.3B, for a description of the methodology used for this analysis). The analysis of cumulative traffic impacts for Opening Year (2017) uses the methodology that is required by the *City of Moreno Valley TIA Preparation Guide* (dated August 2007). The lane configurations and traffic controls assumed to be in place for Opening Year Cumulative (2017) conditions are the same as described above for Opening Year (2017) conditions (Urban Crossroads, 2013, p. 99).

ADT volumes for the Opening Year Cumulative (2017) Without Project (E+A+C) conditions are shown on Figure 4.4-31, *Opening Year Cumulative (2017) Without Project Average Daily Traffic (ADT)*, and AM and PM peak hour intersection turning movement volumes for Opening Year Cumulative (2017) Without Project (E+A+C) conditions are shown on Figure 4.4-32, *Opening Year Cumulative (2017) Without Project AM Peak Hour Intersection Volumes*, and Figure 4.4-33, *Opening Year Cumulative (2017) Without Project PM Peak Hour Intersection Volumes*.

ADT volumes for the Opening Year Cumulative (2017) With Project (E+A+C+P) conditions are shown on Figure 4.4-34, *Opening Year Cumulative (2017) With Project Average Daily Traffic (ADT)*, and AM and PM peak hour intersection turning movement volumes for Opening Year Cumulative (2017) With Project (E+A+C+P) conditions are shown on Figure 4.4-35, *Opening Year Cumulative (2017) With Project AM Peak Hour Intersection Volumes*, and Figure 4.4-36, *Opening Year Cumulative (2017) With Project PM Peak Hour Intersection Volumes*.

❑ Opening Year Cumulative (2017) Roadway Segments Analysis

Roadway segment capacities for Opening Year Cumulative (2017) Without Project (E+A+C) and With Project (E+A+P) conditions were analyzed based on the methodology discussed in Subsection 4.4.3B.

Table 4.4-19, *Opening Year Cumulative (2017) Conditions Roadway Volume/Capacity Analysis*, identifies the LOS of study area roadway segments under Opening Year Cumulative (2017) conditions for both with and without Project traffic. Additionally, Table 4.4-19 summarizes the Opening Year Cumulative (2017) Without Project (E+A+C) and With Project (E+A+C+P) LOS based on the thresholds identified in Table 4.4-13. As shown in Table 4.4-19, under E+A+C conditions, 21 of the 28 study area roadway segments would operate at an acceptable LOS without the addition of Project traffic, while seven (7) roadway segments would operate at an unacceptable LOS. As shown in Table 4.4-19, with the addition of Project traffic, the LOS for all study area roadway segments would remain unchanged. As such, Project traffic would not directly cause any roadway segments to degrade to a deficient LOS under Opening Year Cumulative (2017) conditions. Because the Project would add 50 or more peak hour trips to these seven (7) segments, the impact is considered a significant cumulative impact. The seven (7) cumulatively impacted segments are:

- Harley Knox Boulevard, between I-215 NB Ramps and Western Way;
- Harley Knox Boulevard, East of Western Way;
- Harley Knox Boulevard, West of Patterson Avenue;
- Harley Knox Boulevard, East of Patterson Avenue;
- Harley Knox Boulevard, West of Indian Street;
- Indian Street, South of Nandina Avenue;
- Indian Street, North of Harley Knox Boulevard

An analysis of these roadway segments by Urban Crossroads concluded that all of the roadway segments are anticipated to operate at acceptable LOS with improvements to adjacent study area intersections (including the addition of some through lanes) without the need for additional roadway widening discussed in Subsection 4.4.8 (Urban Crossroads, 2013, p. 106).

☐ Opening Year Cumulative (2017) Intersections Analysis

Opening Year Cumulative (2017) Without Project (E+A+C) and With Project (E+A+C+P) peak hour traffic operations were evaluated for study area intersections based on the methodologies presented in Subsection 4.4.3B. As shown in Table 4.4-20, *Intersection Analysis for Opening Year Cumulative (2017) Conditions*, eight (8) of the 13 study area intersections would operate at an acceptable LOS, while the remaining five (5) intersections would operate at unacceptable LOS “F” during one or both of the peak hours for Opening Year (2017) Without Project (E+A+C) conditions.

Figure 4.4-32 and Figure 4.4-33, summarize the AM and PM peak hour study area intersection LOS for Opening Year (2017) Without Project (E+A+C) conditions. Figure 4.4-35 and Figure 4.4-36 summarize the AM and PM peak hour study area intersection LOS for Opening Year (2017) With Project (E+A+C+P) conditions, consistent with the summary provided in Table 4.4-19.

As shown in Table 4.4-20, the addition of Project traffic would not cause any additional study area intersections to operate at unacceptable peak hour LOS beyond those previously identified under Opening Year Cumulative (2017) Without Project conditions (E+A+C). The intersection of Perris Boulevard at Nandina Avenue is anticipated to operate at acceptable peak hour operations with the site-adjacent Project improvements in place along Perris Boulevard. Because Project traffic would contribute 50 or more peak hour trips to the five (5) remaining intersections that would be impacted under E+A+C+P conditions, Project impacts to these five (5) intersections, listed below, would be cumulatively significant.

- I-215 Southbound Ramps/ Harley Knox Boulevard;
- I-215 Northbound Ramps/ Harley Knox Boulevard;
- Western Way/ Harley Knox Boulevard;
- Patterson Avenue/ Harley Knox Boulevard;
- Indian Street/ Harley Knox Boulevard;

Threshold 2: Would the proposed Project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

The Riverside County Congestion Management Plan (CMP) prepared by the Riverside County Transportation Commission (RCTC) is applicable to the Project because I-215 is a CMP Roadway and occurs within the Project’s study area (Riverside County Transportation Commission, 2010, pp. 2-5).

The study area for the mainline analysis includes segments of the I-215 Freeway, from north of and south of Harley Knox Boulevard, and includes the freeway-to-arterial interchanges of the I-215

Freeway with the Harley Knox Boulevard ramps. As shown on Figure 4.4-2, *Project (Passenger Car) Trip Distribution*, it is estimated that 40% of passenger cars accessing the Project site would use I-215. As shown on Figure 4.4-3, *Project (Truck) Trip Distribution*, it is estimated that 100% of trucks accessing the Project site would use I-215.

For the purpose of analysis, I-215 in the study area (from north of Harley Knox Boulevard to south of Harley Knox Boulevard) has been broken into segments defined by the freeway-to-arterial interchange locations. As noted previously, the RCTC has plans in place for the widening of I-215 through the study area; however, a schedule for the widening has not been set due to the state's ongoing budget challenges (Urban Crossroads, 2013, p. 24). As such, the future widening was not assumed as the base condition. Widening of the I-215 Freeway as planned by RCTC is noted in the analysis of future conditions as "with improvements" only. The same analysis scenarios presented above under Threshold 1 (E+P, E+A+P, and E+A+C+P) are analyzed below and in *Technical Appendix F*.

A. Existing (2012) Plus Project CMP Analysis (E+P)

As previously stated, for purposes of full disclosure and in an effort to satisfy CEQA Guidelines §15125(a), this subsection presents an analysis of existing traffic volumes plus traffic generated by the proposed Project (Existing plus Project, or E+P). The E+P scenario rarely materializes as an actual scenario in the real world because conditions are not static. Other projects are being constructed, the transportation network is evolving, and traffic patterns are changing. Regardless, the E+P scenario is analyzed to satisfy CEQA requirements to identify the Project's impacts to the existing environment.

❑ E+P Freeway Segment Analysis

E+P mainline directional volumes for I-215 for the AM and PM peak hours are shown on Figure 4.4-37, *Existing Plus Project I-215 Freeway Mainline Volumes*. As shown in Table 4.4-21, *Existing Plus Project Conditions Basic Freeway Segment Analysis,* I-215 Freeway segments in the study area operate at LOS "C" or better during the peak hours for E+P traffic conditions. The addition of Project traffic would not degrade the LOS. Project-related impacts would thus be less than significant.

❑ E+P Freeway Ramp Analysis

A traffic progression analysis was performed for the I-215 Freeway ramp merge and diverge areas. As shown in Table 4.4-22, *I-215 Freeway Ramp Junction Merge/Diverge Analysis For Existing Plus Project Conditions*, the ramp merge and diverge areas would operate at acceptable LOS "E" or better during the peak hours under E+P traffic conditions. The addition of Project traffic would not degrade the LOS. Project-related impacts would thus be less than significant.

B. Opening Year CMP Analysis (Opening Year (2017))

The Opening Year (2017) conditions analysis determines the Project-related effects on I-215 based on a comparison of the Existing plus Ambient Growth plus Project (E+A+P) traffic conditions to the Existing (2012) and Existing plus Ambient Growth (E+A) conditions.

☐ Opening Year (2017) Freeway Segment Analysis

Opening Year (2017) mainline directional volumes for I-215 for the AM and PM peak hours (Without and With Project) are shown on Figure 4.4-38, *Opening Year (2017) Without Project I-215 Freeway Mainline Volumes*, and Figure 4.4-39, *Opening Year (2017) With Project I-215 Freeway Mainline Volumes*. As shown in Table 4.4-23, *Opening Year (2017) Conditions Basic Freeway Segment Analysis*, I-215 Freeway segments in the study area would operate at an acceptable LOS during the peak hours for Opening Year (2017) Without and With Project traffic conditions. Project-related impacts would thus be less than significant.

☐ Opening Year (2017) Freeway Ramp Analysis

As shown in Table 4.4-24, *I-215 Freeway Ramp Junction Merge/Diverge Analysis For Opening Year (2017) Conditions*, the I-215 Freeway ramp merge and diverge areas are expected to operate at acceptable service levels for Opening Year (2017) traffic conditions, both Without and With the Project. Project-related impacts would thus be less than significant.

C. Opening Year Cumulative (2017) Traffic Analysis

As discussed in Subsection 4.02, CEQA requires that an EIR contain an assessment of the cumulative impacts that may be associated with a proposed project. The Opening Year Cumulative (2017) analysis determines the Project-related traffic impacts based on a comparison of the traffic volumes expected in 2017 without and with development of the proposed Project, including background traffic from cumulative development projects. Refer to Subsection 4.4.3B, for a description of the methodology used for this analysis.

☐ Opening Year Cumulative (2017) Freeway Segment Analysis

Opening Year Cumulative (2017) mainline directional volumes for I-215 for the AM and PM peak hours (without and with Project) are shown on Figure 4.4-40, *Opening Year Cumulative (2017) Without Project I-215 Freeway Mainline Volumes*, and Figure 4.4-41, *Opening Year Cumulative (2017) With Project I-215 Freeway Mainline Volumes*. As shown in Table 4.4-25, *Opening Year Cumulative (2017) Conditions Basic Freeway Segment Analysis*, the study area mainline segments would operate at acceptable LOS during the peak hours for Opening Year Cumulative (2017) Without and With Project traffic conditions; therefore, the Project would have a less than significant impact to freeway segments.

☐ Opening Year Cumulative (2017) Freeway Ramp Analysis

As shown in Table 4.4-26, *I-215 Freeway Ramp Junction Merge/Diverge Analysis For Opening Year Cumulative (2017) Conditions*, the ramp junctions along the I-215 Freeway are projected to operate at acceptable service levels for both Opening Year (2017) Without and With Project conditions (i.e., LOS “E” or better); therefore, the Project would have a less than significant impact to freeway ramps.

Threshold 3: Would the proposed Project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

The proposed Project does not contain an air travel component; thus, air traffic volumes would not be changed as a result of the Project.

The Project site is located approximately 0.9-mile to the east of the March Air Reserve Base and March Inland Port Airport ARB/IPA. The Riverside County Airport Land Use Commission (RCALUC) is the local airport land use commission for airports within Riverside County, and pursuant to the California State Aeronautics Act (Public Utility Code §21670 et seq.) is tasked with preparing and adopting an airport land use compatibility plan, and for reviewing proposed plans, regulations, and other actions of local agencies and airport operators for consistency with the plan.

The proposed Project site is located within the March ARB Joint Land Use Study Compatibility Zone D. Compatibility Zone D is intended to encompass places where aircraft fly below about 3,000 feet above the airport elevation either on arrival or departure. Additionally, it includes locations near the primary flight paths where aircraft noise may regularly be loud enough to be disruptive. Direct overflights of these areas may occur occasionally. Risk levels in this zone are considered low and Zone D is not subject to significant safety hazards; therefore, the proposed Project would not introduce a safety risk and would not cause a change in traffic patterns. No impacts would occur (March Joint Powers Authority, 2010).

Threshold 4: Would the proposed Project substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?

The proposed Project (described in Section 3.0, Project Description) is consistent with the property's land use designations as applied by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208), as well as the property's zoning designation. As such, there would be no transportation hazards created as a result of an incompatible land use. The Project proposes to construct and operate one warehouse distribution building in an area of the City of Moreno Valley that is planned for such development and is adjacent to the City's designated truck route. To reduce inadvertent wrong turns, signs are proposed to be posted at the Project's exit driveways directing vehicles to the truck route.

The City of Moreno Valley Transportation Engineering Division has reviewed the Project's application materials (refer to Section 3.0, Project Description) and determined that no hazardous transportation design features would be introduced by the Project; therefore, the Project would have a less than significant impact because it would not result in increased hazards from a design feature and/or incompatible uses.

Threshold 5: Would the proposed Project result in inadequate emergency access?

Adequate emergency access would be provided to the Project site. Buildout of the proposed Project would result in one new distribution warehouse building on the Project site, which would increase the need for emergency access to and from the site. During the course of the City of Moreno Valley's required review of the proposed Project (refer to Section 3.0, Project Description), the Project's transportation design was reviewed by the City's Transportation Engineering Division to ensure that adequate access to and from the site would be provided for emergency vehicles. Furthermore, Conditions of Approval will be issued by the City of Moreno Valley prior to consideration of the proposed Project by City Council, and will require that the Project provide adequate paved access to and from the site and its building. With required adherence to City requirements for emergency vehicle access, impacts would be less than significant.

Threshold 6: Would the proposed Project conflict with adopted policies or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

The proposed Project consists of one new distribution warehouse building, which is a land use that is not likely to attract large volumes of pedestrian, bicycle, or transit traffic. (Field observations indicate nominal pedestrian and bicycle activity within the study area (Urban Crossroads, 2013, p. 35)). Regardless, the Project is designed to comply with all applicable transportation policies.

The Project is designed to accommodate pedestrians via sidewalks provided along adjacent public roadways. A Class III bikeway is designated along Indian Street north of San Michele Road and along San Michele Road, west of Indian Street, in conformance with the General Plan's Bikeway Plan. Perris Boulevard and Nandina Avenue are not identified as bikeways per the General Plan Bikeway Plan (as shown on Figure 4.4-12) and pursuant to the policies of the MVIAP, bikeways are not required and not proposed along the proposed Project's frontage with Perris Boulevard and Nandina Avenue. Landscaping is designed to be installed along the Project's perimeter, which would separate the adjacent public roadway rights-of-way (and their associated streetscapes, sidewalks, and bikeways) from the proposed Project's interior, eliminating any conflict between Project operations and the sidewalks and bikeways of perimeter roadways. As required by the City, bike racks would be provided at the building. A transit turnout also is proposed along the Project's frontage with Perris Boulevard, as requested by RTA to implement a transit service stop adjacent to the Project site. All Project driveways would be stop-sign controlled and sight distance at each Project driveway is required to be reviewed by the City of Moreno Valley at the time improvement plans are submitted to ensure that sight distance meets City standards. Off site, trucks accessing the Project are required to use approved truck routes, which would reduce conflicts associated with safety of the multi-model circulation system. The Project would not conflict with adopted policies or programs; therefore, impacts would be less than significant.

4.4.5 CUMULATIVE IMPACT ANALYSIS

The analysis under Threshold 1 determined the Project's potential to affect the transportation network on a direct or cumulative basis. As concluded under Threshold 1, the addition of Project traffic to the existing and planned circulation network would make a cumulatively considerable contribution to seven (7) roadway segments and five (5) intersections in Opening Year Cumulative (2017) Conditions. Table 4.4-20 summarizes the Opening Year Cumulative (2017) intersection conditions.

The analysis under Threshold 2 determined the Project's potential to affect I-215 on a direct or cumulative basis. As concluded under Threshold 2, the addition of Project traffic to the existing and planned circulation network would not contribute to an unacceptable LOS condition on freeway mainlines and ramp junctions; therefore, the Project would make a less than cumulatively considerable impact on the I-215 freeway mainline segments and ramp junctions.

The proposed Project has no potential to contribute to significant cumulative impacts under the topics discussed under Thresholds 3, 4, and 5 because the Project has no potential to cumulatively result in changes to air traffic patterns, to result in cumulatively considerable transportation design safety concerns, or to adversely affect emergency access on a cumulative basis.

Regarding Threshold 6, the Project would not conflict with adopted policies or programs regarding public transit, bicycle, or pedestrian facilities and thus has no potential to contribute to a cumulative impact. The Project incorporates bicycle racks, sidewalks, and a transit turnout into its design to facilitate local and regional plans for a multi-model transportation network. The Project consists of one distribution warehouse building, which is likely to attract passenger cars and trucks and only small volumes of pedestrian, bicycle, or transit traffic. Landscaping is designed to be installed along the Project's perimeter and all Project driveways would be reviewed for adequate sight distance before construction and be stop-sign controlled. Trucks would be directed to the approved truck route by signs posted at Project exit driveways. The Project would have a less than significant cumulatively considerable impact and is consistent with adopted policies and programs regarding public transit, bicycle, and pedestrian facilities.

4.4.6 APPLICABLE PROJECT REQUIREMENTS

The following is a list of requirements and/or conditions to which the Project would be required to adhere. Improvements to the local roadway system are proposed by the Project, and will be enforced as part of the Conditions of Approval issued for the Project by the City of Moreno Valley, which will be issued by the City of Moreno Valley prior to consideration of the proposed Project by the City Council.

PR 4.4-1 The Project will construct roadway improvements (including but not limited to parkway, landscaping, and sidewalk improvements) along its frontage with Perris Boulevard and San Michele Road as specified in the City of Moreno Valley's Conditions of Approval for Plot Plan PA12-0023.

PR 4.4-2 The Project will construct intersection improvements at each Project Driveway as specified in the City of Moreno Valley's Conditions of Approval for Plot Plan PA12-0023.

PR 4.4-3 The Project shall comply with the City of Moreno Valley Development Impact Fee (DIF) program, which requires the payment of a fee to the City to reduce traffic congestion by participating in funding the installation of intersection improvements. The project also shall comply with the Transportation Uniform Mitigation Fee (TUMF) program, which funds off-site regional transportation improvements. The following study area intersection improvements are currently covered under DIF-funding and/or TUMF-funding:

a) I-215 Southbound Ramps/ Harley Knox Boulevard (ID #1): One (1) southbound lane; one (1) westbound lane; and re-striping for one southbound lane and one southbound right turn.

b) I-215 Northbound Ramps/ Harley Knox Boulevard (ID #2): One westbound free right lane, and re-striping for one (1) northbound right turn lane.

c) Patterson Avenue/ Harley Knox Boulevard (ID #4): One (1) eastbound turn lane, and one (1) westbound turn lane.

d) Indian Street/ Nandina Avenue (ID #5): One (1) northbound turn lane; one (1) southbound turn lane; one (1) southbound right turn lane; one (1) eastbound lane; and protected left-turn on eastbound and westbound approaches.

e) Indian Street/ Harley Knox Boulevard (ID #6): Two (2) southbound right turn lanes with overlapping phasing; one (1) eastbound lane; one (1) eastbound turn lane; and remove cross-walk on north leg (westbound approach).

f) Perris Boulevard/ San Michele Road (ID #12): One southbound turn lane.

PR 4.4-4 On-site direction signing and striping is required to be installed in conjunction with detailed construction plans for the Project and as approved by the City of Moreno Valley. The on-site signing and striping plans shall be subject to review and approval by the Planning Division, and shall clearly indicate the location of service area docks and public parking areas.

PR 4.4-5 All final grading, landscaping, and street improvement plans are required to provide sight distance standards in accordance with City of Moreno Valley and California Department of Transportation (Caltrans) standards, as appropriate.

PR 4.4-6 The minimum number of vehicle and bicycle parking spaces specified by the City of Moreno Valley Municipal Code is required to be provided.

PR 4.4-7 A future transit stop will be provided by the Project on the southbound side of Perris Boulevard as specified in the City of Moreno Valley's Conditions of Approval for Plot Plan PA12-0023.

4.4.7 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

<u>Threshold 1: Significant Cumulative Impact (Near-Term)</u>. The proposed Project would result in cumulatively considerable significant impacts to the existing and planned roadway network by contributing traffic to facilities that would operate at deficient levels of service with or without the addition of Project traffic. Project traffic would make a cumulatively considerable contribution to identified cumulative impacts at seven (7) roadway segments and five (5) intersections in Opening Year Cumulative (2017) Conditions. With required payment of City of Moreno Valley DIF fees and TUMF fees (see PR 4.4-3) and implementation of the DIF and TUMF-funded improvements at the cumulatively impacted facilities, all cumulatively impacted roadway segments and intersections in Opening Year Cumulative (2017) Conditions would be reduced to a less than significant impact with

the exception of two (2) intersections: Western Way/Harley Knox Boulevard (Project's traffic contribution is 3.3%) and Indian Street/ Harley Knox Boulevard (Project's traffic contribution is 3.5%)). Although improvements are anticipated to relieve these deficiencies in the long-term along Harley Knox Boulevard, funded by the North Perris Road Bridge and Benefit District, there is no assurance that the improvements will be in place at the time of the proposed Project's Opening Year Cumulative (2017) Conditions. Thus, the cumulative impact is considered a near-term impact, until such time as the intersection improvements are in place.

Threshold 2: Less than Significant Impact. The proposed Project would result in less than significant direct and cumulative impacts to CMP facilities.

Threshold 3: No Impact. There is no potential for the Project to change air traffic levels or create substantial air traffic safety risks.

Threshold 4: Less than Significant Impact. No significant transportation safety hazards would be introduced as a result of the proposed Project's design.

Threshold 5: Less than Significant Impact. Adequate emergency access would be provided to the Project site during both near-term construction and long-term operation.

Threshold 6: Less than Significant Impact. The proposed Project is consistent with adopted policies and programs regarding public transit, bicycle, and pedestrian facilities. The Project is designed to reduce all potential transportation mode conflicts. Potential impacts to the performance or safety of transit, bicycle, and pedestrian systems would be less than significant.

4.4.8 MITIGATION MEASURES

The Project Applicant is required to pay TUMF fees (see PR 4.4-3); however, currently programed TUMF improvements will not relieve LOS deficiencies at two (2) study area intersections. The North Perris Road and Bridge Benefit District (RBBD) identifies improvements to Harley Knox Boulevard and the two cumulatively impacted intersections of Harley Knox Boulevard with Western Way and with Indian Avenue. However, because the Project site is not located in the City of Perris and not located in the North Perris RBBD fee area, the Project Applicant is not required to monetarily contribute to the expense of these planned improvements. The following measure is recommended should another funding program be established for these cumulatively impacted intersections by the City of Perris to which projects in other jurisdictions can legally contribute.

MM 4.4-1 In the event that the City of Perris establishes a fair-share funding program for improvements to the following intersections (or immediately adjacent roadways segments that contribute to the intersection's level of service), that applies to projects in the City of Moreno Valley, then prior to the issuance of a building permit for the project, the Project Applicant shall contribute a fair-share payment to the established funding program to address the Project's cumulative impacts to the following facilities:

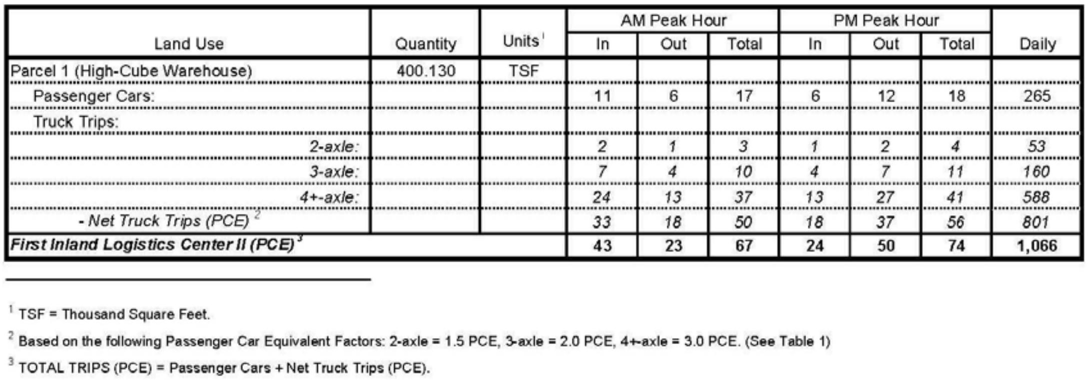
a) Intersection of Western Way/ Harley Knox Boulevard (Project's fair-share contribution is 3.3%);

b) Intersection of Indian Street/ Harley Knox Boulevard (Project's fair-share contribution is 3.5%)

4.4.9 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Threshold 1: Significant Cumulative Impact (Near-Term). With required payment of TUMF fees (see PR 4.4-3), the Project's cumulative impacts at two (2) intersections in the City of Perris (Western Way/Harley Knox Boulevard and Indian Street/Harley Knox Boulevard) would be significant and unavoidable because these intersections fall outside of the City of Moreno Valley's jurisdiction and the City of Moreno Valley has no authority to assure that the needed improvements will be in place prior to the Project's Opening Year Cumulative (2017) condition. Although needed improvements are programmed as part of the North Perris RBBD, the proposed Project is not in the RBBD fee area and as such, has no feasible and legal means to monetarily contribute to the improvements unless another fee program is established by the City of Perris to which the Project Applicant can legally contribute. In conclusion, because there is no assurance that these improvements would be in place prior to the Project's Opening Year Cumulative (2017) condition, the Project's cumulative impact to the intersections of Western Way/ Harley Knox Boulevard and Indian Street/Harley Knox Boulevard is concluded to be significant and unavoidable in the near-term, until such time as the identified improvements are funded and in place. If a funding program is established to which the Project Applicant can participate as specified in Mitigation Measure MM 4.4-1, the Project's impact would be mitigated.

Table 4.4-1 Project Trip Generation Summary



Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Parcel 1 (High-Cube Warehouse)	400.130	TSF							
Passenger Cars:			11	6	17	6	12	18	265
Truck Trips:									
2-axle:			*2*	*1*	*3*	*1*	*2*	*4*	*53*
3-axle:			*7*	*4*	*10*	*4*	*7*	*11*	*160*
4+-axle:			*24*	*13*	*37*	*13*	*27*	*41*	*588*
- Net Truck Trips (PCE)[2]			*33*	*18*	*50*	*18*	*37*	*56*	*801*
First Inland Logistics Center II (PCE)[3]			**43**	**23**	**67**	**24**	**50**	**74**	**1,066**

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[1] TSF = Thousand Square Feet.

[2] Based on the following Passenger Car Equivalent Factors: 2-axle = 1.5 PCE, 3-axle = 2.0 PCE, 4+-axle = 3.0 PCE. (See Table 1)

[3] TOTAL TRIPS (PCE) = Passenger Cars + Net Truck Trips (PCE).

Source: (Urban Crossroads, 2013), Section 4.2

Table 4.4-2 Roadway Segment Analysis Locations

ID	Roadway Segments	Jurisdiction
1	Harley Knox Boulevard, West of I-215 Freeway	County of Riverside
2	Harley Knox Boulevard, between I-215 SB and NB Ramps	Perris
3	Harley Knox Boulevard, between I-215 NB Ramps and Western Way	Perris
4	Harley Knox Boulevard, East of Western Way	Perris
5	Harley Knox Boulevard, West of Patterson Avenue	Perris
6	Harley Knox Boulevard, East of Patterson Avenue	Perris
7	Harley Knox Boulevard, West of Indian Street	Perris
8	Harley Knox Boulevard, East of Indian Street	Perris
9	Western Way, North of Harley Knox Boulevard	Perris
10	Patterson Avenue, North of Harley Knox Boulevard	Perris
11	Patterson Avenue, South of Harley Knox Boulevard	Perris
12	Indian Street, North of Nandina Avenue	Moreno Valley
13	Indian Street, South of Nandina Avenue	Moreno Valley
14	Indian Street, North of Harley Knox Boulevard	Moreno Valley
15	Indian Street, South of Harley Knox Boulevard	Perris
16	Knox Street, North of Nandina Avenue	Moreno Valley
17	Perris Boulevard, North of San Michele Road	Moreno Valley
18	Perris Boulevard, South of San Michele Road	Moreno Valley
19	Perris Boulevard, North of Nandina Avenue	Moreno Valley
20	Perris Boulevard, South of Nandina Avenue	Moreno Valley
21	San Michele Road, West of Driveway 1	Moreno Valley
22	San Michele Road, between Driveway 1 and Driveway 3	Moreno Valley
23	San Michele Road, between Driveway 3 and Perris Boulevard	Moreno Valley
24	Nandina Avenue, West of Indian Street	Moreno Valley
25	Nandina Avenue, between Indian Street and Knox Street	Moreno Valley
26	Nandina Avenue, between Knox Street and Driveway 2	Moreno Valley
27	Nandina Avenue, between Driveway 2 and Driveway 4	Moreno Valley
28	Nandina Avenue, between Driveway 4 and Perris Boulevard	Moreno Valley

Source: (Urban Crossroads, 2013), Section 1.3.2

Table 4.4-3 Intersection Analysis Locations

ID	Intersection Location	Jurisdiction
1	I-215 Southbound Ramps / Harley Knox Boulevard	Caltrans
2	I-215 Northbound Ramps / Harley Knox Boulevard	Caltrans
3	Western Way / Harley Knox Boulevard	Perris
4	Patterson Avenue / Harley Knox Boulevard	Perris
5	Indian Street / Nandina Avenue	Moreno Valley
6	Indian Street / Harley Knox Boulevard	Perris
7	Knox Street / Nandina Avenue	Moreno Valley
8	*Driveway 1 / San Michele Road – Future Intersection*	*Moreno Valley*
9	*Driveway 2 / Nandina Avenue – Future Intersection*	*Moreno Valley*
10	*Driveway 3 / San Michele Road – Future Intersection*	*Moreno Valley*
11	*Driveway 4 / Nandina Avenue – Future Intersection*	*Moreno Valley*
12	Perris Boulevard / San Michele Road	Moreno Valley
13	Perris Boulevard / Nandina Avenue	Moreno Valley

Source: (Urban Crossroads, 2013), Section 1.3.1

Table 4.4-4 Freeway Mainline Segments

ID	Freeway Mainline Segments
1	I-215 Freeway – Southbound, north of Harley Knox Boulevard
2	I-215 Freeway – Southbound, south of Harley Knox Boulevard
3	I-215 Freeway – Northbound, north of Harley Knox Boulevard
4	I-215 Freeway – Northbound, south of Harley Knox Boulevard

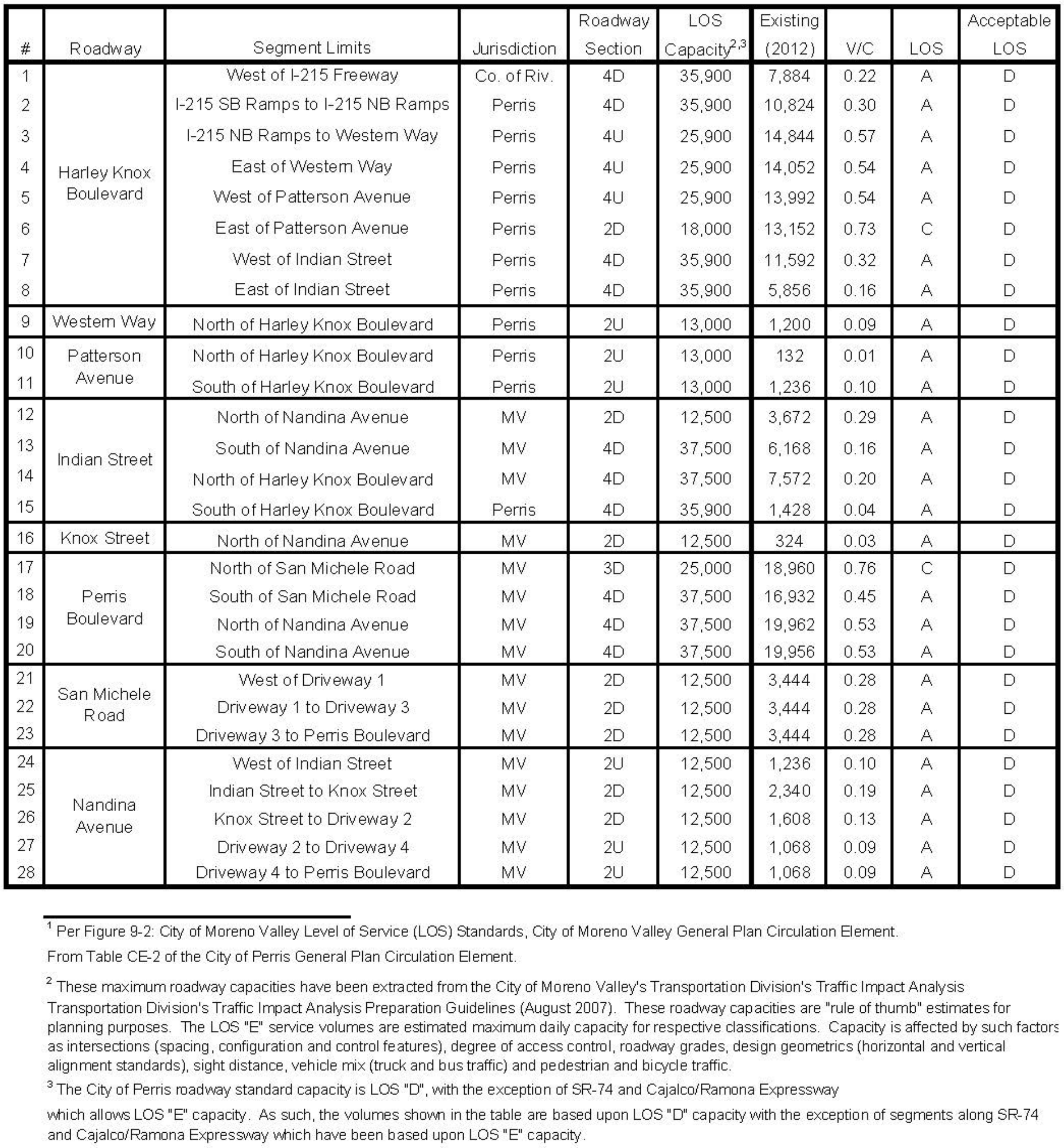
Source: (Urban Crossroads, 2013). 2012, Section 1.3.3

Table 4.4-5 Freeway Merge/Diverge Ramp Junctions

ID	Freeway Merge/Diverge Ramp Junctions
1	I-215 Freeway – Southbound, Off-Ramp at Harley Knox Boulevard (Diverge)
2	I-215 Freeway – Southbound, On-Ramp at Harley Knox Boulevard (Merge)
3	I-215 Freeway – Northbound, On-Ramp at Harley Knox Boulevard (Merge)
4	I-215 Freeway – Northbound, Off-Ramp at Harley Knox Boulevard (Diverge)

Source: (Urban Crossroads, 2013), Section 1.3.4

Table 4.4-6 Existing (2012) Conditions Roadway Volume/Capacity Analysis



#	Roadway	Segment Limits	Jurisdiction	Roadway Section	LOS Capacity[2,3]	Existing (2012)	V/C	LOS	Acceptable LOS
1	Harley Knox Boulevard	West of I-215 Freeway	Co. of Riv.	4D	35,900	7,884	0.22	A	D
2		I-215 SB Ramps to I-215 NB Ramps	Perris	4D	35,900	10,824	0.30	A	D
3		I-215 NB Ramps to Western Way	Perris	4U	25,900	14,844	0.57	A	D
4		East of Western Way	Perris	4U	25,900	14,052	0.54	A	D
5		West of Patterson Avenue	Perris	4U	25,900	13,992	0.54	A	D
6		East of Patterson Avenue	Perris	2D	18,000	13,152	0.73	C	D
7		West of Indian Street	Perris	4D	35,900	11,592	0.32	A	D
8		East of Indian Street	Perris	4D	35,900	5,856	0.16	A	D
9	Western Way	North of Harley Knox Boulevard	Perris	2U	13,000	1,200	0.09	A	D
10	Patterson Avenue	North of Harley Knox Boulevard	Perris	2U	13,000	132	0.01	A	D
11		South of Harley Knox Boulevard	Perris	2U	13,000	1,236	0.10	A	D
12	Indian Street	North of Nandina Avenue	MV	2D	12,500	3,672	0.29	A	D
13		South of Nandina Avenue	MV	4D	37,500	6,168	0.16	A	D
14		North of Harley Knox Boulevard	MV	4D	37,500	7,572	0.20	A	D
15		South of Harley Knox Boulevard	Perris	4D	35,900	1,428	0.04	A	D
16	Knox Street	North of Nandina Avenue	MV	2D	12,500	324	0.03	A	D
17	Perris Boulevard	North of San Michele Road	MV	3D	25,000	18,960	0.76	C	D
18		South of San Michele Road	MV	4D	37,500	16,932	0.45	A	D
19		North of Nandina Avenue	MV	4D	37,500	19,962	0.53	A	D
20		South of Nandina Avenue	MV	4D	37,500	19,956	0.53	A	D
21	San Michele Road	West of Driveway 1	MV	2D	12,500	3,444	0.28	A	D
22		Driveway 1 to Driveway 3	MV	2D	12,500	3,444	0.28	A	D
23		Driveway 3 to Perris Boulevard	MV	2D	12,500	3,444	0.28	A	D
24	Nandina Avenue	West of Indian Street	MV	2U	12,500	1,236	0.10	A	D
25		Indian Street to Knox Street	MV	2D	12,500	2,340	0.19	A	D
26		Knox Street to Driveway 2	MV	2D	12,500	1,608	0.13	A	D
27		Driveway 2 to Driveway 4	MV	2U	12,500	1,068	0.09	A	D
28		Driveway 4 to Perris Boulevard	MV	2U	12,500	1,068	0.09	A	D

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[1] Per Figure 9-2: City of Moreno Valley Level of Service (LOS) Standards, City of Moreno Valley General Plan Circulation Element.
From Table CE-2 of the City of Perris General Plan Circulation Element.

[2] These maximum roadway capacities have been extracted from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007). These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "E" service volumes are estimated maximum daily capacity for respective classifications. Capacity is affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian and bicycle traffic.

[3] The City of Perris roadway standard capacity is LOS "D", with the exception of SR-74 and Cajalco/Ramona Expressway which allows LOS "E" capacity. As such, the volumes shown in the table are based upon LOS "D" capacity with the exception of segments along SR-74 and Cajalco/Ramona Expressway which have been based upon LOS "E" capacity.

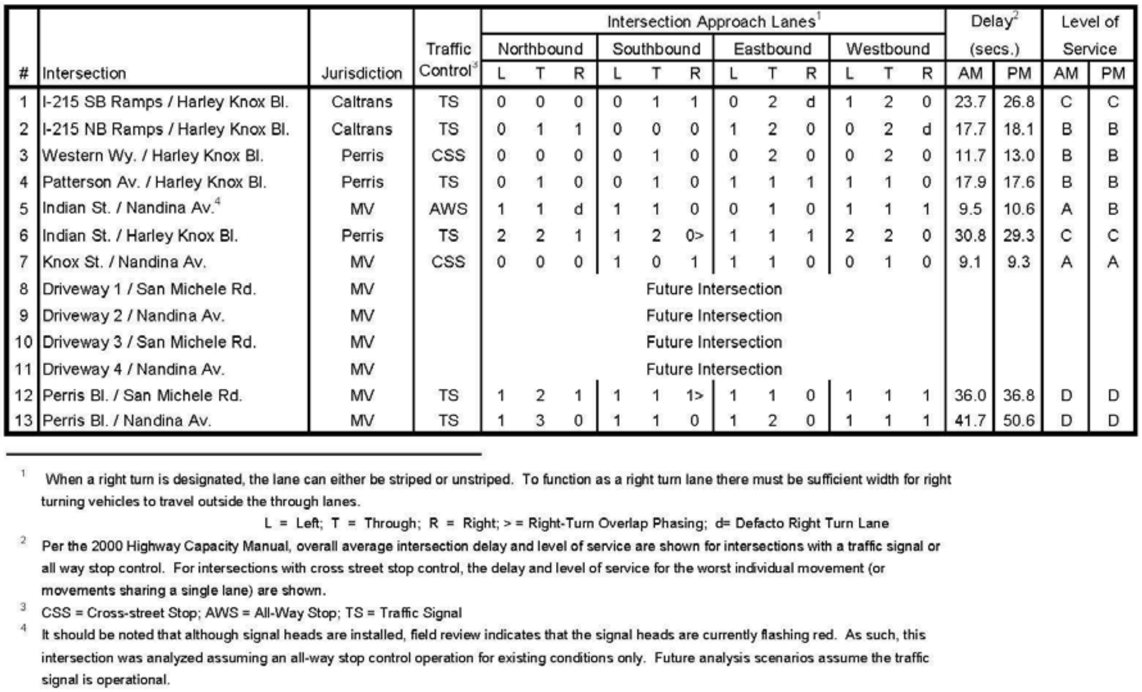
Source: (Urban Crossroads, 2013). 2012, Section 3.11

Table 4.4-7 Unsignalized Intersection LOS Thresholds

Level of Service	Description	Average Control Per Vehicle (Seconds)
A	Little or no delays.	0 to 10.00
B	Short traffic delays.	10.01 to 15.00
C	Average traffic delays.	15.01 to 25.00
D	Long traffic delays.	25.01 to 35.00
E	Very long traffic delays.	35.01 to 50.00
F	Extreme traffic delays with intersection capacity exceeded.	> 50.00

Source: (Urban Crossroads, 2013), Section 2.2.2

Table 4.4-8 Intersection Analysis for Existing (2012) Conditions



				Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
				Northbound			Southbound			Eastbound			Westbound						
#	Intersection	Jurisdiction	Traffic Control[3]	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	I-215 SB Ramps / Harley Knox Bl.	Caltrans	TS	0	0	0	0	1	1	0	2	d	1	2	0	23.7	26.8	C	C
2	I-215 NB Ramps / Harley Knox Bl.	Caltrans	TS	0	1	1	0	0	0	1	2	0	0	2	d	17.7	18.1	B	B
3	Western Wy. / Harley Knox Bl.	Perris	CSS	0	0	0	0	1	0	0	2	0	0	2	0	11.7	13.0	B	B
4	Patterson Av. / Harley Knox Bl.	Perris	TS	0	1	0	0	1	0	1	1	1	1	1	0	17.9	17.6	B	B
5	Indian St. / Nandina Av.[4]	MV	AWS	1	1	d	1	1	0	0	1	0	1	1	1	9.5	10.6	A	B
6	Indian St. / Harley Knox Bl.	Perris	TS	2	2	1	1	2	0>	1	1	1	2	2	0	30.8	29.3	C	C
7	Knox St. / Nandina Av.	MV	CSS	0	0	0	1	0	1	1	1	0	0	1	0	9.1	9.3	A	A
8	Driveway 1 / San Michele Rd.	MV		Future Intersection															
9	Driveway 2 / Nandina Av.	MV		Future Intersection															
10	Driveway 3 / San Michele Rd.	MV		Future Intersection															
11	Driveway 4 / Nandina Av.	MV		Future Intersection															
12	Perris Bl. / San Michele Rd.	MV	TS	1	2	1	1	1	1>	1	1	0	1	1	1	36.0	36.8	D	D
13	Perris Bl. / Nandina Av.	MV	TS	1	3	0	1	1	0	1	2	0	1	1	1	41.7	50.6	D	D

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[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; d= Defacto Right Turn Lane

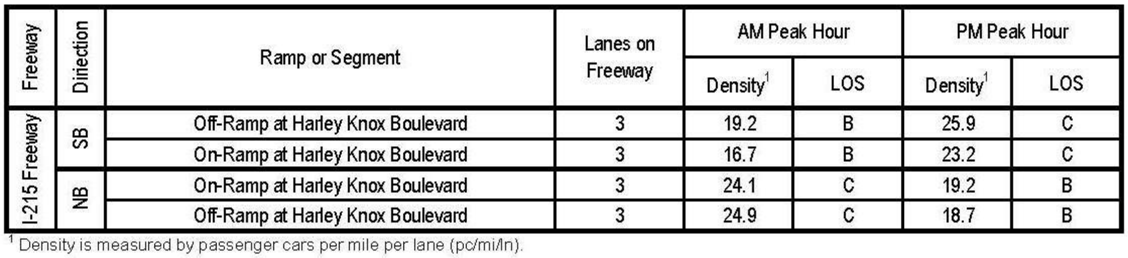
[2] Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal

[4] It should be noted that although signal heads are installed, field review indicates that the signal heads are currently flashing red. As such, this intersection was analyzed assuming an all-way stop control operation for existing conditions only. Future analysis scenarios assume the traffic signal is operational.

Source: (Urban Crossroads, 2013), Section 3.7

Table 4.4-9 I-215 Freeway Ramp Junction Merge/Diverge Analysis For Existing (2012) Baseline Conditions

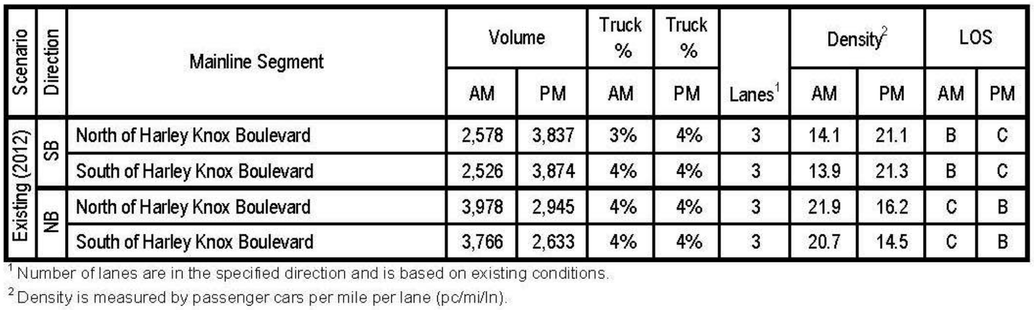


Freeway	Direction	Ramp or Segment	Lanes on Freeway	AM Peak Hour		PM Peak Hour	
				Density[1]	LOS	Density[1]	LOS
I-215 Freeway	SB	Off-Ramp at Harley Knox Boulevard	3	19.2	B	25.9	C
		On-Ramp at Harley Knox Boulevard	3	16.7	B	23.2	C
	NB	On-Ramp at Harley Knox Boulevard	3	24.1	C	19.2	B
		Off-Ramp at Harley Knox Boulevard	3	24.9	C	18.7	B

[1] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Source: (Urban Crossroads, 2013), Section 3.11

Table 4.4-10 Existing (2012) Baseline Conditions Basic Freeway Segment Analysis



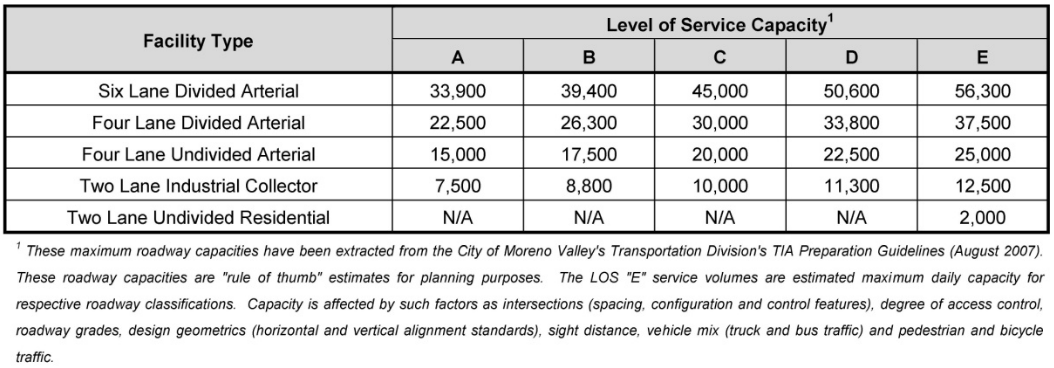
Scenario	Direction	Mainline Segment	Volume AM	Volume PM	Truck % AM	Truck % PM	Lanes[1]	Density[2] AM	Density[2] PM	LOS AM	LOS PM
Existing (2012)	SB	North of Harley Knox Boulevard	2,578	3,837	3%	4%	3	14.1	21.1	B	C
		South of Harley Knox Boulevard	2,526	3,874	4%	4%	3	13.9	21.3	B	C
	NB	North of Harley Knox Boulevard	3,978	2,945	4%	4%	3	21.9	16.2	C	B
		South of Harley Knox Boulevard	3,766	2,633	4%	4%	3	20.7	14.5	C	B

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Source: (Urban Crossroads, 2013), Section 3.11

Table 4.4-11 Moreno Valley Roadway Segment Capacity LOS Thresholds

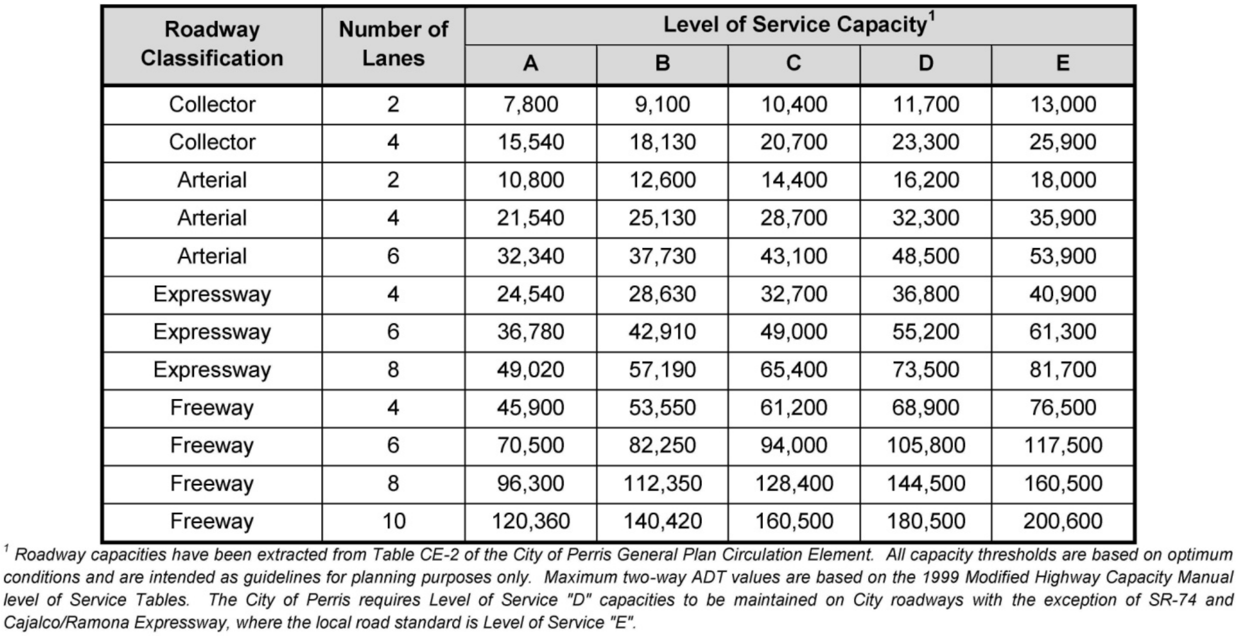


Facility Type	Level of Service Capacity[1] A	B	C	D	E
Six Lane Divided Arterial	33,900	39,400	45,000	50,600	56,300
Four Lane Divided Arterial	22,500	26,300	30,000	33,800	37,500
Four Lane Undivided Arterial	15,000	17,500	20,000	22,500	25,000
Two Lane Industrial Collector	7,500	8,800	10,000	11,300	12,500
Two Lane Undivided Residential	N/A	N/A	N/A	N/A	2,000

[1] These maximum roadway capacities have been extracted from the City of Moreno Valley's Transportation Division's TIA Preparation Guidelines (August 2007). These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "E" service volumes are estimated maximum daily capacity for respective roadway classifications. Capacity is affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian and bicycle traffic.

Source: (Urban Crossroads, 2013), Section 2.3

Table 4.4-12 Perris Roadway Segment Capacity LOS Thresholds[1]

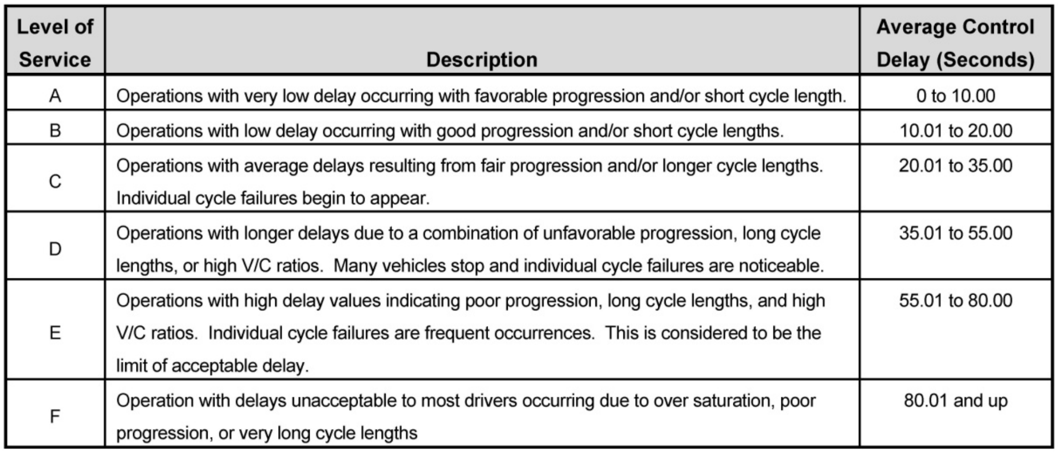


Roadway Classification	Number of Lanes	Level of Service Capacity[1]				
		A	B	C	D	E
Collector	2	7,800	9,100	10,400	11,700	13,000
Collector	4	15,540	18,130	20,700	23,300	25,900
Arterial	2	10,800	12,600	14,400	16,200	18,000
Arterial	4	21,540	25,130	28,700	32,300	35,900
Arterial	6	32,340	37,730	43,100	48,500	53,900
Expressway	4	24,540	28,630	32,700	36,800	40,900
Expressway	6	36,780	42,910	49,000	55,200	61,300
Expressway	8	49,020	57,190	65,400	73,500	81,700
Freeway	4	45,900	53,550	61,200	68,900	76,500
Freeway	6	70,500	82,250	94,000	105,800	117,500
Freeway	8	96,300	112,350	128,400	144,500	160,500
Freeway	10	120,360	140,420	160,500	180,500	200,600

[1] *Roadway capacities have been extracted from Table CE-2 of the City of Perris General Plan Circulation Element. All capacity thresholds are based on optimum conditions and are intended as guidelines for planning purposes only. Maximum two-way ADT values are based on the 1999 Modified Highway Capacity Manual level of Service Tables. The City of Perris requires Level of Service "D" capacities to be maintained on City roadways with the exception of SR-74 and Cajalco/Ramona Expressway, where the local road standard is Level of Service "E".*

Source: (Urban Crossroads, 2013), Section 2.3

Table 4.4-13 Signalized Intersection LOS Thresholds



Level of Service	Description	Average Control Delay (Seconds)
A	Operations with very low delay occurring with favorable progression and/or short cycle length.	0 to 10.00
B	Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.01 to 35.00
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.01 to 55.00
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.01 to 80.00
F	Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths	80.01 and up

Source: (Urban Crossroads, 2013), Section 2.1

Table 4.4-14 Freeway Mainline LOS Thresholds

Level of Service	Description	Density Range (pc/mi/ln)[1]
A	Free-flow operations in which vehicles are relatively unimpeded in their ability to maneuver within the traffic stream. Effects of incidents are easily absorbed.	0.0 – 11.0
B	Relative free-flow operations in which vehicle maneuvers within the traffic stream are slightly restricted. Effects of minor incidents are easily absorbed.	11.1 – 18.0
C	Travel is still at relative free-flow speeds, but freedom to maneuver within the traffic stream is noticeably restricted. Minor incidents may be absorbed, but local deterioration in service will be substantial. Queues begin to form behind significant blockages.	18.1 – 26.0
D	Speeds begin to decline slightly and flows and densities begin to increase more quickly. Freedom to maneuver is noticeably limited. Minor incidents can be expected to create queuing as the traffic stream has little space to absorb disruptions.	26.1 – 35.0
E	Operation at capacity. Vehicles are closely spaced with little room to maneuver. Any disruption in the traffic stream can establish a disruption wave that propagates throughout the upstream traffic flow. Any incident can be expected to produce a serious disruption in traffic flow and extensive queuing.	35.1 – 45.0
F	Breakdown in vehicle flow.	>45.0

[1] *pc/mi/ln = passenger cars per mile per lane. Source: HCM 2000, Chapter 23*

Source: (Urban Crossroads, 2013), Section 2.4

Table 4.4-15 Existing Plus Project Conditions Roadway Volume/Capacity Analysis[1]

#	Roadway	Segment Limits	Jurisdiction	Roadway Section	LOS Capacity[2,3]	Existing Plus Project	V/C	LOS	Acceptable LOS
1	Harley Knox Boulevard	West of I-215 Freeway	Co. of Riv.	4D	35,900	7,884	0.22	A	D
2		I-215 SB Ramps to I-215 NB Ramps	Perris	4D	35,900	11,358	0.32	A	D
3		I-215 NB Ramps to Western Way	Perris	4U	25,900	15,751	0.61	B	D
4		East of Western Way	Perris	4U	25,900	14,959	0.58	A	D
5		West of Patterson Avenue	Perris	4U	25,900	14,899	0.58	A	D
6		East of Patterson Avenue	Perris	2D	18,000	14,073	0.78	C	D
7		West of Indian Street	Perris	4D	35,900	12,512	0.35	A	D
8		East of Indian Street	Perris	4D	35,900	5,856	0.16	A	D
9	Western Way	North of Harley Knox Boulevard	Perris	2U	13,000	1,200	0.09	A	D
10	Patterson Avenue	North of Harley Knox Boulevard	Perris	2U	13,000	132	0.01	A	D
11		South of Harley Knox Boulevard	Perris	2U	13,000	1,250	0.10	A	D
12	Indian Street	North of Nandina Avenue	MV	2D	12,500	3,950	0.32	A	D
13		South of Nandina Avenue	MV	4D	37,500	7,141	0.19	A	D
14		North of Harley Knox Boulevard	MV	4D	37,500	8,545	0.23	A	D
15		South of Harley Knox Boulevard	Perris	4D	35,900	1,481	0.04	A	D
16	Knox Street	North of Nandina Avenue	MV	2D	12,500	324	0.03	A	D
17	Perris Boulevard	North of San Michele Road	MV	3D	25,000	19,026	0.76	C	D
18		South of San Michele Road	MV	4D	37,500	16,998	0.45	A	D
19		North of Nandina Avenue	MV	4D	37,500	19,759	0.53	A	D
20		South of Nandina Avenue	MV	4D	37,500	19,984	0.53	A	D
21	San Michele Road	West of Driveway 1	MV	2D	12,500	3,902	0.31	A	D
22		Driveway 1 to Driveway 3	MV	2D	12,500	3,396	0.27	A	D
23		Driveway 3 to Perris Boulevard	MV	2D	12,500	3,496	0.28	A	D
24	Nandina Avenue	West of Indian Street	MV	2U	12,500	1,236	0.10	A	D
25		Indian Street to Knox Street	MV	2D	12,500	3,035	0.24	A	D
26		Knox Street to Driveway 2	MV	2D	12,500	2,303	0.18	A	D
27		Driveway 2 to Driveway 4	MV	2U	12,500	1,072	0.09	A	D
28		Driveway 4 to Perris Boulevard	MV	2U	12,500	1,135	0.09	A	D

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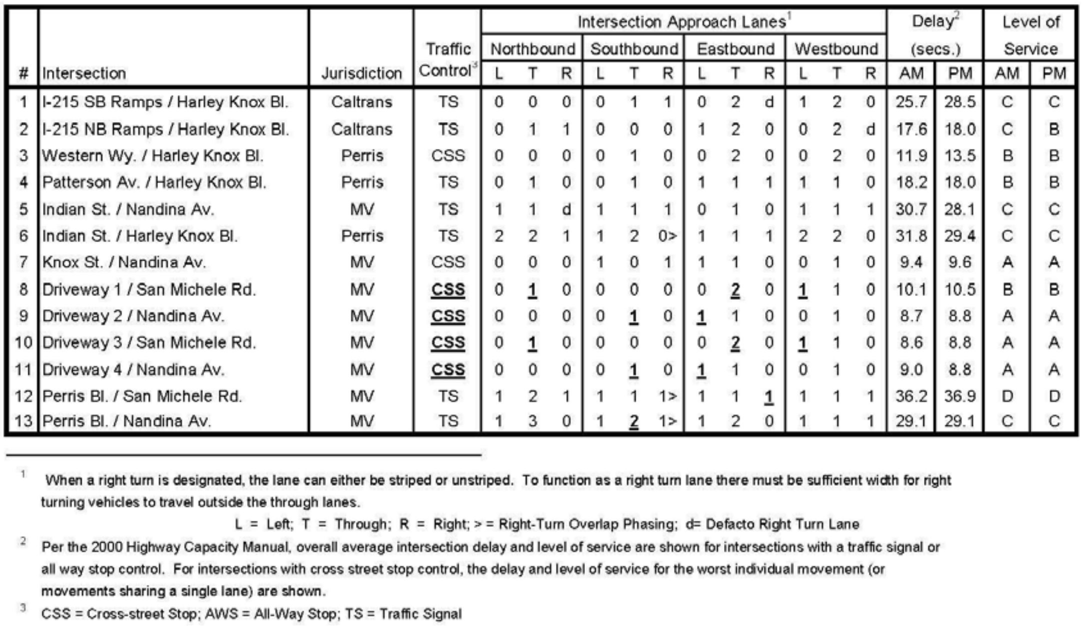
[1] Per Figure 9-2: City of Moreno Valley Level of Service (LOS) Standards, City of Moreno Valley General Plan Circulation Element.
From Table CE-2 of the City of Perris General Plan Circulation Element.

[2] These maximum roadway capacities have been extracted from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007). These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "E" service volumes are estimated maximum daily capacity for respective classifications. Capacity is affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian and bicycle traffic.

[3] The City of Perris roadway standard capacity is LOS "D", with the exception of SR-74 and Cajalco/Ramona Expressway which allows LOS "E" capacity. As such, the volumes shown in the table are based upon LOS "D" capacity with the exception of segments along SR-74 and Cajalco/Ramona Expressway which have been based upon LOS "E" capacity.

Source: (Urban Crossroads, 2013), Section 5.2

Table 4.4-16 Intersection Analysis for Existing Plus Project Conditions



			Traffic	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
				Northbound			Southbound			Eastbound			Westbound						
#	Intersection	Jurisdiction	Control[3]	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	I-215 SB Ramps / Harley Knox Bl.	Caltrans	TS	0	0	0	0	1	1	0	2	d	1	2	0	25.7	28.5	C	C
2	I-215 NB Ramps / Harley Knox Bl.	Caltrans	TS	0	1	1	0	0	0	1	2	0	0	2	d	17.6	18.0	C	B
3	Western Wy. / Harley Knox Bl.	Perris	CSS	0	0	0	0	1	0	0	2	0	0	2	0	11.9	13.5	B	B
4	Patterson Av. / Harley Knox Bl.	Perris	TS	0	1	0	0	1	0	1	1	1	1	1	0	18.2	18.0	B	B
5	Indian St. / Nandina Av.	MV	TS	1	1	d	1	1	1	0	1	0	1	1	1	30.7	28.1	C	C
6	Indian St. / Harley Knox Bl.	Perris	TS	2	2	1	1	2	0>	1	1	1	2	2	0	31.8	29.4	C	C
7	Knox St. / Nandina Av.	MV	CSS	0	0	0	1	0	1	1	1	0	0	1	0	9.4	9.6	A	A
8	Driveway 1 / San Michele Rd.	MV	CSS	0	1	0	0	0	0	0	2	0	1	1	0	10.1	10.5	B	B
9	Driveway 2 / Nandina Av.	MV	CSS	0	0	0	0	1	0	1	1	0	0	1	0	8.7	8.8	A	A
10	Driveway 3 / San Michele Rd.	MV	CSS	0	1	0	0	0	0	0	2	0	1	1	0	8.6	8.8	A	A
11	Driveway 4 / Nandina Av.	MV	CSS	0	0	0	0	1	0	1	1	0	0	1	0	9.0	8.8	A	A
12	Perris Bl. / San Michele Rd.	MV	TS	1	2	1	1	1	1>	1	1	1	1	1	1	36.2	36.9	D	D
13	Perris Bl. / Nandina Av.	MV	TS	1	3	0	1	2	1>	1	2	0	1	1	1	29.1	29.1	C	C

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[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; d= Defacto Right Turn Lane

[2] Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal

Source: (Urban Crossroads, 2013), Section 5.2

Table 4.4-17 Opening Year (2017) Conditions Roadway Volume/Capacity Analysis[1]

#	Roadway	Segment Limits	Jurisdiction	Roadway Section	LOS Capacity[2,3]	EA (2017)	V/C	LOS	Acceptable LOS	EAP (2017)	V/C	LOS	Acceptable LOS
1	Harley Knox Boulevard	West of I-215 Freeway	Co. of Riv.	4D	35,900	8,705	0.24	A	D	8,705	0.24	A	D
2		I-215 SB Ramps to I-215 NB Ramps	Perris	4D	35,900	11,951	0.33	A	D	12,485	0.35	A	D
3		I-215 NB Ramps to Western Way	Perris	4U	25,900	16,389	0.63	B	D	17,296	0.67	B	D
4		East of Western Way	Perris	4U	25,900	15,515	0.60	A	D	16,422	0.63	B	D
5		West of Patterson Avenue	Perris	4U	25,900	15,448	0.60	A	D	16,355	0.63	B	D
6		East of Patterson Avenue	Perris	2D	18,000	14,521	0.81	D	D	15,442	0.86	D	D
7		West of Indian Street	Perris	4D	35,900	12,799	0.36	A	D	13,719	0.38	A	D
8		East of Indian Street	Perris	4D	35,900	6,466	0.18	A	D	6,466	0.18	A	D
9	Western Way	North of Harley Knox Boulevard	Perris	2U	13,000	1,325	0.10	A	D	1,325	0.10	A	D
10	Patterson Avenue	North of Harley Knox Boulevard	Perris	2U	13,000	146	0.01	A	D	146	0.01	A	D
11		South of Harley Knox Boulevard	Perris	2U	13,000	1,365	0.11	A	D	1,379	0.11	A	D
12	Indian Street	North of Nandina Avenue	MV	2D	12,500	4,054	0.32	A	D	4,332	0.35	A	D
13		South of Nandina Avenue	MV	4D	37,500	6,810	0.18	A	D	7,783	0.21	A	D
14		North of Harley Knox Boulevard	MV	4D	37,500	8,360	0.22	A	D	9,333	0.25	A	D
15		South of Harley Knox Boulevard	Perris	4D	35,900	1,577	0.04	A	D	1,630	0.05	A	D
16	Knox Street	North of Nandina Avenue	MV	2D	12,500	358	0.03	A	D	358	0.03	A	D
17	Perris Boulevard	North of San Michele Road	MV	3D	25,000	20,933	0.84	D	D	20,999	0.84	D	D
18		South of San Michele Road	MV	4D	37,500	18,694	0.50	A	D	18,760	0.50	A	D
19		North of Nandina Avenue	MV	4D	37,500	21,742	0.58	A	D	21,809	0.58	A	D
20		South of Nandina Avenue	MV	4D	37,500	22,033	0.59	A	D	22,061	0.59	A	D
21	San Michele Road	West of Driveway 1	MV	2D	12,500	4,001	0.32	A	D	4,279	0.34	A	D
22		Driveway 1 to Driveway 3	MV	2D	12,500	3,749	0.30	A	D	3,749	0.30	A	D
23		Driveway 3 to Perris Boulevard	MV	2D	12,500	3,802	0.30	A	D	3,854	0.31	A	D
24	Nandina Avenue	West of Indian Street	MV	2U	12,500	1,365	0.11	A	D	1,365	0.11	A	D
25		Indian Street to Knox Street	MV	2D	12,500	2,584	0.21	A	D	3,279	0.26	A	D
26		Knox Street to Driveway 2	MV	2D	12,500	1,775	0.14	A	D	2,470	0.20	A	D
27		Driveway 2 to Driveway 4	MV	2U	12,500	1,153	0.09	A	D	1,181	0.09	A	D
28		Driveway 4 to Perris Boulevard	MV	2U	12,500	1,179	0.09	A	D	1,246	0.10	A	D

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[1] Per Figure 9-2: City of Moreno Valley Level of Service (LOS) Standards, City of Moreno Valley General Plan Circulation Element.

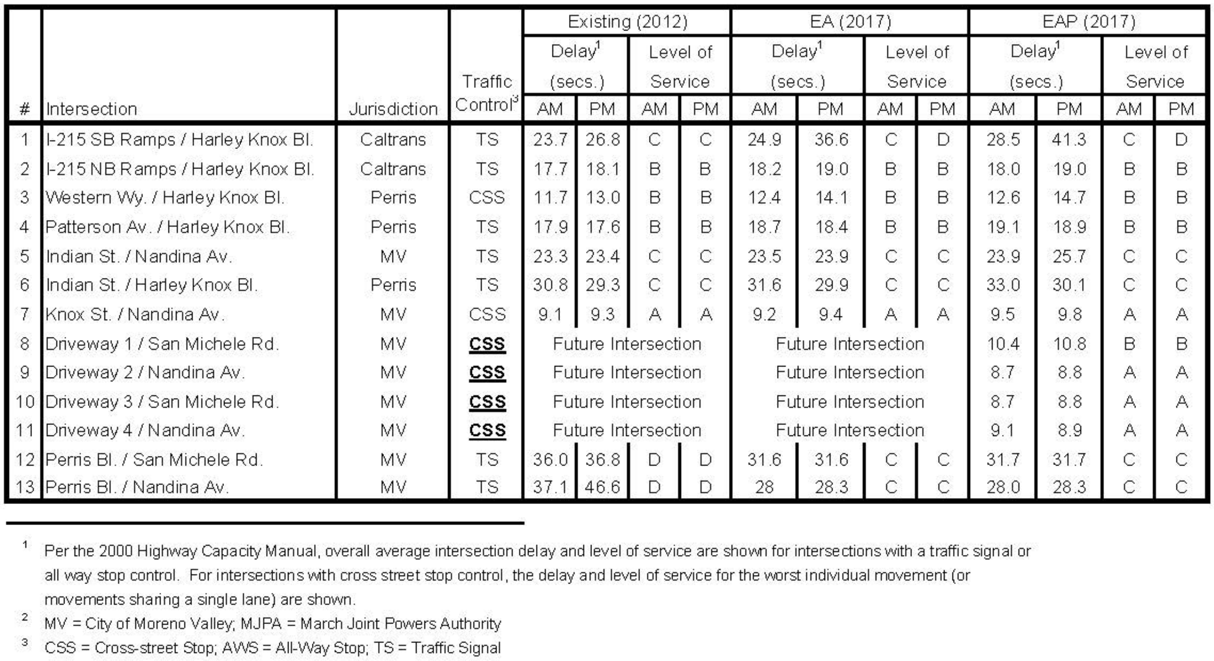
From Table CE-2 of the City of Perris General Plan Circulation Element.

[2] These maximum roadway capacities have been extracted from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis
Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007). These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "E" service volumes are estimated maximum daily capacity for respective classifications. Capacity is affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian and bicycle traffic.

[3] The City of Perris roadway standard capacity is LOS "D", with the exception of SR-74 and Cajalco/Ramona Expressway which allows LOS "E" capacity. As such, the volumes shown in the table are based upon LOS "D" capacity with the exception of segments along SR-74 and Cajalco/Ramona Expressway which have been based upon LOS "E" capacity.

Source: (Urban Crossroads, 2013), Section 6.7

Table 4.4-18 Intersection Analysis for Opening Year (2017) Conditions



#	Intersection	Jurisdiction	Traffic Control[3]	Existing (2012) Delay[1] (secs.) AM	Existing (2012) Delay[1] (secs.) PM	Existing (2012) Level of Service AM	Existing (2012) Level of Service PM	EA (2017) Delay[1] (secs.) AM	EA (2017) Delay[1] (secs.) PM	EA (2017) Level of Service AM	EA (2017) Level of Service PM	EAP (2017) Delay[1] (secs.) AM	EAP (2017) Delay[1] (secs.) PM	EAP (2017) Level of Service AM	EAP (2017) Level of Service PM
1	I-215 SB Ramps / Harley Knox Bl.	Caltrans	TS	23.7	26.8	C	C	24.9	36.6	C	D	28.5	41.3	C	D
2	I-215 NB Ramps / Harley Knox Bl.	Caltrans	TS	17.7	18.1	B	B	18.2	19.0	B	B	18.0	19.0	B	B
3	Western Wy. / Harley Knox Bl.	Perris	CSS	11.7	13.0	B	B	12.4	14.1	B	B	12.6	14.7	B	B
4	Patterson Av. / Harley Knox Bl.	Perris	TS	17.9	17.6	B	B	18.7	18.4	B	B	19.1	18.9	B	B
5	Indian St. / Nandina Av.	MV	TS	23.3	23.4	C	C	23.5	23.9	C	C	23.9	25.7	C	C
6	Indian St. / Harley Knox Bl.	Perris	TS	30.8	29.3	C	C	31.6	29.9	C	C	33.0	30.1	C	C
7	Knox St. / Nandina Av.	MV	CSS	9.1	9.3	A	A	9.2	9.4	A	A	9.5	9.8	A	A
8	Driveway 1 / San Michele Rd.	MV	**CSS**	Future Intersection				Future Intersection				10.4	10.8	B	B
9	Driveway 2 / Nandina Av.	MV	**CSS**	Future Intersection				Future Intersection				8.7	8.8	A	A
10	Driveway 3 / San Michele Rd.	MV	**CSS**	Future Intersection				Future Intersection				8.7	8.8	A	A
11	Driveway 4 / Nandina Av.	MV	**CSS**	Future Intersection				Future Intersection				9.1	8.9	A	A
12	Perris Bl. / San Michele Rd.	MV	TS	36.0	36.8	D	D	31.6	31.6	C	C	31.7	31.7	C	C
13	Perris Bl. / Nandina Av.	MV	TS	37.1	46.6	D	D	28	28.3	C	C	28.0	28.3	C	C

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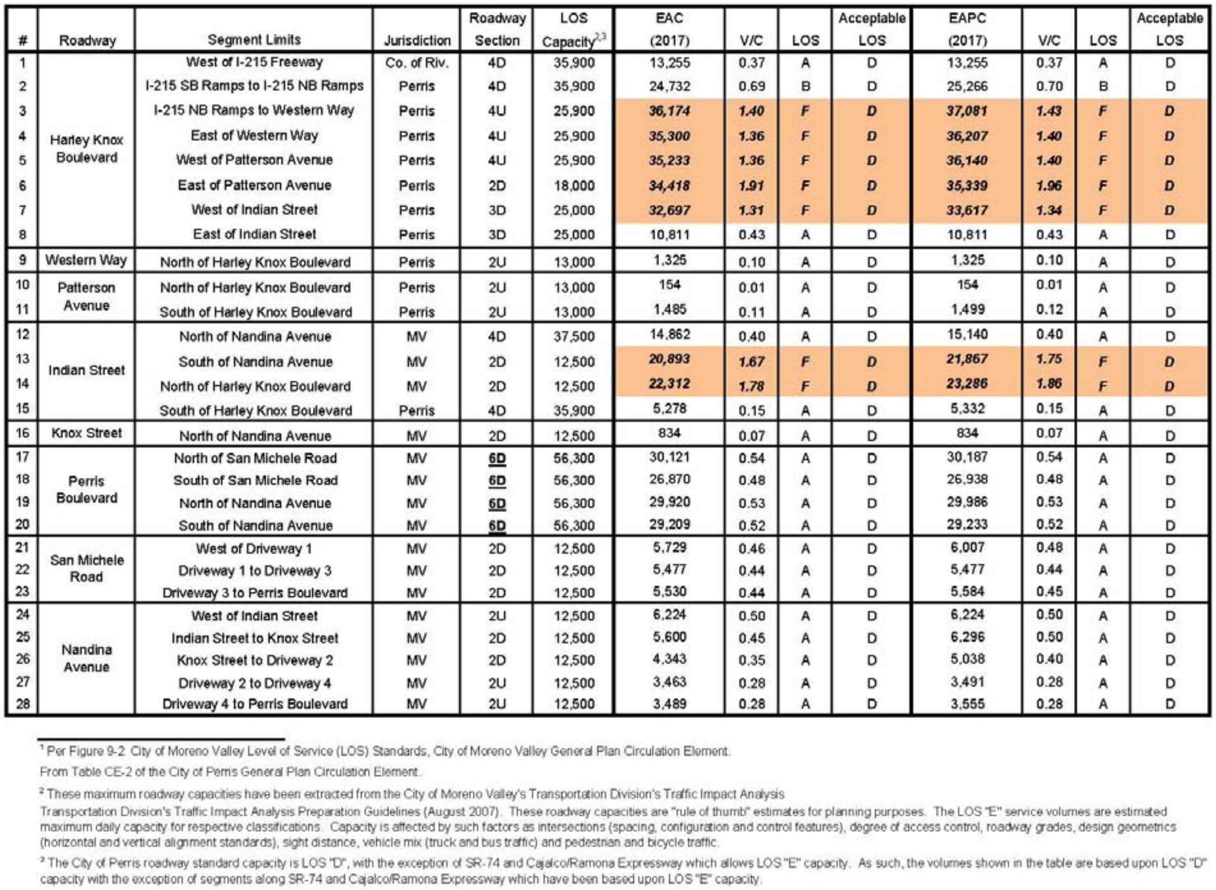
[1] Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] MV = City of Moreno Valley; MJPA = March Joint Powers Authority

[3] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal

Source: (Urban Crossroads, 2013), Section 6.4

Table 4.4-19 Opening Year Cumulative (2017) Conditions Roadway Volume/Capacity Analysis



#	Roadway	Segment Limits	Jurisdiction	Roadway Section	LOS Capacity[2,3]	EAC (2017)	V/C	LOS	Acceptable LOS	EAPC (2017)	V/C	LOS	Acceptable LOS
1	Harley Knox Boulevard	West of I-215 Freeway	Co. of Riv.	4D	35,900	13,255	0.37	A	D	13,255	0.37	A	D
2		I-215 SB Ramps to I-215 NB Ramps	Perris	4D	35,900	24,732	0.69	B	D	25,266	0.70	B	D
3		I-215 NB Ramps to Western Way	Perris	4U	25,900	***36,174***	***1.40***	***F***	***D***	***37,081***	***1.43***	***F***	***D***
4		East of Western Way	Perris	4U	25,900	***35,300***	***1.36***	***F***	***D***	***36,207***	***1.40***	***F***	***D***
5		West of Patterson Avenue	Perris	4U	25,900	***35,233***	***1.36***	***F***	***D***	***36,140***	***1.40***	***F***	***D***
6		East of Patterson Avenue	Perris	2D	18,000	***34,418***	***1.91***	***F***	***D***	***35,339***	***1.96***	***F***	***D***
7		West of Indian Street	Perris	3D	25,000	***32,697***	***1.31***	***F***	***D***	***33,617***	***1.34***	***F***	***D***
8		East of Indian Street	Perris	3D	25,000	10,811	0.43	A	D	10,811	0.43	A	D
9	Western Way	North of Harley Knox Boulevard	Perris	2U	13,000	1,325	0.10	A	D	1,325	0.10	A	D
10	Patterson Avenue	North of Harley Knox Boulevard	Perris	2U	13,000	154	0.01	A	D	154	0.01	A	D
11		South of Harley Knox Boulevard	Perris	2U	13,000	1,485	0.11	A	D	1,499	0.12	A	D
12	Indian Street	North of Nandina Avenue	MV	4D	37,500	14,862	0.40	A	D	15,140	0.40	A	D
13		South of Nandina Avenue	MV	2D	12,500	***20,893***	***1.67***	***F***	***D***	***21,867***	***1.75***	***F***	***D***
14		North of Harley Knox Boulevard	MV	2D	12,500	***22,312***	***1.78***	***F***	***D***	***23,286***	***1.86***	***F***	***D***
15		South of Harley Knox Boulevard	Perris	4D	35,900	5,278	0.15	A	D	5,332	0.15	A	D
16	Knox Street	North of Nandina Avenue	MV	2D	12,500	834	0.07	A	D	834	0.07	A	D
17	Perris Boulevard	North of San Michele Road	MV	**6D**	56,300	30,121	0.54	A	D	30,187	0.54	A	D
18		South of San Michele Road	MV	**6D**	56,300	26,870	0.48	A	D	26,938	0.48	A	D
19		North of Nandina Avenue	MV	**6D**	56,300	29,920	0.53	A	D	29,986	0.53	A	D
20		South of Nandina Avenue	MV	**6D**	56,300	29,209	0.52	A	D	29,233	0.52	A	D
21	San Michele Road	West of Driveway 1	MV	2D	12,500	5,729	0.46	A	D	6,007	0.48	A	D
22		Driveway 1 to Driveway 3	MV	2D	12,500	5,477	0.44	A	D	5,477	0.44	A	D
23		Driveway 3 to Perris Boulevard	MV	2D	12,500	5,530	0.44	A	D	5,584	0.45	A	D
24	Nandina Avenue	West of Indian Street	MV	2U	12,500	6,224	0.50	A	D	6,224	0.50	A	D
25		Indian Street to Knox Street	MV	2D	12,500	5,600	0.45	A	D	6,296	0.50	A	D
26		Knox Street to Driveway 2	MV	2D	12,500	4,343	0.35	A	D	5,038	0.40	A	D
27		Driveway 2 to Driveway 4	MV	2U	12,500	3,463	0.28	A	D	3,491	0.28	A	D
28		Driveway 4 to Perris Boulevard	MV	2U	12,500	3,489	0.28	A	D	3,555	0.28	A	D

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[1] Per Figure 9-2 City of Moreno Valley Level of Service (LOS) Standards, City of Moreno Valley General Plan Circulation Element.

From Table CE-2 of the City of Perris General Plan Circulation Element.

[2] These maximum roadway capacities have been extracted from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis

Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007). These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "E" service volumes are estimated maximum daily capacity for respective classifications. Capacity is affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian and bicycle traffic.

[3] The City of Perris roadway standard capacity is LOS "D", with the exception of SR-74 and Cajalco/Ramona Expressway which allows LOS "E" capacity. As such, the volumes shown in the table are based upon LOS "D" capacity with the exception of segments along SR-74 and Cajalco/Ramona Expressway which have been based upon LOS "E" capacity.

Source: (Urban Crossroads, 2013), Section 7.6

Table 4.4-20 Intersection Analysis for Opening Year Cumulative (2017) Conditions

#	Intersection	Jurisdiction	Traffic Control[3]	Existing (2012)				EAC (2017)				EAPC (2017)			
				Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service	
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1	I-215 SB Ramps / Harley Knox Bl.	Caltrans	TS	23.7	26.8	C	C	**>80.0**	**>80.0**	**F**	**F**	**>80.0**	**>80.0**	**F**	**F**
2	I-215 NB Ramps / Harley Knox Bl.	Caltrans	TS	17.7	18.1	B	B	47.6	**>80.0**	D	**F**	48.4	**>80.0**	D	**F**
3	Western Wy. / Harley Knox Bl.	Perris	CSS	11.7	13.0	B	B	23.2	**>50.0**	C	**F**	24.2	**>50.0**	C	**F**
4	Patterson Av. / Harley Knox Bl.	Perris	TS	17.9	17.6	B	B	**>80.0**	**>80.0**	**F**	**F**	**>80.0**	**>80.0**	**F**	**F**
5	Indian St. / Nandina Av.	MV	TS	23.3	23.4	C	C	28.5	29.5	C	C	28.9	31.2	C	C
6	Indian St. / Harley Knox Bl.	Perris	TS	30.8	29.3	C	C	**>80.0**	**>80.0**	**F**	**F**	**>80.0**	**>80.0**	**F**	**F**
7	Knox St. / Nandina Av.	MV	CSS	9.1	9.3	A	A	11.1	11.5	B	B	11.5	11.9	B	B
8	Driveway 1 / San Michele Rd.	MV	**CSS**	Future Intersection				Future Intersection				11.5	12.2	B	B
9	Driveway 2 / Nandina Av.	MV	**CSS**	Future Intersection				Future Intersection				9.5	9.2	A	A
10	Driveway 3 / San Michele Rd.	MV	**CSS**	Future Intersection				Future Intersection				8.7	9.1	A	A
11	Driveway 4 / Nandina Av.	MV	**CSS**	Future Intersection				Future Intersection				10.4	10.0	B	B
12	Perris Bl. / San Michele Rd.	MV	TS	36.0	36.8	D	D	33.6	38.8	C	D	33.8	38.9	C	D
13	Perris Bl. / Nandina Av.	MV	TS	37.1	46.6	D	D	29.8	33.1	C	C	24.8	33.2	C	C

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[1] Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] MV = City of Moreno Valley; MJPA = March Joint Powers Authority

[3] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal

Source: (Urban Crossroads, 2013), Section 7.5

Table 4.4-21 Existing Plus Project Conditions Basic Freeway Segment Analysis

Scenario	Direction	Mainline Segment	Volume		Truck %	Truck %	Lanes[1]	Density[2]		LOS	
			AM	PM	AM	PM		AM	PM	AM	PM
Existing + Project	SB	North of Harley Knox Boulevard	2,613	3,856	5%	4%	3	14.5	21.2	B	C
		South of Harley Knox Boulevard	2,531	3,884	4%	4%	3	13.9	21.4	B	C
	NB	North of Harley Knox Boulevard	3,994	2,977	4%	5%	3	22.0	16.5	C	B
		South of Harley Knox Boulevard	3,768	2,634	4%	4%	3	20.8	14.5	C	B

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Source: (Urban Crossroads, 2013), Section 5.6

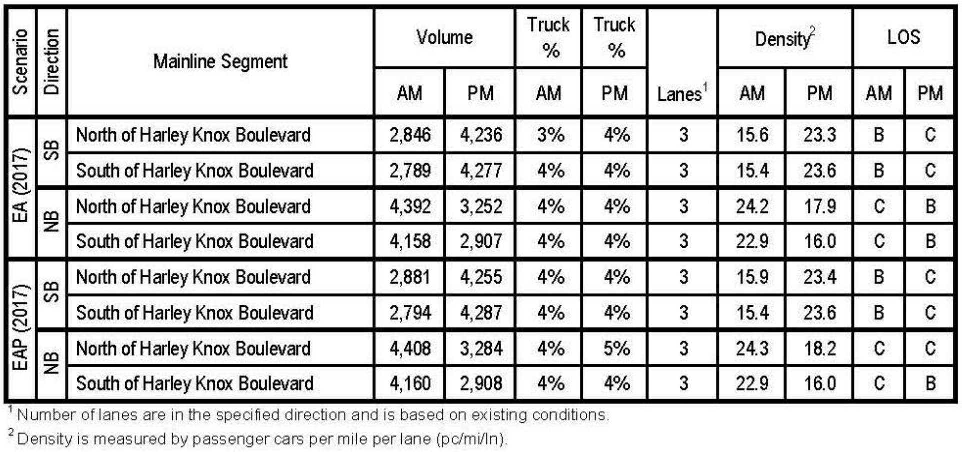
Table 4.4-22 I-215 Freeway Ramp Junction Merge/Diverge Analysis For Existing Plus Project Conditions

Freeway	Diriection	Ramp or Segment	Lanes on Freeway	AM Peak Hour		PM Peak Hour	
				Density[1]	LOS	Density[1]	LOS
I-215 Freeway	SB	Off-Ramp at Harley Knox Boulevard	3	19.6	B	26.0	C
		On-Ramp at Harley Knox Boulevard	3	16.7	B	23.3	C
	NB	On-Ramp at Harley Knox Boulevard	3	24.3	C	19.6	B
		Off-Ramp at Harley Knox Boulevard	3	24.9	C	18.7	B

[1] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Source: (Urban Crossroads, 2013), Section 5.6

Table 4.4-23 Opening Year (2017) Conditions Basic Freeway Segment Analysis



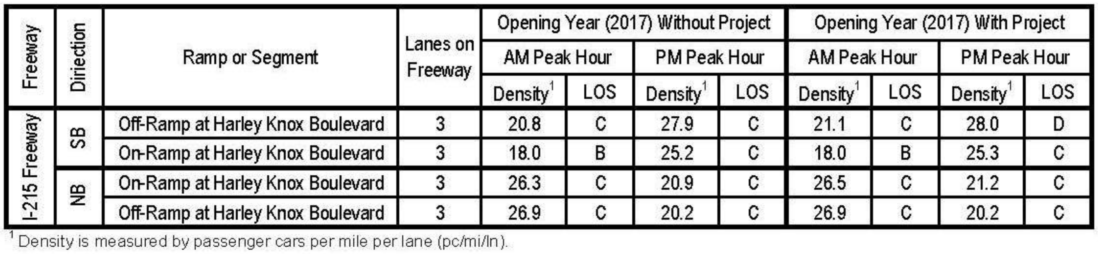
Scenario	Direction	Mainline Segment	Volume		Truck %	Truck %		Density[2]		LOS	
			AM	PM	AM	PM	Lanes[1]	AM	PM	AM	PM
EA (2017)	SB	North of Harley Knox Boulevard	2,846	4,236	3%	4%	3	15.6	23.3	B	C
		South of Harley Knox Boulevard	2,789	4,277	4%	4%	3	15.4	23.6	B	C
	NB	North of Harley Knox Boulevard	4,392	3,252	4%	4%	3	24.2	17.9	C	B
		South of Harley Knox Boulevard	4,158	2,907	4%	4%	3	22.9	16.0	C	B
EAP (2017)	SB	North of Harley Knox Boulevard	2,881	4,255	4%	4%	3	15.9	23.4	B	C
		South of Harley Knox Boulevard	2,794	4,287	4%	4%	3	15.4	23.6	B	C
	NB	North of Harley Knox Boulevard	4,408	3,284	4%	5%	3	24.3	18.2	C	C
		South of Harley Knox Boulevard	4,160	2,908	4%	4%	3	22.9	16.0	C	B

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Source: (Urban Crossroads, 2013), Section 6.9

Table 4.4-24 I-215 Freeway Ramp Junction Merge/Diverge Analysis For Opening Year (2017) Conditions

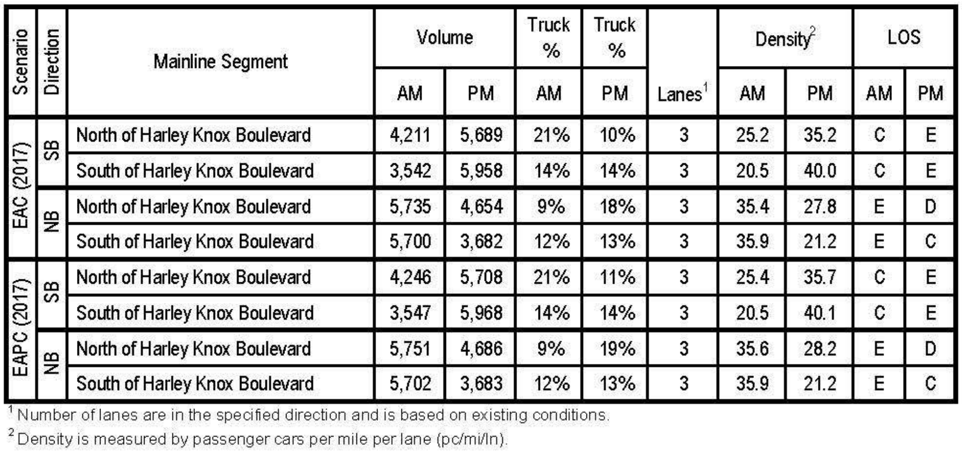


Freeway	Diriection	Ramp or Segment	Lanes on Freeway	Opening Year (2017) Without Project				Opening Year (2017) With Project			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Density[1]	LOS	Density[1]	LOS	Density[1]	LOS	Density[1]	LOS
I-215 Freeway	SB	Off-Ramp at Harley Knox Boulevard	3	20.8	C	27.9	C	21.1	C	28.0	D
		On-Ramp at Harley Knox Boulevard	3	18.0	B	25.2	C	18.0	B	25.3	C
	NB	On-Ramp at Harley Knox Boulevard	3	26.3	C	20.9	C	26.5	C	21.2	C
		Off-Ramp at Harley Knox Boulevard	3	26.9	C	20.2	C	26.9	C	20.2	C

[1] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Source: (Urban Crossroads, 2013), Section 6.9

Table 4.4-25 Opening Year Cumulative (2017) Conditions Basic Freeway Segment Analysis



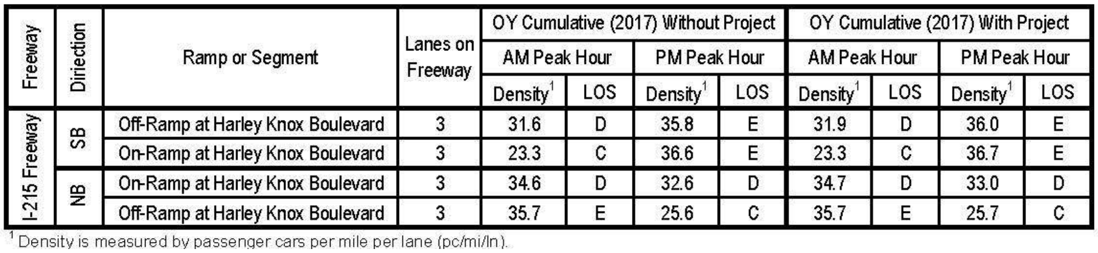
Scenario	Direction	Mainline Segment	Volume		Truck %	Truck %		Density[2]		LOS	
			AM	PM	AM	PM	Lanes[1]	AM	PM	AM	PM
EAC (2017)	SB	North of Harley Knox Boulevard	4,211	5,689	21%	10%	3	25.2	35.2	C	E
		South of Harley Knox Boulevard	3,542	5,958	14%	14%	3	20.5	40.0	C	E
	NB	North of Harley Knox Boulevard	5,735	4,654	9%	18%	3	35.4	27.8	E	D
		South of Harley Knox Boulevard	5,700	3,682	12%	13%	3	35.9	21.2	E	C
EAPC (2017)	SB	North of Harley Knox Boulevard	4,246	5,708	21%	11%	3	25.4	35.7	C	E
		South of Harley Knox Boulevard	3,547	5,968	14%	14%	3	20.5	40.1	C	E
	NB	North of Harley Knox Boulevard	5,751	4,686	9%	19%	3	35.6	28.2	E	D
		South of Harley Knox Boulevard	5,702	3,683	12%	13%	3	35.9	21.2	E	C

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Source: (Urban Crossroads, 2013), Section 7.8

Table 4.4-26 I-215 Freeway Ramp Junction Merge/Diverge Analysis For Opening Year Cumulative (2017) Conditions

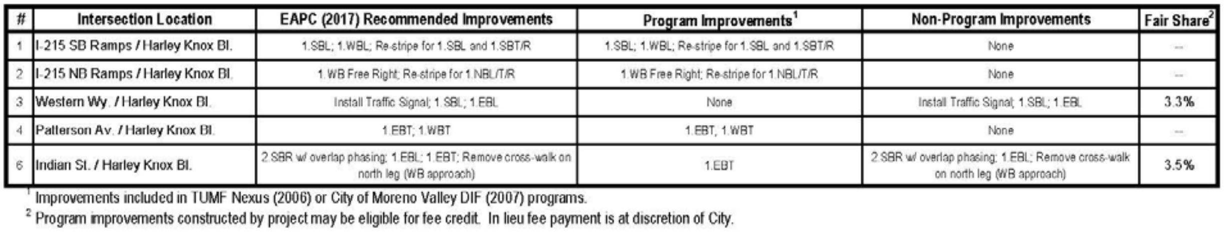


Freeway	Diriection	Ramp or Segment	Lanes on Freeway	OY Cumulative (2017) Without Project				OY Cumulative (2017) With Project			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Density[1]	LOS	Density[1]	LOS	Density[1]	LOS	Density[1]	LOS
I-215 Freeway	SB	Off-Ramp at Harley Knox Boulevard	3	31.6	D	35.8	E	31.9	D	36.0	E
		On-Ramp at Harley Knox Boulevard	3	23.3	C	36.6	E	23.3	C	36.7	E
	NB	On-Ramp at Harley Knox Boulevard	3	34.6	D	32.6	D	34.7	D	33.0	D
		Off-Ramp at Harley Knox Boulevard	3	35.7	E	25.6	C	35.7	E	25.7	C

[1] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Source: Urban Crossroads, Inc. 2012, Section 7.8

Table 4.4-27 Summary of Transportation Impact Fee Program Improvements for Opening Year Cumulative (2017) Conditions

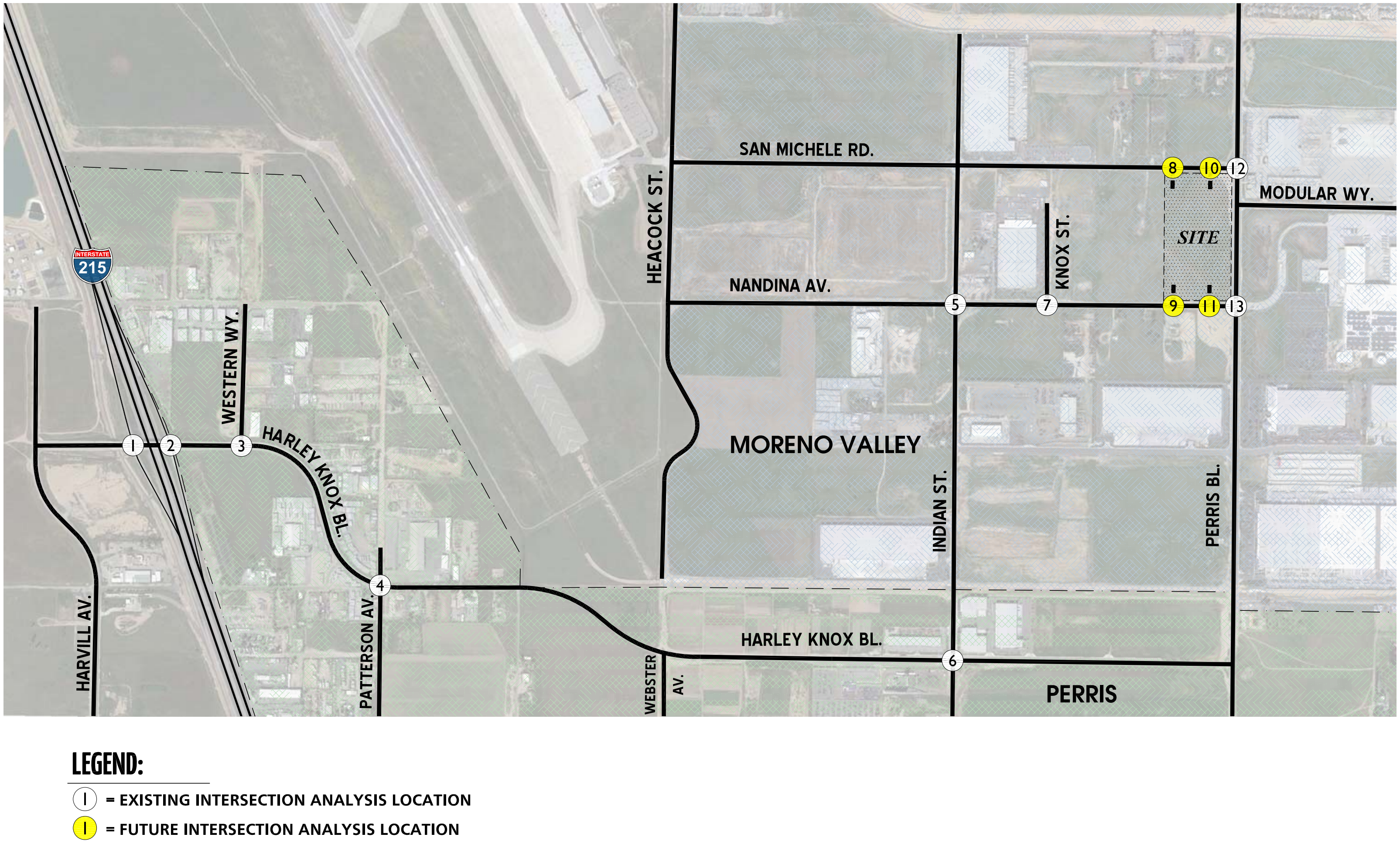


#	Intersection Location	EAPC (2017) Recommended Improvements	Program Improvements[1]	Non-Program Improvements	Fair Share[2]
1	I-215 SB Ramps / Harley Knox Bl.	1.SBL; 1.WBL; Re-stripe for 1.SBL and 1.SBT/R	1.SBL; 1.WBL; Re-stripe for 1.SBL and 1.SBT/R	None	--
2	I-215 NB Ramps / Harley Knox Bl.	1.WB Free Right; Re-stripe for 1.NBL/T/R	1.WB Free Right; Re-stripe for 1.NBL/T/R	None	--
3	Western Wy. / Harley Knox Bl.	Install Traffic Signal; 1.SBL; 1.EBL	None	Install Traffic Signal; 1.SBL; 1.EBL	3.3%
4	Patterson Av. / Harley Knox Bl.	1.EBT; 1.WBT	1.EBT, 1.WBT	None	--
6	Indian St. / Harley Knox Bl.	2.SBR w/ overlap phasing; 1.EBL; 1.EBT; Remove cross-walk on north leg (WB approach)	1.EBT	2.SBR w/ overlap phasing; 1.EBL; Remove cross-walk on north leg (WB approach)	3.5%

[1] Improvements included in TUMF Nexus (2006) or City of Moreno Valley DIF (2007) programs.

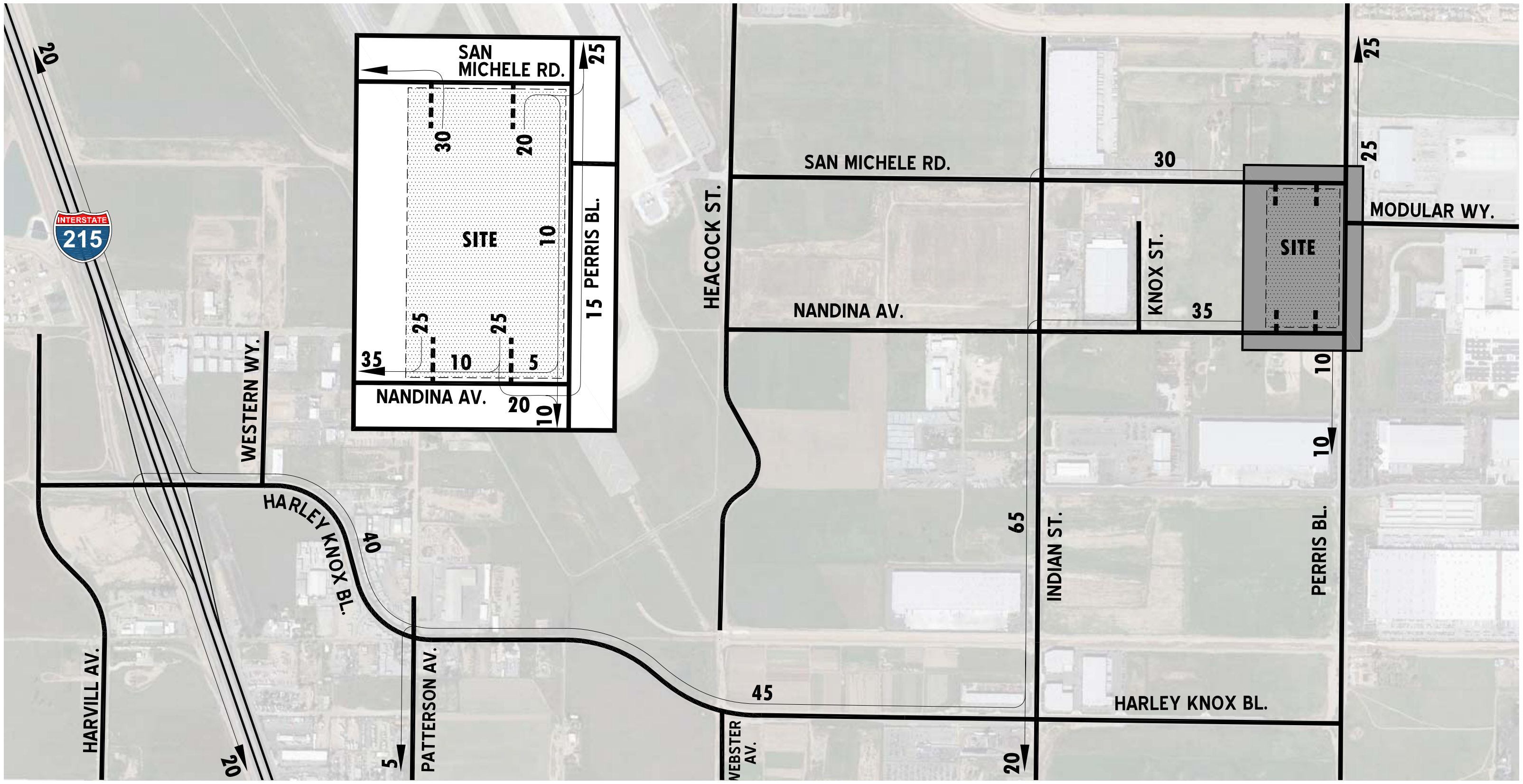
[2] Program improvements constructed by project may be eligible for fee credit. In lieu fee payment is at discretion of City.

Source: Urban Crossroads, Inc. 2012, Section 9.1



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-1
Project Study Area/Intersection Locations



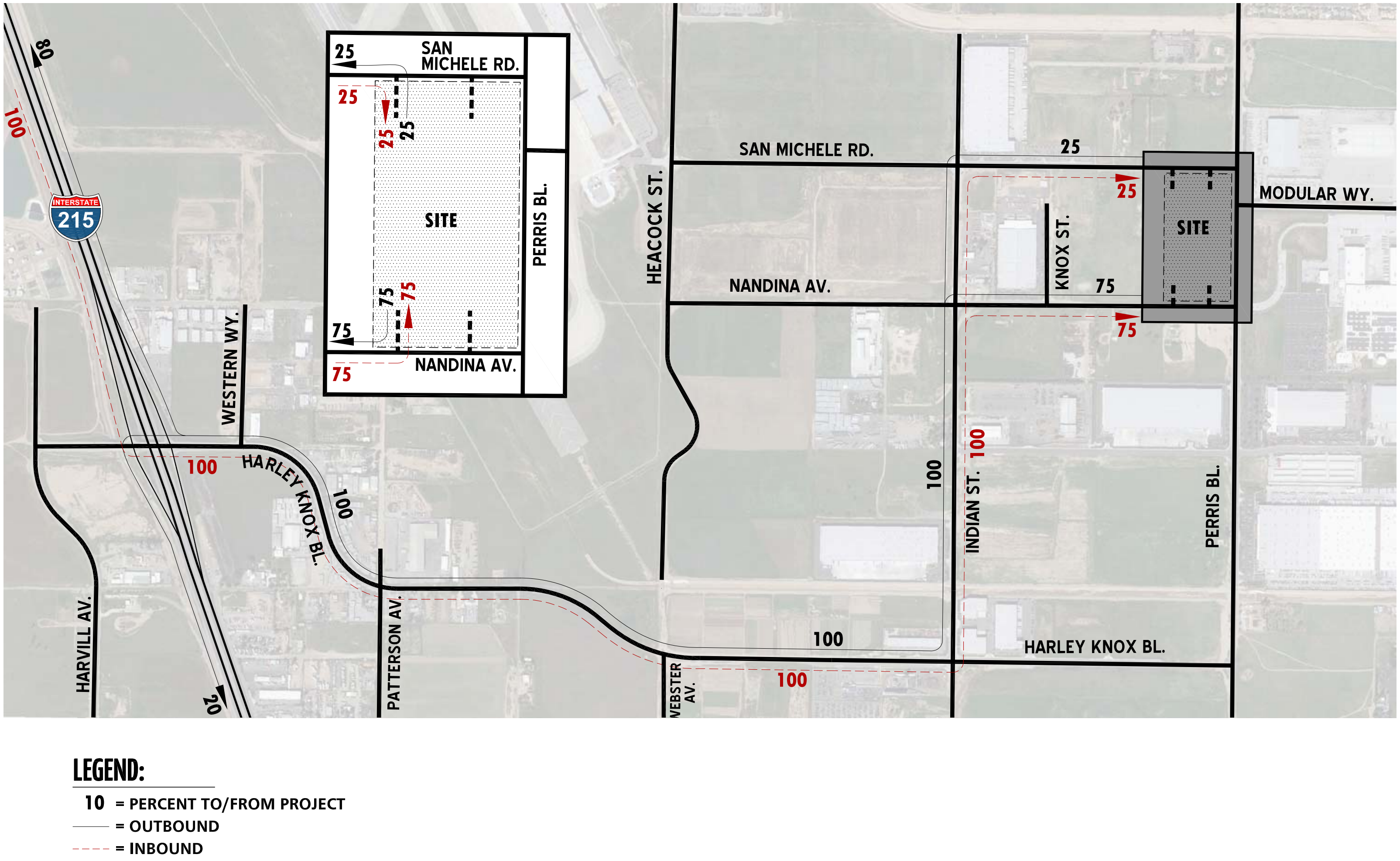
LEGEND:

10 = PERCENT TO/FROM PROJECT

Source: Urban Crossroads (07-06-12)

FIGURE 4.4-2

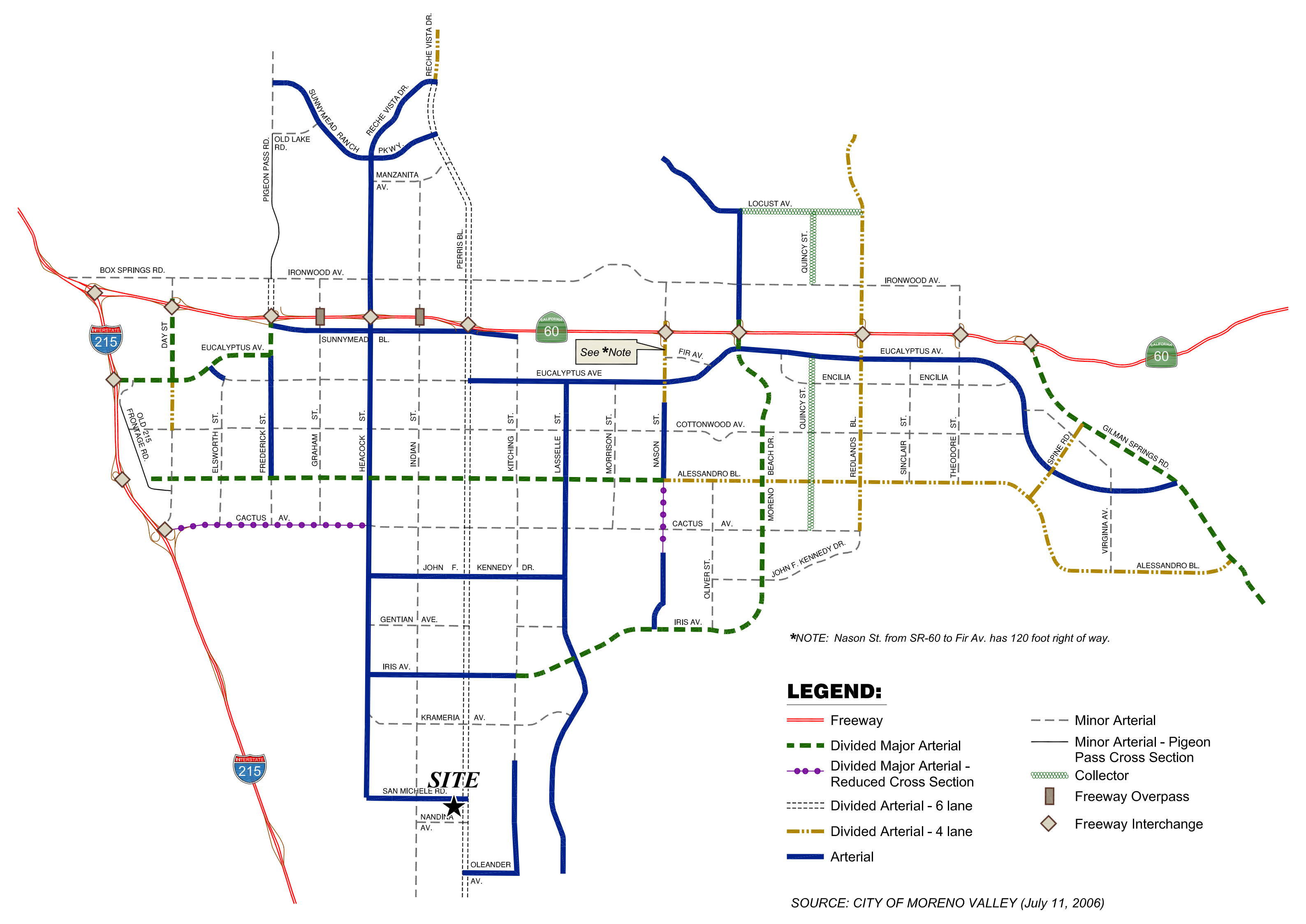
Project (Passenger Car) Trip Distribution



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-3

Project (Truck) Trip Distribution



*NOTE: Nason St. from SR-60 to Fir Av. has 120 foot right of way.

LEGEND:

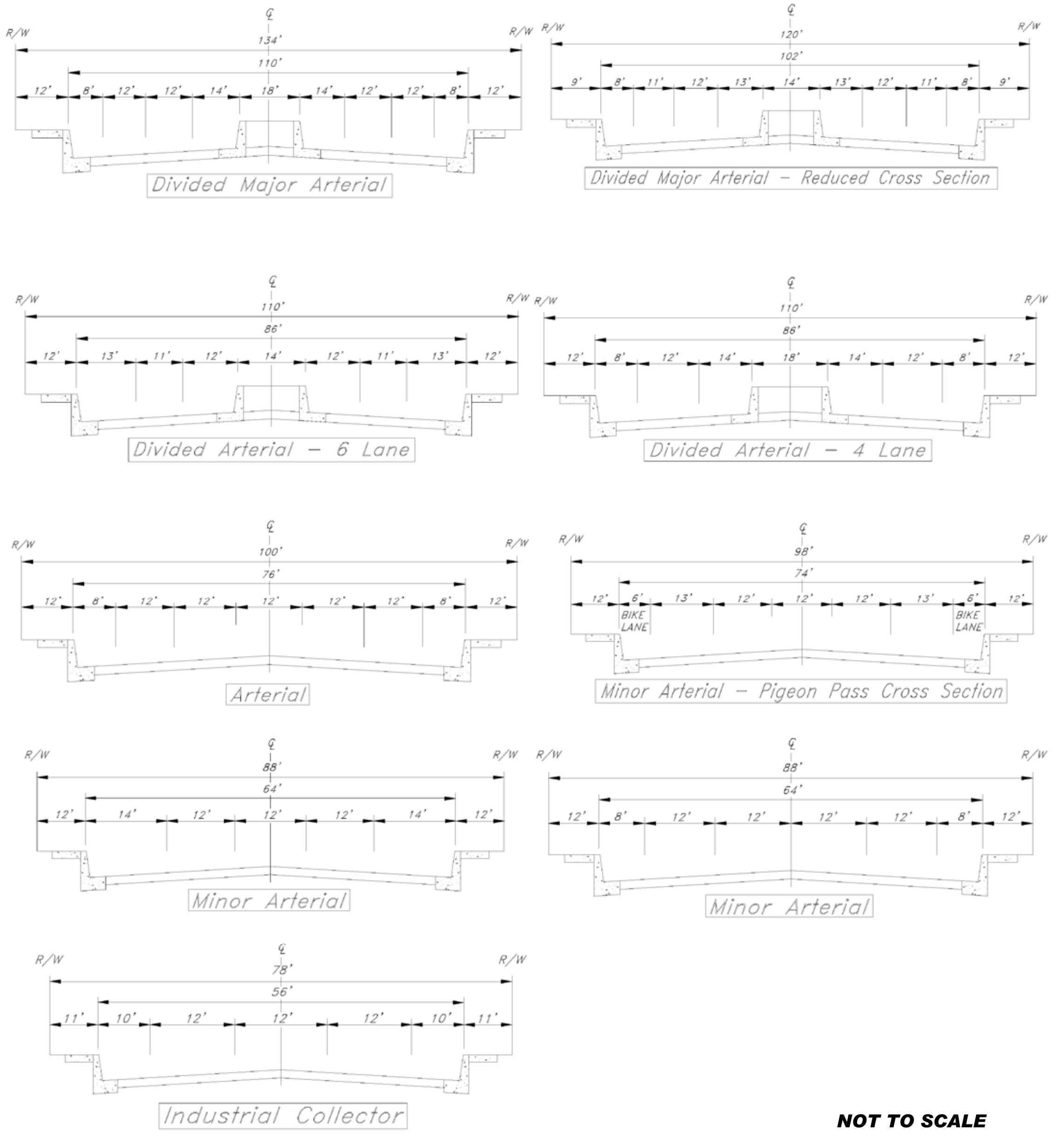
Freeway	Minor Arterial
Divided Major Arterial	Minor Arterial - Pigeon Pass Cross Section
Divided Major Arterial - Reduced Cross Section	Collector
Divided Arterial - 6 lane	Freeway Overpass
Divided Arterial - 4 lane	◇ Freeway Interchange
Arterial	

SOURCE: CITY OF MORENO VALLEY (July 11, 2006)

Source: Urban Crossroads (07-06-12)

FIGURE 4.4-4

City of Moreno Valley General Plan Circulation Element



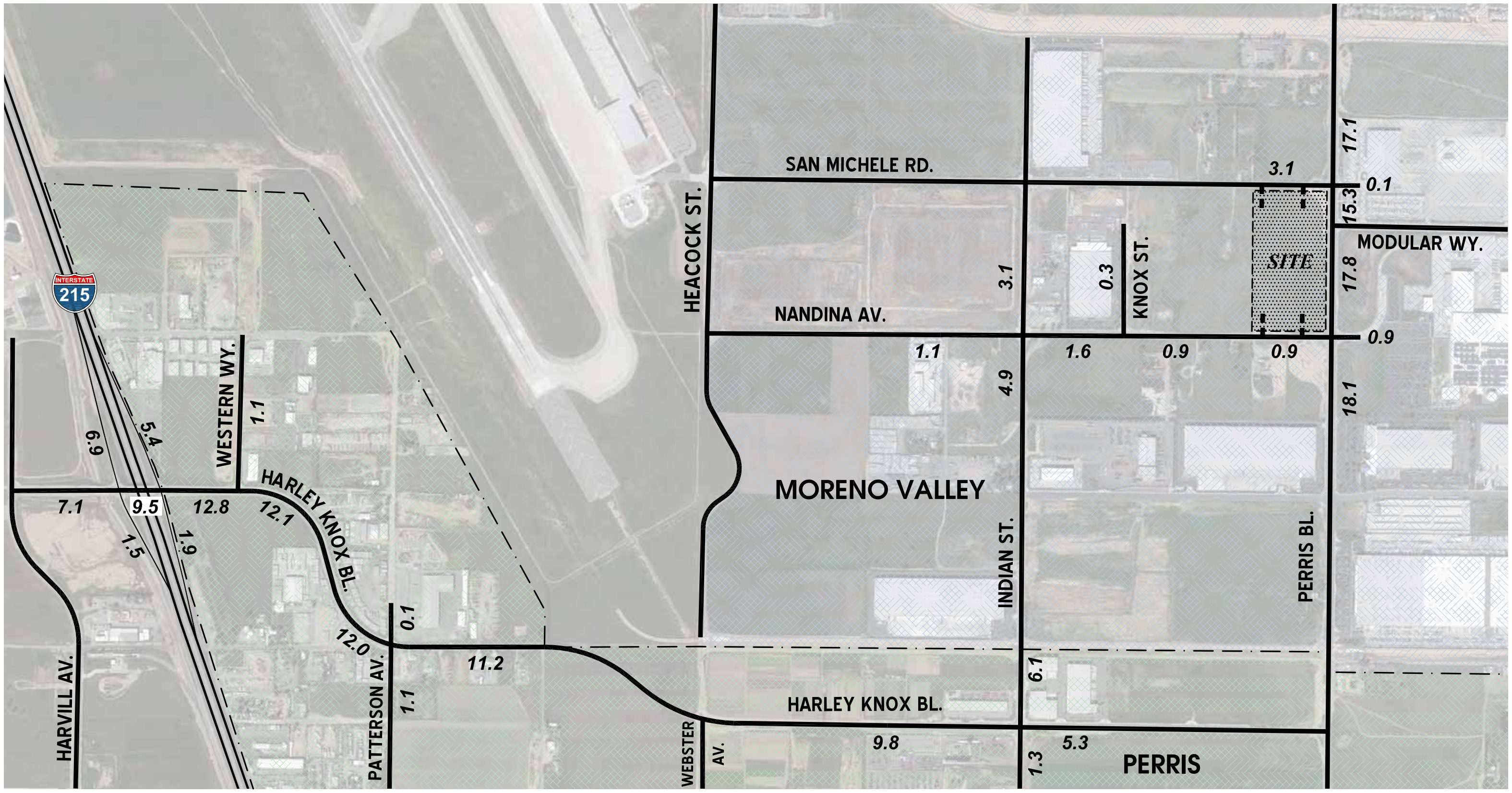
NOT TO SCALE

SOURCE: CITY OF Moreno Valley (July 11, 2006)

Source: Urban Crossroads (07-06-12)

FIGURE 4.4-5

City of Moreno Valley General Plan Roadway Cross-Sections



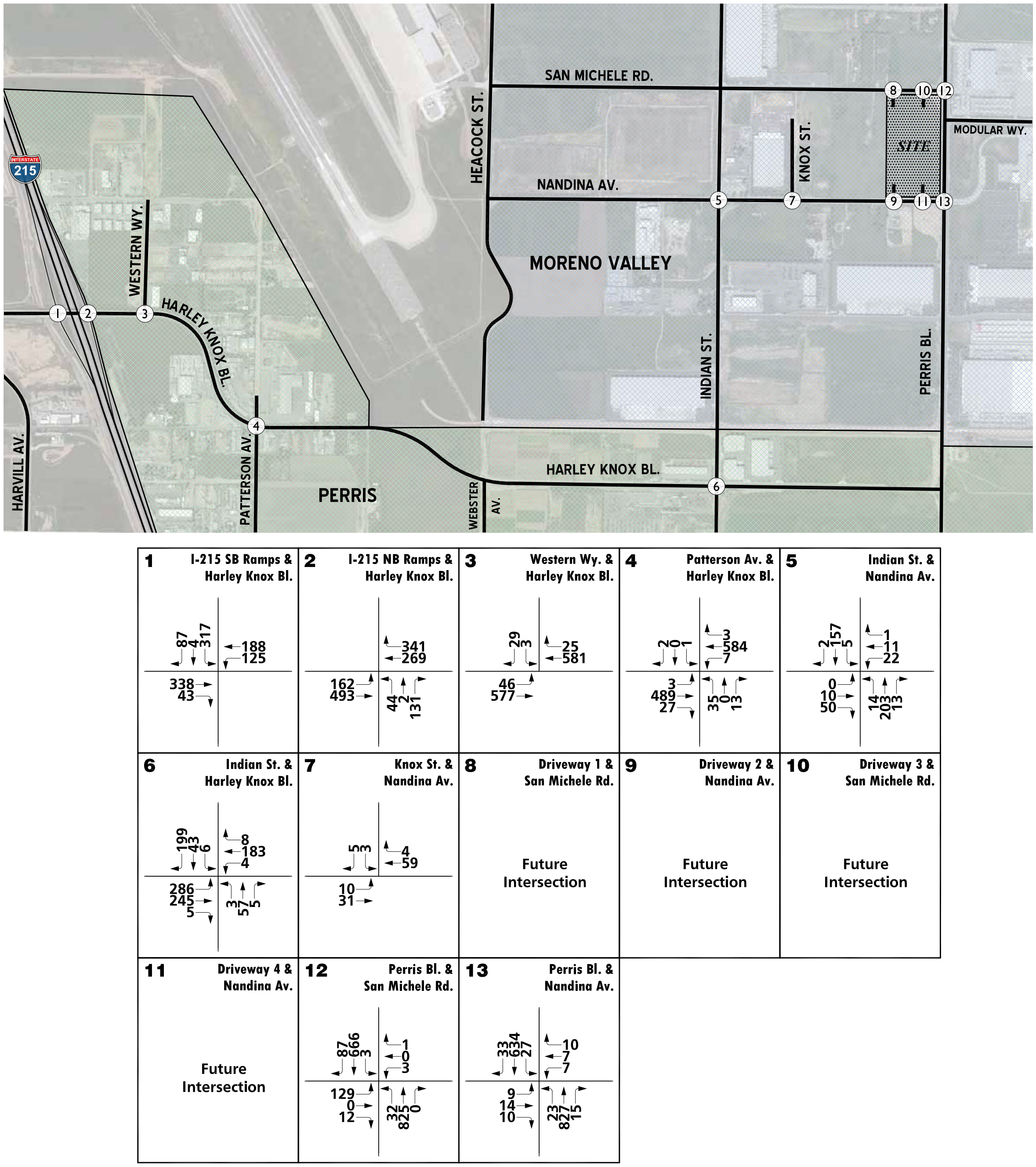
LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

Source: Urban Crossroads (07-06-12)

FIGURE 4.4-6

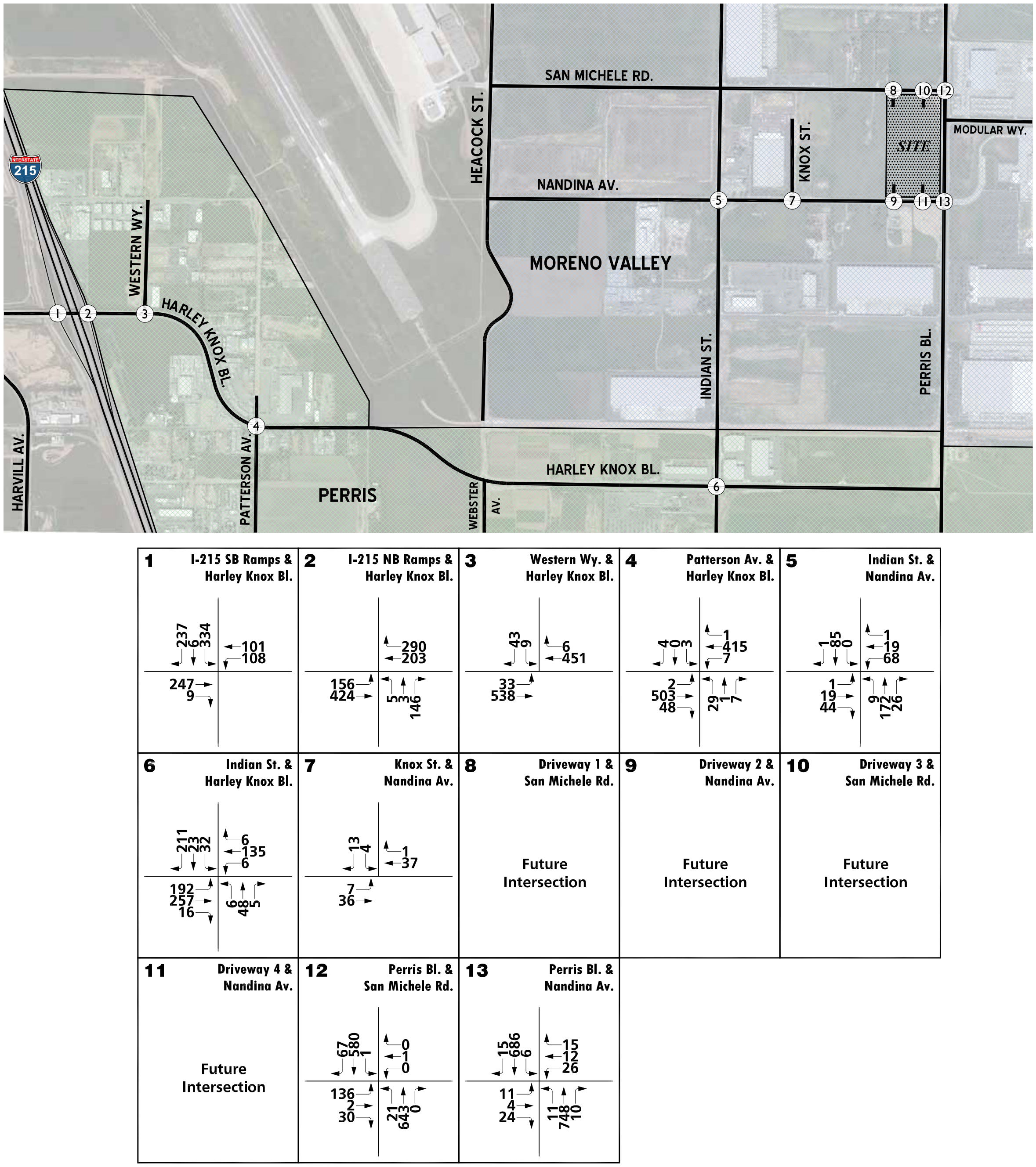
Existing (2012) Average Daily Traffic (ADT)



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-7

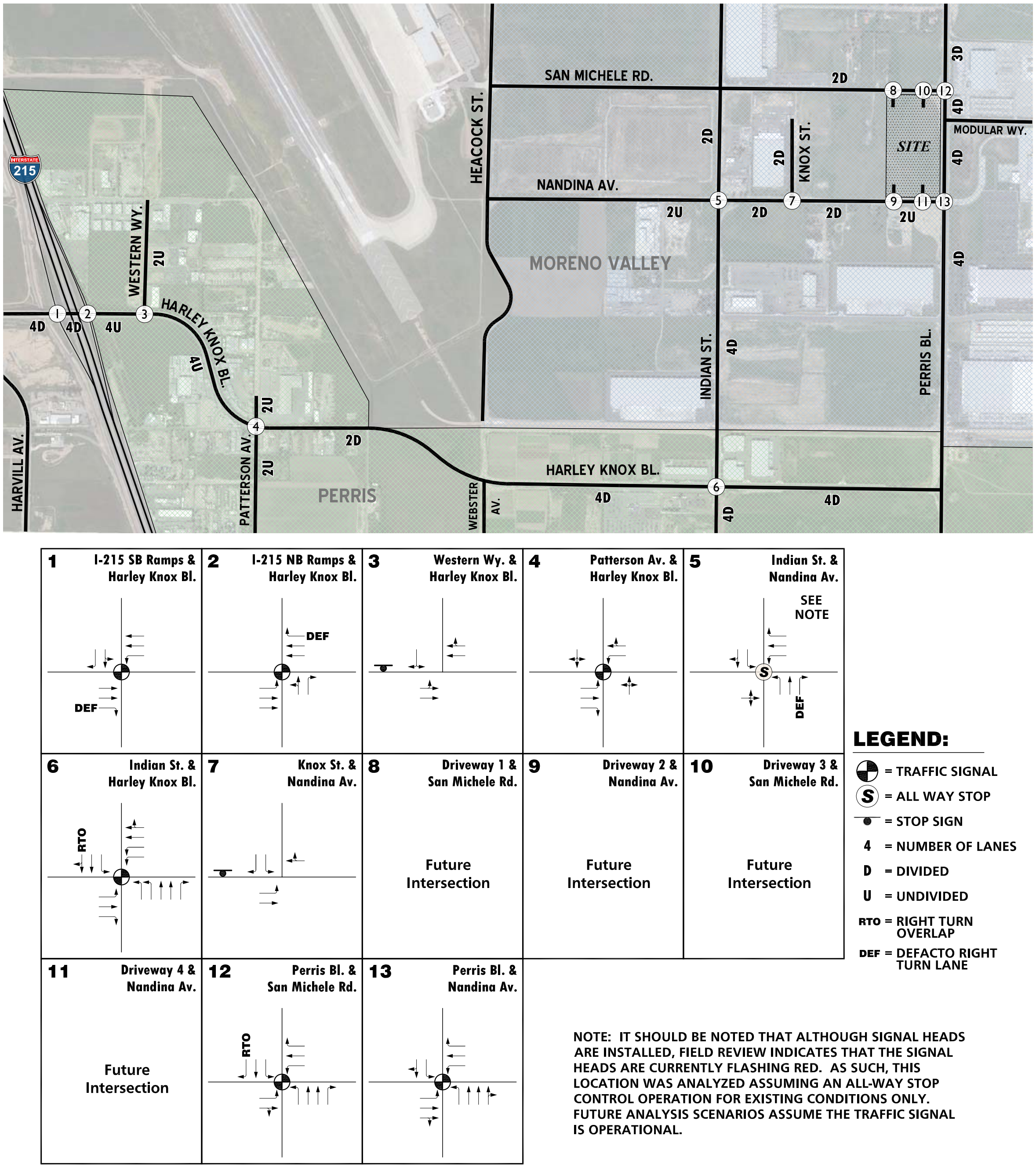
Existing (2012) AM Peak Hour Intersection Volumes



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-8

Existing (2012) PM Peak Hour Intersection Volumes



NOTE: IT SHOULD BE NOTED THAT ALTHOUGH SIGNAL HEADS ARE INSTALLED, FIELD REVIEW INDICATES THAT THE SIGNAL HEADS ARE CURRENTLY FLASHING RED. AS SUCH, THIS LOCATION WAS ANALYZED ASSUMING AN ALL-WAY STOP CONTROL OPERATION FOR EXISTING CONDITIONS ONLY. FUTURE ANALYSIS SCENARIOS ASSUME THE TRAFFIC SIGNAL IS OPERATIONAL.

Source: Urban Crossroads (07-06-12)

FIGURE 4.4-9

Existing Number of Through Traffic Lanes and Intersection Controls

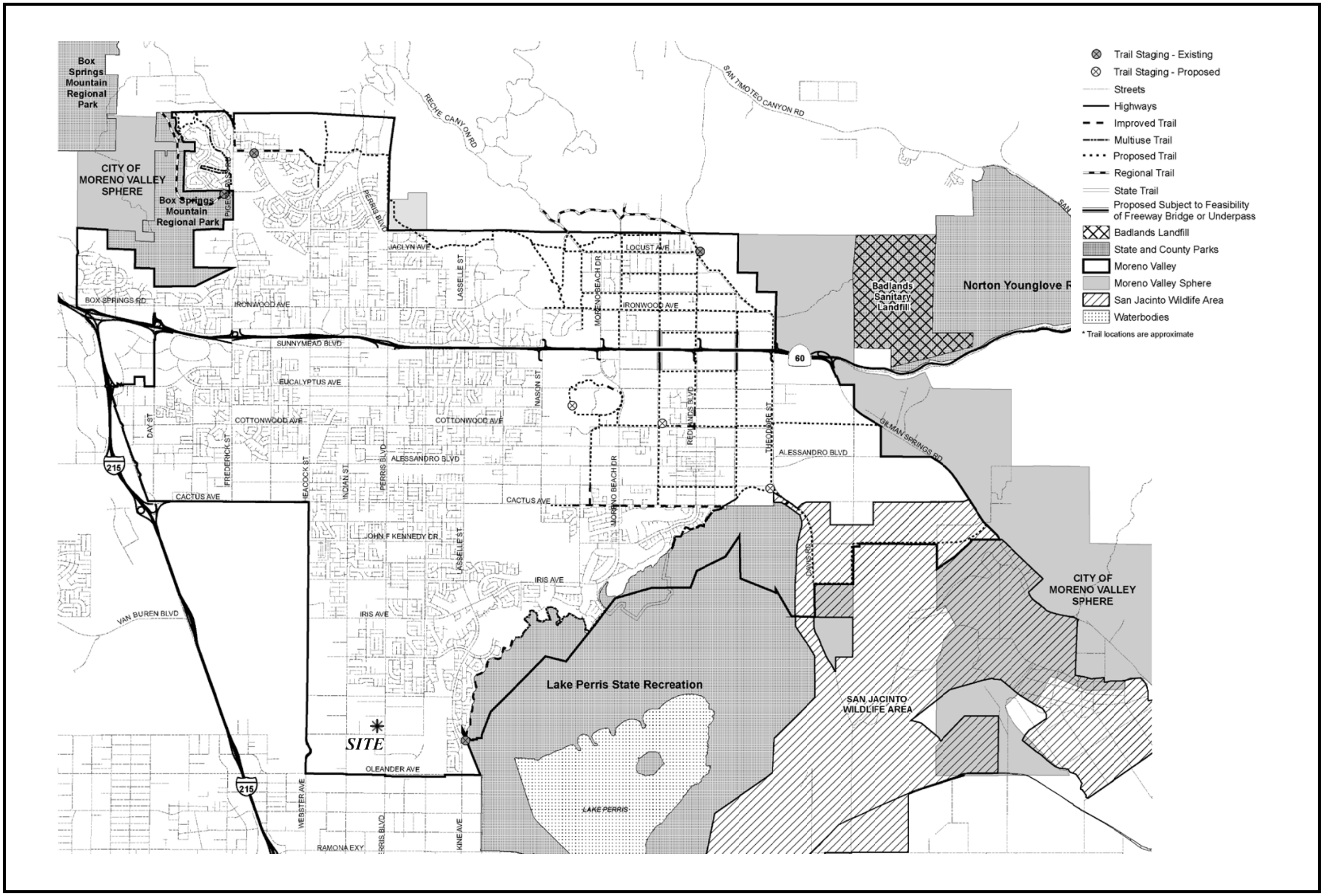
LEGEND:

100 (250) = AM (PM) PEAK HOUR VOLUMES

Source: Urban Crossroads (07-06-12)

FIGURE 4.4-10

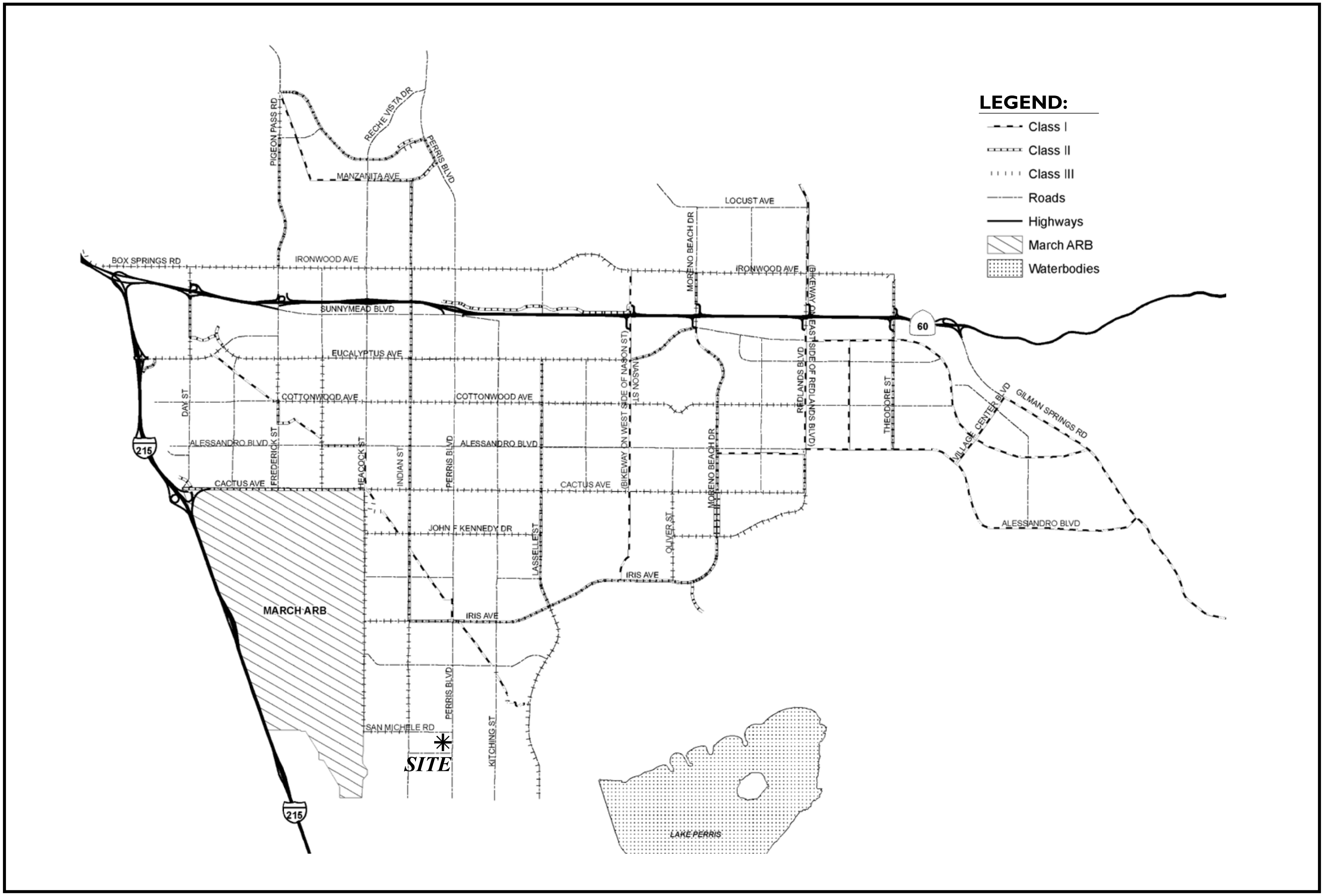
Existing (2012) Baseline I-215 Freeway Mainline Volumes



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-11

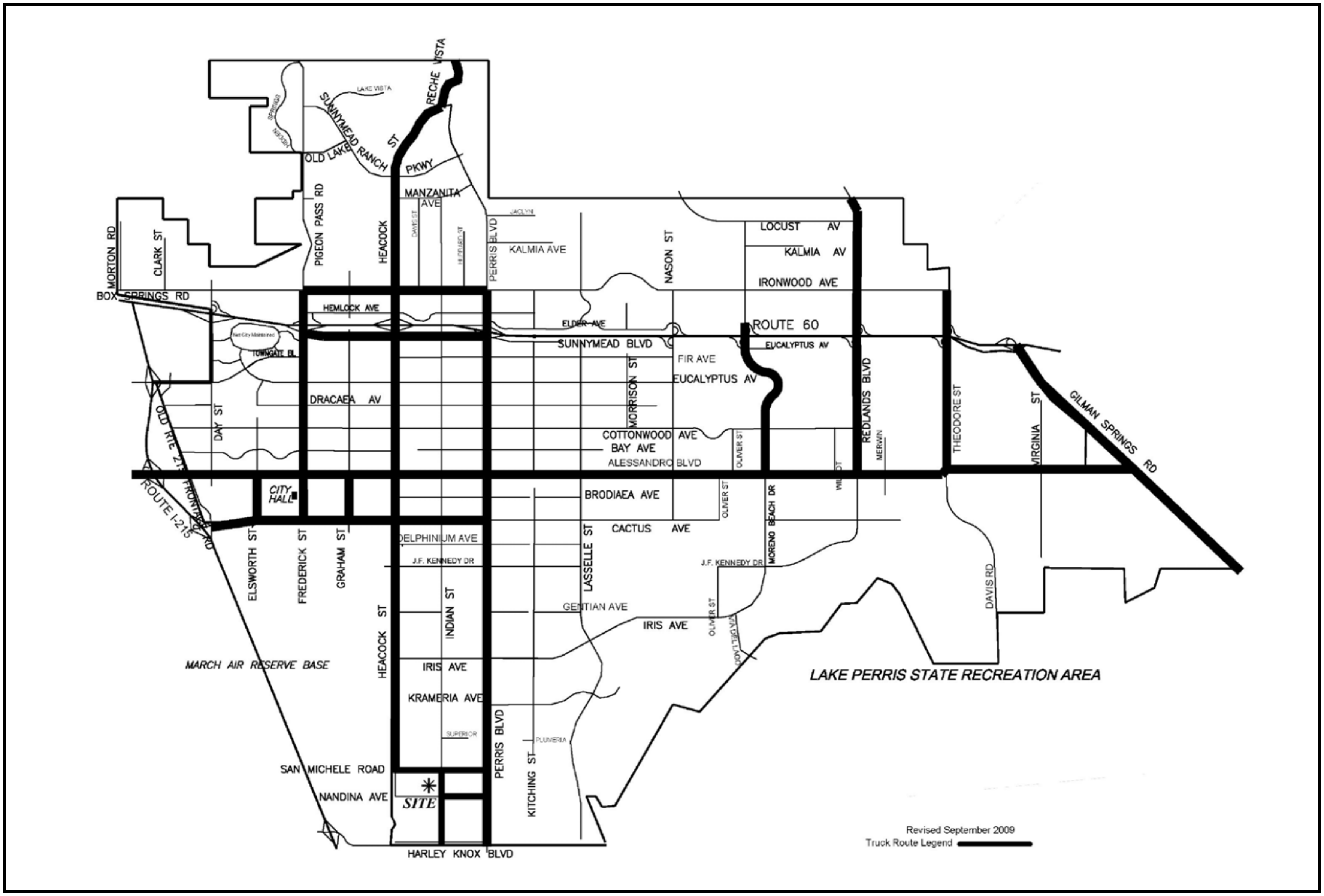
City of Moreno Valley Master Plan of Trails



Source: Urban Crossroads (07-06-12)

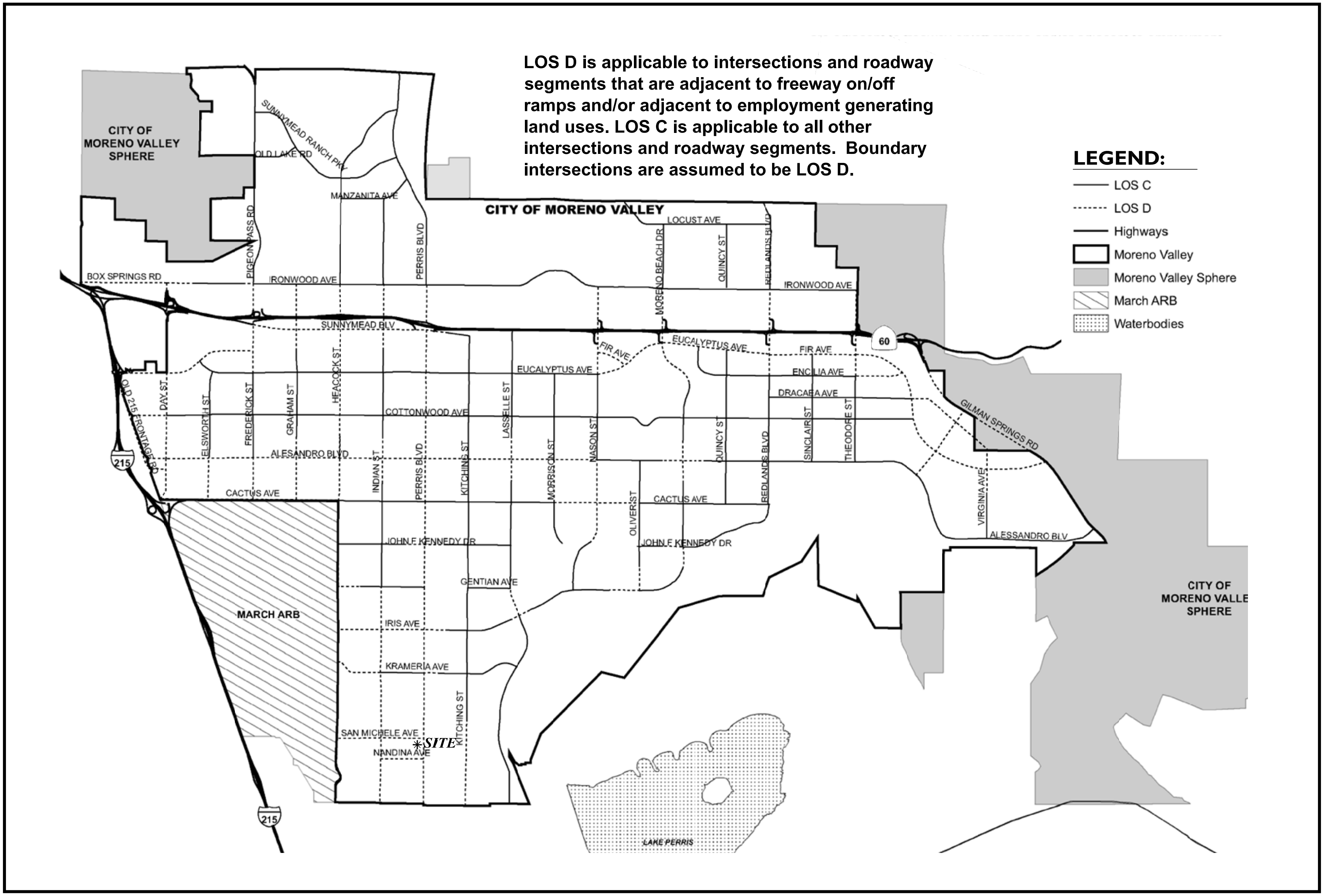
FIGURE 4.4-12

City of Moreno Valley Bike Plan



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-13
City of Moreno Valley Truck Routes

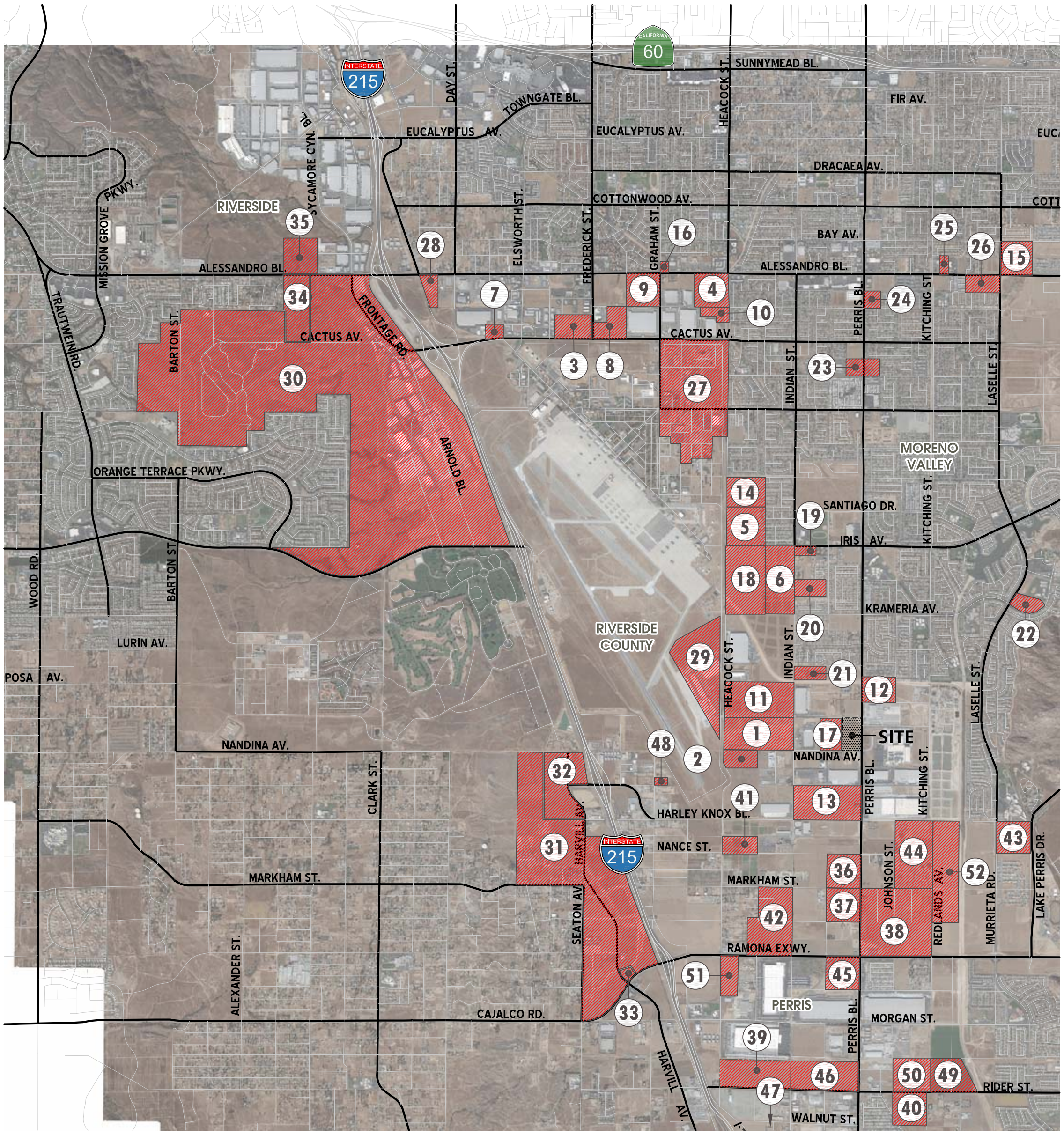


LOS D is applicable to intersections and roadway segments that are adjacent to freeway on/off ramps and/or adjacent to employment generating land uses. LOS C is applicable to all other intersections and roadway segments. Boundary intersections are assumed to be LOS D.

Source: Urban Crossroads (07-06-12)

FIGURE 4.4-14

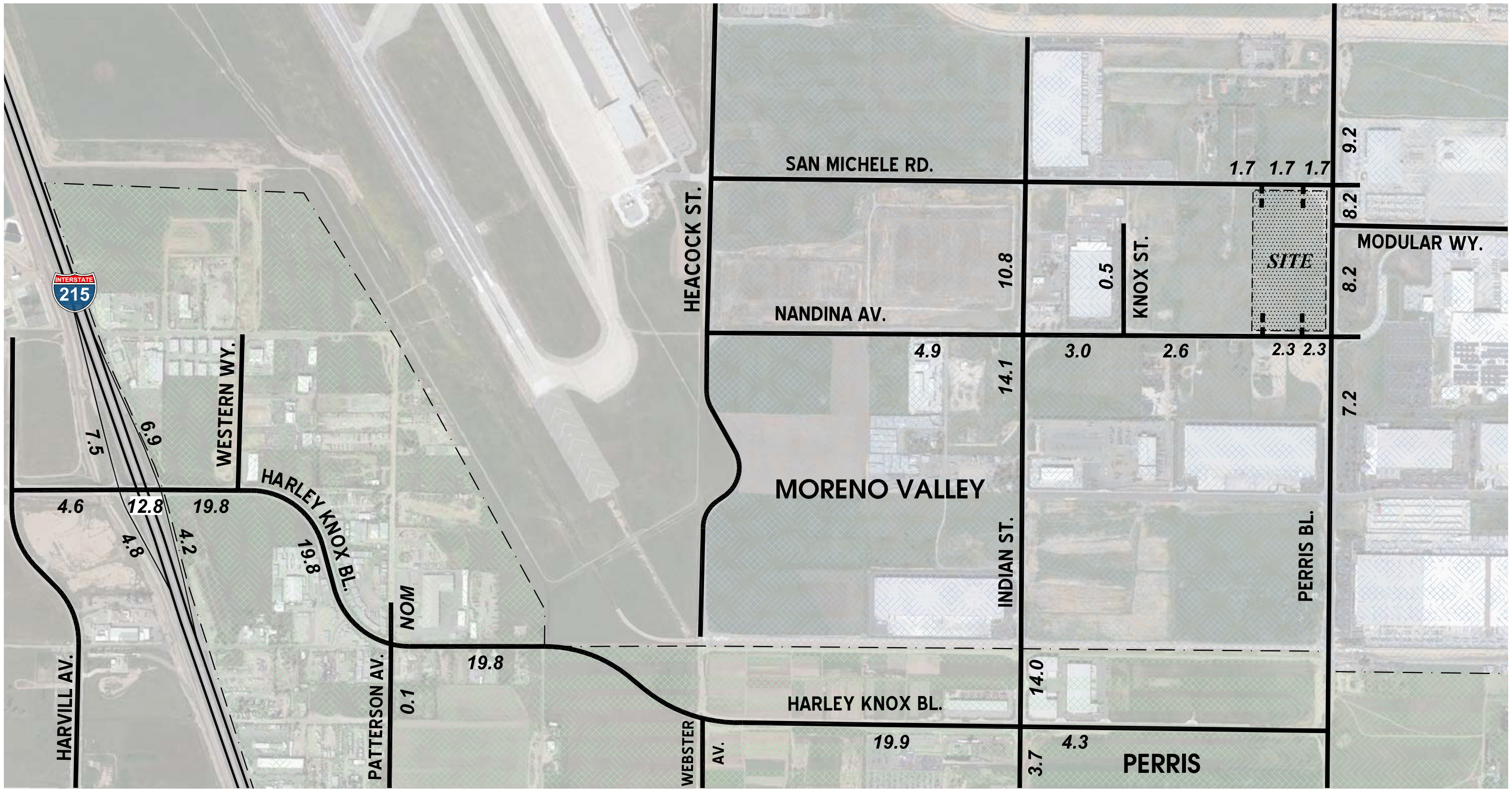
City of Moreno Valley Level of Service (LOS) Standards



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-15

Cumulative Development Projects Location Map



LEGEND:

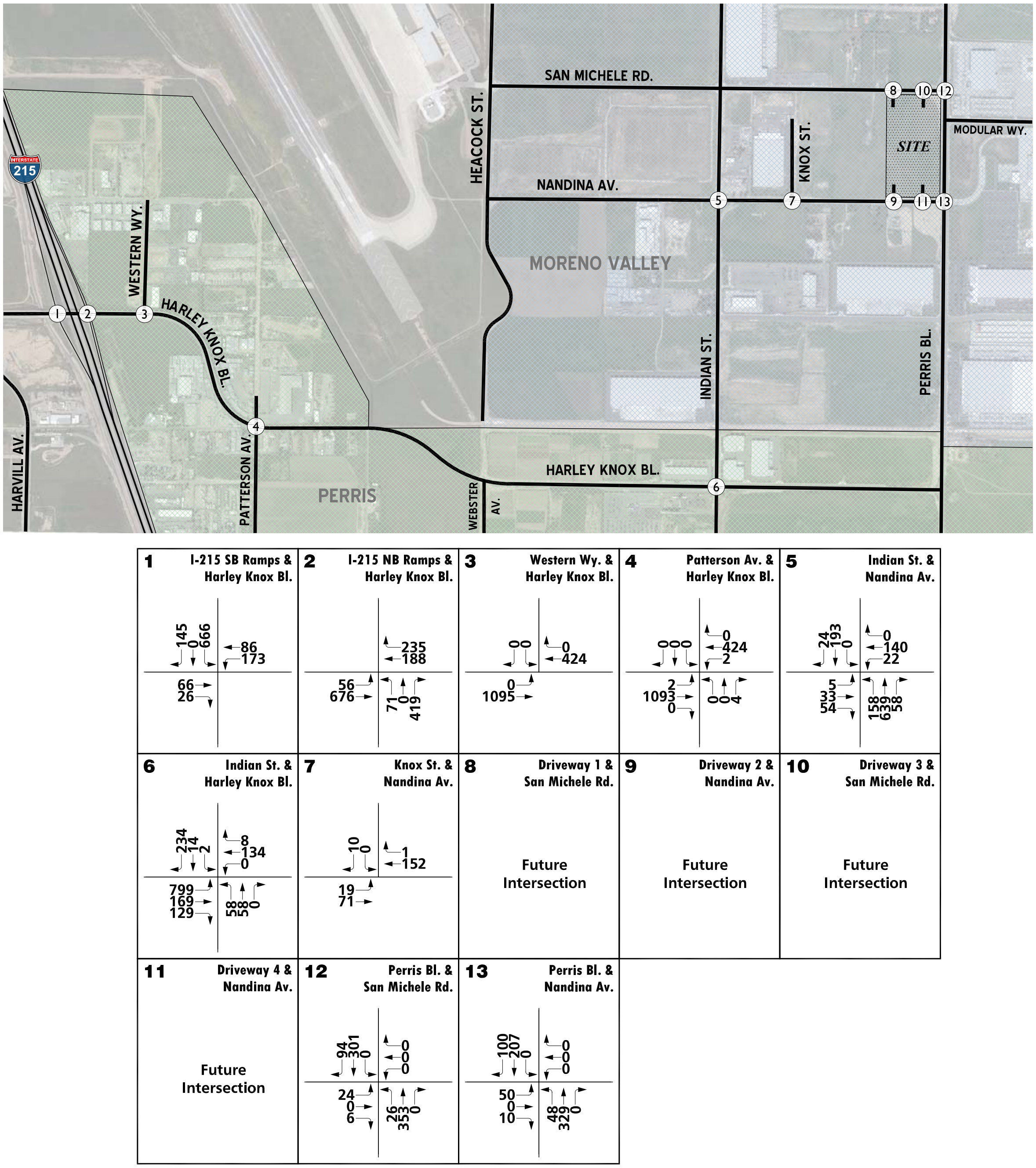
10.0 = VEHICLES PER DAY (1000'S)

NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

Source: Urban Crossroads (07-06-12)

FIGURE 4.4-16

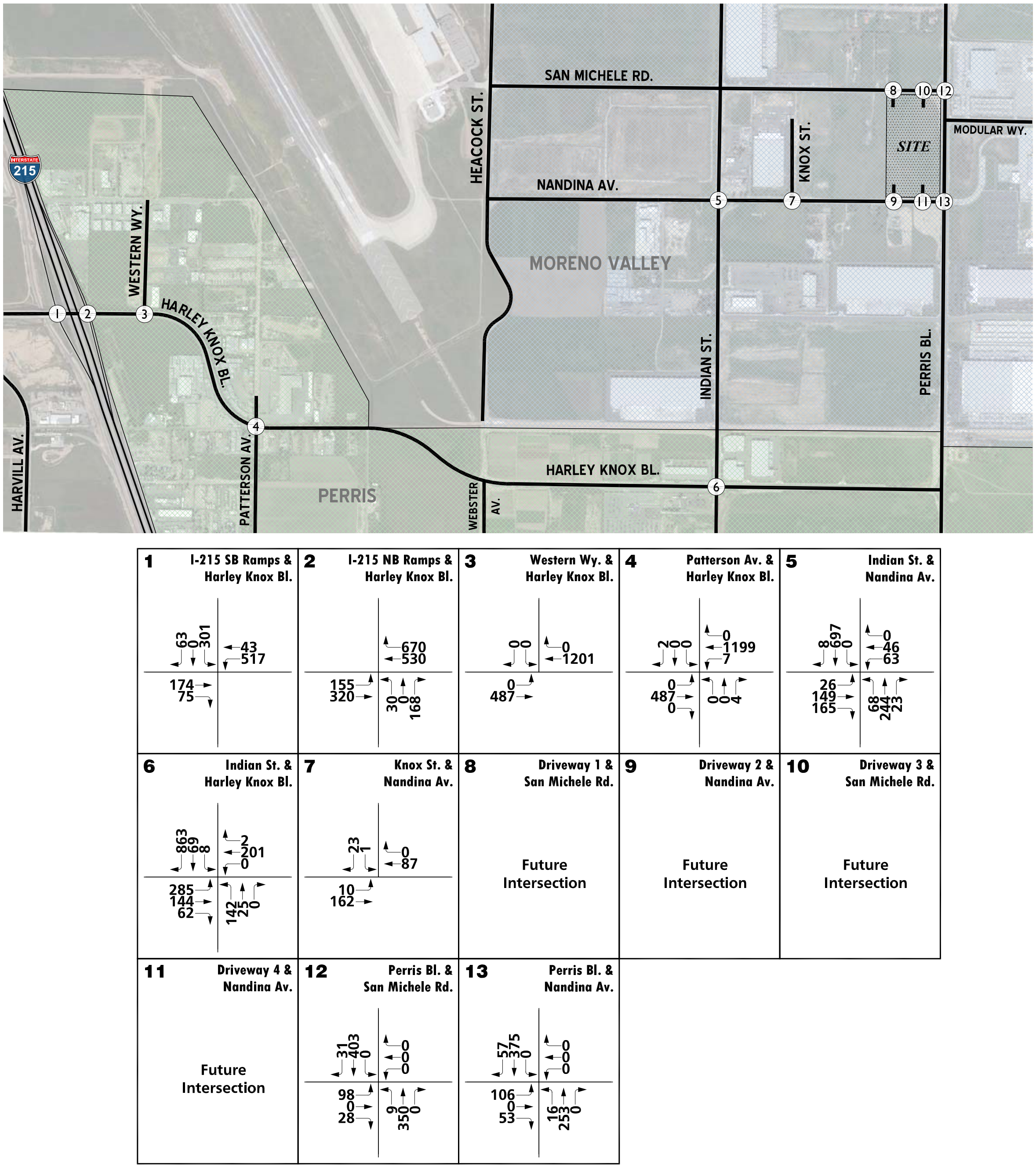
Cumulative Development Average Daily Traffic (ADT)



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-17

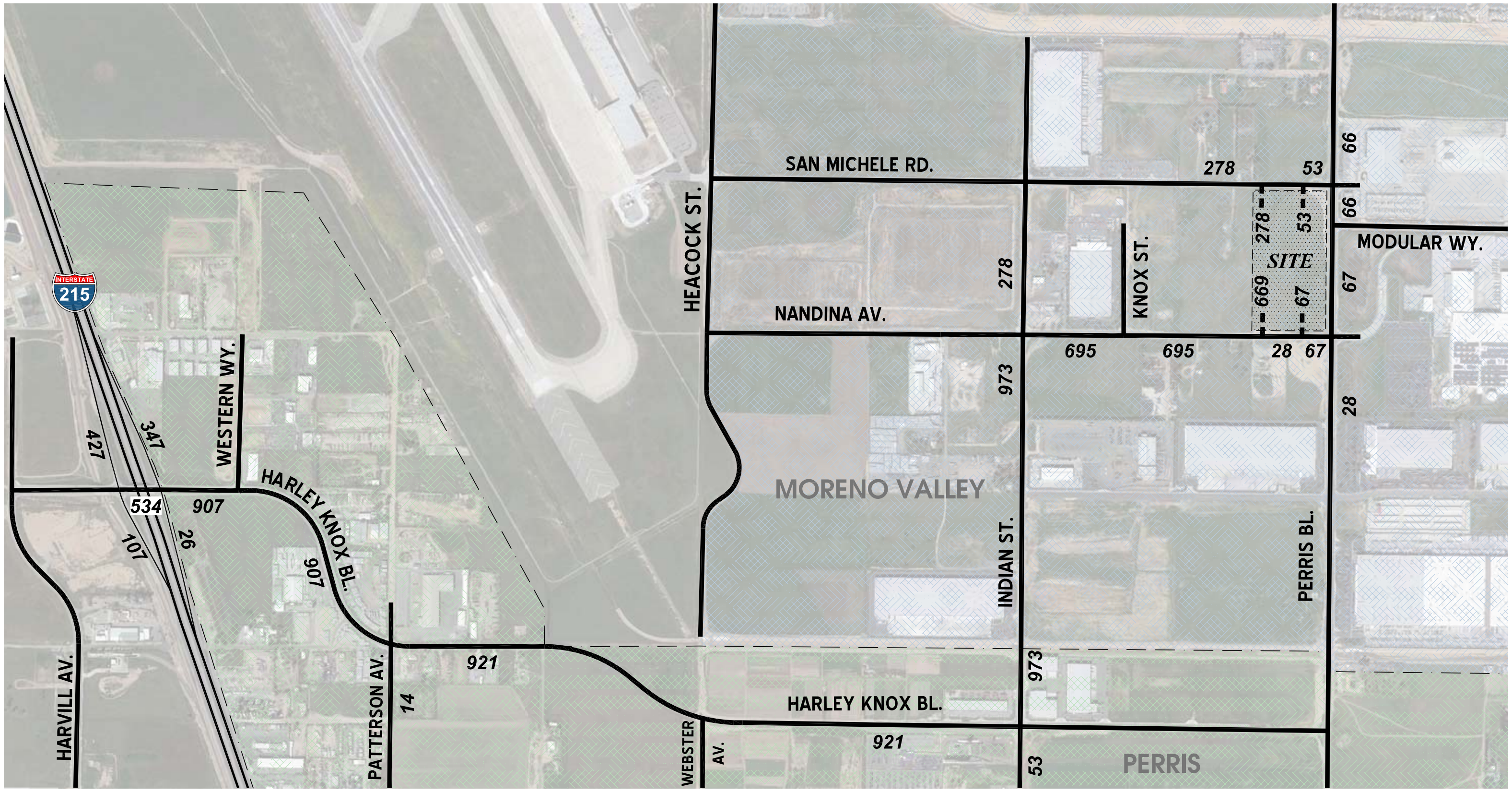
Cumulative Development AM Peak Hour Intersection Volumes



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-18

Cumulative Development PM Peak Hour Intersection Volumes



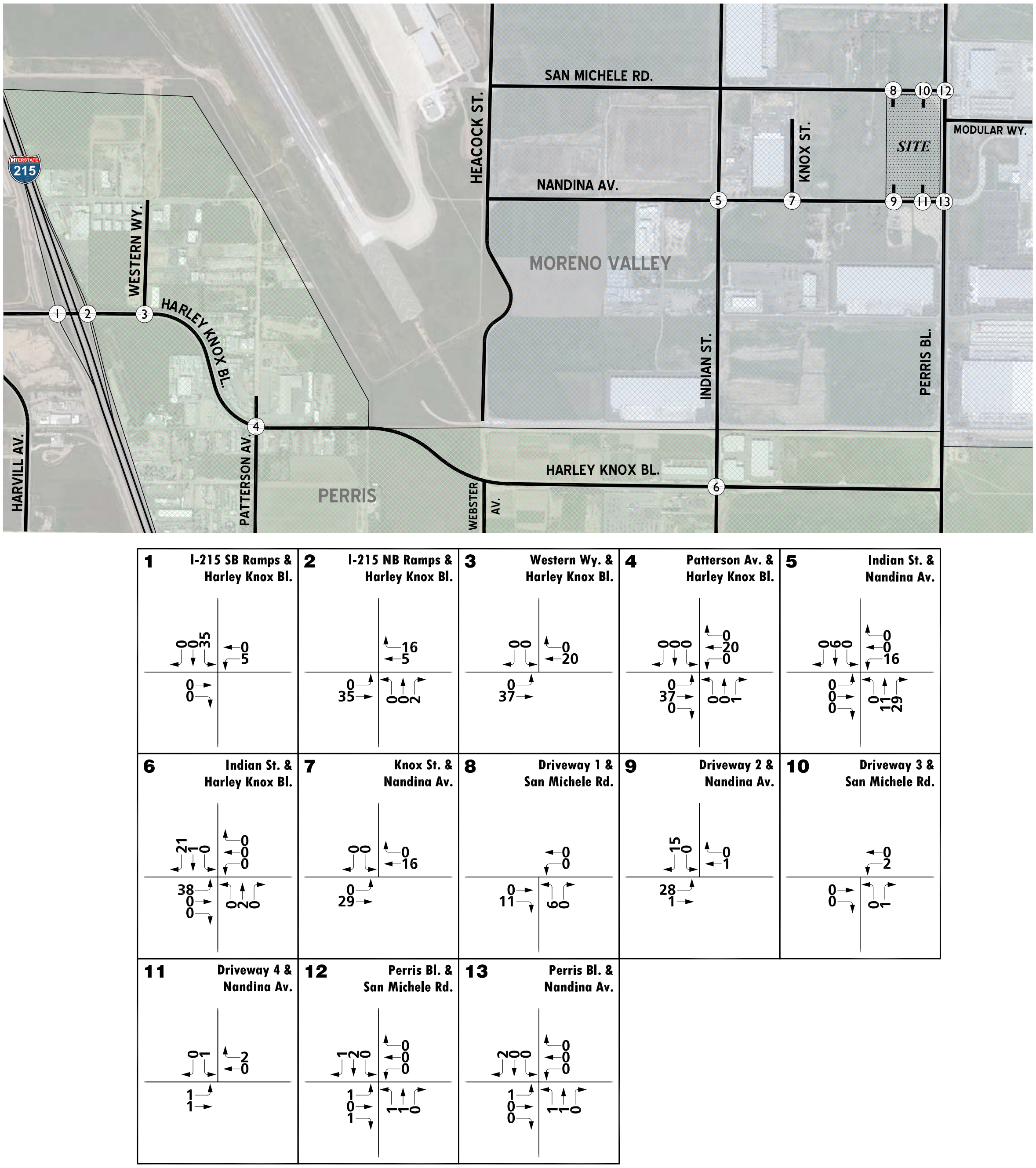
LEGEND:

10 = VEHICLES PER DAY

Source: Urban Crossroads (07-06-12)

FIGURE 4.4-19

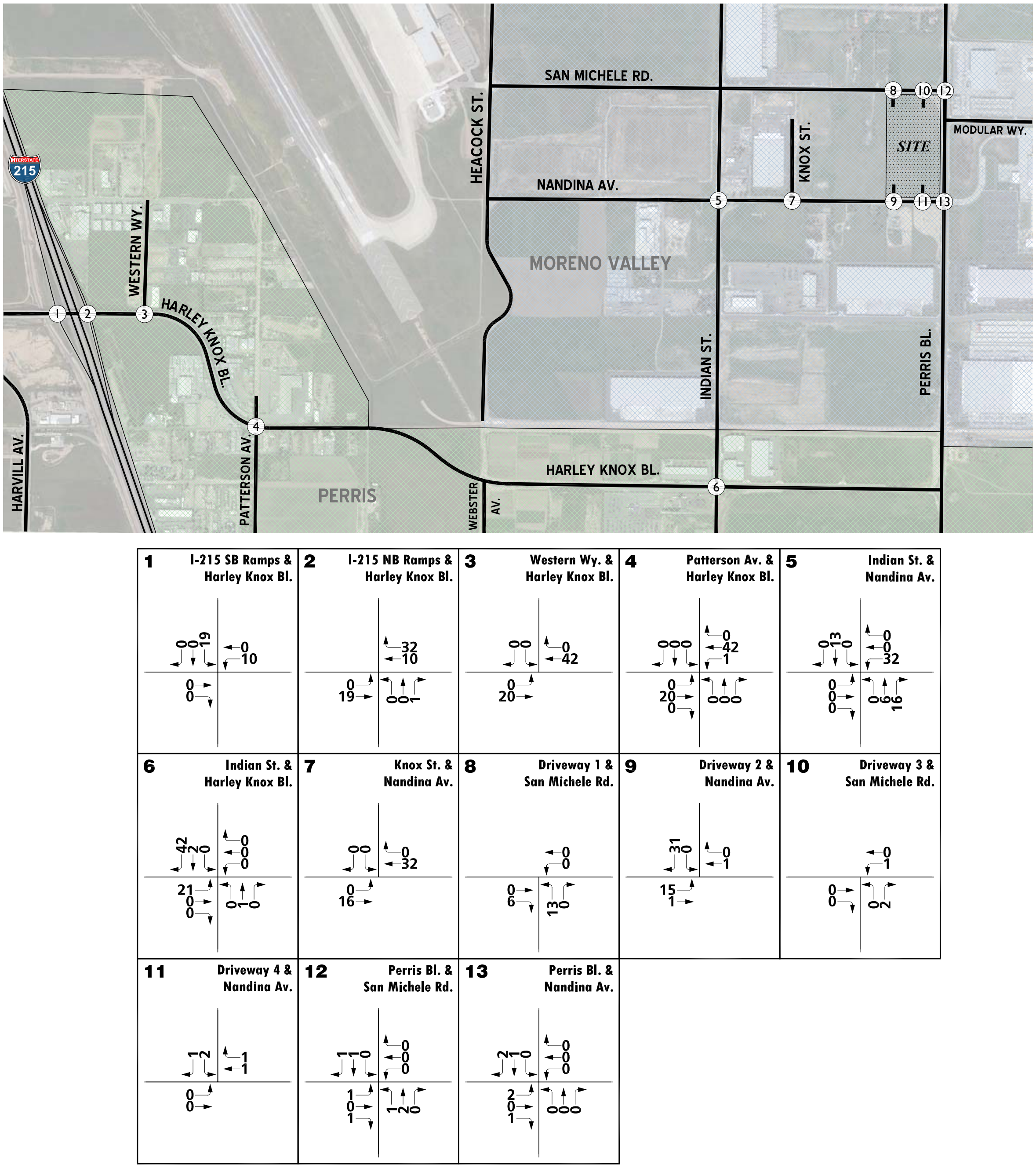
Project Only Average Daily Traffic (ADT)



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-20

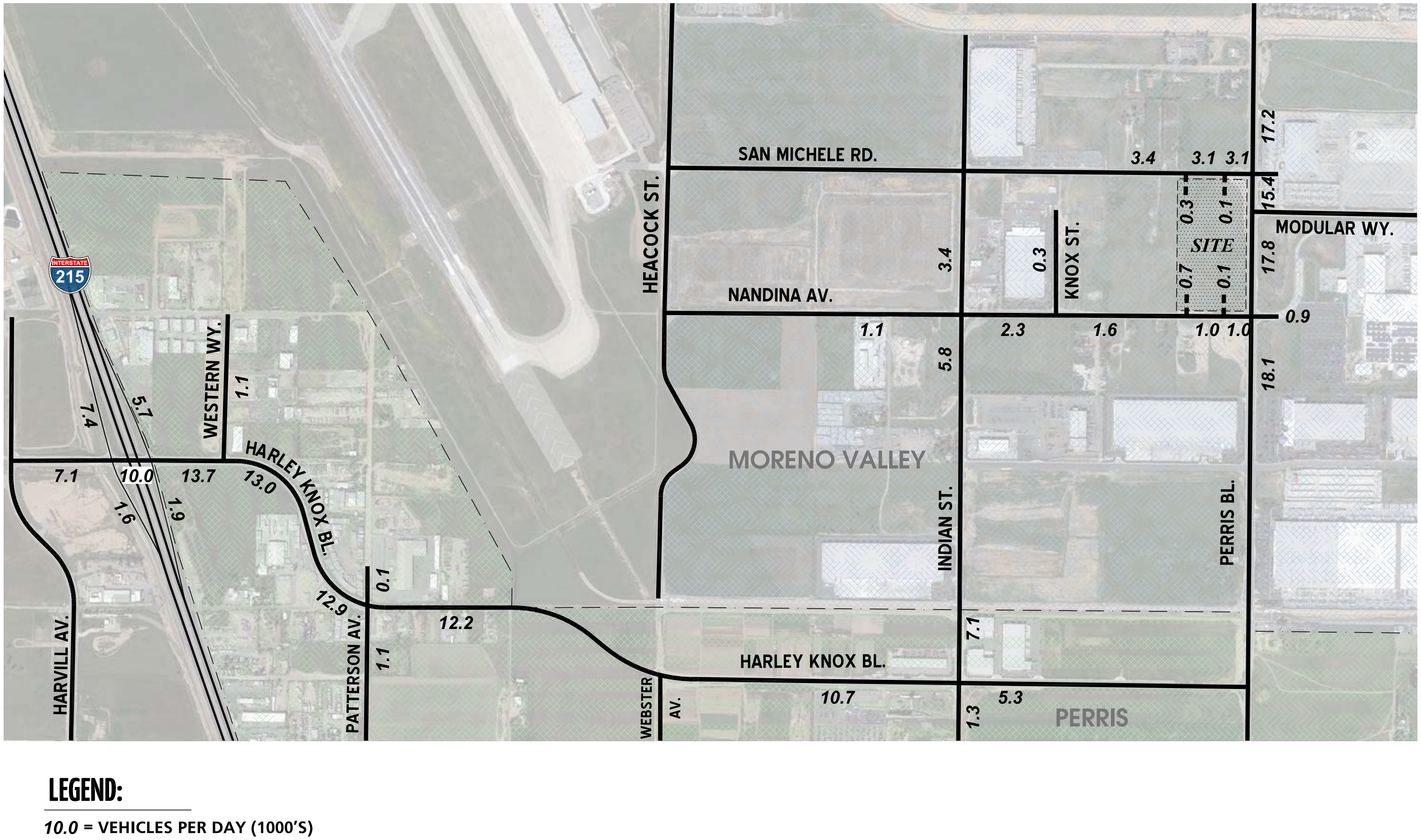
Project Only AM Peak Hour Intersection Volumes



Source: Urban Crossroads (07-06-12)

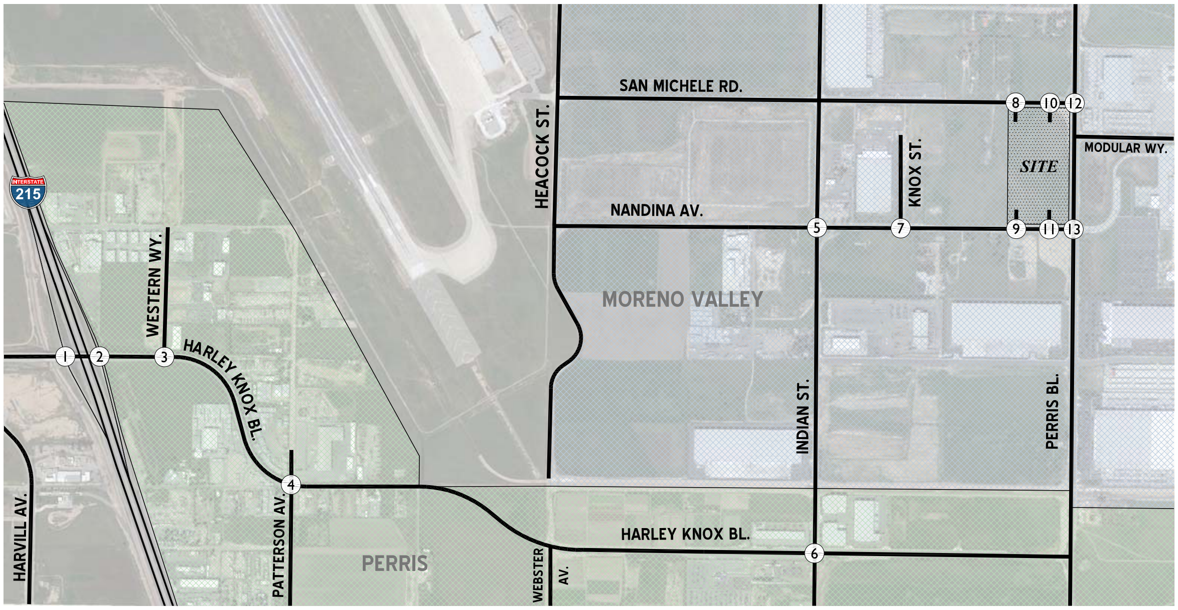
FIGURE 4.4-21

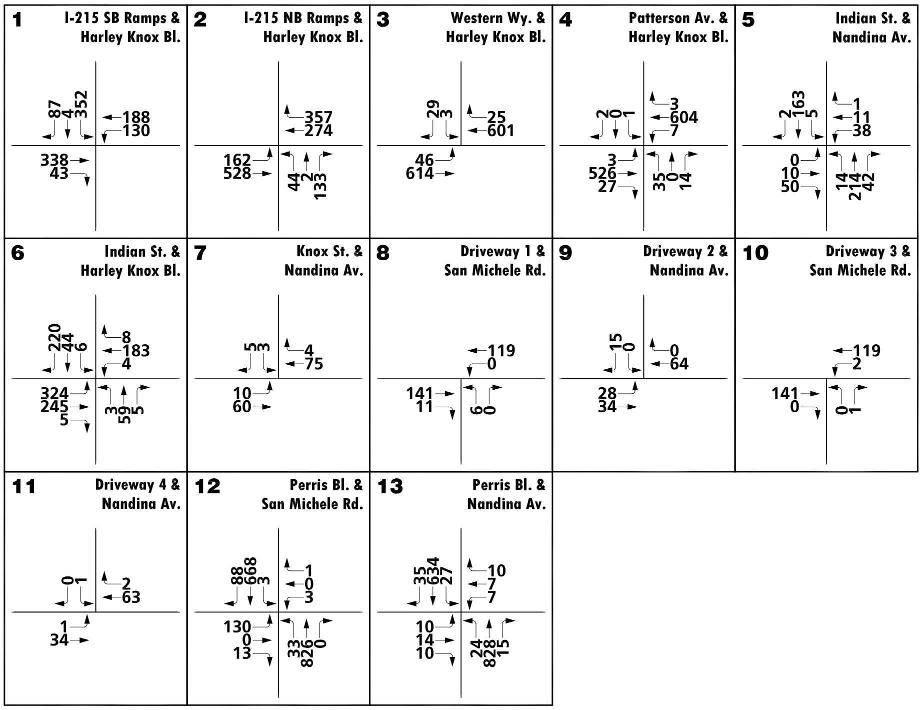
Project Only PM Peak Hour Intersection Volumes



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-22
Existing Plus Project Average Daily Traffic (ADT)

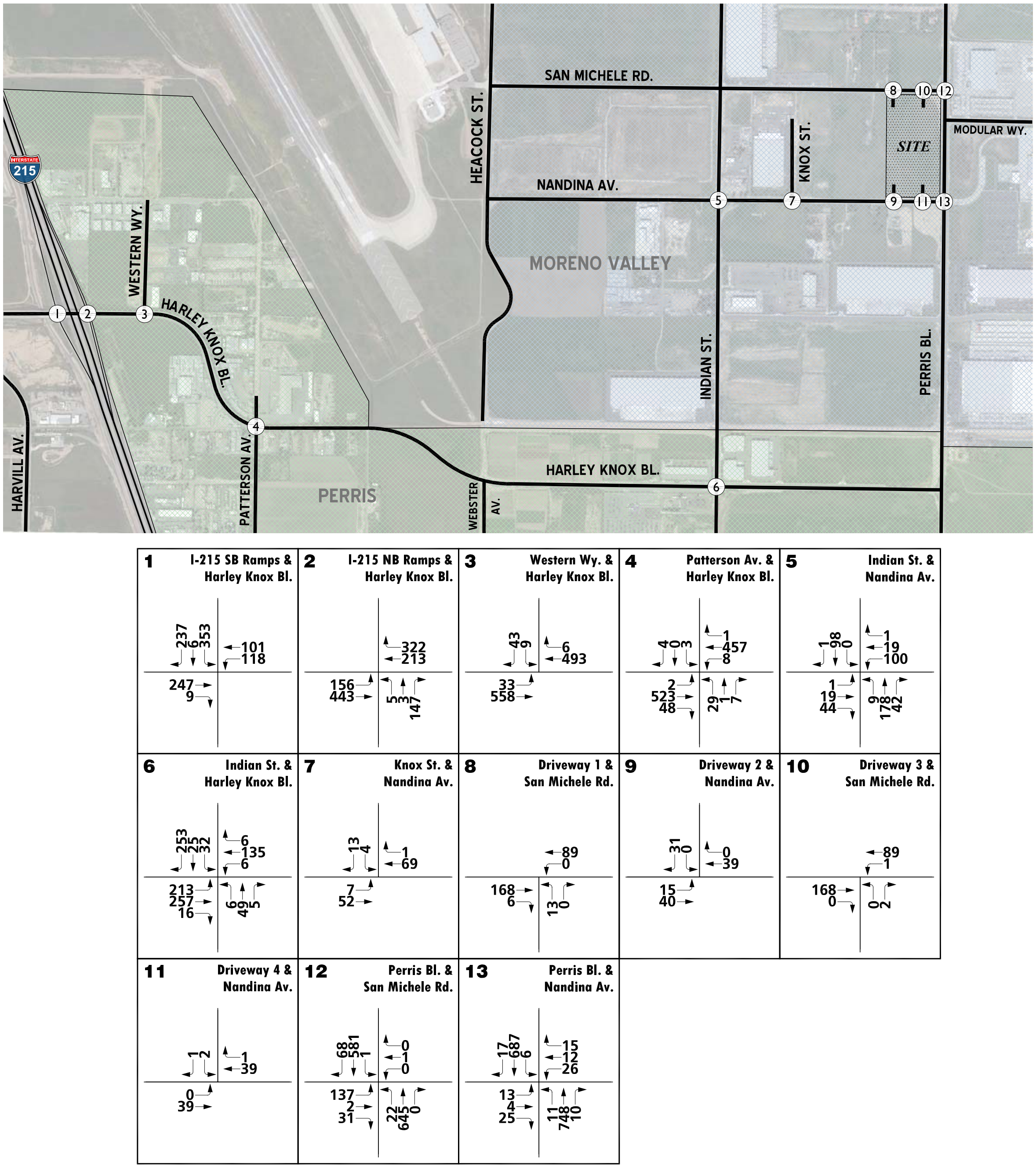




Source: Urban Crossroads (07-06-12)

FIGURE 4.4-23

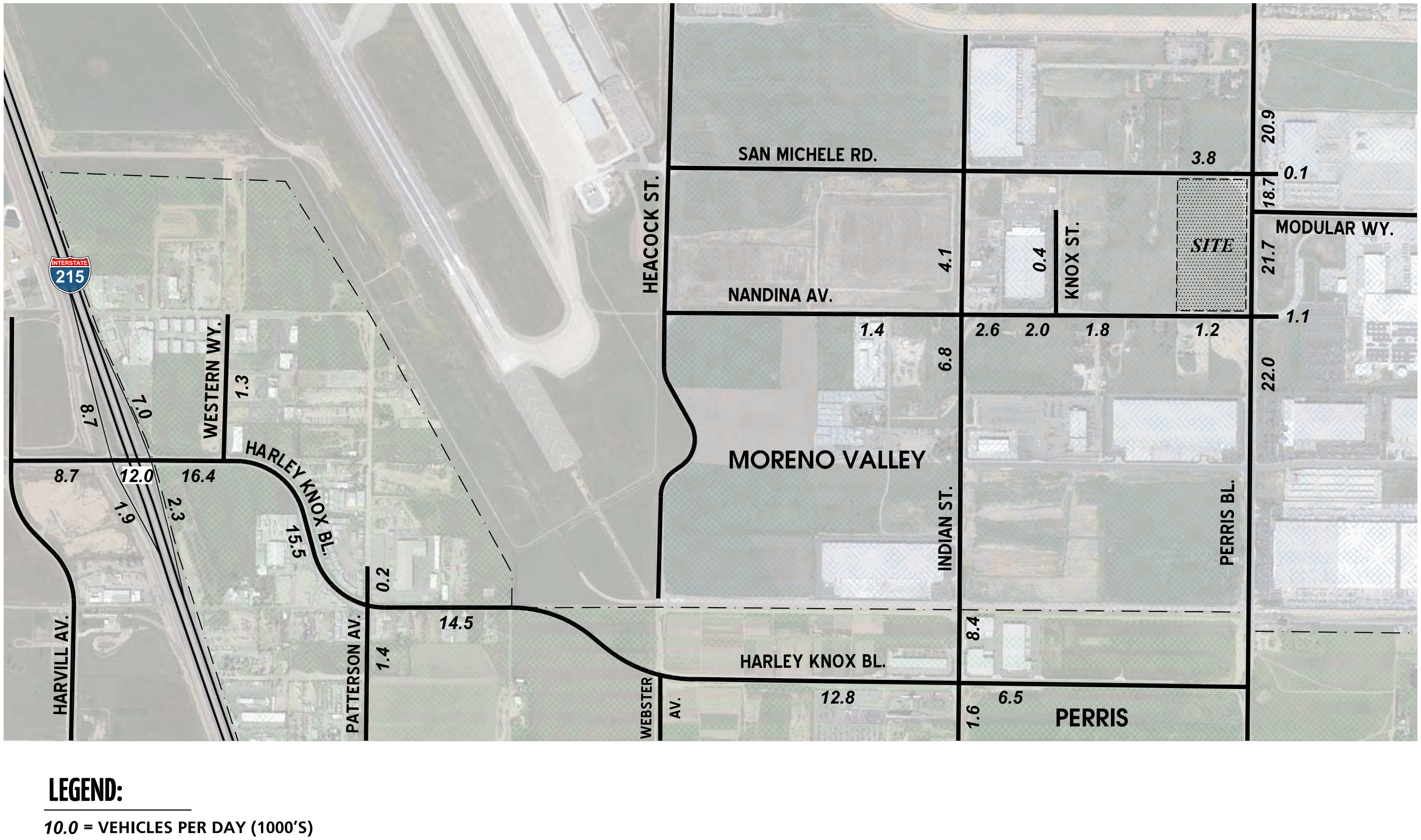
Existing Plus Project AM Peak Hour Intersection Volumes



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-24

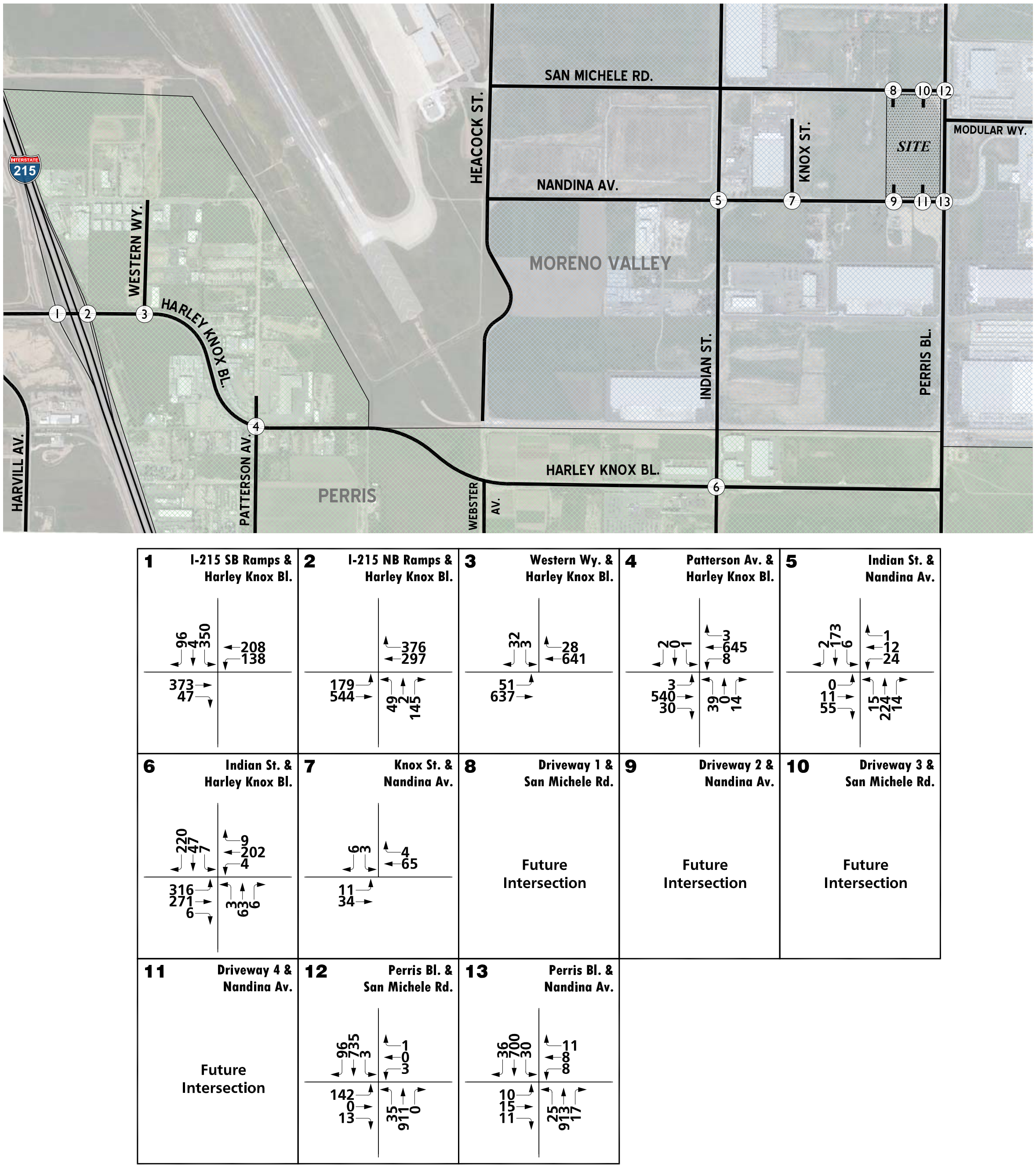
Existing Plus Project PM Peak Hour Intersection Volumes



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-25

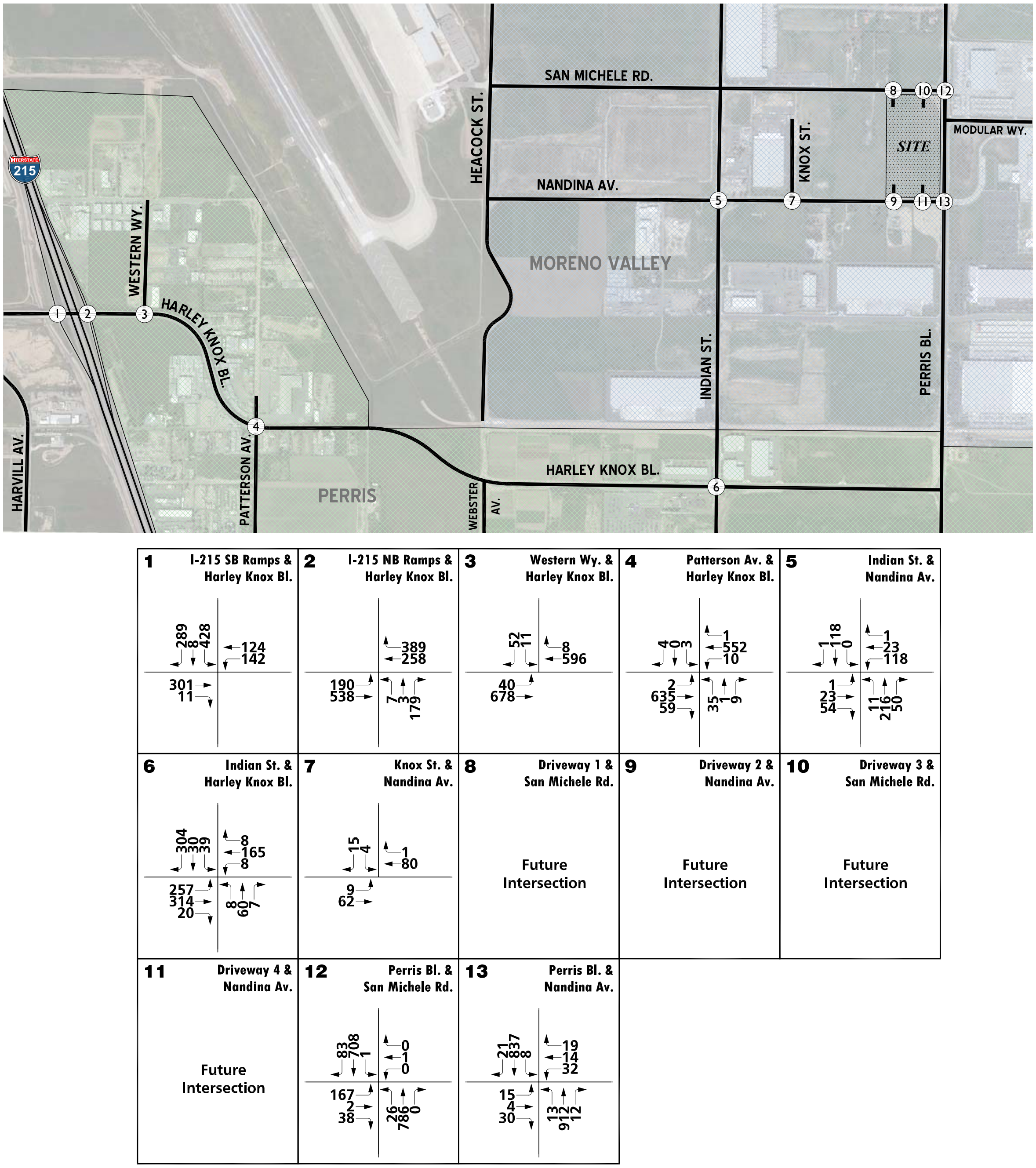
Opening Year (2017) Without Project Average Daily Traffic (ADT)



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-26

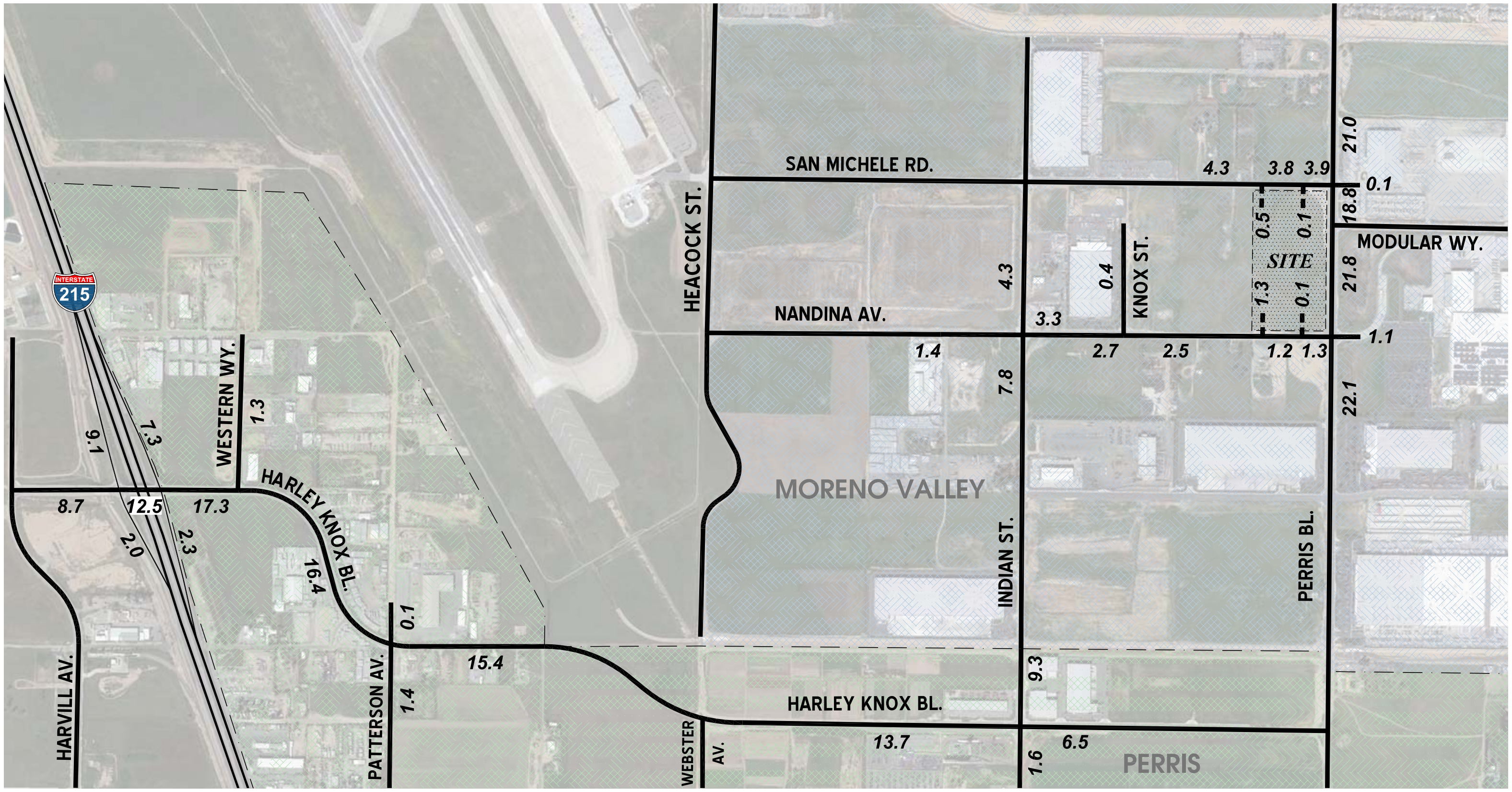
Opening Year (2017) Without Project AM Peak Hour Intersection Volumes



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-27

Opening Year (2017) Without Project PM Peak Hour Intersection Volumes



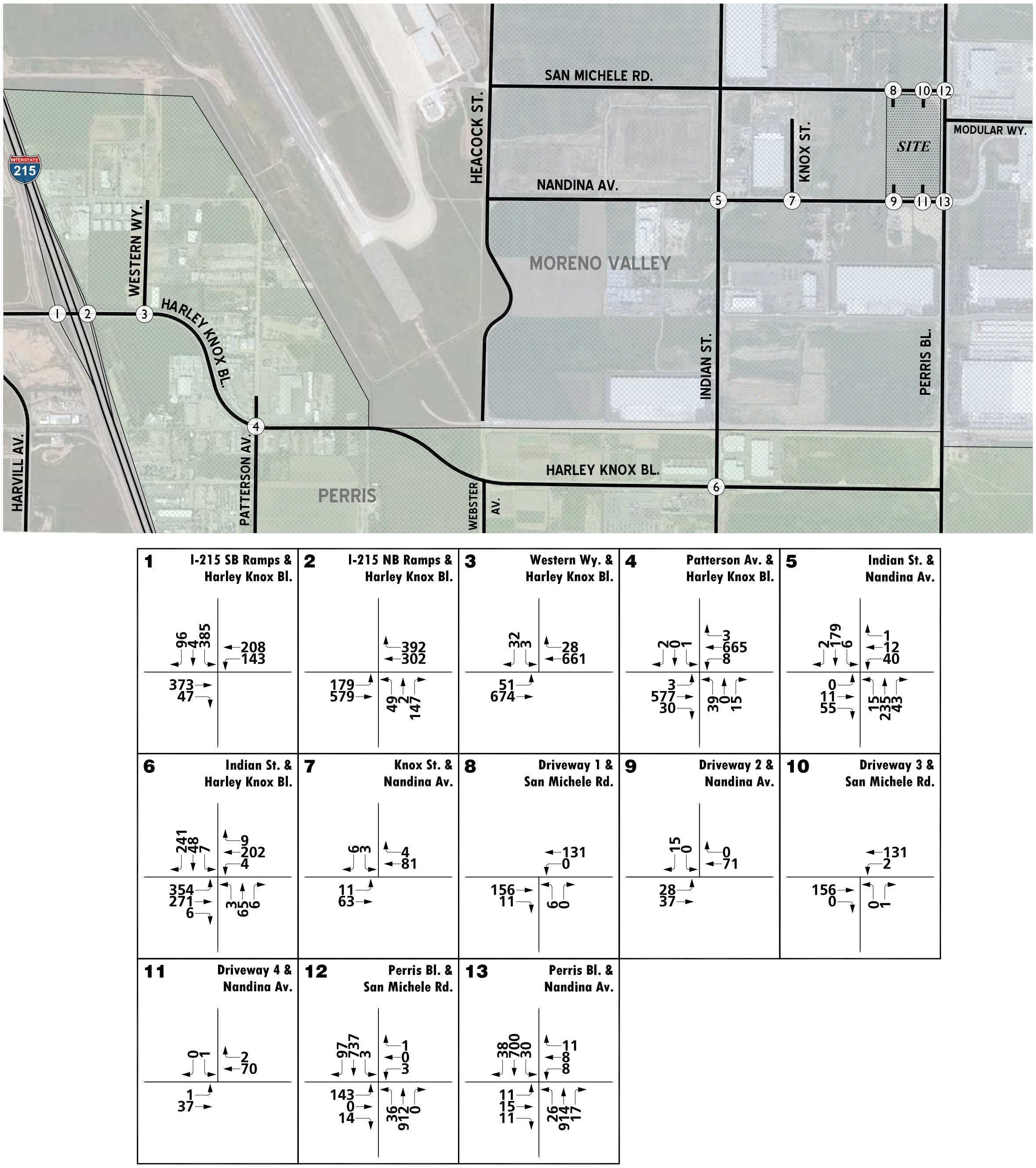
LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

Source: Urban Crossroads (07-06-12)

FIGURE 4.4-28

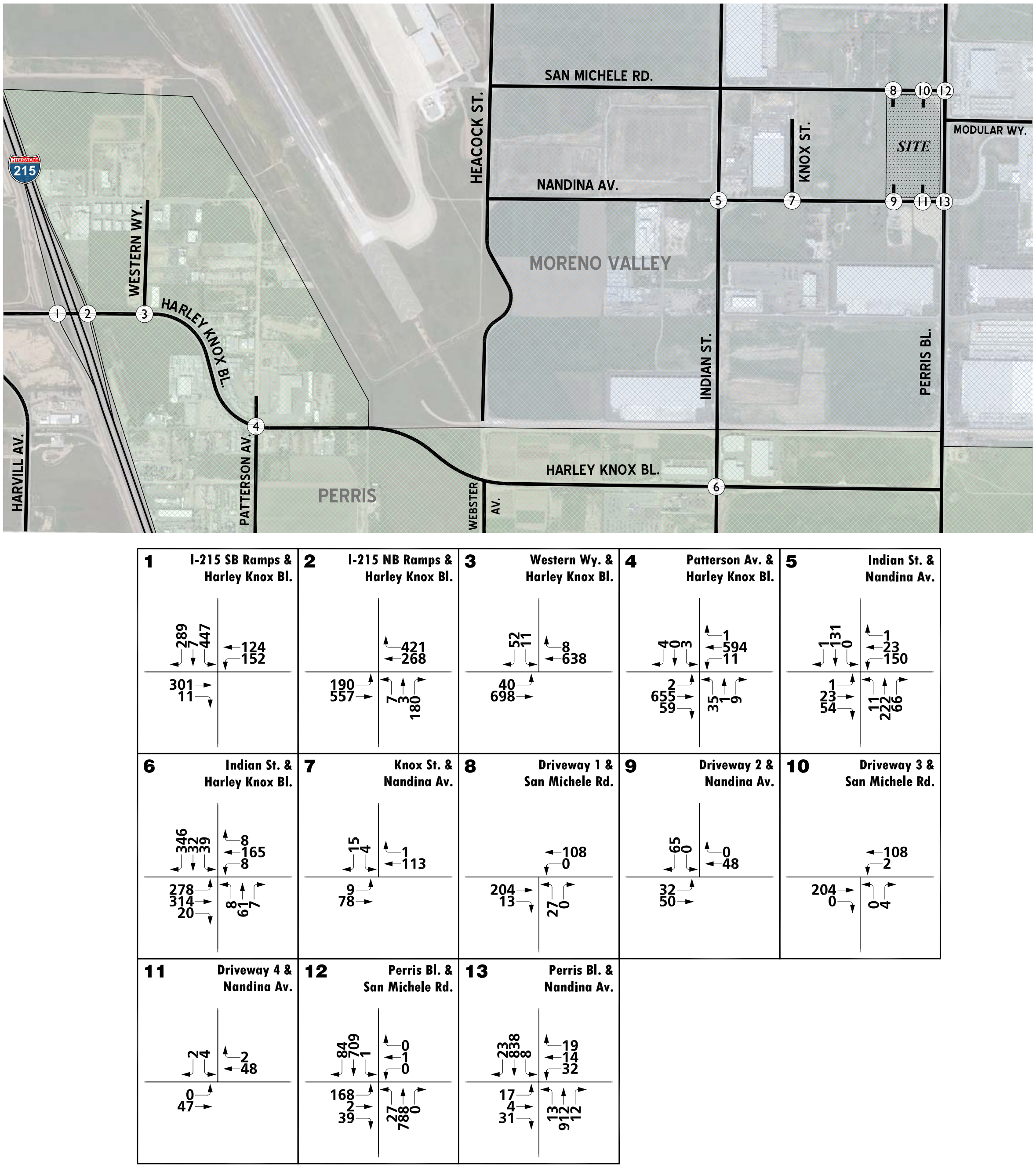
Opening Year (2017) With Project Average Daily Traffic (ADT)



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-29

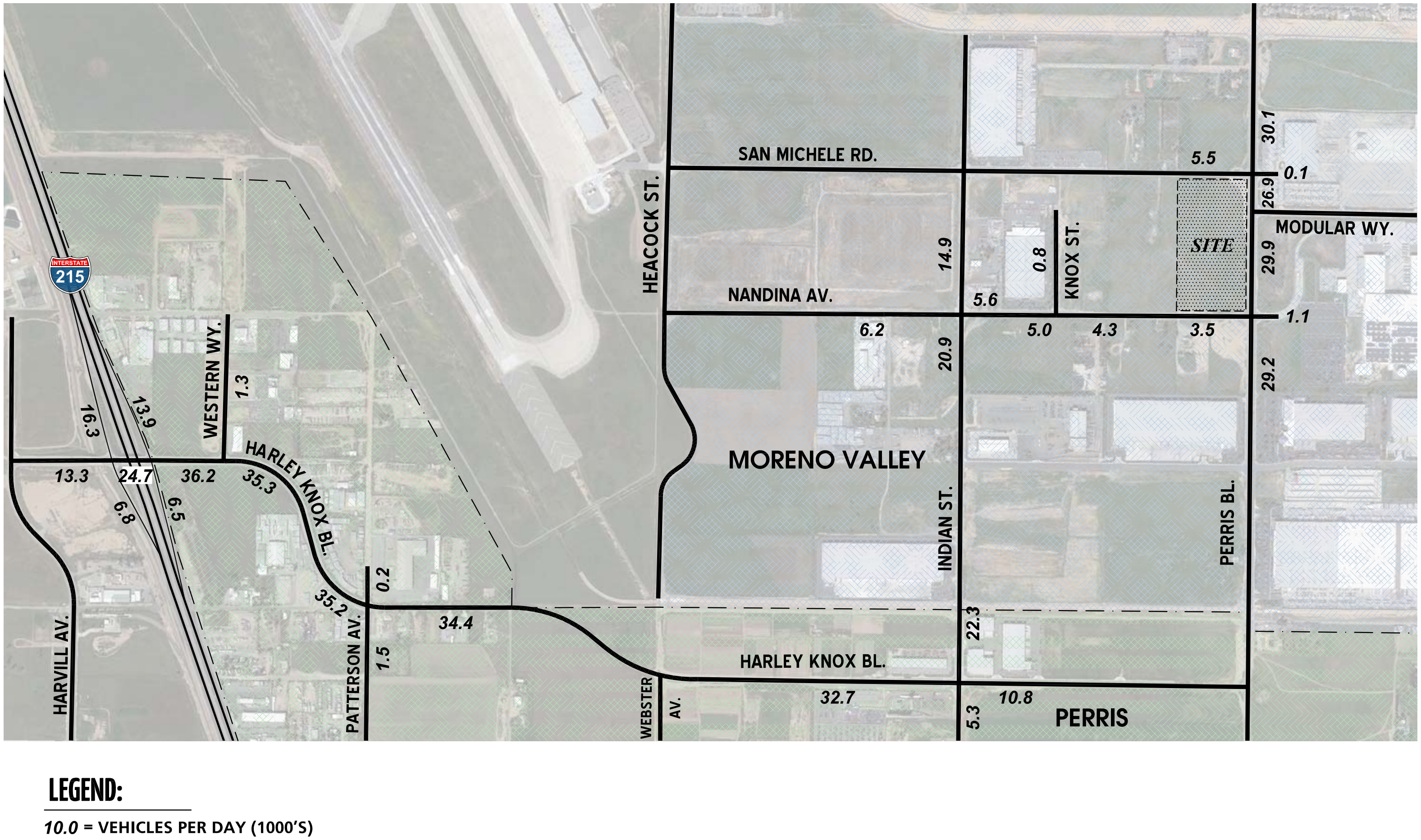
Opening Year (2017) With Project AM Peak Hour Intersection Volumes



Source: Urban Crossroads (07-06-12)

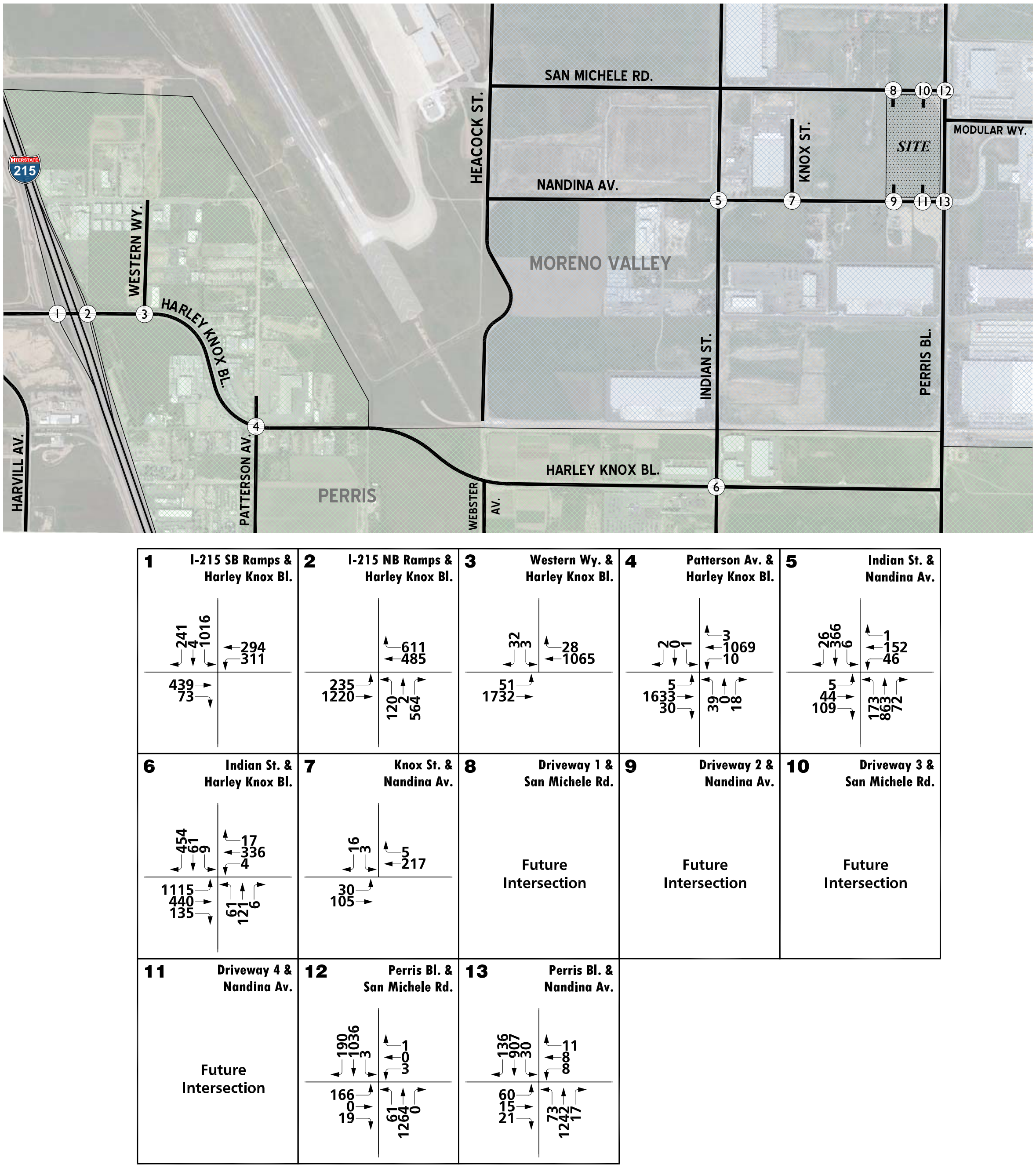
FIGURE 4.4-30

Opening Year (2017) With Project PM Peak Hour Intersection Volumes



Source: Urban Crossroads (07-06-12)

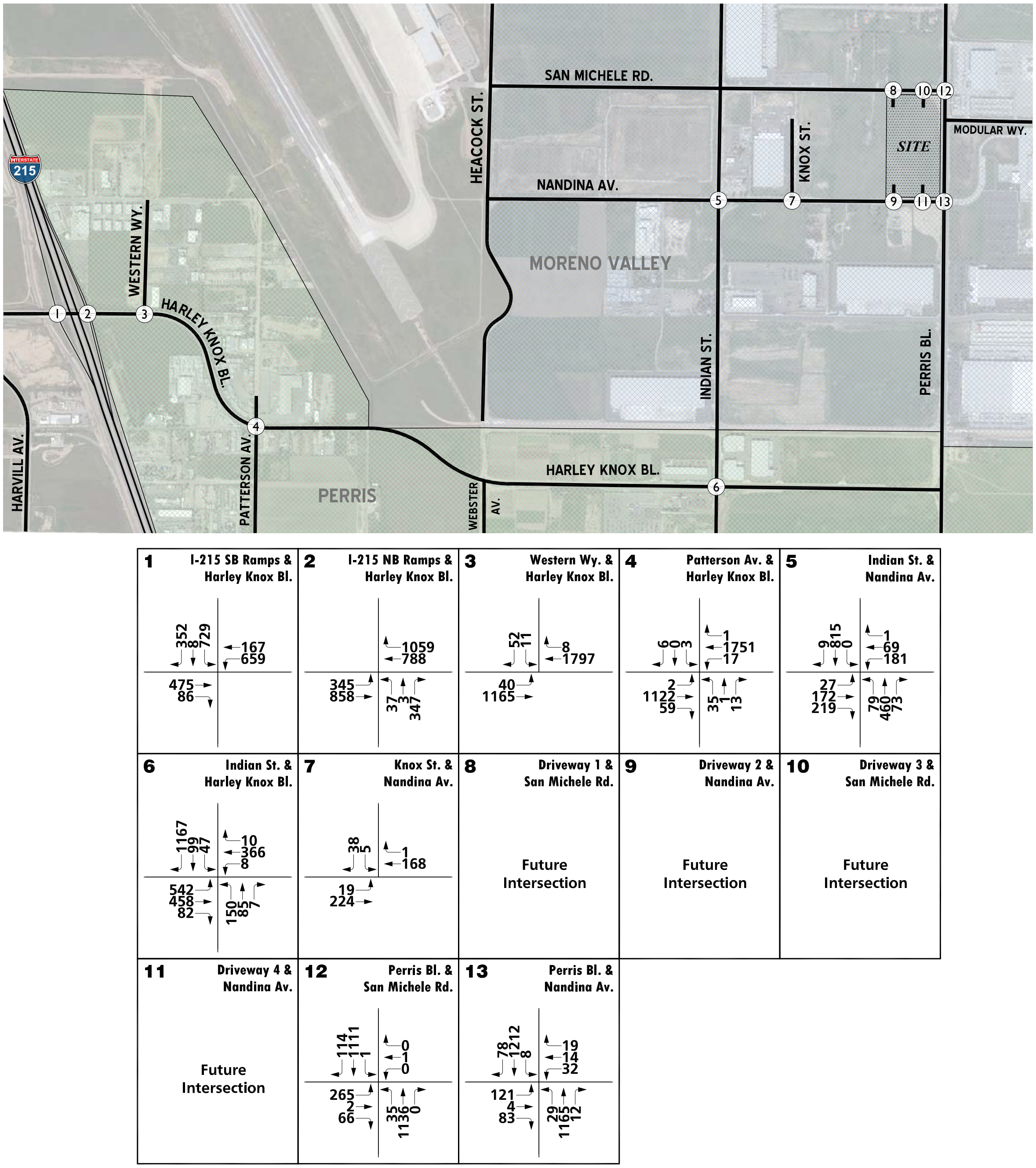
FIGURE 4.4-31
Opening Year Cumulative (2017) Without Project Average Daily Traffic (ADT)



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-32

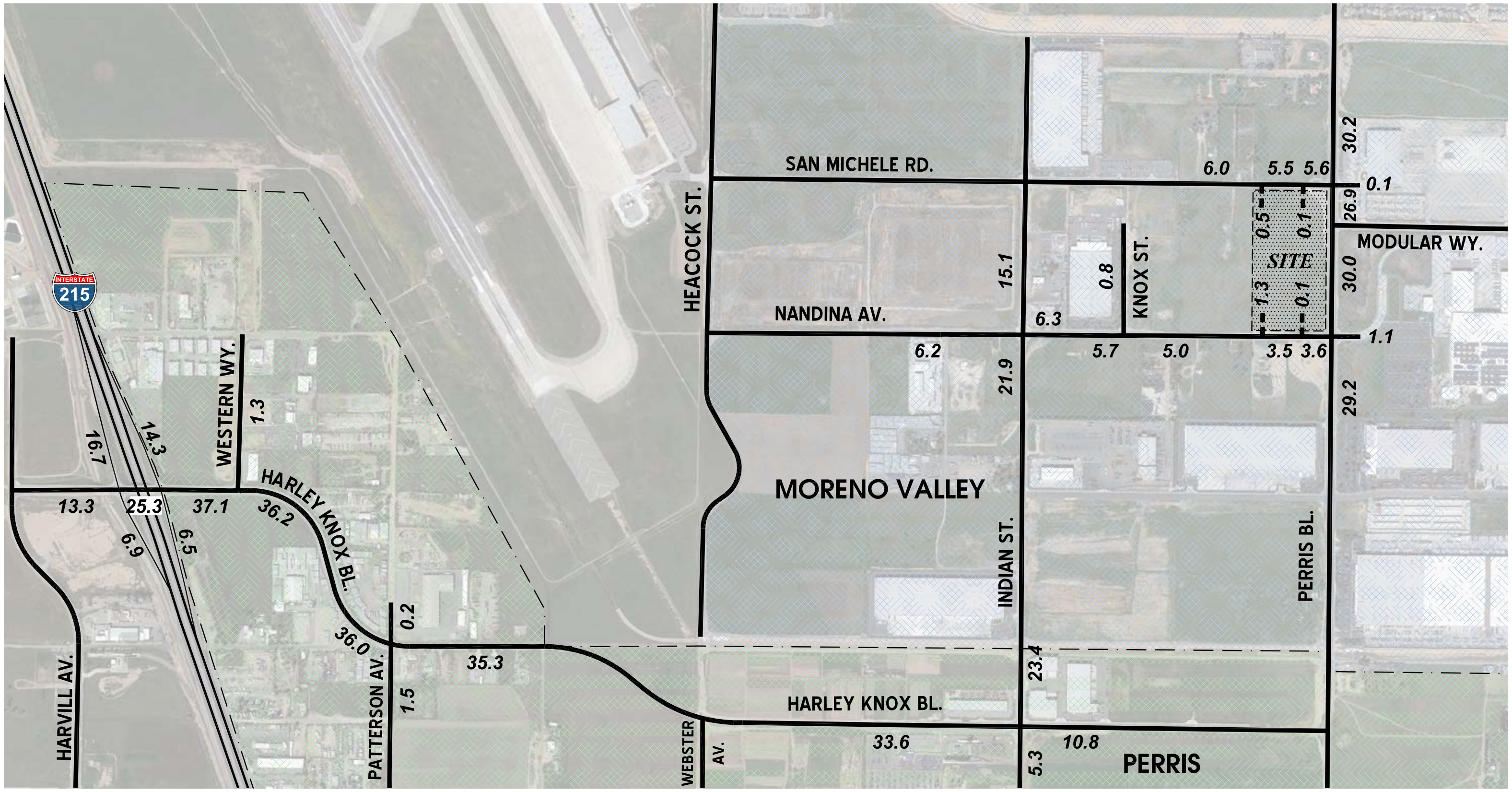
Opening Year Cumulative (2017) Without Project AM Peak Hour Intersection Volumes



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-33

Opening Year Cumulative (2017) Without Project PM Peak Hour Intersection Volumes



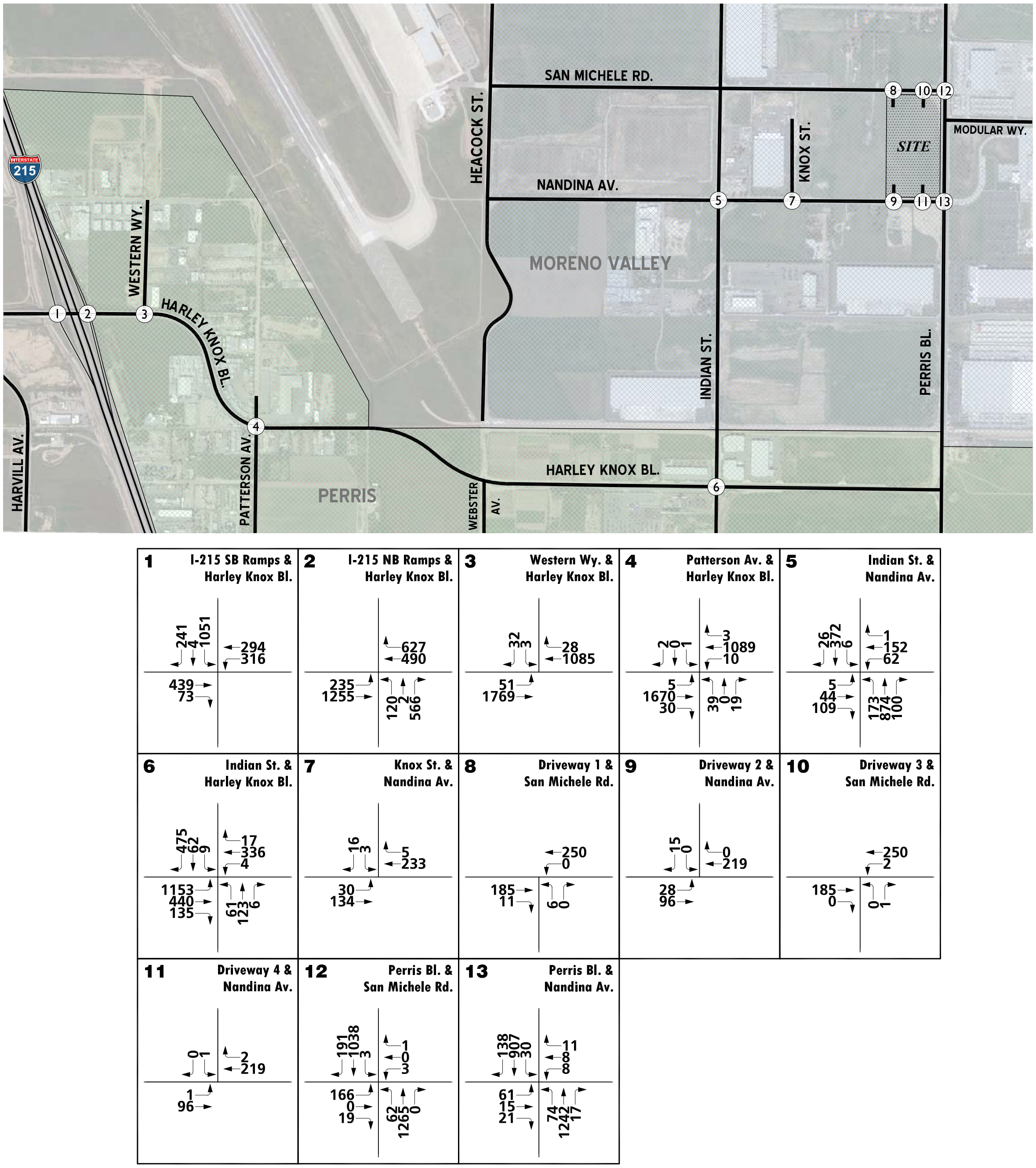
LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

Source: Urban Crossroads (07-06-12)

FIGURE 4.4-34

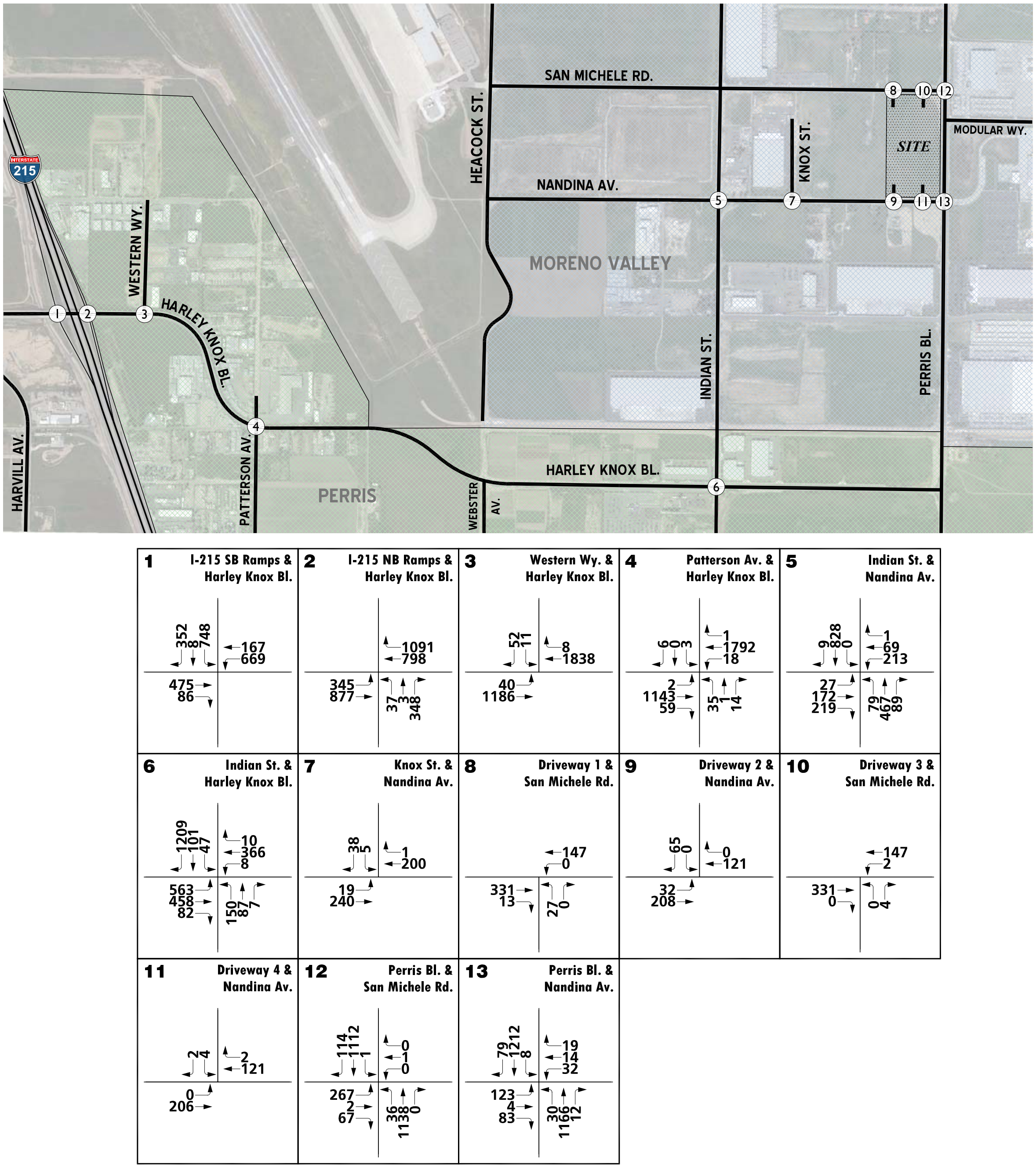
Opening Year Cumulative (2017) With Project Average Daily Traffic (ADT)



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-35

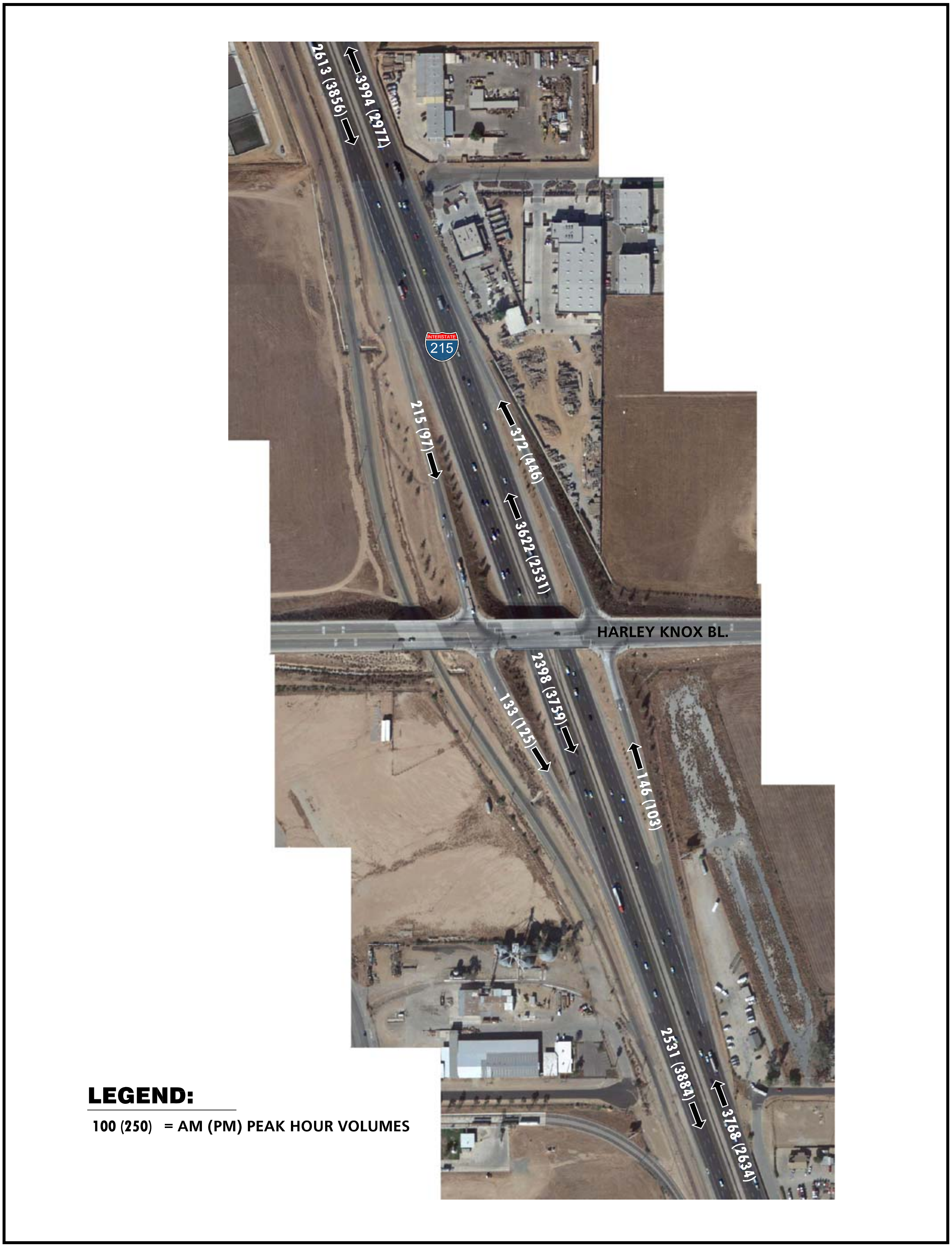
Opening Year Cumulative (2017) With Project AM Peak Hour Intersection Volumes



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-36

Opening Year Cumulative (2017) With Project PM Peak Hour Intersection Volumes



Source: Urban Crossroads (07-06-12)

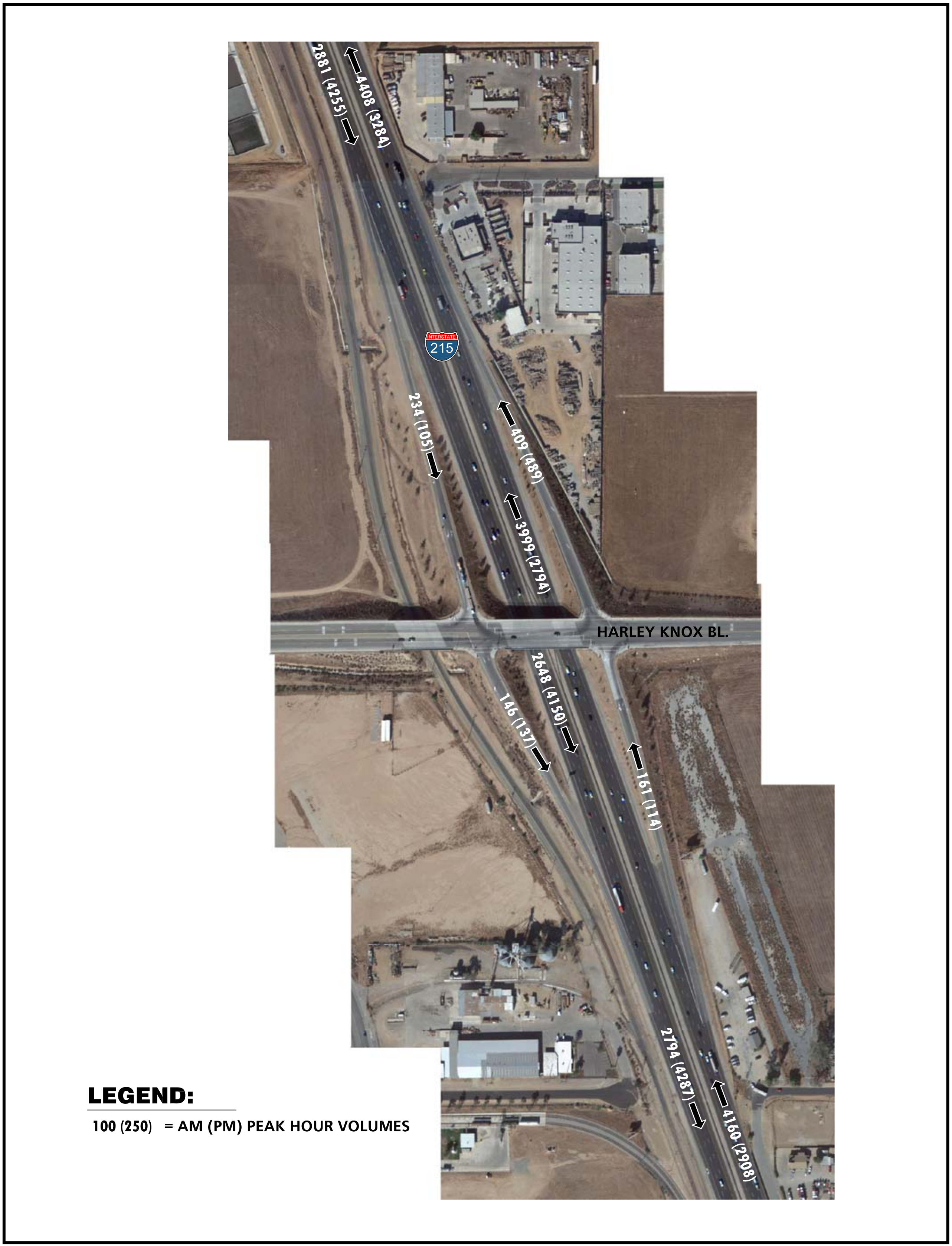
FIGURE 4.4-37

Existing Plus Project I-215 Freeway Mainline Volumes

Source: Urban Crossroads (07-06-12)

FIGURE 4.4-38

Opening Year (2017) Without Project I-215 Freeway Mainline Volumes



Source: Urban Crossroads (07-06-12)

FIGURE 4.4-39
Opening Year (2017) With Project I-215 Freeway Mainline Volumes

LEGEND:

100 (250) = AM (PM) PEAK HOUR VOLUMES

Source: Urban Crossroads (07-06-12)

FIGURE 4.4-40

Opening Year Cumulative (2017) Without Project I-215 Freeway Mainline Volumes

LEGEND:

100 (250) = AM (PM) PEAK HOUR VOLUMES

Source: Urban Crossroads (07-06-12)

FIGURE 4.4-41

Opening Year Cumulative (2017) With Project I-215 Freeway Mainline Volumes

4.5 BIOLOGICAL RESOURCES

This subsection assesses the Project's potential to impact sensitive biological resources that may be present on the subject property or that could be otherwise affected by the Project. The analysis is based in part on information contained in a site-specific technical report titled, "Biological Technical Report for First Inland Logistics Center II," prepared by URS Corporation (URS), and dated January 4, 2012. This report is provided as *Technical Appendix G* to this EIR (URS Corporation, 2012a). The Biological Technical Report is accompanied by a Focused Burrowing Owl Survey (dated June 29, 2012) and a Focused Special Status Plant Survey (dated June 29, 2012), also prepared by URS, which are provided as *Technical Appendices G1* (URS Corporation, 2012b) and *G2* (URC Corporation, 2012c), respectively.

4.5.1 EXISTING CONDITIONS

A. Scope and Methodology

Biologists/Regulatory Specialists from URS conducted a site-specific evaluation of biological resources present or potentially present on the Project site. For this evaluation a biological study area (BSA) for the field survey was defined as 9.0 acres of undeveloped land plus a 250-foot buffer (URS Corporation, 2012a). The BSA did not include the 8.3-acre trailer parking yard on the Project site because that area is developed and has no potential to contain sensitive biological resources. Methods of study included a review of relevant literature and databases, pedestrian based field surveys and wildlife observations. URS assessed resources within the Project's BSA using methodologies and accepted scientific and technical standards and survey guideline requirements issued by the U.S. Fish and Wildlife Service (USFWS), the California Department of Fish and Wildlife (CDFW), the California Native Plant Society (CNPS), and the Western Riverside County MSHCP (URS Corporation, 2012a).

The field studies also focused on a number of primary objectives that satisfy the special provisions of the Western Riverside County MSHCP and also comply with CEQA requirements, including: (1) general reconnaissance surveys and vegetation mapping; (2) general wildlife surveys; (3) habitat assessments and surveys for special-status plants (including species with applicable MSHCP survey requirements); and (4) habitat assessments and focused surveys for special-status animals (including species with applicable MSHCP survey requirements). Observations of plant and wildlife species were recorded during each of the above mentioned survey efforts (URS Corporation, 2012a).

Please refer to Section 2.0 of the Biological Technical Report (*Technical Appendix G*) for a detailed description of the scope and methodology used for the general biological resources assessment.

B. Existing Vegetation Communities

One vegetation/land use type is present on the Project site; developed and disturbed land. Table 4.5-1, *Summary of Vegetation Communities/Land Uses,* provides a summary of vegetation acreage for the Project site. The remaining 8.3 acre area of the property is developed as a trailer parking yard. A detailed description of the vegetation/land use type is provided below.

Table 4.5-1 Summary of Vegetation Communities/Land Uses

VEGETATION	ACREAGE
Developed/Disturbed Land	9.0 [1]
Trailer Parking Yard	8.3
Total	**17.3**

Source: (URS Corporation, 2012a), *Table 1.*

[1] *Acreage is rounded*

❑ Developed/Disturbed Land

Approximately 9.0 acres of the Project site consists of developed/ disturbed lands. No native habitat exists within this area. Disturbed habitat areas are dominated by sparse non-native grasses and annual species. These habitats are non-sensitive.

❑ Trailer Parking Yard

Approximately 8.3 acres of the Project site is developed as a trailer parking yard. This area is paved, with the exception of ornamental landscaping installed adjacent to Perris Boulevard and a linear-shaped detention/water quality basin and ornamental landscaping installed adjacent to Nandina Avenue. This area contains no sensitive vegetation communities

C. Special Status Plants

An evaluation of plant species on the 9.0-acre undeveloped portion of the Project site was conducted by URS on January 4, 2012. The Biological Technical Report (*Technical Appendix G* Table 2) provides a list of the special-status plants evaluated for potential occurrence on the Project site. Plant species were considered based on a number of factors, including: 1) species identified by the California Natural Diversity Database (CNDDB) as occurring (either currently or historically) on or in the vicinity of the Project site, 2) Western Riverside County MSHCP survey areas, and 3) any other special-status plants that are known to occur within the vicinity of the property, or for which potentially suitable habitat occurs on the Project site.

❑ Narrow Endemic and Criteria Area Plants

The Project site is located within the Western Riverside County MSHCP Narrow Endemic Plant Species Survey Area (NEPSSA). During the general biological field evaluation conducted on January 4, 2012, URS looked for the twenty one (21) special status plant species which were reported to grow in the area; however, none of the species were observed. A focused survey for special status plants was conducted on June 7, 2012 per the requirements of the MSHCP (URS Corporation, 2012c). The focused assessment increased the BSA from a 250-foot to 500-foot buffer. The focused assessment searched for potential suitable habitats and identified the presence of one special-status plant species. Smooth tarplant (*Centromadia pungens ssp. laevis*) was detected on the site. Smooth tarplant is a CNPS List 1B.1 species and is a criteria area plant species survey area (CAPSSA) species under the MSHCP. Due to surrounding land use consisting primarily of developed parcels and the limited number of individuals plants; it is unlikely that this species would increase in population.

C. *Special Status Animals*

The 9.0-acre undeveloped portion of the Project site was evaluated by URS for the presence of special status animal species. The Biological Technical Report (*Technical Appendix G* Table 3) provides a list of special-status animals that were evaluated for their potential to occur in the BSA, including MSHCP Covered Species with additional survey requirements. Species were evaluated based on a number of factors, including: 1) species identified by the CNDDB as occurring (either currently or historically) on or in the vicinity of the property, 2) MSHCP species survey areas applicable to the property, and 3) any other special-status animals that are known to occur within the vicinity of the property, or for which potentially suitable habitat occurs on the site.

☐ Special Status Animals Observed On-Site

One special-status animal species was observed within the BSA during the biological field surveys; the California horned lark (*Eremophila alpestris actia*). The California horned lark is a MSHCP Covered Species, indicating that any impacts to this species are covered by the MSHCP.

o *California Horned Lark (Eremophila alpestris actia)*

The California horned lark does not have a federal or state designation; however, this species is on the State Watch List. Additionally, the California horned lark is a Covered Species under the MSHCP. It has a holarctic distribution, ranging from the Arctic south to central Asia and Mexico with outlying populations in Morocco and Colombia. In general, the northernmost populations are migratory, moving south during the winter into remaining areas of the breeding range.

The California horned lark is a common to abundant resident in a variety of open habitats, usually where trees and large shrubs are absent. Range-wide, California horned larks breed in level or gently sloping shortgrass prairie, montane meadows, "bald" hills, open coastal plains, fallow grain fields, and alkali flats. Within Southern California, California horned larks breed primarily in open fields, (short) grasslands, and rangelands. Grasses, shrubs, forbs, rocks, litter, clods of soil, and other surface irregularities provide cover.

☐ Special Status Animals with a Potential to Occur On-Site

One special-status animal that has potential to occur at the Project site is the western burrowing owl (*Athene cunicularia hypugaea*). The Project site is located within the Western Riverside County MSHCP burrowing owl survey area; therefore, a MSHCP protocol burrowing owl survey was performed. A focused burrow survey was completed by URS on June 7, June 11, June 12,and June 20, 2012. As a result of the focus survey, ten burrows were observed; however, no burrowing owls or their signs were found with the potential burrows.

D. *MSHCP Riparian/Riverine Areas and Vernal Pools*

The Project site contains no drainages or vegetation that meets the definition of riparian or riverine habitat. Therefore, the Project site does not contain any MSHCP Riparian/Riverine areas. Additionally, the Project site lacks suitable habitat for wetland habitats and does not contain any MSHCP vernal pools.

E. Regulatory Setting

The proposed Project is subject to state and federal regulations associated with a number of regulatory programs. These programs often overlap and were developed to protect natural resources, including: state and federally listed plants and animals; aquatic resources including rivers and creeks, ephemeral streambeds, wetlands, and areas of riparian habitat; other special-status species which are not listed as threatened or endangered by the state or federal governments; and other special-status vegetation communities. Provided below is an overview of the federal, state, and regional laws, regulations, and requirements that apply to the proposed Project. For more information, refer to Technical Appendix *G*.

☐ State and/or Federally Listed Plants and Animals

o *State of California Endangered Species Act*

California's Endangered Species Act (CESA) provides definitions for endangered species, threatened species, and candidate species of California. Listed endangered and threatened species are protected by the CESA and candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Article 3, Sections 2080 through 2085, of the CESA addresses the taking of threatened, endangered, or candidate species by stating "No person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided." Under the CESA, "take" is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Exceptions authorized by the state to allow "take" require permits or memoranda of understanding and can be authorized for endangered species, threatened species, or candidate species for scientific, educational, or management purposes and for take incidental to otherwise lawful activities. Sections 1901 and 1913 of the California Fish and Game Code provide that notification is required prior to disturbance.

o *Federal Endangered Species Act*

The Federal Endangered Species Act of 1973 provides definitions for endangered species and threatened species of the U.S. Under provisions of Section 9(a)(1)(B) of the FESA it is unlawful to "take" any listed species. "Take" is defined in Section 3(18) of FESA: "...harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Further, the USFWS, through regulation, has interpreted the terms "harm" and "harass" to include certain types of habitat modification that result in injury to, or death of species as forms of "take." These interpretations, however, are generally considered and applied on a case-by-case basis and often vary from species to species. In a case where a property owner seeks permission from a federal agency for an action that could affect a federally listed plant and animal species, the property owner and agency are required to consult with USFWS. Section 9(a)(2)(b) of the FESA addresses the protections afforded to listed plants.

o *State and Federal Take Authorizations for Listed Species*

Federal or state authorizations of impacts to or incidental take of a listed species by a private individual or other private entity would be granted in one of the following ways:

- Section 7 of the FESA stipulates that any federal action that may affect a species listed as threatened or endangered requires a formal consultation with USFWS to ensure that the action is not likely to jeopardize the continued existence of the listed species or result in destruction or adverse modification of designated critical habitat. 16 U.S.C. 1536(a)(2).

- In 1982, the FESA was amended to give private landowners the ability to develop Habitat Conservation Plans (HCPs) pursuant to Section 10(a) of the FESA. Upon development of an HCP, the USFWS can issue incidental take permits for listed species where the HCP specifies at minimum, the following: (1) the level of impact that will result from the taking, (2) steps that will minimize and mitigate the impacts, (3) funding necessary to implement the plan, (4) alternative actions to the taking considered by the applicant and the reasons why such alternatives were not chosen, and (5) such other measures that the Secretary of the Interior may require as being necessary or appropriate for the plan.

- Sections 2090-2097 of the California Endangered Species Act (CESA) require that the state lead agency consult with CDFG on projects with potential impacts on state-listed species. These provisions also require CDFG to coordinate consultations with USFWS for actions involving federally listed as well as state-listed species. In certain circumstances, Section 2080.1 of the California Fish and Game Code allows CDFG to adopt the federal incidental take statement or the 10(a) permit as its own based on its findings that the federal permit adequately protects the species under state law.

o *Take Authorizations Pursuant to the MSHCP*

The Western Riverside County MSHCP, a regional HCP, was adopted on June 17, 2003, and an Implementing Agreement (IA) was executed between the USFWS, CDFG, and participating entities. The intent of the MSHCP is to preserve native vegetation and meet the habitat needs of multiple species, rather than focusing preservation efforts on one species at a time. As such, the MSHCP is intended to streamline review of individual projects with respect to the species and habitats addressed in the MSHCP, and to provide for an overall Conservation Area that would be of greater benefit to biological resources than would result from a piecemeal regulatory approach. The MSHCP provides coverage (including take authorization for listed species) for special-status plant and animal species, as well as mitigation for impacts to sensitive species.

Through agreements with the USFWS and the CDFG, the MSHCP designates 146 special-status animal and plant species that receive some level of coverage under the plan. Of the 146 “Covered Species” designated under the MSHCP, the majority of these species have no additional survey/conservation requirements. In addition, through participation with the MSHCP, the MSHCP provides mitigation for project-specific impacts to Covered Species so that the impacts would be reduced to below a level of significance pursuant to CEQA. As noted above, project-specific survey requirements exist for species designated as “Covered Species not yet adequately conserved” (Volume I, Section 6.1.2 of the MSHCP document). As the MSHCP’s survey requirements relate to the Project site, surveys are required on the Project site for the western burrowing owl and for narrow endemic plants.

4.5.2 BASIS FOR DETERMINING SIGNIFICANCE

Environmental impacts to biological resources are assessed using impact significance threshold criteria, which reflect the policy statement contained in CEQA, §21001(c) of the California Public Resources Code. Accordingly, the State Legislature has established it to be the policy of the State of California to:

> *"Prevent the elimination of fish or wildlife species due to man's activities, ensure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities..."*

In the development of thresholds of significance for impacts to biological resources, CEQA provides guidance primarily in §15065, Mandatory Findings of Significance, and the CEQA Guidelines, Appendix G, Environmental Checklist Form. CEQA Guidelines §15065(a) states that a project may have a significant effect where:

> *"The project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or wildlife community, reduce the number or restrict the range of an endangered, rare, or threatened species, ..."*

Therefore, for the purpose of analysis in this EIR, the proposed Project would result in a significant impact to biological resources if the Project or any Project-related component would:

1. *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U. S. Fish and Wildlife Service;*

2. *Have a substantially adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U. S. Wildlife Service;*

3. *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;*

4. *Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites;*

5. *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or*

6. *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, other approved local, regional, or state habitat conservation plan.*

4.5.3 IMPACT ANALYSIS

Threshold 1:	***Would the proposed Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U. S. Fish and Wildlife Service?***

A. Vegetation Communities

Approximately 9.0 acres of the Project site consists of developed/ disturbed lands and approximately 8.3 acres is developed as a trailer parking yard. Neither portion of the Project site contains sensitive vegetation communities. The trailer parking yard has been built upon and the remaining vacant lot contains no native vegetation community and is fully disturbed (URS Corporation, 2012a). Therefore, the Project will have no impact on sensitive vegetation communities.

B. Plant Species

The Project site contains one species of special status plant species, smooth tarplant. The smooth tarplant is a CNPS List 1B.1 species; however, due to the developed and disturbed nature of surrounding properties and a small number of individual plants (two) located on the Project site, URS determined that the species is unlikely to grow larger in population. The Project will have a less than significant impact on the plant species because the loss of these two individuals will not significantly impact the persistence of the species.

C. Wildlife

One special status species was observed on the Project site during biological field surveys, the California horned lark. Impacts to the species would be less than significant because the California horned lark is a MSHCP covered species. An Implementation Agreement (IA) between the USFWS, the CDFW, and participating government bodies including the City of Moreno Valley was executed and associated 10(a)(1)(B) Permit No. TE-088609 was issued on June 22, 2004. For properties such as the Project site that are outside of the MSCHP Criteria Area, impacts to plant and animal species identified in the MSHCP as “Covered Species Adequately Conserved” are authorized by Permit No. TE-088609. The Project will be required to pay the City of Moreno Valley’s MSHCP Mitigation Fee, which supplements the financing and acquisition of lands supporting species covered by the MSHCP and to pay for new development’s share of this cost.

Additionally, although the species was not observed, the Project site supports habitat for the western burrowing owl. No burrowing owls or their signs were found on the Project site or within a 500-foot buffer around the Project site, but because the property contains suitable habitat for the western burrowing owl, it is possible the species could migrate onto the property prior to construction, resulting in a potentially significant impact. The conduct of a pre-construction survey for the western burrowing owl is required and mitigation will be necessary if the species is found to be present.

Threshold 2: Would the proposed Project have a substantially adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U. S. Wildlife Service?

As documented in the Biological Technical Report completed by URS, the Project site contains no drainages or vegetation that meets the definition of riparian or other sensitive habitats as defined by the CDFW or USFWS. The Project site lacks evidence of riparian or riverine habitats and also does not contain vernal pools. Therefore, the proposed Project has no potential to cause an adverse effect or impact on any riparian habit or other sensitive natural community.

Threshold 3: Would the proposed Project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

The Project site contains no federal wetlands; therefore, there would be no impact on federally protected wetlands as defined by the Clean Water Act.

Threshold 4: Would the proposed Project interfere substantially with the movement of any resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The 17.3-acre Project site contains a trailer parking yard on the southern 8.3 acres while the northern 9.0 acres consists of developed/disturbed vacant land. There are no water bodies on or adjacent to the site that could support fish; therefore, there is no potential for the Project to interfere with the movement of fish. There are also no native wildlife nurseries on or adjacent to the site; therefore, there is no potential for the Project to impede the use of a native wildlife nursery site.

The property is surrounded by paved roads and developed parcels or parcels planned for development. The surrounding area contains a mixture of industrial warehouses, an automobile junk yard, truck trailer parking lot, undeveloped land and a small number of non-conforming residences. The paved roadways and surrounding land uses impede wildlife movement across the Project site and throughout the Project site's vicinity. Thus, implementation of the Project would not have the ability to interfere with an established migratory wildlife corridor, because the site does not serve as a corridor nor is it connected to an established corridor. Additionally, the Project site is not located adjacent to the Western Riverside County MSHCP Criteria Area or any MSHCP Preserve; thus, the Project has no potential to result in wildlife movement impacts on the MSHCP Preserve.

Threshold 5: Would the proposed Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The Project would not result in any significant conflicts with local policies related to the protection of biological resources because no local policies are applicable except for the MSHCP. The proposed Project is required to comply with the mandatory payment of MSHCP fees pursuant to Title 3, Chapter 3.48 of the City's Municipal Code. Although the City of Moreno Valley's Landscape Ordinance requires that "all mature trees on a site with 4" calipers or greater in place shall be retained and preserved," the proposed Project would not conflict with the Landscape Ordinance requirements because no such trees exist on the site, except for ornamental trees in the roadway frontage streetscapes that would be retained. The City of Moreno Valley does not have any additional ordinances in place protecting biological resources. Therefore, no impact would occur.

Threshold 6: Would the proposed Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, other approved local, regional, or state habitat conservation plan?

The following is an analysis of the proposed Project's compliance with the Western Riverside County MSHCP's Reserve Assembly Requirements as well as other applicable MSHCP requirements pursuant to the following sections of the MSHCP: Section 6.1.3, Protection of Narrow Endemic Plant Species; Section 6.1.4, Guidelines Pertaining to the Urban/Wildland Interface; and Section 6.3.2, Additional Survey Needs and Procedures.

☐ Project Relation to Reserve Assembly

The Project site occurs within the overall Plan Area of the MSHCP, and as such the Project is required to abide by any applicable survey and/or conservation requirements. As indicated in the discussion below, all surveys required by the MSHCP have been conducted on the proposed Project site and in the BSA buffer area. The Project site does not occur within the MSHCP Criteria Area. As such, the Project is not required to set aside conservation lands pursuant to the MSHCP, and the Project is not subject to the Habitat Evaluation and Acquisition Negotiation Strategy (HANS) process, or Joint Project Review (JPR). Accordingly, the proposed Project would not conflict with the MSHCP Reserve Assembly requirements (URS Corporation, 2012a).

☐ Protection of Narrow Endemic Plants

Section 6.1.3 of the MSHCP requires that within the Narrow Endemic Plant Species Survey Area (NEPSSA), site-specific focused surveys for Narrow Endemic Plant Species will be required for all public and private projects where appropriate soils and habitat are present. The Project site and 500 foot buffer are located within NEPSSA 3A; therefore, focused surveys are required for Narrow Endemic Plants on the Project site. After a thorough habitat assessment, a focused survey for smooth tarplant conducted by URS biologists determined that two plants are present. Impacts due to the removal of these two individuals are less than significant because the loss of these two individuals will not significantly impact the persistence of the species. Accordingly, the proposed Project would not conflict with Volume I, Section 6.1.3 of the MSHCP.

☐ Guidelines Pertaining to the Urban/Wildland Interface

The MSHCP Urban/Wildland Interface Guidelines are intended to address indirect effects associated with locating development in proximity to the MSHCP Conservation Area. As the MSHCP Conservation Area is assembled, development is expected to occur adjacent to the Conservation Area and edge effects with the potential to adversely affect biological resources within the Conservation Area are required to be evaluated. Edge effects are identified in the MSCHP as: Drainage; Toxics; Lighting; Noise; Invasive Species; Barriers; and Grading/Land Development. The Project site does not occur within or adjacent to the MSCHP Criteria Area or existing Conservation Area, or any Public/Quasi-Public lands. As such, the proposed Project would not have the potential to create indirect effects on the MSHCP Conservation Area and is not be subject to the Urban/Wildland Interface Guidelines (URS Corporation, 2012a). The Project, therefore, is consistent with Section 6.1.4 of the MSHCP.

❑ Additional Survey Needs and Procedures

MSHCP Section 6.3.2 identifies that in addition to the Narrow Endemic Plant Species addressed in Section 6.1.3, additional surveys may be needed for other certain plant and animal species in conjunction with MSHCP implementation in order to achieve full coverage for these species. Within areas of suitable habitat, focused surveys are required for additional plant species if a project site occurs within a designated CAPSSA, or special animal species survey area (i.e., burrowing owl, amphibians, and mammals). Of these, the Project site only occurs within the MSHCP burrowing owl survey area (URS Corporation, 2012a).

As discussed above under the analysis of Threshold 1, a focused survey for the western burrowing owl was completed in accordance with the MSHCP Burrowing Owl Survey Area requirements. The survey determined that no western burrowing owls or diagnostic sign of western burrowing owls (whitewash, pellets, feathers, small mammal bones, etc.) are located within the Project site or within a 500 foot buffer area around the site; therefore, no impact to an observed special-status species would occur. However, the species is migratory and therefore could migrate onto the undeveloped portion of the property prior to ground-disturbing construction activities. The conduct of a pre-construction survey for the species will be required and mitigation will be necessary if the species is found to be present.

4.5.4 CUMULATIVE IMPACT ANALYSIS

This cumulative impact analysis considers development of the proposed Project in conjunction with other development projects in the vicinity of the Project site and resulting from full General Plan buildout in the City of Moreno Valley and other jurisdictions in the region within the boundaries of the Western Riverside County MSHCP.

Implementation of the proposed Project would result in permanent ground disturbance and development on the 9.0 acres of the Project site that is not already developed. The primary effects of the proposed Project, when considered with the build out of long range plans in the region, would be the cumulative loss of vacant land that can support habitat for sensitive species. With respect to special-status species, although habitat offered on the Project site (disturbed/developed vegetation) is of substantially lesser quality than habitat that is found in undisturbed natural areas, it still provides open spaces for foraging, refuge, nesting, and areas that can be used for species reproduction.

Anticipated cumulative impacts are addressed within the region by the Western Riverside County MSHCP and the adopted “The Habitat Conservation Plan for the Stephens’ Kangaroo Rat in Western Riverside County, California”. The MSHCP, as currently adopted, addresses 146 “Covered Species” that represent a broad range of habitats and geographical areas within Western Riverside County, including threatened and endangered species and regionally- or locally-sensitive species that have specific habitat requirements and conservation and management needs. The MSHCP addresses biological impacts for take of Covered Species within the MSHCP area. Impacts to Covered Species and establishment and implementation of a regional conservation strategy and other measures included in the MSHCP are intended to address the federal, state, and local mitigation requirements for these species and their habitats. Specifically, Section 4.4 of the MSHCP states that:

> *The MSHCP was specifically designed to cover a large geographical area so that it would protect numerous endangered species and habitats throughout the region. It is the projected cumulative effect of future development that has required the preparation and implementation of the MSHCP to protect multiple habitats and multiple endangered species.*

It goes on to state that:

> *The LDMF [Local Development Mitigation Fee] is to be charged throughout the Plan Area to all future development within the western part of the County and the Cities in order to provide a coordinated conservation area and implementation program that will facilitate the preservation of biological diversity, as well as maintain the region's quality of life.*

The reason for the imposition of the Mitigation Fee over the entire region is that the loss of habitat for endangered species is a regional problem resulting from the cumulative impacts of continuing development throughout all of the jurisdictions in Western Riverside County. Finally, Section 5.1 of the MSHCP states that:

> *It is anticipated that new development in the Plan Area will fund not only the mitigation of the impacts associated with its proportionate share of regional development, but also the impacts associated with the future development of more than 332,000 residential units and commercial and industrial development projected to be built in the Plan Area over the next 25 years.*

As the construction of buildings, infrastructure, and all alterations of the land within areas that are outside of the Criteria Area are permitted under the MSHCP (see MSHCP Section 2.3.7.1), cumulative impacts to biological resources with the exception of MSHCP non-covered species would be less than significant provided that the terms of the MSHCP are fully implemented (MSHCP Final EIR/EIS, Section 4.4.1.6). The MSHCP database has been consulted for the proposed Project and the recommended focused surveys (for the western burrowing owl and narrow endemic plant species) have been conducted. The Project is required to pay the required MSHCP mitigation fees per the City of Moreno Valley Municipal Code Title 3, Chapter 3.48. The Project would comply with the requirements of the MSHCP and, thus, would not conflict with its adopted policies. Accordingly, because the Project complies with the MSHCP, would pay the required MSHCP mitigation fee, and would have less than significant impacts to MSHCP non-covered species, the proposed Project's contribution to cumulative impacts would be less than significant.

As indicated under the discussion and analysis of Threshold 1 in Subsection 4.3.3, the Project site does not contain any habitat for any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations. Accordingly, the Project would not result in any cumulatively significant impacts to sensitive species as a result of habitat loss.

Although the Project would impact one special status plant (smooth tarplant), the Project site does not occur within the MSHCP's Criteria Area, indicating that the species is not targeted for conservation in the Project area and would be conserved instead as part of the assemblage of the MSHCP Reserve System. Since the proposed Project and all other developments within the cumulative study area would be required to comply with the MSHCP, Project impacts to special-status plants are evaluated as less than significant on a cumulative basis.

Regarding special-status animals, the Project would eliminate actual or potential live-in habitat for the burrowing owl and the California horned lark. As the proposed Project and other cumulative developments would be required to comply with the MSHCP, potential Project-related impacts to California horned lark are concluded to be less than significant on a cumulative basis because adequate habitat for the species would be accommodated through the MSHCP Reserve System. The burrowing owl is fairly ubiquitous within the Project vicinity; as such, it is reasonable to conclude that impacts to habitat for this species are occurring throughout the cumulative study area. As such, prior to mitigation, the proposed Project's potential impacts to burrowing owls are concluded to be cumulatively significant and mitigation would be required.

The Project site does not contain habitat of wetlands or riparian areas. Therefore, the Project would not impact any wetlands or riparian areas; thus, the Project does not have the potential to contribute to cumulatively significant wetland and riparian impacts.

As indicated under the discussion and analysis of Threshold 4 in Subsection 4.5.3, the proposed Project would not significantly impact wildlife movement corridors because such corridors already are accommodated by the MSHCP and the Project site is not targeted for conservation as part of any proposed or existing linkages by the MSHCP. In addition, there are no native wildlife nursery sites within the Project vicinity. While Western Riverside County is becoming increasingly urbanized, which could restrict wildlife movement, the MSHCP, and the Conservation Areas established therein, was developed with several goals that specifically support wildlife movement. Accordingly, cumulative impacts to wildlife movement are less than significant. As concluded by the MSHCP's Final EIR/EIS, "*The MSHCP provides for the movement of native resident and migratory species and for genetic flow identified for Covered Species. Therefore, impacts related to cores and linkages resulting from the Plan are considered less than significant.*" (MSHCP Final EIR/EIS, Section 4.1.5) Accordingly, the proposed Project would not result in any cumulatively significant impacts to wildlife movement corridors or native wildlife nursery sites.

The proposed Project would not conflict with any local policies or ordinances protecting biological resources; accordingly, a cumulatively significant impact due to a conflict with such local policies or ordinances would not occur.

As discussed under the analysis of Threshold 6 in Subsection 4.5.3, the proposed Project would be fully consistent with the all applicable MSHCP requirements. As such, cumulative impacts due to a conflict with these the MSHCP would not occur.

4.5.5 APPLICABLE PROJECT REQUIREMENTS

The following is a list of requirements and/or conditions to which the Project would be required to adhere. Compliance with these measures was assumed throughout the above analysis of impacts to biological resources.

PR 4.5-1 The Project shall comply with City of Moreno Valley Municipal Code Title 3, Chapter 3.48, Western Riverside County Multiple Species Habitat Conservation Plan

Fee Program, which requires a per-acre local development mitigation fee that will assist in providing revenue to acquire and preserve vegetation communities and natural areas within the city and western Riverside County which are known to support threatened, endangered or key sensitive populations of plant and wildlife species.

PR 4.5-2 The Project shall comply with City of Moreno Valley Municipal Code Title 3, Chapter 8.60, Threatened and Endangered Species, which requires a per-acre local development mitigation fee pursuant to the City's adopted "The Habitat Conservation Plan for the Stephens' Kangaroo Rat in Western Riverside County, California" and as established pursuant to Fee Resolution 89-92.

4.5.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold 1: Significant Direct and Cumulative Impact. No sensitive vegetation communities are located on the Project site. A less than significant impact on sensitive plant species would occur because the loss of two individual smooth tarplant would not significantly impact the persistence of the species. The loss of habitat for the California horned lark is less than significant with mandatory MSHCP compliance because the species is a MSHCP Covered Species. Although the western burrowing owl is not present on the Project site, the species could be impacted if it migrates onto the property prior to the commencement of ground-disturbing construction activities, which is a potentially significant direct and cumulative impact.

Threshold 2: No Impact. The Project site lacks riparian and other sensitive habitats; therefore, the Project would have no impact on riparian or other sensitive habitats as defined by the CDFW or USFWS.

Threshold 3: No Impact. No federally protected wetlands are located on the Project site; therefore, no impact would occur.

Threshold 4: No Impact. There is no potential for the Project to interfere with the movement of fish or impede the use of a native wildlife nursery site. Additionally, the Project would not have the ability to interfere with an established migratory wildlife corridor or result in wildlife movement impacts on the MSHCP Preserve.

Threshold 5: No Impact. The Project would not conflict with any local policies or ordinances governing biological resources.

Threshold 6: Significant Direct and Cumulative Impact. The Project site is subject to the Western Riverside County MSHCP and its survey requirements for the western burrowing owl. Although compliant with all MSHCP provisions, and although the species is absent on the property, the property contains suitable habitat for the western burrowing owl. If the species is present on the property at the time a grading permit is issued, impacts would be significant, requiring mitigation.

4.5.7 MITIGATION

MM 4.5-1 Within 30 days prior to grading, a qualified biologist shall conduct a survey of the undeveloped portions of the property and make a determination regarding the presence or absence of the burrowing owl. The determination shall be documented in a report and shall be submitted, reviewed, and accepted by the Planning Division prior to the issuance of a grading permit and subject to the following provisions:

a. In the event that the pre-construction survey identifies no burrowing owls on the property, a grading permit may be issued without restriction.

b. In the event that the pre-construction survey identifies the presence of at least one individual but less than three (3) mating pairs of burrowing owl, then prior to the issuance of a grading permit and prior to the commencement of ground-disturbing activities on the property, the qualified biologist shall passively or actively relocate any burrowing owls. Passive relocation, including the required use of one-way doors to exclude owls from the site and the collapsing of burrows, will occur if the biologist determines that the proximity and availability of alternate habitat is suitable for successful passive relocation. Passive relocation shall follow CDFW relocation protocol and shall only occur between September 15 and February 1. If proximate alternate habitat is not present as determined by the biologist, active relocation shall follow CDFW relocation protocol. The biologist shall confirm in writing that the species has fledged the site or been relocated prior to the issuance of a grading permit.

c. In the event that the pre-construction survey identifies the presence of three (3) or more mating pairs of burrowing owl, the requirements of MSCHP Species-Specific Conservation Objectives 5 for the burrowing owl shall be followed. Objective 5 states that if the site (including adjacent areas) supports three (3) or more pairs of burrowing owls and supports greater than 35 acres of suitable Habitat, at least 90 percent of the area with long-term conservation value and burrowing owl pairs will be conserved onsite until it is demonstrated that Objectives 1-4 have been met. A grading permit shall only be issued, either:

  - upon approval and implementation of a property-specific Determination of Biologically Superior Preservation (DBESP) report for the western burrowing owl by the CDFW.

  - a determination by the biologist that the site is part of an area supporting less than 35 acres of suitable Habitat, and upon passive or active relocation of the species following accepted CDFW protocols. Passive relocation, including the required use of one-way doors to exclude owls from the site and the collapsing of burrows, will occur if the biologist determines that the proximity and availability of alternate habitat is suitable for successful passive relocation. Passive relocation shall follow CDFW relocation protocol and shall only occur between September 15 and February 1. If proximate alternate habitat is not present as determined by the biologist, active relocation shall follow CDFW relocation protocol. The biologist shall confirm in writing that the species has fledged the site or been relocated prior to the issuance of a grading permit.

4.5.8 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

With implementation of Mitigation Measure 4.5-1, potential impacts to the western burrowing owl would be reduced to below a level of significance.

5.0 MANDATORY CEQA TOPICS

5.1 SIGNIFICANT ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED IF THE PROPOSED PROJECT IS IMPLEMENTED

The CEQA Guidelines require that an EIR disclose the significant environmental effects of a project which cannot be avoided if the proposed project is implemented (CEQA Guidelines §15126(b)). As described in detail in Section 4.0 of this EIR, the proposed Project would result in three (3) impacts to the environment that cannot be reduced to below a level of significance after implementation of relevant standard conditions of approval, compliance with applicable regulations, and application of feasible mitigation measures. The significant impacts that cannot be mitigated to a level below significant consist of the following:

- Air Quality (Long-Term): Significant direct and cumulative long-term air quality impact due to an exceedance of the SCAQMD regional threshold for NO_X emissions, which also would cumulatively contribute to an existing air quality violation within the SCAB (i.e., non-attainment status for ozone) because NO_X emissions are a precursor for ozone.

The proposed Project's unavoidable air quality impact listed above cannot be reduced to below a level of significance after implementation of the mitigation measures identified in this EIR. Additional feasible mitigation measures are not available to reduce the impact because operational emissions of NOx primarily come from mobile source emissions that are beyond the control of the Project Applicant, future Project tenants, and the City of Moreno Valley.

- Noise (Near-Term): Significant direct and cumulative near-term noise impact to due to the generation of noise levels during Project construction that exceed the City of Moreno Valley's Noise Ordinance standard of 65 dBA Leq at a distance of 200 feet from the property line.

In order to mitigate construction-related noise impacts to below a level of significance, all construction activities would need to be set back from the property line by a distance ranging from 565 feet (during architectural coating) to 2,774 feet (during site grading activities). It is not feasible to build the Project while restricting construction activities to those distances. Additionally, there are no feasible alternatives to using noise-generating equipment to construct the proposed Project. Accordingly, there are no feasible mitigation measures available to reduce the Project's near-term construction -related noise impacts to a level below significant.

- Transportation/Traffic (Near-Term): Significant cumulative near-term impact to the intersections of Western Way/Harley Knox Boulevard and Indian Street/ Harley Knox Boulevard.

Under Horizon Year Cumulative (2017) Conditions, the proposed Project would contribute 50 or more peak hour trips to the intersections of Western Way at Harley Knox Boulevard and Indian Street at Harley Knox Boulevard in the City of Perris, which would operate at deficient levels of service. Although these intersections and Harley Knox Boulevard are programmed for improvement under the North Perris RBBD, the Project site lies outside of the RBBD fee area and the Project

Applicant is not subject to fair-share fee payments. Because the City of Moreno Valley has no authorization over City of Perris intersections to ensure that the improvements will be in place prior to the Project's Horizon Year Cumulative (2017) condition, the Project's impact is considered to be cumulatively considerable and unavoidable.

5.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES WHICH WOULD BE CAUSED BY THE PROPOSED PROJECT SHOULD IT BE IMPLEMENTED

The CEQA Guidelines require EIRs to address any significant irreversible environmental changes which would be involved in the proposed action should it be implemented (CEQA Guidelines § 15126.2(c)). An environmental change would fall into this category if: a) the project would involve a large commitment of non-renewable resources; b) the primary and secondary impacts of the project would generally commit future generations to similar uses; c) the project involves uses in which irreversible damage could result from any potential environmental accidents; or d) the proposed consumption of resources are not justified (e.g., the project results in the wasteful use of energy).

Determining whether the proposed Project may result in significant irreversible environmental changes requires a determination of whether key non-renewable resources would be degraded or destroyed in such a way that there would be little possibility of restoring them. Natural resources in the form of construction materials and energy resources would be used in the construction of the proposed Project, but development of the Project would have no measurable adverse effect on the availability of such resources, including resources that may be non-renewable (e.g., fossil fuels). Construction and operation of the proposed Project would not involve the use of large sums or sources of non-renewable energy.

Implementation of the proposed Project would result in the commitment of future generations to one warehouse building on the proposed Project site. Surrounding the Project site, several large-scale industrial and warehouse buildings have been developed and there are several approved development projects in this area that are pending construction. Immediately abutting the proposed Project site on the west is property containing a warehouse building occupied by Harbor Freight Tools, beyond which is a warehouse distribution facility currently occupied by Modular Metal Fabrications, Inc. Property located north of the site is designated for future industrial development, but currently consists of undeveloped land, several existing non-conforming single-family residences, and an automobile junk yard. Beyond those uses is another large warehouse distribution facility currently occupied by O'Reilly Auto Parts. Land immediately east of the Project site includes undeveloped land and two existing warehouse distribution facilities currently occupied by El Dorado Stone and Walgreens. To the south of the proposed Project site are disturbed lands used for truck trailer parking and one non-conforming single-family residence, south of which is a warehouse distribution facility currently occupied by Harman Distribution Center.

As demonstrated in the analysis presented throughout EIR Section 4.0, long-term operation of the proposed Project would not result in significant physical environmental effects to nearby properties. Although the Project would cause unavoidable impacts associated with air quality (long-term), noise (near-term), and traffic (near-term) as summarized above in Subsection 5.1, these effects would not commit surrounding properties to land uses other than the uses currently by the Moreno Valley General Plan and/or the Moreno Valley Industrial Area Plan.

EIR Subsection 5.4.5 provides an analysis of the proposed Project's potential to transport or handle hazardous materials which, if released into the environment, could result in irreversible damage to the environment. As concluded in the analysis, the proposed Project would be required to comply with federal, state, and local regulations related to hazardous materials, which would ensure that construction and long-term operation of the proposed Project would not have the potential to cause significant irreversible damage to the environment, including damage that may result from upset or accident conditions.

To reduce the Project's energy needs and fossil fuel consumption, and thereby reduce air emissions, the City of Moreno Valley will apply Conditions of Approval to the Project to ensure mandatory compliance with applicable regulatory requirements imposed by the State of California and the SCAQMD (as summarized in EIR Subsections 4.1 and 4.2, which would reduce the Project's level of demand for energy resources. Therefore, the proposed Project would not result in the wasteful use of energy or the consumption of resources that are not justified based on the scale of the proposed Project.

5.3 GROWTH INDUCING IMPACTS OF THE PROPOSED PROJECT

CEQA requires a discussion of the ways in which the proposed Project could be growth inducing. The CEQA Guidelines identify a project as growth inducing if it would foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment (CEQA Guidelines §15126.2(d)). New employees and new residential populations represent direct forms of growth. These direct forms of growth have a secondary effect of expanding the size of local markets and inducing additional economic activity in the area.

Western Riverside County abuts San Bernardino County to the northeast, Orange County to the west and San Diego County to the south. These adjacent counties have large employment bases and given Riverside County's close proximity to these adjacent counties, many Riverside County residents commute to jobs in adjacent counties. The California Employment Development Department (CEDD) reported that 173,379 workers were commuting out of Riverside County in 2000 (CEDD, 2008)[1].

A project could indirectly induce growth at the local level by increasing the demand for additional goods and services associated with an increase in population or employment and thus reducing or removing the barriers to growth. This typically occurs in suburban or rural environs where population growth results in increased demand for service and commodity markets responding to the new population. Economic growth would likely take place as a result of the proposed Project's operation as warehouse building, but the intensity of economic growth would occur consistent with planned growth identified in the Moreno Valley General Plan and in the General Plans of adjacent jurisdictions. The Project is consistent with the Business Park/Light Industrial land use designation assigned to the property by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (MVIAP).

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[1] As of November 2012, the California Employment Development Department had not yet released County-to-County commuter data based on the 2010 Census.

Under CEQA, growth inducement is not considered necessarily detrimental, beneficial, or of little significance to the environment. Typically, growth-inducing potential of a project would be considered significant if it fosters growth or a concentration of population in excess of what is assumed in pertinent master plans, land use plans, or in projections made by regional planning agencies such as the Southern California Association of Governments (SCAG). Significant growth impacts also could occur if the project provides infrastructure or service capacity to accommodate growth beyond the levels currently permitted by local or regional plans and policies. In general, growth induced by a project is considered a significant impact if it directly or indirectly affects the ability of agencies to provide needed public services, or if it can be demonstrated that the potential growth significantly affects the environment in some other way.

Development of the Project with one warehouse building may place development pressure on several surrounding parcels designated for industrial development and that are currently undeveloped. However, these surrounding properties already are planned for development by the MVIAP and implementation of the proposed Project would not directly promote growth on these adjacent and surrounding properties. Because development of nearby parcels would be consistent with the City's General Plan and the MVIAP, growth-inducing impacts of the Project would be less than significant. The Project is not expected to induce growth or land use changes on other parcels in the vicinity, as other lands surrounding the site are either already developed or planned to be developed consistent with their General Plan and/or MVIAP land use designations.

Projected growth quantifications for the Project are most meaningful for the geographic area covered by the Western Riverside County Council of Governments (WRCOG). This area includes the cities of Calimesa, Canyon Lake, Corona, Hemet, Lake Elsinore, Moreno Valley, Murrieta, Norco, Perris, Riverside, San Jacinto, and Temecula, as well as portions of unincorporated Riverside County (including the new city of Menifee which was not yet incorporated at the time SCAG forecasts were published). SCAG's most recently adopted Integrated Growth Forecast (SCAG, 2008) for the WRCOG area is reflected below in Table 5-1, *SCAG Growth Forecasts for the WRCOG Region*. The proposed Project is consistent with those forecasts, in that the forecasts considered City General Plan buildout.

"Jobs-to-housing ratio" measures the extent to which job opportunities in a given geographic area are sufficient to meet the employment needs of area residents. However, as noted in the City's General Plan, "The land use plan allows for an adequate number of jobs to meet the needs of local residents" (Moreno Valley 2006a, p. 2-6). The proposed Project is consistent with the General Plan's land use designation for the site; therefore, the proposed Project would assist the City in improving the jobs-housing ratio, which under existing conditions is lower than the statewide and regional average (indicating the City of Moreno Valley and surrounding areas experience a relatively low jobs-to-housing ratio).

Table 5-1 SCAG Growth Forecasts for the WRCOG Region

CATEGORY	YEAR 2010	YEAR 2015	YEAR 2020	YEAR 2025	YEAR 2030	YEAR 2035
Population	1,735,426	1,918,962	2,096,544	2,262,992	2,414,256	2,550,867
Households	546,047	609,219	671,933	727,622	780,743	828,547
Employment	588,523	691,260	797,626	901,163	1,005,923	1,098,233

Source: SCAG, Regional Transportation Plan (RTP), 2008.

The northern half of the Project site (approximately 8.9 acres) is undeveloped and the southern half of the site (approximately 8.4 acres) is developed as a parking lot that is used for truck trailer parking, Lands immediately surrounding the Project site include undeveloped lands, warehouse buildings, and other land uses located on properties designated and zoned for industrial development by the City of Moreno Valley. Development in the area is occurring in accordance with the City of Moreno Valley General Plan and MVIAP. Implementation of the proposed Project would not stimulate growth in the area beyond that anticipated by the City of Moreno Valley General Plan.

Indirect growth-inducing impacts at the local level result from a demand for additional goods and services associated with the increase in people in the area, including employees. This occurs in suburban or rural environments where population growth results in increased demand for service and commodity markets responding to the new population. This type of growth is, however, a regional phenomenon resulting from introduction of a major employment center or regionally significant housing project. The implementation of the proposed Project would result in growth-inducing impacts of the region, but not beyond that which is already envisioned by the General Plan.

5.4 EFFECTS FOUND NOT TO BE SIGNIFICANT AS PART OF THE INITIAL STUDY PROCESS

CEQA Guidelines §15128 requires that an EIR:

> *"…contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR."*

An Initial Study was prepared for the proposed Project, which is included as *Technical Appendix A* to this EIR. Through the Initial Study process, the City of Moreno Valley determined that the proposed Project would not have the potential to cause significant adverse impacts to 13 environmental subject areas, including: aesthetics, agricultural resources, biological resources, cultural resources, geology/soils, hazards and hazardous materials, hydrology/water quality, land use/planning, mineral resources, population and housing, public services, recreation, and utilities/service systems. Therefore, these issue areas are not required to be analyzed in detail in Section 4.0, Environmental Analysis, of this EIR. A brief summary of issues found not to be significant is presented below. For information on the Project's background, refer to EIR Subsection 1.3, Project History, which summarizes the results of prior CEQA documentation prepared for the Project site.

5.4.1 AESTHETICS

The Project site is located in the City of Moreno Valley, which lies within a relatively flat valley floor surrounded by rugged hills and mountains. Scenic vistas within Moreno Valley are defined by the Box Springs Mountains and Reche Canyon area to the north, the "Badlands" to the east, and Mount Russell to the south. According to General Plan Figure 7-2, *Major Scenic Resources*, the Project site, which is located in the southwestern portion of the City, is not in close proximity to these major scenic resources and is not located within an identified view corridor or along an identified scenic route (City of Moreno Valley 2006a). Therefore, although the proposed Project would change the current aesthetics of the property from a parking lot and undeveloped lot to a developed logistic center, that aesthetic change would have a less than significant impact on a scenic vista.

The Project site is not located within or adjacent to a scenic highway corridor and does not contain trees, rock outcroppings, or historic buildings (City of Moreno Valley 2006a, pp. 7-13). Furthermore, there are no State-designated or eligible scenic highways within the City of Moreno Valley. The Project site is located approximately 6.0 miles north of Highway 74, which is the only facility within the Project vicinity that is designated as a State-eligible scenic highway. The Project's proposed development features (one building, parking lots, truck yards, landscaping, etc.) would not be discernable from Highway 74 due to intervening development and distance. Accordingly, no impact would occur.

Implementation of the proposed Project would result in the visual conversion of the site from an undeveloped lot and truck trailer parking lot to that of a developed site containing one warehouse building. The visual character of the site's surroundings is dominated by warehouse buildings and undeveloped properties designated for future industrial development. Implementation of the proposed Project would implement the City's General Plan and MVIAP as applicable to the property and would not substantially degrade the visual character or quality of the site or the site's surroundings. The visual character of the site would change, but the change would not be degrading to the existing visual character or quality of the property or its surroundings, resulting in a less than significant impact.

Exterior lighting proposed by the Project would be required to comply with City lighting requirements and the design standards of the MVIAP, which address light and glare. Compliance with City Municipal Code requirements and the MVIAP, demonstration of which would be required prior to City issuance of a building permit, would ensure that no operation, activity, sign, or light fixture proposed by the Project would produce substantial amounts of light or glare that would adversely affect the day or nighttime views of adjacent properties (City of Moreno Valley n.d., City of Moreno Valley 2002, p. III-19). With respect to potential daytime glare impacts, the proposed Project would involve the construction and operation of one building with exterior building surfaces that consist of tilt-up concrete construction and windows with reflective glazing. While glazing has a potential to result in glare effects, such effects would not adversely affect the daytime views of any surrounding properties, including motorists on adjacent roadways because the site would be surrounded along roadway perimeters with screen walls and landscaping. Accordingly, impacts to day or nighttime views in the area would be less than significant.

For the reasons stated above, the proposed Project would result in less than significant impacts to aesthetics.

5.4.2 AGRICULTURAL RESOURCES

The Project site is not used for agriculture. It contains lands classified as "Farmland of Local Importance" by the Farmland Mapping and Monitoring Program (FMMP) and does not contain any soils mapped by the State Department of Conservation as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (City of Moreno Valley 2006b 5.8-3). There are no General Plan policies requiring conservation of Farmland of Local Importance (City of Moreno Valley 2006a, p. 5.8-3). As such, a less than significant impact due to the conversion of important farmland types would occur with implementation of the Project.

The Project site is not within an agricultural preserve, nor is it subject to a Williamson Act contract. Under existing conditions, the Project site is comprised of a parking lot and vacant, undeveloped land. Lands surrounding the proposed Project site are not used for agricultural production and include undeveloped lands, non-conforming single family residential uses, warehouse distribution land uses, and industrial support areas (i.e., truck trailer parking). The Project site is zoned for industrial and industrial-support land uses and the immediate surrounding area is similarly zoned. Because the Project site is not located in or adjacent to an agricultural preserve and neither the Project site nor any immediately surrounding property is zoned for agricultural use, the proposed Project would not conflict with an existing agricultural use, zoning, or a Williamson Act contract.

For the reasons stated above, the proposed Project would result in less than significant impacts to agricultural resources.

5.4.3 CULTURAL RESOURCES

The Project site contains no structures or sites of historic significance. Because no historic resources exist on the property, no impact would occur. Furthermore, the Project site was not identified as a historic resource as part of the historic resource inventory that was conducted as part of the City of Moreno Valley General Plan FEIR (City of Moreno Valley 2006b, p. 5.10-3). Therefore, implementation of the proposed Project has no potential to result in a substantial adverse change to any designated historic resource, because no such resources exist on the Project site.

URS Corporation conducted a cultural resources inventory of the undeveloped portion of the proposed Project site in 2012 that included a records search at the Eastern Information Center at the University of California, Riverside and a pedestrian survey of the site. According to the archival research, no known cultural resources had been previously identified within the Project site, and no archaeological resources have previously been identified within the ½ mile of the Project site (URS Corporation 2012d, pp. 4-1 to 4-2). No archaeological resources were discovered on-site during the pedestrian survey (URS Corporation 2012d, p. 5-1). Additionally, the 2008 MND and its Addenda Nos. 1 and 2 prepared to evaluate the development of an interim parking lot on the property indicated that the potential for uncovering resources is low. No resources were recovered during site preparation activities during construction of the existing parking lot. As such, no known significant archaeological resources are present on the property.

Nonetheless, during site excavation and/or grading activities that occur during Project construction activities, there is a potential, however unlikely, to uncover archaeological resources that may be buried beneath the surface of the site if ground disturbance extends into previously undisturbed soils. Conditions of Approval would be imposed on the Project that would require any suspected archaeological resources discovered during ground-disturbing activities to be evaluated by a qualified archaeologist. Ground-disturbing activities would be required to cease within the immediate vicinity of any suspected archaeological resources until the qualified archaeologist determines the significance of the suspected archaeological resource and protective measures are implemented as recommended by the qualified archaeologist. Mandatory compliance with the Conditions of Approval would ensure that potential impacts to previously undiscovered archaeological resources would be less than significant.

During archaeological field investigations of the Project site, no evidence of human remains, including those interred outside of formal cemeteries, were observed (URS Corporation 2012d, p. 5-1). Additionally, no human remains were uncovered during construction of the parking lot in the southern portion of the Project site. Nevertheless, the potential exists that human remains may be unearthed during grading and excavation activities associated with Project construction. In the event that human remains are discovered during Project grading or other ground disturbing activities, the Project would be required to comply with the applicable provisions of California Health and Safety Code §7050.5 as well as Public Resources Code §5097 et. seq. Mandatory compliance with these provisions of California state law would ensure that impacts to human remains, if unearthed during construction activities, would be appropriately treated and ensure that potential impacts are less than significant.

The Project site does not contain any known unique geologic features. In addition, the proposed Project site is identified by the City's General Plan FEIR as having a "low" potential to contain unique paleontological resources (City of Moreno Valley 2006b, pp. 5.10-11). The 2008 MND prepared for the southern portion of the Project site that is now a parking lot also identified no potential to impact a paleontological resource or unique geologic feature. No paleontological resources were encountered during construction activities for the existing on-site parking lot. Depth of grading for the proposed Project would be approximately five feet or less, which also substantially limits the potential for subsurface resource discovery. For these reasons, the proposed Project has no potential to destroy unique paleontological resources or geologic features.

For the reasons stated above, the proposed Project would result in less than significant impacts to cultural resources. The following Project Requirement is carried forward as a Condition of Approval from the previously-approved project (P12-061):

"P12: If potential historic, archaeological, or paleontological resources are uncovered during excavation or construction activities at the project site, work in the affected area will cease immediately and a qualified person (meeting the Secretary of the Interior's standards (36CFR61)) shall be consulted by the applicant to evaluate the find, and as appropriate recommend alternative measures to avoid, minimize, or mitigate negative effects on the historic, prehistoric, or paleontological resource. Determinations and recommendations by the consultant shall be implemented as deemed appropriate by the Community & Economic Development Director, in consultation with the State Historic Preservation Officer (SHPO) and any and all affected Native American Tribes before any further work commences in the affected area.

If human remains are discovered, work in the affected area shall cease immediately and the County Coroner shall be notified. If it is determined that the remains are potentially Native American, the California Native American Heritage Commission and any and all affected Native American Indians tribes such as the Morongo Band of Mission Indians or the Pechanga Band of Luiseno Indians shall be notified and appropriate measures provided by State law shall be implemented (GP Objective 23.3, DG, CEQA)."

5.4.4 GEOLOGY/SOILS

No known earthquake faults traverse the Project site and the Project site is not located within an Alquist-Priolo fault zone (Southern California Geotechnical, p. 10). Because there are no faults located on the Project site, there is no potential that the Project could not expose people or structures to adverse effects related to ground rupture.

The Project site is located in a seismically active area of Southern California and is expected to experience moderate to severe ground shaking during the lifetime of the Project; however, this risk is not considered substantially different than that of other similar properties in the Southern California area. As a mandatory condition of Project approval, the Project would be required to construct proposed structures in accordance with the California Building Standards Code (CBSC), also known as California Code of Regulations (CCR), Title 24 and the City Building Code. The CBSC and City Building Code are designed to minimize adverse effects associated with strong seismic ground shaking. With mandatory compliance with standard design and construction measures, potential adverse impacts would be reduced to less than significant and the Project would not expose people or structures to substantial adverse effects, including loss, injury or death, involving seismic ground shaking.

The Project site is not located within a "Potential Liquefaction" zone (City of Moreno Valley 2006a, p. 6-18). Furthermore, a geotechnical report prepared for the subject property concludes that the risk of liquefaction at the Project site is low due to the subsurface conditions that include medium dense well-graded granular soils and a lack of shallow groundwater table (Southern California Geotechnical, p. 11). Furthermore, the site would be designed in accordance with the latest applicable seismic safety guidelines, including the requirements of the CBSC, which is anticipated to reduce the risk of seismic-related ground failure to less than significant levels. As such, development of the Project site would result in less than significant risks related to seismic-related ground failure, including liquefaction.

The Project site is relatively flat, as is the surrounding area. There are no hillsides or steep slopes on the site or in the vicinity of the Project site. Accordingly, the Project site is located within an area with no potential for landslides, and development on the subject property would not be exposed to any risk of landslide.

Development of the Project site would disturb the site during grading and construction and expose the underlying soils, which would increase erosion susceptibility. The Project's required adherence to standard regulatory requirements would lessen any potential erosion impact to below a level of significance. These include, but are not limited to, requirements imposed by the City of Moreno Valley's National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit (State Water Resources Control Board Order No. 99-08-DWQ), which requires the preparation of a Project-specific Water Quality Management Plan (WQMP) and the implementation of Best Management Practices (BMPs) to minimize the soil erosion and sedimentation in stormwater runoff leaving the Project site. In the long-term, development of the subject property would introduce additional impervious surfaces and landscaping on the Project site, thereby reducing the potential for erosion and loss of topsoil.

The geotechnical report for the Project site by Southern California Geotechnical Inc. in January 2012 determined that most soils within the subject property consist of sands and silty sands that are non-expansive. However, soils with increased clay content are located at depths below five feet, and could be encountered during required remedial grading activities (Southern California Geotechnical, p. 12). The proposed Project would be subject to the recommendations of the geotechnical report, as well as future geotechnical recommendations associated with future grading and building permits, which would ensure that any potentially expansive soils encountered during remedial grading on the Project site are appropriately remediated through site design considerations. Accordingly, the proposed Project would be subjected to less than significant risks related to unstable geologic units/soils and/or expansive soils.

For the reasons stated above, the proposed Project would result in less than significant impacts to geology/soils.

5.4.5 HAZARDS AND HAZARDOUS MATERIALS

The portion of the property developed as parking lot contains no known hazardous materials. According to a review of available historical data, it appears that the undeveloped portion of the subject property was vacant land from at least 1938 to the present. No evidence of hazardous materials, hazardous waste, underground storage tanks (USTs), above-ground storage tanks (ASTs), transformers or other potentially PCB-containing equipment were observed onsite during a site reconnaissance (URS Corporation 2012d, p. ES-1). Additionally, the site is not listed in any regulatory database for hazardous materials sites (URS Corporation 2012d, pp. 6-1 to 6-4). The March Air Reserve Base (ARB), located about 0.9-mile west of the proposed Project site, is documented as having the potential for groundwater contamination associated with its past use, but the Phase I ESA reports conclude that due to the orientation of groundwater flows in the area and distance to the March ARB, the potential for groundwater contamination at the proposed Project site is considered low (URS Corporation 2012d, p. 6-4). No other contaminated sites within the vicinity have the potential to create a significant hazard to future site workers (URS Corporation 2012d, p. 6-3 & 6-4). Accordingly, a less than significant impact associated with contamination on or affecting the proposed Project site would occur.

The specific business or tenant that will occupy the Project site's proposed building is not known at this time. The Project site is located within the Moreno Valley Industrial Area Plan, and the Plan designates the site for "Industrial" land uses. Based on the list of land uses permitted in the Industrial zone by the Moreno Valley Area Plan, it is possible that hazardous materials could be used during the course of daily operations. Examples of types of businesses that could occupy the proposed buildings on-site include warehouses, distribution businesses, and manufacturing industries.

Hazardous materials used by the future tenant of the Project may include chemical reagents, solvents, fuels, paints, and cleansers. Potential on-site uses also could generate hazardous byproducts that eventually must be handled and disposed of as hazardous materials. If businesses that use or store hazardous materials occupy the Project, the business owner and operator would be required to comply with all applicable federal, state, and local regulations to ensure proper use, storage, and disposal of hazardous substances. With mandatory regulatory compliance, the Project would not pose a significant hazard to any nearby use and any impacts would be less than significant.

The nearest school site, El Potrero Elementary School, is located approximately 0.7-mile northeast of the site. There are no school sites planned within one quarter mile of the site as part of the General Plan or MVIAP. Accordingly, the proposed Project has no potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

The Project site is located 0.9-mile east of the March ARB. There are no private airfields in the vicinity of the Project site. Pursuant to the March ARB Compatible Use Zone Study commissioned by the United States Air Force and as depicted on Figure 6-5 of the Moreno Valley General Plan, the Project site is not located within a zone subject to hazards related to air crashes (City of Moreno Valley 2006a, p. 6-30). Accordingly, implementation of the proposed Project would not result in a safety hazard for people residing or working in the Project area, and impacts would be less than significant.

The Project site does not contain any emergency facilities nor does it serve as an emergency evacuation route. During construction and long-term operation, the proposed Project would be required to maintain adequate emergency access for emergency vehicles as required by the City. Because the Project would not interfere with an adopted emergency response or evacuation plan, impacts are evaluated as less than significant.

The proposed Project is not located within a high wildfire hazard area (City of Moreno Valley 2006b, p. 5.5-5). The proposed Project site is located in an area that has been largely developed, with an existing industrial warehouse building located west of the site, industrial warehouse uses located east of the site, and disturbed lands and single family residences located to the south and north of the site. Accordingly, the proposed Project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

For the reasons stated above, the proposed Project would result in less than significant impacts to hazards and hazardous materials.

5.4.6 HYDROLOGY/WATER QUALITY

Water runoff from developed areas of the Project site may contain urban pollutants such as petroleum products, fertilizers, pesticides, soils, etc., which can degrade water quality if discharged from the site. The Project's Preliminary Water Quality Management Plan (WQMP) is prepared in accordance with City requirements to identify pollutants of concern and identify means to reduce their discharge from the site (i.e., Best Management Practices, BMPs). Required adherence to the Project-Specific WQMP would reduce the amount of pollutants in stormwater runoff, as well as non-storm water discharges. Furthermore, the Project will be required to comply with the Santa Ana River Basin

Water Quality Control Program and the City of Moreno Valley's National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit requirements (which requires the preparation of Stormwater Pollution Prevention Program (SWPPP) to control sediment/siltation runoff) to minimize the discharge of pollutants in storm water during short-term construction and long-term operational activities. Mandatory compliance with the Project's WQMP, in addition to compliance with NPDES Permit requirements, would ensure that all potential pollutants of concern are minimized or otherwise appropriately treated prior to being discharged into receiving waters. Therefore, implementation of the proposed Project would not violate any water quality standards or waste discharge requirements, and impacts would be less than significant.

The Project does not propose the installation of any water wells that would directly extract groundwater; however, the change in pervious surfaces to impervious surfaces that would occur with development of the site could reduce the amount of water percolating down into the underground aquifer that underlies the Project site and a majority of the City. However, and as noted in the City's General Plan EIR "the impact of an incremental reduction in groundwater would not be significant as domestic water supplies are not reliant on groundwater as a primary source (City of Moreno Valley 2006b, p. 5.7-12)." Accordingly, with buildout of the Project, the local groundwater levels would not be affected. Therefore, impacts to groundwater supplies and recharge would be less than significant.

The Project would involve demolition activities and mass grading of the site, which would alter the existing drainage pattern. Any alteration in drainage pattern has the potential to result in erosion and siltation both on-site during construction and off-site upon build-out of the Project, and also has the potential to increase the risk of on- and off-site flooding. To fully and more accurately determine the extent of potential erosion/siltation and flooding on- or off-site, a site-specific hydrology study was prepared for the Project site. The hydrology study evaluated the difference between existing and post-development drainage conditions, and determined that with buildout of the proposed Project there would be no substantial alteration to the existing drainage pattern of the site facilities because proposed stormwater drainage facilities on-site would attenuate the rate and volume of storm water discharge to be similar to the rate and volume that occurs under existing conditions (Albert A. Webb Associates 2012b, pp. 1-3). Accordingly, there would not be any significant increases in erosion/siltation or flooding on- or off-site. Impacts would be less than significant.

The Project site is not located within or adjacent to a 100-year floodplain (City of Moreno Valley 2006a, p. 6-26 and City of Moreno Valley 2006b, p. 5.5-5). Accordingly, the proposed Project would not place structures within a 100-year flood hazard area which could impede or re-direct flood flows. Furthermore, the proposed Project does not include housing. Therefore, there is no potential for the Project o place housing within a 100-year floodplain.

The nearest dam to the Project site is Lake Perris, located approximately 1.75 miles southeast of the subject property. Due to the distance of Lake Perris from the Project site and the topographic characteristics of the area, failure of a dam at Lake Perris would not expose people or structures on the Project site to flooding.

The Pacific Ocean is located more than 38 miles from the Project site; consequently, there is no potential for tsunamis to impact the Project. In addition, no steep hillsides subject to mudflow are located on or near the Project site. The nearest large body of water to the Project site is Lake Perris, located approximately 1.75 miles southeast of the Project site. Due to the distance of Lake Perris from the Project site and the topographic characteristics of the area, a seiche in Lake Perris would not impact the Project site. Although the Project site is located 0.25 mile south of the Perris Valley Channel, the Perris Valley Channel is not an enclosed or semi-enclosed basin that would be conducive to reverberation and creation of a seiche. Therefore, impacts associated with seiches, mudflows, and/or tsunamis would not occur.

For the reasons stated above, the proposed Project would result in less than significant impacts to hydrology/water quality.

5.4.7 LAND USE/PLANNING

The Project proposes to develop a logistics center warehouse building on a property that consists of a truck trailer parking lot and undeveloped land under existing conditions. Properties adjacent to the Project site have either been developed or are planned for development with industrial land uses. The subject property is designated for "Business Park/Light Industrial" land uses pursuant to the City of Moreno Valley General Plan, and is zoned for "Industrial" uses pursuant to the MVIAP. Development of the proposed warehouse building on the subject property would not conflict with applicable land use plans, policies, or regulations, and would not physically divide an established community.

As discussed in Section 4.5, *Biological Resources*, the proposed Project is subject to the adopted "The Habitat Conservation Plan for the Stephens' Kangaroo Rat in Western Riverside County, California" and the adopted Western Riverside County MSHCP, which are the habitat conservation plans applicable to the City of Moreno Valley and the proposed Project site. The proposed Project is not located within any MSHCP designated Criteria Cells or Cell Groups, and the proposed Project site does not contain any riparian/riverine areas or vernal pools. The Project is subject to pre-construction surveys for the burrowing owl and mitigation measures are applied in Section 4.5 to ensure that the Project would comply with the MSHCP's species-specific survey and conservation requirements for the burrowing owl. From a land use and planning prospective, the Project would not conflict with the MSHCP because the property is not designated for conservation and would comply with all required species survey requirements.

For the reasons stated above, the proposed Project would result in less than significant impacts to land use/planning.

5.4.8 MINERAL RESOURCES

The Project site is not located within an area known to be underlain by regionally- or locally-important mineral resources, or within an area that has the potential to be underlain by regionally- or locally-important mineral resources (City of Moreno Valley 2006b, p. 5.14-2). Accordingly, implementation of the proposed Project would not result in the loss of availability of a known mineral resource that would be of value to the region or the residents of the State of California. Accordingly, impacts to mineral resources would be less than significant.

5.4.9 POPULATION AND HOUSING

The proposed Project would develop the subject property with a logistics center warehouse building in accordance with the "Business Park/Light Industrial" land use designation applied to the site by the City of Moreno Valley General Plan and the "Industrial" zoning designation applied to the Project site by the MVIAP. Accordingly, the Project would not result in growth that was not already anticipated by the City of Moreno Valley General Plan and evaluated in the City of Moreno Valley General Plan FEIR. The Project site is served by existing public roadways and utility infrastructure is already installed beneath public rights of way that abut the property. As such, implementation of the Project would not result in direct or indirect growth in the area, and impacts are evaluated as less than significant. As such, implementation of the Project would not result in direct or indirect growth in the area, and impacts are evaluated as less than significant.

Under existing conditions the Project site is partially developed as a parking lot and partially vacant. The property contains no residential structures. Accordingly, implementation of the Project would not displace housing or people, and would not necessitate the construction of replacement housing elsewhere; thus, impacts would not occur.

For the reasons stated above, the proposed Project would result in no impacts to population/housing.

5.4.10 PUBLIC SERVICES

The proposed Project would be primarily served by the College Park Fire Station (Station No. 91), an existing station located approximately 2.3 roadway miles northeast of the proposed Project site. The Project site also could be served by the Kennedy Park Fire Station (Station No. 65), an existing station located approximately 2.8 roadway miles north of the Project. The proposed Project would be required to provide a minimum of fire safety and support fire suppression activities, including type of building construction, fire sprinklers, a fire hydrant system and paved access to the proposed Project area. Furthermore, the proposed Project is required to comply with the provisions of the City of Moreno Valley's Development Impact Fee Ordinance (Ordinance No. 695), which requires a fee payment that the City applies to the funding of public facilities, including fire protection facilities. Mandatory compliance with the Development Impact Fee Ordinance would be required prior to the issuance of building permits. Based on the foregoing, the proposed Project would receive adequate fire protection service, and would not result in the need for new or physically altered fire protection facilities.

The development of the subject property with business park/light industrial land uses would introduce new structures and employees to the Project site. This increase in the developed environment would result in an incremental increase in demand for police protection services, but would not require or result in the construction of new or physically altered police facilities. Prior to the issuance of building permits, the Project Applicant would be required to comply with the provisions of the City of Moreno Valley's Development Impact Fee Ordinance (Ordinance No. 695), which requires a fee payment that the City applies to the funding of public facilities, including police facilities. Based on the foregoing, the proposed Project would receive adequate police protection service, and would not result in the need for new or physically altered police protection facilities. Impacts to police protection facilities are therefore evaluated as less than significant.

The Project would not create a direct demand for public school services, as the subject property would be developed solely with one warehouse building and would not generate any school-aged children requiring public education. The addition of employment uses on the Project site would assist in the achievement of the City's goal to provide a better jobs/housing balance within the City and the larger western Riverside County region. Thus, the Project is not expected to draw new residents to the region and would therefore not indirectly generate additional school-aged students requiring public education. Because the Project would not directly generate students and is not expected to indirectly draw students to the area, the proposed Project would not result in the need to construct new or physically altered public school facilities. Regardless, the Project Applicant would be required to contribute development impact fees to the Val Verde Unified School District, in compliance with California Senate Bill 50 (Greene). Mandatory payment of school fees would be required prior to the issuance of building permits. Project-related impacts to public schools are evaluated as less than significant.

As discussed below under Subsection 5.4.11, the proposed Project would not create a demand for public park facilities and would not result in the need to modify existing or construct new park facilities. Accordingly, implementation of the Project would not adversely affect any park facility and impacts are regarded as less than significant.

The proposed Project would not result in a demand for other public facilities/services, including libraries, community recreation centers, and animal shelters. As such, implementation of the Project would not adversely affect other public facilities or require the construction of new or modified facilities.

For the reasons stated above, the proposed Project would result in less than significant impacts to public services.

5.4.11 RECREATION

The Project proposes to develop the site with one warehouse distribution building. The Project does not propose any type of residential use or other land use that may generate a population that would increase the use of existing neighborhood and regional parks or other recreational facilities in the vicinity. Accordingly, implementation of the Project would not result in the increased use or substantial physical deterioration of an existing neighborhood or regional park.

The Project does not propose to construct any new on- or off-site recreational facilities and would not expand any existing off-site recreational facilities. Therefore, adverse environmental impacts related to the construction or expansion of recreational facilities would not occur with implementation of the Project.

For the reasons stated above, the proposed Project would result in no impacts to recreation.

5.4.12 UTILITIES/SERVICE SYSTEMS

Wastewater service is provided to the Project site by EMWD. EMWD is required to operate all of its treatment facilities in accordance with the waste treatment and discharge standards and requirements set forth by the Regional Water Quality Control Board (RWQCB). The proposed Project would not install or utilize septic systems or alternative wastewater treatment systems; therefore, the Project would have no potential to violate the applicable wastewater treatment requirements established by the RWQCB. With the exception of new on-site sewer conveyance lines, the Project would not create the need for any new or expanded wastewater facility (such as treatment facilities, storage tanks, or pump stations). The construction of on-site sewer facilities would result in physical impacts to the surface and subsurface of the Project site; however, these impacts are considered to be inherent to the Project's construction phase and are evaluated throughout this EIR accordingly. In instances where significant impacts have been identified for the Project's construction phase, mitigation measures are recommended in each applicable subsection of this EIR, as feasible. There would be no significant environmental effects created particular to on-site water line installation.

With the exception of new on-site water service lines, the Project would not create the need for any new or expanded water facility (such as treatment facilities, storage tanks, or pump stations). The construction of on-site water facilities would result in physical impacts to the surface and subsurface of the Project site (with small encroachments into adjacent public rights of way of developed/paved streets); however, these impacts are considered to be inherent to the Project's construction phase and are evaluated throughout this EIR accordingly. In instances where significant impacts have been identified for the Project's construction phase, mitigation measures are recommended in each applicable subsection of this EIR, as feasible. There would be no significant environmental effects created particular to on-site water line installation.

The Project also includes regional storm drain improvements in San Michele Road (along the northern Project site border) and in Perris Boulevard from San Michele Road south to the connection with the existing line. Both San Michele Road and Perris Boulevard are developed/paved streets under existing conditions and the construction of proposed regional storm drain improvements beneath the public rights of way of developed/paved streets would not result in a new physical disturbance. Impacts associated with proposed storm drain improvements are inherent to the Project's construction phase and are evaluated throughout this EIR accordingly. In instances where significant impacts have been identified for the Project's construction phase, mitigation measures are recommended in each applicable subsection of this EIR, as feasible.

The operation of one warehouse building on the Project site would result in an increase in demand for potable water resources from the local water purveyor, EMWD. However, the proposed Project is fully consistent with the assumptions made in EMWD's 2010 Urban Water Management Plan. EMWD's 2010 Urban Water Management Plan concludes that the EMWD has sufficient water supplies available to serve planned land uses within its service area through at least 2035. Because sufficient water supplies are available to service the proposed Project as documented in EMWD's Urban Water Management Plan, impacts would be less than significant.

The one warehouse building proposed by the Project would generate wastewater that would be conveyed to the Perris Valley Regional Water Reclamation facility, which is owned and operated by EMWD. Under existing conditions, the Perris Valley Regional Water Reclamation facility has a daily treatment capacity of 15 million gallons per day. Following completion of an ongoing expansion project, the treatment capacity of this plant will increase to 22 million gallons per day. Based on EMWD's standard wastewater demand generation rate of 1,700 gallons per day per acre of industrial land uses, the proposed Project is estimated to demand approximately 29,410 gallons of wastewater service per day[2]. This generally corresponds to approximately two-tenths of one percent (0.20 percent) of the existing treatment capacity and approximately thirteen hundredths of one percent (0.13 percent) of future treatment capacity (following completion of the expansion project) at the Perris Valley Regional Water Reclamation Facility. Due to the relatively small amount of wastewater that would be generated by proposed Project and the amount of available capacity at this facility, it is anticipated that the Perris Valley Regional Water Reclamation Facility would have sufficient capacity to treat wastewater generated by the Project. As such, implementation of the Project results in a determination that adequate capacity is available to serve the Project's projected wastewater demand in addition to EMWD's existing commitments. Impacts would be less than significant.

Implementation of the proposed Project would generate solid waste requiring off-site disposal during short-term construction and long-term operational activities. During the construction phase, approximately 868.3 tons of waste would be generated during building construction, installation of subsurface/utility improvements, and installation of landscaping. The Project would be required to comply with City of Moreno Valley Ordinance No. 706, which requires a minimum of 50 percent of all construction waste and debris to be recycled. As such, the Project is estimated to generate approximately 434.2 tons of waste during construction, which corresponds to an average of 2.7 tons per day over the construction phase of the Project (eight months or 160 working days). Long-term operation of the Project is estimated to generate approximately 2.8 tons of solid waste per day. Solid waste generated by the proposed Project would be disposed at the El Sobrante Landfill, the Badlands Sanitary Landfill, and/or the Lamb Canyon Sanitary Landfill. Each of these landfills receive well below their maximum permitted daily disposal volume and have the potential for future expansion, and none of these regional landfill facilities are expected to reach their total maximum permitted disposal capacities during the Project's construction or operational periods. Accordingly, the Project would be served by landfills with sufficient available capacity to accept waste generated by the Project. Impacts would be less than significant.

The Project would be required to comply with the City of Moreno Valley's waste reduction programs, including recycling and other diversion programs to divert the amount of solid waste deposited in landfills. As such, the Project applicant or master developer would be required to implement feasible waste reduction programs, including source reduction, recycling, and composting. Additionally, in accordance with the California Solid Waste Reuse and Recycling Act of 1991 (Cal Pub Res. Code § 42911), the Project would provide adequate areas for collecting and loading recyclable materials where solid waste is collected. The implementation of these programs would reduce the amount of solid waste generated by the Project and diverted to landfills, which in turn will aid in the extension of the life of affected disposal sites. The Project would comply with all applicable solid waste statutes and regulations; as such, impacts would be less than significant.

For the reasons stated above, the proposed Project would result in less than significant impacts to utilities/service systems.

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[2] Source: Eastern Municipal Water District. *Sanitary Sewer System Planning & Design*. September 1, 2006.

6.0 ALTERNATIVES TO THE PROPOSED PROJECT

State CEQA Guidelines §15126.6(a) indicates the scope of alternatives to a proposed project that must be evaluated:

> *"An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selection of a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason."*

As discussed in Section 4.0 of this EIR, the proposed Project would result in significant adverse environmental effects to air quality, noise, and transportation/traffic that cannot be mitigated to below levels of significance after the implementation of Project design features, mandatory regulatory requirements, and feasible mitigation measures. The unavoidable significant impacts are:

- <u>Air Quality:</u> Significant direct and cumulative long-term air quality impact due to an exceedance of the SCAQMD regional threshold for NO_X emissions, which also would cumulatively contribute to an existing air quality violation within the SCAB (i.e., non-attainment status for ozone) because NO_X emissions are a precursor for ozone.

- <u>Noise:</u> Significant direct and cumulative near-term noise impact to due to the generation of noise levels during Project construction that exceed the City of Moreno Valley's Noise Ordinance standard of 65 dBA Leq at a distance of 200 feet from the property line.

- <u>Transportation/Traffic:</u> Significant cumulative near-term impact to the intersections of Western Way/Harley Knox Boulevard and Indian Street/ Harley Knox Boulevard.

CEQA Guidelines §15126.6(e) requires that an alternative be included that describes what would reasonably be expected to occur on the property in the foreseeable future if the Project were not approved, based on current plans and consistent with available infrastructure and community services. This is considered to be the No Project Alternative. In the case of the proposed Project, there are two No Project Alternatives, as described in detail below. The *No Project/Trailer Yard Alternative* is identified as the most environmentally superior alternative. CEQA requires that if the environmentally superior alternative is determined to be a No Project Alternative, then another environmentally superior alternative should be identified among the other alternatives, if the analysis indicates that significant impacts can be avoided by one or more of the other alternatives. Therefore, the Reduced Project/North Building Alternative is identified as the environmentally superior alternative.

6.1 ALTERNATIVES UNDER CONSIDERATION

The following scenarios are identified by the City of Moreno Valley as potential alternatives to implementation of the proposed Project.

❑ Alternative 1 – No Project/Trailer Yard Alternative

The No Project/Trailer Yard Alternative assumes that the proposed Project is not approved, and that the site would be developed in accordance with its existing entitlements pursuant to previously approved Amended Plot Plan P12-061. Under this alternative, improvements on the site would involve the expansion of the existing truck trailer yard to the northern portion of the property, thereby increasing the number of truck trailer parking spaces on-site from 338 spaces to 722 spaces. Access to the property would be afforded via a driveway along San Michele Road, and via the existing driveway located along Nandina Avenue. This alternative was selected by the Lead Agency to compare the environmental effects of the proposed Project against what could reasonably occur on the Project site under existing entitlements. If the Project were not approved, it is reasonable to expect that the property would be developed in accordance with previously approved Amended Plot Plan P12-061.

❑ Alternative 2 – No Project/Industrial Building Alternative

The No Project/Industrial Building Alternative assumes that the proposed Project is not approved, and that the site would be developed in accordance with existing entitlements. Under this alternative, the northern portion of the site would be developed with a truck trailer yard consisting of approximately 384 trailer spaces, as approved by Amended Plot Plan P12-061, while the southern portion of the site would be developed with a 181,031 s.f. industrial building (inclusive of 5,000 s.f. of office, 2,000 s.f. of mezzanine, and 173,031 s.f. of industrial warehouse) pursuant to previously approved Plot Plan PA07-0167. To construct the building, the existing parking lot located in the southern portion of the property would be demolished. The industrial building would include a total of 26 dock doors and 106 standard and handicap parking spaces. Access to the site would be provided via driveways along Nandina Avenue, Perris Boulevard, and San Michele Road. This alternative was selected by the Lead Agency to compare the environmental effects of the proposed Project against what could reasonably occur on the Project site under existing entitlements. If the Project were not approved, it is possible that the property would be developed in accordance with previously approved Amended Plot Plan P12-061 and previously approved Plot Plan PA07-0167.

❑ Alternative 3 – Reduced Project/Small Buildings Alternative

The Reduced Project/Small Buildings Alternative considers development of the site with two smaller industrial buildings consisting of a 194,525 s.f. building in the northern portion of the site (including 5,000 s.f. of office and 189,525 s.f. of industrial warehouse) and a 181,031 s.f. building in the southern portion of the site (including 6,000 s.f. of office, 2,000 s.f. of mezzanine space, and 173,031 s.f. of industrial warehouse), for a total of 375,556 s.f. of industrial building area. This alternative would result in a reduction in building area on the site by approximately 24,574 s.f. as compared to the 400,130 s.f. building that would be constructed under the proposed Project (or a 6% reduction in building area). Under this alternative, a total of 62 trailer parking spaces would be provided, in addition to 193 standard and handicap parking spaces. Access to the site would be provided via driveways along Nandina Avenue, Perris Boulevard, and San Michele Road. This alternative was selected by the Lead Agency to compare the environmental effects of the proposed Project (one larger building that is likely to attract one tenant) against the environmental effects of constructing two smaller buildings that is likely to attract two different tenants.

☐ Alternative 4 – Reduced Project/North Building Alternative

The Reduced Project/North Building Alternative is identified as the Environmentally Superior Alternative. It would involve no changes to the existing trailer parking in the southern portion of the site, while the northern portion of the site would be developed with a 194,525 s.f. industrial building (which includes 5,000 s.f. of office and 189,525 s.f. of industrial warehouse). Under this alternative, the number of truck trailer parking spaces provided on the site would increase by 30 spaces (providing for a total of 368 trailer parking spaces), while an additional 86 standard and handicap parking spaces also would be provided. Site access under this alternative would be afforded via new driveways along San Michele Road and Perris Boulevard, while the existing access via the adjacent lot along Nandina Avenue would be maintained. This alternative was selected for consideration by the Lead Agency to evaluate the comparative environmental benefits of reducing the amount of building area on the site, while maintaining the existing parking facility in the southern portion of the site.

6.2 ALTERNATIVES CONSIDERED AND REJECTED

An EIR is required to identify any alternatives that were considered by the Lead Agency but were rejected as infeasible. Among the factors described by CEQA Guidelines §15126.6 in determining whether to exclude alternatives from detailed consideration in the EIR are: a) failure to meet most of the basic project objectives, b) infeasibility, or c) inability to avoid significant environmental impacts. With respect to the feasibility of potential alternatives to the proposed Project, CEQA Guidelines §15126.6(f)(1) notes:

> *"Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries…and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site…"*

In determining an appropriate range of alternatives to be evaluated in this EIR, a number of possible alternatives were initially considered and, for a variety of reasons, rejected. Alternatives were rejected because either: 1) they could not accomplish the basic objectives of the Project, 2) they would not have resulted in a reduction of significant adverse environmental impacts, or 3) they were considered infeasible to construct or operate. The reason for not selecting each alternative is discussed below.

☐ Alternative Sites

CEQA does not require that an analysis of alternative sites always be included in an EIR. However, if the surrounding circumstances make it reasonable to consider an alternative site then this alternative should be considered and analyzed in the EIR. In making the decision to include or exclude analysis of an alternative site, the "key question and first step in analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need to be considered for inclusion in the EIR" (CEQA Guidelines §15126.6(f)(2)).

The Project as proposed is consistent with the Business Park/Light Industrial and Commercial land use designations applied to the property by the City of Moreno Valley General Plan and as further detailed by the Industrial and Industrial Support Areas designations applied to the property by the Moreno Valley Industrial Area Plan (Specific Plan 208). An examination of alternative sites is typically not necessary when a proposed development project is consistent with the applicable land use plan, because it can reasonably be assumed that development would ultimately occur in conformance with the applicable land use designation, whether by the Project Applicant or by others in the future. In cases where a proposed project is consistent with the applicable General Plan, the alternatives analysis should typically focus on options for developing the site consistent with adopted plan policies and the discussion of alternatives should search for an environmentally superior version of the project on the site instead of an alternative site.

The Project site is flat and is highly disturbed due to prior development of a parking site in the southern portion of the site and regular discing that occurs for fire fuel management in the northern portion of the site. And, as previously discussed, the property is entitled to be developed pursuant to previously approved Amended Plot Plan P12-061 and previously approved Plot Plan PA07-0167. CEQA analysis for site disturbance associated with those approvals was completed, consisting of a Mitigated Negative Declaration (MND) and two MND Addenda (SCH No. 2008101041). Locating the proposed Project on an alternative site, therefore, would not avoid physical disturbance of the property. It also would not avoid the implementation of either the No Project/Trailer Yard Alternative (Alternative 1) or the No Project/Industrial Building Alternative (Alternative 2) because existing entitlements are already in place to construct those alternatives on the property. The only potential advantage, then, to selecting an alternative site for the proposed Project would be to displace the Project's operational effects to a different location.

The Project site is surrounded by properties developed with or planned for the future construction of industrial land uses. Few other properties in the City of Moreno Valley and western Riverside County would offer less developmental and environmental constraints, or fewer physical environmental impacts than the proposed Project site. Development of the Project in an alternate location would have similar impacts as would occur with implementation of the Project at its proposed location, and may even increase environmental effects because the Project built in another location would be compounded with the effects of either the No Project/Trailer Yard Alternative (Alternative 1) or the No Project/Industrial Building Alternative (Alternative 2) because existing entitlements are already in place to construct those alternatives on the property. For these reasons, an alternative sites analysis is not required for the proposed Project.

☐ Alternative Land Use

Development of the Project site with a land use other than industrial warehousing was considered, but rejected because other land uses would be inconsistent with the property's General Plan and zoning designations and not meet any of the Project's objectives. Additionally, development of the Project site with a building type other than warehouse and permitted by General Plan and zoning designations was considered but rejected because other permitted building types (manufacturing and commercial/service) would create the same or similar construction-related impacts as the proposed Project, but would substantially increase operational impacts because these land use types generate more traffic and consequently would generate more operational noise and air emissions. For these reasons, alternative land uses on the property were considered and rejected.

☐ Construction Noise Avoidance Alternative

An alternative was considered that would avoid the proposed Project's construction-related noise impacts. As disclosed in EIR Section 4.3, near-term construction activities would exceed the City's Noise Ordinance standard of 65 dBA at a distance of 200 feet from the property line during all six (6) phases of construction. As shown in EIR Tables 4.3-5 through 4.3-10, in order to avoid a significant impact due to a conflict with the Noise Ordinance, construction activities would need to be set back from the property line by a distance ranging from 565 feet (during architectural coating) to 2,774 feet (during site grading activities). It would not be feasible to construct the proposed Project while restricting construction activities by 565 feet to 2,774 feet from the property line. Accordingly, the Construction Noise Avoidance Alternative has been rejected from detailed consideration in this EIR because it is infeasible.

6.3 ALTERNATIVES ANALYSIS

The following discussion compares the impacts of each alternative considered by the Lead Agency with the impacts of the proposed Project, as detailed in Section 4.0, Environmental Analysis, of this EIR. A conclusion is provided for each impact as to whether the alternative results in one of the following: (1) reduction or elimination of the proposed Project's impact, (2) a greater impact than would occur under the proposed Project, (3) the same impact as the proposed Project, or (4) a new impact in addition to the proposed Project's impacts. Table 6-1 at the end of this section compares the environmental hazard and resource impacts of the alternatives with those of the proposed Project and identifies the ability of the Alternative to meet the basic objectives of the Project. As described in EIR Subsection 3.2, the proposed Project's objectives are:

A. To construct and operate a logistics center warehouse building in the City of Moreno Valley on a property designated for industrial development by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208.)

B. To develop a logistics center warehouse building that is feasible to construct and operate and that appeals to light industrial and warehouse distribution tenants seeking to locate in the Moreno Valley area.

C. To make efficient use of property designated for industrial development by developing a logistics center warehouse building on a property that is adjacent to existing warehouse development and that achieves a minimum floor area ratio (FAR) of 0.5.

D. To construct and operate a logistics center warehouse building within five miles of major regional transportation corridors.

E. To attract new businesses and jobs to the City of Moreno Valley, thereby providing a more equal jobs/housing balance both in the city and in Riverside County and reducing the need for members of the existing local workforce to commute outside the area for employment.

6.3.1 ALTERNATIVE 1 – NO PROJECT/TRAILER YARD ALTERNATIVE

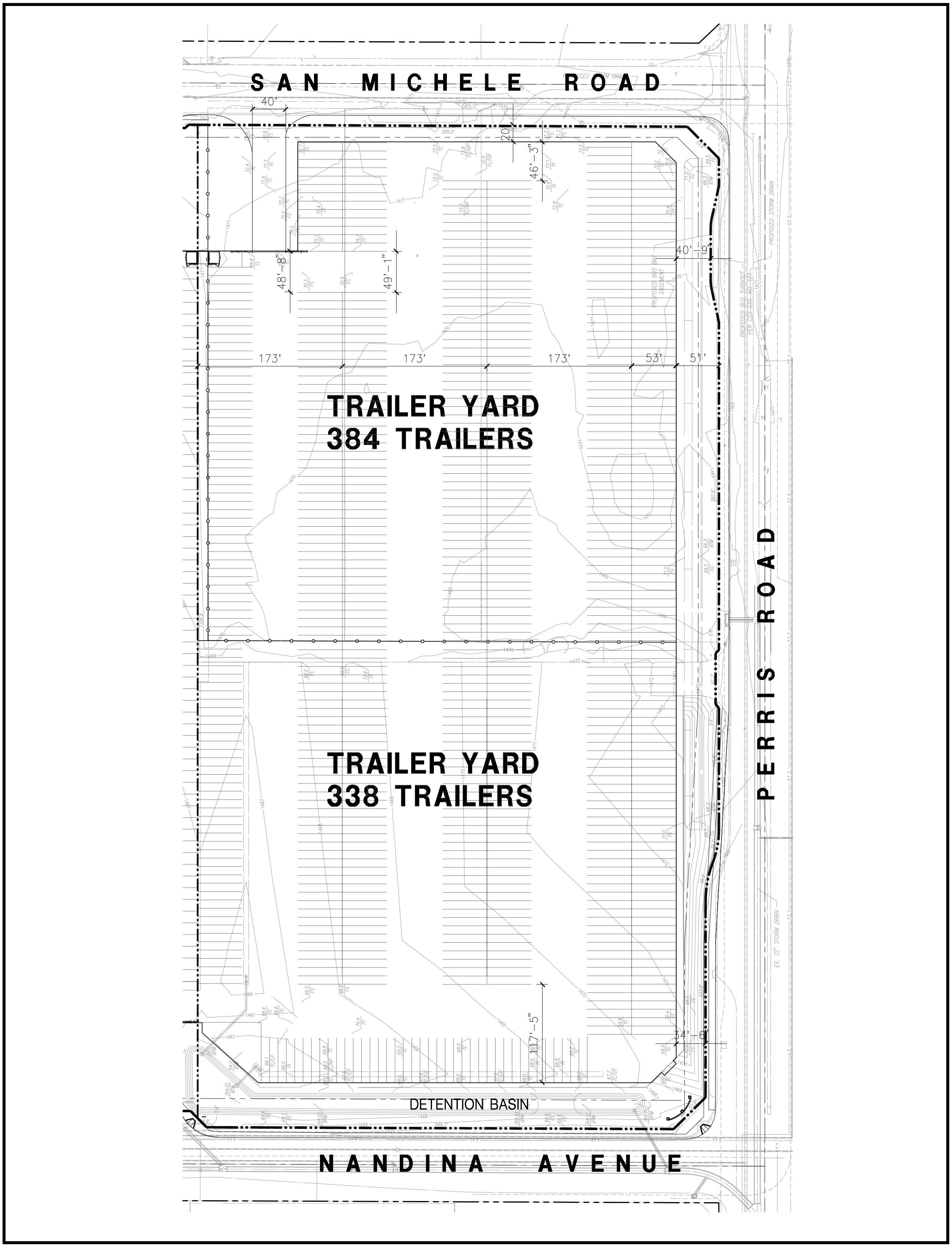
The No Project/Trailer Yard Alternative allows the decision-makers to compare the impacts of approving the proposed Project against the impacts of not approving the Project. If the Project were not approved, it is reasonable to expect the property to develop in accordance with previously approved permits. Under existing entitlements (specifically, Amended Plot Plan P12-061), the existing truck trailer parking lot in the southern portion of the site would remain. This parking area would be expanded onto the northern portion of the site to include an additional 509 trailer parking spaces, resulting in a total of 722 spaces on the site (including 338 spaces on the southern portion of the site and 384 spaces in the northern portion of the site). The existing parking area and expanded parking area would serve the existing 691,960 s.f. building located to the immediate west and currently occupied by Harbor Freight Tools. Figure 6-1, *No Project/Trailer Yard Alternative*, depicts a site plan for the No Project/Trailer Yard Alternative. CEQA analysis for this alternative was previously completed, consisting of two MND Addenda (SCH No. 2008101041). All imposed Conditions of Approval and Mitigation Measures would apply.

Under this alternative, roadway frontage improvements along Perris Boulevard and San Michele Road would occur, including additional paved roadway and the construction of curbs and sidewalks. There would be no change to the Project frontage along Perris Boulevard or Nandina Avenue. Access to the site would be afforded via a new driveway constructed along San Michele Road, near the northwestern Project boundary, while the existing driveway providing access to Nandina Avenue via the adjacent lot to the west would be retained. Screen walls also would be constructed along San Michele Road and Perris Boulevard, while the existing screen walls along Perris Boulevard and Nandina Avenue would stay in place.

In order to construct the expanded parking lot, portions of the existing trailer parking area and associated screen walls would be demolished and replaced. Otherwise, the majority of construction activities associated with this alternative would be limited to the northern portion of the site, and along the eastern frontage with Perris Boulevard and the entire frontage of San Michele Road.

This alternative would be fully consistent with the site's existing General Plan and zoning designations. In addition, the parking area is proposed to be used only by trucks currently serving the existing building to the west. As such, under operational conditions, there would be no total increase in inbound or outbound traffic, nor would any other operational characteristics of the existing building to the west change as a result of this alternative.

Selection of the No Project/Trailer Yard Alternative would prevent the Project site from being developed with industrial buildings in the foreseeable future, but would not necessarily prevent the proposed Project or another project of its nature from being built in another location in response to the demand for industrial building space in western Riverside County. As discussed above, a detailed examination of alternative sites is not required in this EIR because the Project is consistent with its General Plan and Specific Plan land use designations applied to the property and locating the Project on an alternative site would not be environmentally superior. Nonetheless, the Lead Agency recognizes that selection of the No Project/Trailer Yard Alternative would not reduce the market demand for industrial building space in western Riverside County.



Source: HPA Architects (10-23-12)

FIGURE 6-1

No Project/Trailer Yard Alternative

☐ Air Quality

The No Project/Trailer Yard Alternative would not alter the land uses allowed on-site under the General Plan and zoning designations, and would not increase the intensity or amount of traffic that occurs under existing conditions because use of the parking yard would be limited to the existing building to the west currently occupied by Harbor Freight Tools. The parking area would only be used by trucks currently serving the existing building. Because the No Project/Trailer Yard Alternative is consistent with the site's existing General Plan and zoning designations that formed the basis for regional population projections used in the SCAQMD's AQMP, the No Project/Trailer Yard Alternative would not conflict with implementation of the AQMP, and a less than significant impact would occur. Similarly, the proposed Project also would be consistent with the site's existing General Plan and zoning land use designations and also would be consistent with the regional population projections used in the AQMP. Thus, both this alternative and the proposed Project would be consistent with the AQMP and no adverse impact would occur in either case.

Under the No Project/Trailer Yard Alternative, grading and the application of concrete and asphalt involved in the expansion of the parking lot would result in some construction emissions; however, construction activities under this alternative would be governed by the Mitigation Measures specified in MND Addenda No. 2 (SCH No. 2008101041) and Conditions of Approval associated Amended Plot Plan P12-061. Given the small size and duration of construction activities associated with expanding the existing parking yard to the northern portion of the property, short-term construction-related impacts would be less than significant with mitigation. Since the expanded parking lot would only be used by trucks serving the existing building to the west and would not increase the amount of operational traffic, long-term operational emissions would not occur nor result in any violations of an air quality standard or substantially contribute to a projected air quality violation. Accordingly, implementation of this alternative would reduce near-term construction-related impacts as compared to the proposed Project and would avoid the proposed Project's significant unavoidable long-term impacts due to NO_x emissions.

Based on the analysis contained in the 2008 MND and its associated Addenda (SCH No. 2008101041), and assuming mandatory implementation of the Mitigation Measures and Conditions of Approval associated with Amended Plot Plan P12-061, impacts to nearby sensitive receptors would be less than significant under this alternative. Near- and long-term air emissions under this alternative would be below the SCAQMD regional and localized thresholds of significance, and diesel particulate emissions would not expose sensitive receptors to significant cancer risks. Due to the reduced intensity of construction activities and reduced operational traffic associated with this alternative as compared to the proposed Project, air quality impacts affecting sensitive receptors would be reduced under this alternative. Neither this alternative nor the proposed Project would result in significant human health risks associated with air pollutant emissions.

Odors that would be associated with the No Project/Trailer Yard Alternative would be associated with near-term construction activities and diesel exhaust that would occur under both near-term construction and long-term operation. However, and as concluded in the MND and Addendum No. 2 (SCH No. 2008101041), impacts due to odors under this alternative would be less than significant due to the short-term duration and quantity of emissions, the predominantly industrial nature of the surrounding area, and the less than significant results of the localized significance threshold analysis. Similarly, because the proposed Project does not involve any land uses that would generate odors, and since odors under near-term construction activities would be similar (particularly when asphalt is being installed), near- and long-term odors would be similar and less than significant under both this alternative and the proposed Project.

❑ Greenhouse Gas Emissions

The No Project/Trailer Yard Alternative would involve the expansion of an existing truck trailer parking area from 213 spaces to a total of 722 spaces. All traffic associated with this alternative would be strictly associated with the adjacent warehouse building to the west, as the expanded parking lot would merely serve this existing use. Because the No Project/Trailer Yard Alternative would not result in an increase in operational characteristics associated with the site (e.g., there would be no net increase in traffic), there would be no change in the amount of operational GHG emissions that occurs under existing conditions. As such, this alternative would not generate GHG emissions that would directly or indirectly have a significant impact on the environment.

Mitigation Measures and Conditions of Approval associated with Plot Plan P12-061 would apply to this alternative, including mitigation measures and conditions imposed to address air quality emissions. However, since this alternative would not result in the generation of additional vehicular trips, and because fossil fuel usage associated with this alternative would be limited to electricity generation for lighting and electrical outlets, this alternative has no potential to generate a substantial amount of GHG emissions that could cumulatively contribute to global climate change. As such, impacts from GHG emissions that conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs would not be significant under this alternative. Since neither the proposed Project nor the No Project/Trailer Yard Alternative would conflict with any applicable plans or policies addressing climate change, impacts would be less than significant under both this alternative and the proposed Project.

❑ Noise

Noise associated with the No Project/Trailer Yard Alternative would occur during near-term construction activities and under long-term operation. Construction characteristics associated with this alternative would be similar to the proposed Project, except that construction activities would be limited to the northern portion of the property and there would be no building construction phase or architectural coating phase. As with the proposed Project, near-term construction noise impacts associated with this alternative would exceed the City's Noise Ordinance threshold of 65 dBA at a distance of 200 feet from the property line during demolition, site preparation, grading, and paving activities, although impacts during building construction and architectural coating would be avoided. Although this alternative represents a reduction in short-term noise impacts as compared to the proposed Project, the impact would not be avoided.

Under long-term operational conditions, noise generated by the No Project/Trailer Yard Alternative primarily would be associated with trucks maneuvering and idling within the dock areas. Mitigation Measures and Conditions of Approval associated Amended Plot Plan P12-061 would apply to this alternative, including requirements to construct noise attenuation walls along the perimeter of the site and to construct access gates with solid materials to address on-site noise generation. With implementation of the Mitigation Measures and Conditions of Approval, site operational noise affecting nearby sensitive receptors would be below the City's 65 dBA CNEL exterior standard and impacts would be less than significant. Due to the reduction in traffic and site operational characteristics associated with this alternative, operational noise would be reduced under this alternative as compared to the proposed Project.

No off-site noise increases would result from implementation of this alternative because there would not be an increase in traffic volumes and all truck trips would be associated with the existing warehouse building located to the west. As such, there would be no potential for the No Project/Trailer Yard Alternative to increase noise levels on nearby roadway segments, eliminating the proposed Project's contribution of up to 0.6 CNEL under long-term operating conditions.

Near-term ground-borne vibration or ground-borne noise effects would be temporary and infrequent during construction and would be less than significant under both the No Project/Trailer Yard Alternative and the proposed Project. Under long-term operational conditions, there would be no sources of ground-borne vibration or ground-borne noise associated with either the No Project/Trailer Yard Alternative or the proposed Project. Also, neither this alternative nor the proposed Project are noise-sensitive uses or involve an air travel component. Thus, there would be no impact associated with public or private airport usage with either the No Project/Trailer Yard Alternative or the proposed Project.

☐ Transportation and Traffic

The No Project/Trailer Yard Alternative would not involve any traffic increases, as all traffic would be associated with the existing warehouse building to the west. As such, this alternative would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, and no impact would occur. In comparison, the proposed Project would result in cumulatively significant impacts to seven roadway segments and five intersections under Opening Year Cumulative (2017) conditions, which would be avoided by the selection of this alternative.

The No Project/Trailer Yard Alternative would not result in any new traffic; therefore, this alternative would have no impact on CMP facilities. Implementation of the proposed Project would result in cumulatively significant but mitigable impacts to CMP facilities (I-215 Ramps at Harley Knox Boulevard) and would contribute new vehicle trips to CMP facilities that would not occur under this alternative; therefore, impacts to CMP facilities would be decreased under this alternative as compared to the proposed Project.

Neither the No Project/Trailer Yard Alternative nor the proposed Project has the potential to affect air traffic patterns. As such, impacts to air traffic patterns would not occur, and would be similar under either this alternative or the proposed Project.

Under both the No Project/Trailer Yard Alternative and the proposed Project, roadway frontage improvements would be required to adhere to City requirements, thereby precluding the potential for introducing hazards due to a design feature. Additionally, because both the proposed Project and No Project/Trailer Yard Alternative would involve warehouse-related uses, and the site is located within a predominantly industrial warehousing area, there would be no transportation design hazard impacts due to incompatible uses.

Both the No Project/Trailer Yard Alternative and the proposed Project would be served by a minimum of two access points, which would provide for adequate emergency access. Accordingly, an impact due to inadequate emergency access would not occur, and such impacts would be identical under either the proposed Project or No Project/Trailer Yard Alternative.

Frontage improvements along San Michele Road and Perris Boulevard would occur under both the No Project/Trailer Yard Alternative and the proposed Project, and would accommodate all required sidewalks, bike lanes, and bus turnouts. There are no other pedestrian, bicycle, or public transit facilities planned near the proposed Project site (with exception of the bus turnout). Accordingly, impacts due to a conflict with adopted policies or programs regarding public transit, bicycle, and pedestrian facilities would be identical under this alternative and the proposed Project, and no impact would occur.

☐ Biological Resources

This alternative would result in full disturbance of the property, as would occur under the proposed Project. As such, impacts to biological resources that would occur under this alternative are the same as those impacts described in EIR Subsection 4.5 for the proposed Project. No biological resource impacts would be reduced or avoided.

☐ Conclusion

Implementation of the No Project/Trailer Yard Alternative would result in the expansion of an existing truck trailer parking lot from 213 stalls to 722 stalls, and would increase the size of the parking lot to cover the northern portion of the Project site. With exception of near-term noise impacts, all significant effects of the proposed Project would be avoided or lessened by the selection of this alternative.

The No Project/Trailer Yard Alternative would fail to meet the Project's objectives. This alternative would not achieve the objectives to construct and operate a logistics center warehouse, and would not achieve a minimum FAR of 0.5. This alternative also would not attract new businesses or jobs to the City of Moreno Valley because the parking yard would merely service the existing warehouse building to the west. Moreover, selection of the No Project/Trailer Yard Alternative, while preventing development of the property with a logistics center warehouse building, would not result in a reduction in demand for industrial business park development in western Riverside County; thus, it is likely for the Project's environmental impacts to occur elsewhere rather than be avoided.

6.3.2 ALTERNATIVE 2 – NO PROJECT/INDUSTRIAL BUILDING ALTERNATIVE

Like the No Project/Trailer Yard Alternative described above, the No Project/Industrial Building Alternative allows decision-makers to compare the impacts of approving the proposed Project against the impacts that would occur if the property were to be developed pursuant to existing entitlements. Under existing entitlements (specifically, Plot Plan 07-0167 and Amended Plot Plan P12-061), the northern portion of the site would be developed with a truck trailer yard while the southern portion of the site would be developed with a 181,031 s.f. industrial building (inclusive of 5,000 s.f. of office, 2,000 s.f. of mezzanine, and 173,031 s.f. of industrial warehouse). In order to construct this alternative, the existing parking area would be demolished and some grading activities would be required on-site both in association with the new building and the expanded parking area. Figure 6-

2, *No Project/Industrial Building Alternative*, depicts a conceptual site plan for the No Project/Industrial Building Alternative. CEQA analysis for this alternative was previously completed, consisting of an MND and two MND Addenda (SCH No. 2008101041). All imposed Conditions of Approval and Mitigation Measures would apply.

Under this alternative, roadway frontage improvements along Perris Boulevard and San Michele Road would occur, including additional paved roadway and the construction of curbs and sidewalks. There would be no change to the Project frontage along Perris Boulevard or Nandina Avenue. Access to the site would be provided by driveways along Nandina Avenue, including an existing driveway accessed via the adjacent parcel and a new driveway to be constructed adjacent to the office space in the southwestern corner of the lot; a new driveway along Perris Boulevard, immediately to the north of the proposed building; and a new driveway along San Michele Road to be constructed at the northwestern corner of the lot.

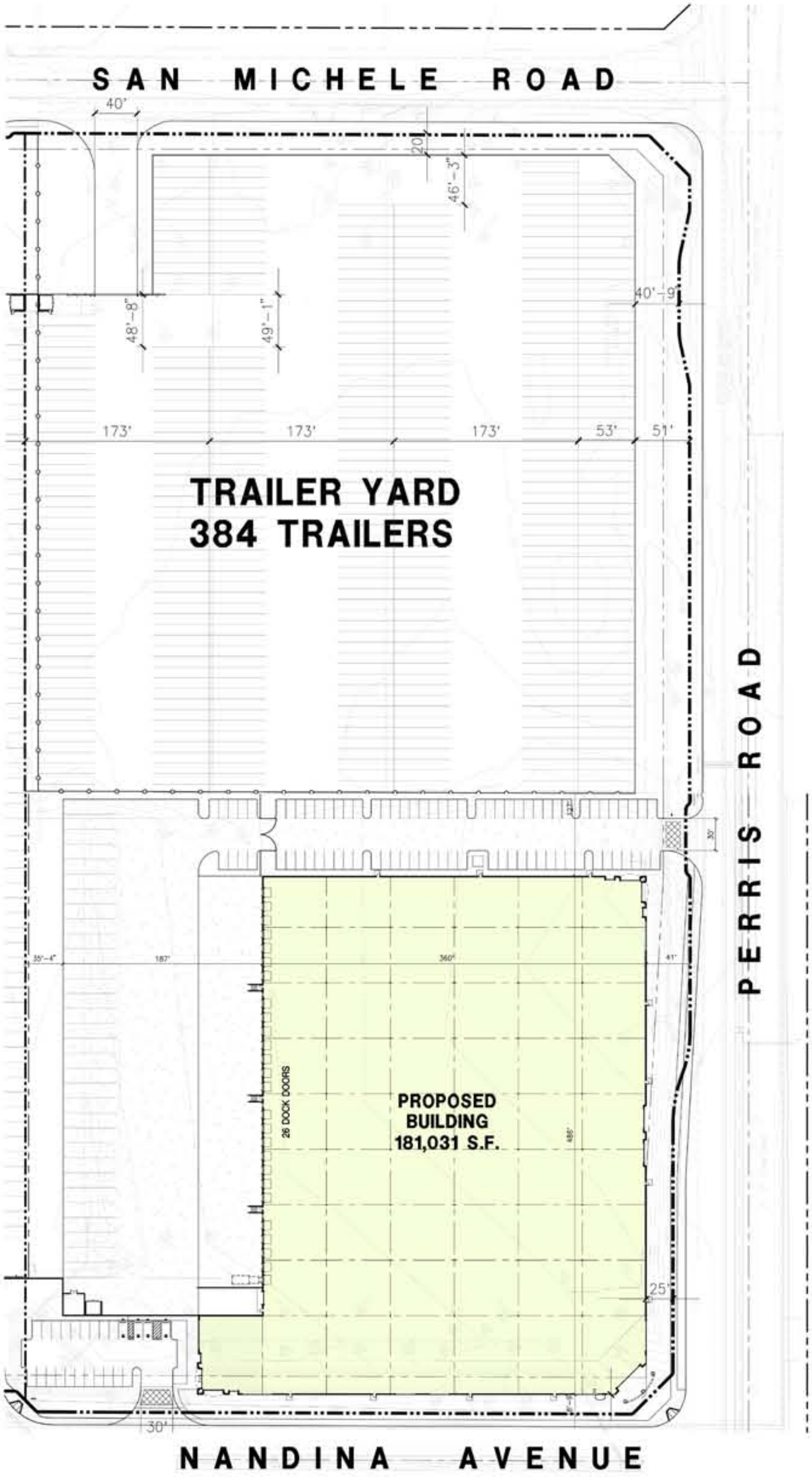
The existing screen walls located along the northern edge of the existing parking lot, along Perris Boulevard, and along Nandina Avenue would be demolished as part of this alternative. New screen walls would be constructed along the southern edge of the truck trailer parking area in the south of the site (just northerly of the parking lot for the office), and additional screen walls would be constructed along the frontage with Perris Boulevard (north of the proposed building) and along San Michele Road.

The industrial building proposed under this alternative would include a total of 26 dock doors and 106 standard and handicap parking spaces. The southwestern corner of the building (approximately 6,000 s.f.) would be dedicated for office space, while the remaining portions of the building would comprise 2,000 s.f. of mezzanine space and 173,031 s.f. of warehouse space.

Selection of the No Project/Industrial Building Alternative would reduce the amount of industrial warehouse building square footage on-site from 400,130 s.f. to 181,031 s.f., but would not necessarily prevent the additional square footage from being located in another location in response to the demand for industrial building space in western Riverside County. As discussed above, an examination of alternative sites is not required in this EIR because the Project is consistent with its General Plan and Specific Plan land use designations and locating the Project on an alternative site would not be environmentally superior. Nonetheless, the Lead Agency recognizes that selection of the No Project/Industrial Building Alternative would not reduce the market demand for industrial building space in western Riverside County.

❑ Air Quality

The No Project/Trailer Yard Alternative would not alter the land uses allowed on-site under the General Plan and zoning designations. Although traffic from the site would decrease under this alternative as compared to the proposed Project (from approximately 1,066 trips per day under the proposed Project to approximately 323 trips per day under this alternative), the development of an industrial building on the southern portion of the property would be consistent with the site's existing General Plan and zoning designations that formed the basis for regional population projections used in the SCAQMD's AQMP. As such, the No Project/Trailer Yard Alternative would not conflict with implementation of the AQMP, and no impact would occur. Similarly, the proposed Project also



Source: HPA Architects (10-23-12)

FIGURE 6-2
No Project/Industrial Building Alternative

would be consistent with the site's existing General Plan and zoning land use designations and also would be consistent with the regional population projections used in the AQMP. Thus, both this alternative and the proposed Project would be consistent with the AQMP and no adverse impact would occur in either case.

Under the No Project/Industrial Building Alternative, grading and concrete application involved in installing the parking lot, construction of the 181,031 s.f. building, and construction of screen walls would result in construction-related air emissions; however, construction activities under this alternative would be governed by the Mitigation Measures and Conditions of Approval associated with the original approvals (PA07-0165, PA07-0167, and P12-061). Given the small size and duration of construction associated with this alternative, short-term construction impacts due to the violation of an air quality standard or contribution to a projected air quality violation would be less than significant with mitigation. Due to the reduction in building area, near-term construction emissions would be reduced in comparison to the proposed Project, although both the proposed Project and this alternative would result in less than significant near-term air quality impacts during construction with the incorporation of mitigation measures.

Because the expanded parking lot would only be used by trucks serving the existing building to the west and the proposed new building, no additional traffic would be associated with the parking area. However, the new 181,031 s.f. building would generate approximately 323 trips per day (based on the information disclosed in the MND for PA07-0165, P07-166, PA07-0167). The projected increase in traffic from the site would require the implementation of Mitigation Measures and adherence to the Conditions of Approval associated with PA07-0165 and PA07-0167, which would reduce to a level below significant impacts due to the violation of air quality standards and/or contribution to an existing or projected air quality violation. Because the proposed Project would generate 743 more daily trips than would occur under this alternative, impacts to air quality standards and the level of contribution to existing or projected violations would be reduced under this alternative, but not avoided. While this alternative would reduce operational NO_x emissions as compared to the proposed Project, this alternative still would result in emissions of a criteria pollutant for which the region is non-attainment (i.e., ozone precursors), but to a lesser degree than the proposed Project.

Based on the analysis contained in the 2008 MND and its associated Addenda (SCH No. 2008101041), and assuming mandatory implementation of the Mitigation Measures and Conditions of Approval associated with the approved entitlements, impacts to nearby sensitive receptors would be less than significant under this alternative. Near- and long-term air emissions under this alternative would be below the SCAQMD regional and localized thresholds of significance with mitigation, and diesel particulate emissions would not expose sensitive receptors to significant cancer risks. Due to the reduced intensity of construction activities and reduced operational traffic associated with this alternative as compared to the proposed Project, air quality impacts affecting sensitive receptors would be reduced under this alternative. Neither this alternative nor the proposed Project would result in significant human health risks associated with air pollutant emissions.

Odors that would be associated with the No Project/Industrial Building Alternative would be associated with near-term construction activities and diesel exhaust that would occur under both near-term construction and long-term operation. However, and as concluded in the MND and Addendum No. 2 (SCH No. 2008101041), impacts due to odors would be less than significant due to the short-term duration and quantity of emissions, the predominantly industrial nature of the surrounding area, and the less than significant results of the localized significance threshold analysis. Similarly, because the proposed Project does not involve any land uses that would generate odors, and since odors under near-term construction activities would be similar (particularly when asphalt is being installed), near- and long-term odors would be similar and less than significant under both this alternative and the proposed Project.

☐ Greenhouse Gas Emissions

Impacts due to GHG emissions were not previously evaluated in the approved MND for the proposed 181,031 s.f. building, although an impact analysis was conducted for the expanded trailer parking area in the northern portion of the site for Addendum No. 2. Addendum No. 2 concluded that impacts associated with the parking area would not result in substantial amount of GHG emissions. The No Project/Industrial Building Alternative would involve the construction and operation of a 181,031 s.f. industrial warehouse building and a truck trailer parking area. Due to the decrease in the amount of traffic associated with this alternative (743 fewer average daily trips), and the reduced building area (219,099 s.f. less building area than the proposed Project), this alternative would generate fewer GHG emissions as compared to the proposed Project. It should be noted that the Mitigation Measures identified to address the Project's GHG emissions would not be implemented as part of this alternative. Nonetheless, impacts due to GHG emissions would be reduced under this alternative as compared to the proposed Project, and would be less than significant.

Mitigation Measures and Conditions of Approval associated with PA07-0165, PA07-0167, and P12-061 would apply to this alternative, including Mitigation Measures and Conditions of Approval imposed to address air quality emissions. Incorporation of these measures is anticipated to reduce near- and long-term emissions of GHGs. As with the proposed Project, this alternative would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, including the CARB Scoping Plan recommended measures and actions or the GHG emission reduction strategies set forth in the 2006 CAT Report. As such, impacts due to a conflict with applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of greenhouse gases would be similar under both this alternative and the proposed Project.

☐ Noise

Noise associated with the No Project/Industrial Building Alternative would occur during near-term construction activities and under long-term operation. Similar to the proposed Project, near-term construction activities during each phase of construction would generate noise levels that exceed the City's Noise Ordinance standard of 65 dBA at a distance of 200 feet from the property line. However, due to the reduction in building area associated with this alternative, the duration of construction-related noise impacts would be reduced in comparison to the proposed Project.

Under long-term operational conditions, noise generated by the No Project/Industrial Building Alternative primarily would be associated with trucks maneuvering and idling within the dock areas. Mitigation Measures and Conditions of Approval associated with PA07-0167 and P12-061 would apply to this alternative, including requirements to construct noise attenuation walls along the perimeter of the site and to construct access gates with solid materials to address on-site noise generation. With implementation of the Mitigation Measures and Conditions of Approval, site operational noise affecting nearby sensitive receptors would be below the City's 65 dBA CNEL exterior standard and impacts would be less than significant. Because the intensity of operations associated with this alternative would be reduced in comparison to the proposed Project, operational-related noise impacts would be less under this alternative, but still less than significant for both this alternative and the proposed Project.

Because the trailer parking lot in the northern portion of the property would not result in an increase in traffic, potential off-site noise impacts associated with traffic would be limited to the 323 vehicle trips per day generated by the 181,031 s.f. building. Based on the analysis presented in the MND, the total off-site contribution to noise levels along nearby roadway segments would be between 0.1 to 1.3 decibels (which includes traffic associated with the existing 676,960 s.f. warehouse building on the parcel to the west). This level of noise increase is well below the City's significance threshold. Since the proposed Project would result in off-site noise impacts ranging from 0.0 dBA CNEL to 1.6 dBA CNEL, off-site noise impacts would be reduced under this alternative, although would not be significant under either this alternative or the proposed Project.

Near-term ground-borne vibration or ground-borne noise effects would be temporary and infrequent during construction and would be less than significant under both the No Project/Industrial Building Alternative and the proposed Project. Under long-term operational conditions, there would be no sources of ground-borne vibration or ground-borne noise associated with either the No Project/Trailer Yard Alternative or the proposed Project. Also, neither this alternative nor the proposed Project are noise-sensitive uses or involve an air travel component. Thus, there would be no impact associated with public or private airport usage with either the No Project/Trailer Yard Alternative or the proposed Project.

❑ Transportation and Traffic

The No Project/Industrial Building Alternative would result in the construction of a 181,031 s.f. industrial warehouse building on the southern portion of the site, which would result in the generation of approximately 323 average daily vehicle trips. There would be no increase in traffic associated with the truck trailer parking area. As determined by the MND and Addendum No. 2, implementation of this alternative would result in significant but mitigable cumulative impacts to a total of nine intersections. The proposed Project would result in cumulatively significant impacts to a total of seven roadway segments and five intersections under Opening Year Cumulative (2017) conditions and impacts to two of the intersections would be significant and unavoidable. In comparison, implementation of the No Project/Industrial Building Alternative would reduce impacts to transportation/traffic as compared to the proposed Project and eliminate the Project's significant and unavoidable cumulative traffic impacts.

As concluded in the MND and Addendum No. 2, the No Project/Industrial Building Alternative would result in cumulatively significant but mitigable impacts to two CMP facilities (I-215 SB Ramp at Oleander Avenue and I-215 NB Ramp at Oleander Avenue). Implementation of the proposed Project would result in cumulatively significant but mitigable impacts to two CMP facilities (I-215 SB Ramps at Harley Knox Boulevard and I-215 NB Ramps at Harley Knox Boulevard). Accordingly, impacts to CMP facilities would be the same under this alternative and the proposed Project.

Neither the No Project/Industrial Building Alternative nor the proposed Project has the potential to affect air traffic patterns. As such, impacts to air traffic patterns would not occur, and would be similar under either this alternative or the proposed Project.

Under both the No Project/Industrial Building Alternative and the proposed Project, roadway frontage improvements would be required to adhere to City requirements, thereby precluding the potential for introducing hazards due to a design feature. Additionally, because both the proposed Project and No Project/Industrial Building Alternative would involve industrial-related uses, and the site is located within a predominantly industrial area, there would be no transportation design hazard impacts due to incompatible uses. In both cases, impacts would be less than significant under both the No Project/Industrial Building Alternative and the proposed Project.

Both the No Project/Industrial Building Alternative and the proposed Project would be served by a minimum of two access points, which would provide for adequate emergency access. Accordingly, an impact due to inadequate emergency access would not occur, and such impacts would be identical under either the proposed Project or No Project/Industrial Building Alternative.

Frontage improvements along San Michele Road and Perris Boulevard would occur under both the No Project/Industrial Building Alternative and the proposed Project, and would accommodate all required sidewalks, bike lanes, and bus turnouts. There are no other pedestrian, bicycle, or public transit facilities planned near the proposed Project site (with exception of the bus turnout). Accordingly, impacts due to a conflict with adopted policies or programs regarding public transit, bicycle, and pedestrian facilities would be the same under this alternative and the proposed Project, and no impact would occur.

☐ Biological Resources

This alternative would result in full disturbance of the property, as would occur under the proposed Project. As such, impacts to biological resources that would occur under this alternative are the same as those impacts described in EIR Subsection 4.5 for the proposed Project. No biological resource impacts would be reduced or avoided.

☐ Conclusion

Implementation of the No Project/Industrial Building Alternative would result in constructing a truck trailer parking lot on the northern portion of the property and constructing a 181,031 s.f. industrial warehouse building on the southern portion of the property in accordance with existing, approved entitlements. Implementation of this alternative would avoid the Project's significant unavoidable impact to transportation/traffic, and would generally reduce many of the other Project-related impacts that are related to building intensity. However, this alternative would reduce, but would not fully avoid, the proposed Project's impacts due to long-term operational-related emissions of NO_x, and would reduce but not fully avoid the proposed Project's significant unavoidable impact due to construction-related noise.

The No Project/Industrial Building Alternative would meet most of the Project's objectives, but generally to a lesser degree. This alternative would not achieve the Project's objective to achieve a minimum FAR of 0.5, and would be less effective in providing logistics center warehouse building space in comparison to the proposed Project. This alternative, while providing logistics center warehouse building space within five miles of major regional transportation corridors, would provide less building space than the proposed Project. Additionally, this alternative would attract fewer businesses and jobs to the City of Moreno Valley as compared to the proposed Project. Moreover, selection of the No Project/Industrial Building Alternative, while limiting the size of the on-site logistics center warehouse building, would not result in a reduction in demand for industrial business park development in western Riverside County; thus, it is likely for a portion of the Project's environmental impacts to occur elsewhere rather than be avoided.

6.3.3 ALTERNATIVE 3 – REDUCED PROJECT/SMALL BUILDINGS ALTERNATIVE

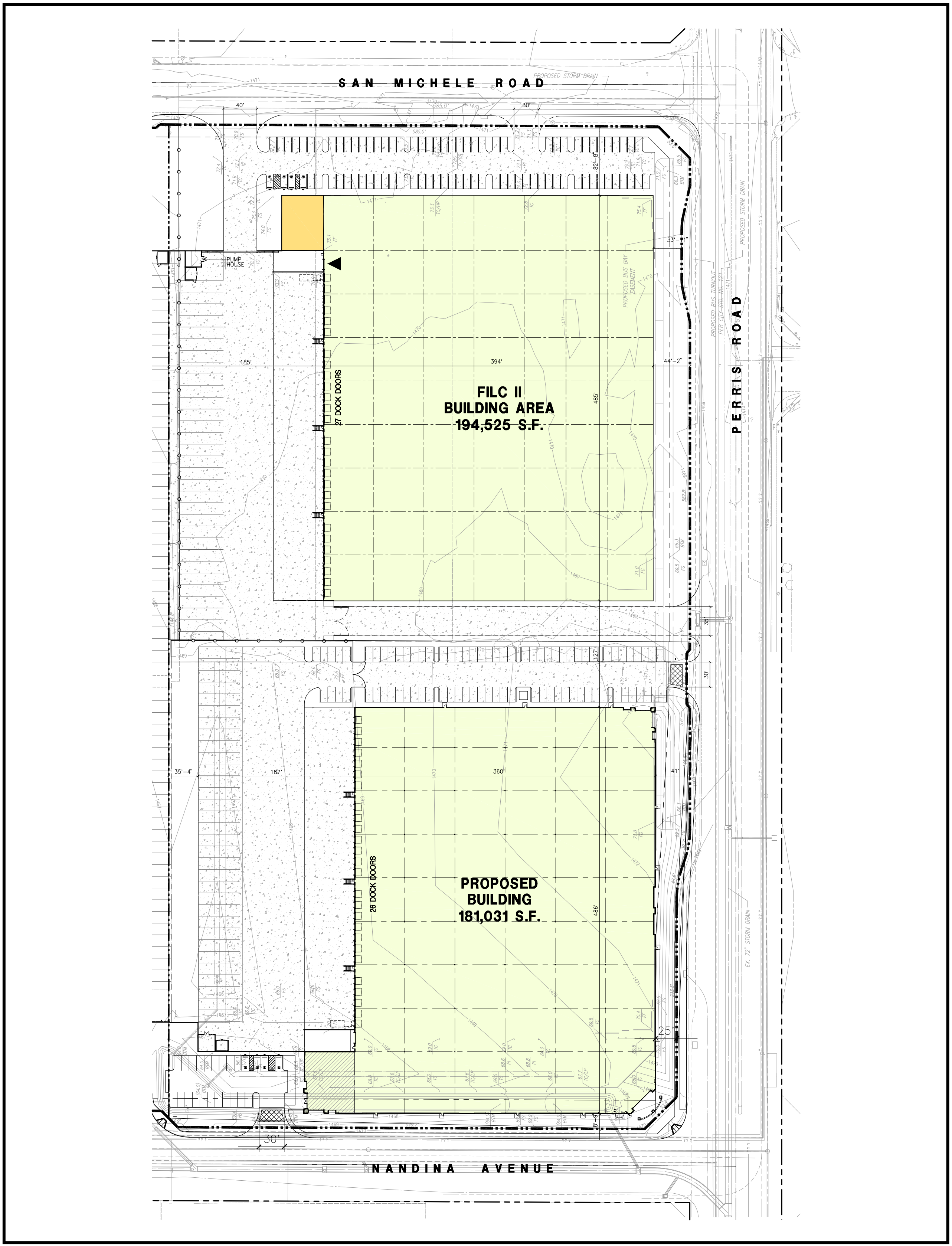
The Reduced Project/Small Buildings Alternative was selected to evaluate the comparative environmental benefits of constructing two smaller industrial warehouse buildings on-site in lieu of the single large building proposed by the Project. Under this alternative, two buildings would be constructed, with the northern building comprising approximately 194,525 s.f. of building area and the southern building comprising approximately 181,031 s.f. of building area. The southern building would consist of a 173,031 s.f. warehouse, 2,000 s.f. of mezzanine space, and a 6,000 s.f. office. The northern building would consist of 189,525 s.f. of warehouse space and 5,000 s.f. of office space. The two buildings, combined, would include 375,556 s.f. of building area, or 24,574 s.f. less building area than the proposed Project (a reduction in building area by approximately 6%). Figure 6-3, *Reduced Project/Small Buildings Alternative,* depicts a conceptual site plan for the Reduced Project/Small Buildings Alternative.

Roadway improvements and access points would be identical to the proposed Project under this alternative, except that an additional access would be provided to Perris Boulevard on the north side of the southern building. The existing screen walls would be extended under this alternative and would occur along the entire frontage with Perris Boulevard and San Michele Road, while the screen walls along Nandina Avenue would be demolished and replaced along the northern edge of the employee parking area proposed adjacent to Nandina Avenue.

The industrial buildings proposed under this alternative would include a total of 55 dock doors, 62 truck trailer parking stalls, and 193 standard and handicap spaces.

☐ Air Quality

The Reduced Project/Small Buildings Alternative would not alter the land uses allowed on-site under the General Plan and zoning designations. The development of industrial buildings on-site would be consistent with the site's existing General Plan and zoning designations that formed the basis for regional population projections used in SCAG's AQMP. As such, the Reduced Project/Small Buildings Alternative would not conflict with implementation of the AQMP, and no impact would occur. Because the proposed Project also would be consistent with the site's existing General Plan and zoning land use designations and would be consistent with the regional population projections used in the AQMP, impacts due to a conflict with the applicable AQMP would be the same under both the proposed Project and the Reduced Project/Small Buildings Alternative.



Source: HPA Architects (10-23-12)

FIGURE 6-3
Reduced Project/Small Building Alternative

Under the Reduced Project/Small Buildings Alternative, activities involved in demolishing the existing parking lot and building the two small buildings would result in construction emissions very similar to that of the proposed Project. Although this alternative would result in a reduction in building area, this alternative would require the construction of more walls for the individual buildings and would require more area requiring paint, thereby increasing the emission of VOCs under near-term conditions. As with the proposed Project, this alternative would require mitigation measures to reduce near-term emissions of ROGs and NO_x to a level below significant. With the required mitigation, neither this alternative nor the proposed Project would result in a violation of an air quality standard or contribution to a projected air quality violation, although near-term construction emissions would slightly increase under this alternative as compared to the proposed Project.

The new 181,031 s.f. building and 194,525 s.f. building would generate approximately 1,336 trips per day (utilizing the ITE rates for industrial warehousing). Because the buildings would not qualify as “high cube” due to their small size, the trip rate per square foot is higher than the proposed Project. The projected increase in traffic from the site would require the implementation of mitigation measures and City issued conditions of approval. However, even with the incorporation of mitigation measures, the 1,336 daily trips associated with this alternative would result in significant and unavoidable impacts due to the emissions of NO_x, which would violate the SCAQMD regional air quality standard and would contribute to an existing air quality violation (i.e., smog). Since the proposed Project would generate 270 fewer daily trips than would occur under this alternative, impacts due to a conflict with the SCAQMD regional air quality standard and the level of contribution to an existing air quality violation (i.e., ozone) would be increased under this alternative. Accordingly, this alternative would increase the proposed Project’s significant and unavoidable impact due to operational NO_x emissions.

As with the proposed Project, and assuming mandatory implementation of similar mitigation measures and conditions of approval, impacts to nearby sensitive receptors would be less than significant under this alternative. Emissions under this alternative would be below the SCAQMD regional and localized thresholds of significance, and diesel particulate emissions would not expose sensitive receptors to significant cancer risks. However, these less than significant impacts to sensitive receptors would be increased under this alternative in comparison to the proposed Project due to the increase in daily vehicular trips (i.e., 1,336 average daily trips, as compared to 1,066 average daily trips under the proposed Project).

Odors that would be associated with the Reduced Project/Small Buildings Alternative would be associated with near-term construction activities and diesel exhaust that would occur under both near-term construction and long-term operation. However, and similar to the proposed Project, impacts due to odors under this alternative would be less than significant due to the short-term duration and quantity of emissions, the predominantly industrial nature of the surrounding area, and the less-than-significant results of the localized significance threshold analysis. Since this alternative and the proposed Project do not involve any land uses that would generate odors, and since odors under near-term construction activities would be similar (particularly when asphalt is being installed), near- and long-term odors would be similar under both this alternative and the proposed Project, and would be less than significant.

❑ Greenhouse Gas Emissions

The Reduced Project/Small Buildings Alternative would involve the construction and operation of 375,556 s.f. of industrial warehouse building area in two buildings. Due to the slight increase in the amount of traffic associated with this alternative (270 additional average daily trips), mobile-source related GHG emissions would increase as compared to the proposed Project. However, since this alternative would involve less building area, non-mobile source operational GHG emissions could be reduced under this alternative. Nonetheless, because the majority of GHG emissions are associated with vehicle sources, total GHGs generated under this alternative would be greater than those associated with the proposed Project.

Mitigation measures and conditions of approval similar to those applied to the proposed Project would apply to this alternative, including those imposed to address air quality emissions. Incorporation of these measures is anticipated to reduce near- and long-term emissions of GHGs. As with the proposed Project, it is not anticipated that this alternative would conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases, including the CARB Scoping Plan recommended measures and actions or the GHG emission reduction strategies set forth in the 2006 CAT Report. As such, impacts due to a conflict with applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of greenhouse gases would be similar under both this alternative and the proposed Project and would be less than significant.

❑ Noise

Noise associated with the Reduced Project/Small Buildings Alternative would occur during near-term construction activities and under long-term operation. Similar to the proposed Project, near-term construction activities during each phase of construction would generate noise levels that exceed the City's Noise Ordinance standard of 65 dBA at a distance of 200 feet from the property line. Since this alternative would result in the construction of two buildings instead of one, it is anticipated that the duration of noise impacts during the building construction and architectural coating phase would increase under this alternative as compared to the proposed Project. Accordingly, implementation of this alternative would result in a near-term significant and unavoidable impact to noise, and such impacts would be slightly increased as compared to the proposed Project.

Under long-term operational conditions, noise generated by the Reduced Project/Small Buildings Alternative primarily would be associated with trucks maneuvering and idling within the dock areas. Perimeter walls would act as noise barriers and contain operational noise and nearby sensitive receptors would experience noise levels below the City's 65 dBA CNEL exterior standard. As such, impacts would be less than significant. Noise levels may be increased compared to the proposed Project, however, due to the 270 vehicle increase in average daily traffic associated with this alternative.

Off-site transportation related impacts are not anticipated to be significant in association with this alternative. However, since this alternative would result in 270 more average daily vehicle trips as compared to the proposed Project, off-site noise impacts would increase under this alternative in comparison to the proposed Project, but would remain below a level of significance.

Near-term ground-borne vibration or ground-borne noise effects would be temporary and infrequent during construction and would be less than significant under both this alternative and the proposed Project. Under long-term operational conditions, there would be no sources of ground-borne vibration or ground-borne noise associated with either the Reduced Project/Small Buildings Alternative or the proposed Project. Also, neither this alternative nor the proposed Project are noise-sensitive uses or involve an air travel component. Thus, there would be no impact associated with public or private airport usage with either the Reduced Project/Small Buildings Alternative or the proposed Project.

☐ Transportation and Traffic

The Reduced Project/Small Buildings Alternative would result in the construction and operation of 375,556 s.f. of industrial warehouse building area, which would result in the generation of approximately 1,336 average daily vehicle trips (utilizing the ITE rates for industrial warehousing). Due to the increase in traffic associated with this alternative (i.e., 1,336 average daily trips, as compared to 1,066 average daily trips for the proposed Project), it can reasonably be assumed that this alternative would result in similar or increased impacts at the seven roadway segments and five intersections that would be significantly and cumulatively impacted by the proposed Project under Horizon Year Cumulative (2017) conditions. Cumulative impacts at the intersections of Western Way/ Harley Knox Boulevard and Indian Street/ Harley Knox Boulevard would remain significant and unavoidable under both this alternative and the proposed Project, although this alternative would produce more traffic and would therefore have a greater on these intersections. Therefore, implementation of the Reduced Project/Small Buildings Alternative would increase impacts to transportation/traffic as compared to the proposed Project.

Implementation of the Reduced Project/Small Buildings Alternative would likely impact the same CMP facilities as the proposed Project (I-215 SB Ramps at Harley Knox Boulevard and I-215 NB Ramps at Harley Knox Boulevard); however, such impacts would be increased because this alternative would produce 270 more average daily trips than the proposed Project. Accordingly, impacts to CMP facilities would increase under this alternative as compared to the proposed Project, although such impacts would be reduced to a level below significant through the payment of DIF and/or TUMF fees in either case.

Neither the Reduced Project/Small Buildings Alternative nor the proposed Project has the potential to affect air traffic patterns. As such, impacts to air traffic patterns would not occur, and would be similar under either this alternative or the proposed Project.

Under both the Reduced Project/Small Buildings Alternative and the proposed Project, roadway frontage improvements would be required to adhere to City requirements, thereby precluding the potential for introducing hazards due to a design feature. Additionally, because both the proposed Project and Reduced Project/Small Buildings Alternative would involve industrial-related uses, and the site is located within a predominantly industrial area, there would be no impacts due to incompatible uses. In both cases, impacts would be similar under both the Reduced Project/Small Buildings Alternative and the proposed Project and would not be significant.

Both the Reduced Project/Small Buildings Alternative and the proposed Project would be served by a minimum of two access points, which would provide for adequate emergency access. Accordingly, an impact due to inadequate emergency access would not occur, and such impacts would be identical under either the proposed Project or Reduced Project/Small Buildings Alternative.

Frontage improvements along San Michele Road and Perris Boulevard would occur under both the Reduced Project/Small Buildings Alternative and the proposed Project, and would accommodate all required sidewalks, bike lanes, and bus turnouts. There are no other pedestrian, bicycle, or public transit facilities planned near the proposed Project site (with exception of the bus turnout). Accordingly, impacts due to a conflict with adopted policies or programs regarding public transit, bicycle, and pedestrian facilities would be identical under this alternative and the proposed Project, and no impact would occur.

☐ Biological Resources

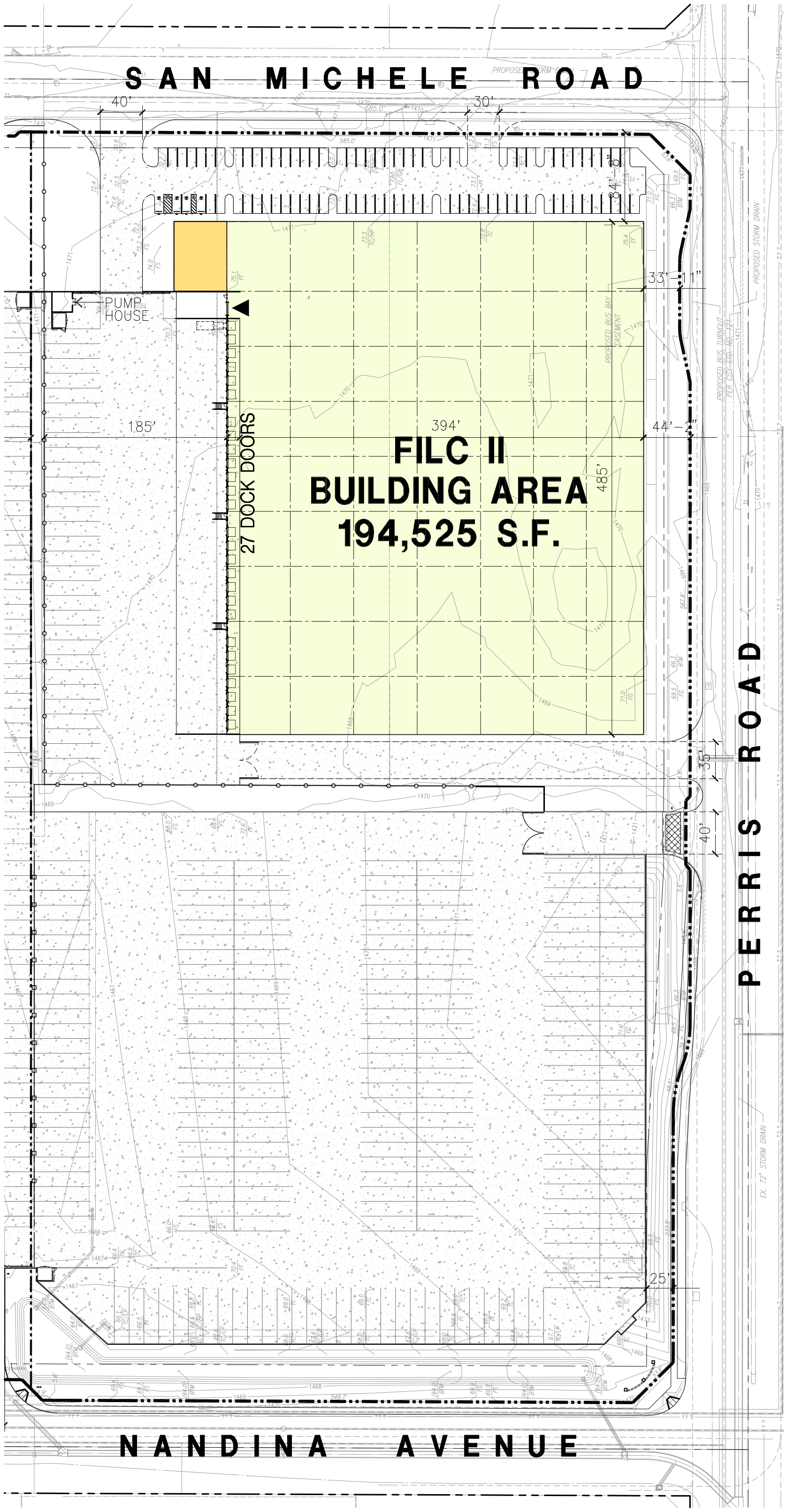
This alternative would result in full disturbance of the property, as would occur under the proposed Project. As such, impacts to biological resources that would occur under this alternative are the same as those impacts described in EIR Subsection 4.5 for the proposed Project. No biological resource impacts would be reduced or avoided.

☐ Conclusion

Implementation of the Reduced Project/Small Buildings Alternative would result in the construction of 375,556 s.f. of industrial warehouse building area, or 24,574 s.f. less building area than the proposed Project (a reduction in building area by approximately 6%). Implementation of this alternative would increase the proposed Project's significant unavoidable impacts to air quality, noise, and transportation/traffic, and would generally increase Project-related operational impacts that are related to average daily traffic. The Reduced Project/Small Buildings Alternative would meet all of the Project's objectives, except may have more difficulty meeting the objective to construct a logistics center that appeals to tenants seeking to locate in the Moreno Valley area due to the smaller sized buildings as compared to the larger building proposed by the Project.

6.3.4 ALTERNATIVE 4 – REDUCED PROJECT/NORTH BUILDING ALTERNATIVE

The Reduced Project/North Building Alternative was selected to evaluate the comparative environmental benefits of constructing one smaller industrial warehouse building on the northern portion of the property and retaining the existing truck trailer yard in the southern portion of the site, in lieu of constructing the single large building proposed by the Project. Under this alternative, a single 194,525 s.f. building would be constructed in the northern portion of the site, while the existing truck trailer parking area in the south would be retained. The building would consist of 189,525 s.f. of warehouse space and 5,000 s.f. of office space. Implementation of this alternative would reduce the allowable building area on-site by 205,605 s.f., or approximately 51% less building area than the proposed Project. Figure 6-4, *Reduced Project/North Building Alternative*, depicts a conceptual site plan for the No Project/North Building Alternative.



Source: HPA Architects (10-23-12)

FIGURE 6-4
Reduced Project/North Building Alternative

Roadway improvements and access points would be identical to the proposed Project under this alternative, except that an additional access would be provided to Perris Boulevard on the north side of the existing truck trailer parking area. The existing screen walls would be extended under this alternative and would occur along the entire frontage with Perris Boulevard and San Michele Road, while the screen walls along Nandina Avenue would be demolished and replaced along the northern edge of the employee parking area proposed adjacent to Nandina Avenue.

The industrial building proposed under this alternative would include a total of 28 dock doors, 243 truck trailer parking stalls, and 87 standard and handicap spaces.

☐ Air Quality

The Reduced Project/North Building Alternative would not alter the land uses allowed on-site under the General Plan and zoning designations. The development of an industrial building on-site would be consistent with the site's existing General Plan and zoning designations that formed the basis for regional population projections used in SCAG's AQMP. As such, the Reduced Project/North Building Alternative would not conflict with implementation of the AQMP, and no impact would occur. Because the proposed Project also would be consistent with the site's existing General Plan and zoning land use designations and would be consistent with the regional population projections used in the AQMP, impacts due to a conflict with the applicable AQMP would be the same under both the proposed Project and the Reduced Project/North Building Alternative.

Under the Reduced Project/North Building Alternative, the extent of construction activities would be reduced as compared to the proposed Project; as such, construction-related air quality emissions would be lessened. As with the proposed Project, this alternative would require mitigation measures to reduce near-term emissions of VOCs and NO_x to a level below significant, but to a lesser degree. With required mitigation, neither this alternative nor the proposed Project would result in a violation of an air quality standard or contribution to a projected air quality violation, although near-term construction emissions would be reduced under this alternative as compared to the proposed Project.

The new 194,525 s.f. building would generate approximately 693 trips per day (utilizing the ITE rates for industrial warehousing). The projected increase in traffic from the site would require the implementation of mitigation measures and adherence to conditions of approval similar to those imposed for the proposed Project. However, even with the incorporation of mitigation measures, the 693 trips associated with this alternative would result in significant and unavoidable impacts due to the emissions of NO_x, which would violate the SCAQMD regional air quality standard and would contribute to an existing air quality violation (i.e., smog). Since the proposed Project would generate 373 more daily trips than would occur under this alternative, impacts due to a conflict with the SCAQMD regional air quality standard and the level of contribution to an existing air quality violation (i.e., ozone) would be reduced under this alternative. Accordingly, this alternative would reduce but not avoid the proposed Project's significant and unavoidable impact due to operational NO_x emissions.

As with the proposed Project, and assuming implementation of similar mitigation measures and conditions of approval, impacts to nearby sensitive receptors would be less than significant under this alternative. Emissions under this alternative would be below the SCAQMD regional and localized thresholds of significance, and diesel particulate emissions would not expose sensitive receptors to significant cancer risks. These less than significant impacts to sensitive receptors would be reduced under this alternative in comparison to the proposed Project due to the reduction in daily vehicular trips (i.e., 693 average daily trips, as compared to 1,066 average daily trips under the proposed Project).

Odors that would be associated with the Reduced Project/North Building Alternative would be associated with near-term construction activities and diesel exhaust that would occur under both near-term construction and long-term operation. However, and similar to the proposed Project, impacts due to odors under this alternative would be less than significant due to the short-term duration and quantity of emissions, the predominantly industrial nature of the surrounding area, and the less-than-significant results of the localized significance threshold analysis. Since this alternative and the proposed Project do not involve any land uses that would generate odors, and since odors under near-term construction activities would be similar (particularly when asphalt is being installed), near- and long-term odors would be similar under both this alternative and the proposed Project, and would be less than significant.

❑ Greenhouse Gas Emissions

The Reduced Project/North Building Alternative would involve the construction and operation of 194,525 s.f. of industrial warehouse building area. Due to the slight reduction in the amount of traffic associated with this alternative (373 fewer average daily trips), mobile-source related GHG emissions would decrease as compared to the proposed Project. Additionally, since this alternative would involve less building area, non-mobile source operational GHG emissions also would be reduced under this alternative.

Mitigation measures and conditions of approval similar to those applied to the proposed Project associated would apply to this alternative, including those imposed to address air quality emissions. Incorporation of these measures is anticipated to reduce near- and long-term emissions of GHGs. As with the proposed Project, it is not anticipated that this alternative would conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases, including the CARB Scoping Plan recommended measures and actions or the GHG emission reduction strategies set forth in the 2006 CAT Report. As such, impacts due to a conflict with applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of greenhouse gases would be similar under both this alternative and the proposed Project and would be less than significant.

❑ Noise

Noise associated with the Reduced Project/North Building Alternative would occur during near-term construction activities and under long-term operation. Similar to the proposed Project, near-term construction activities during each phase of construction would generate noise levels that exceed the City's Noise Ordinance standard of 65 dBA at a distance of 200 feet from the property line. Since this alternative would result in the construction of a smaller building on-site, it is anticipated that the duration of noise impacts during the building construction and architectural coating phase would be reduced under this alternative as compared to the proposed Project. However, implementation of this alternative would not fully avoid the proposed Project's near-term significant and unavoidable impact to noise.

Under long-term operational conditions, noise generated by the Reduced Project/North Building Alternative primarily would be associated with trucks maneuvering and idling within the dock areas. Mitigation measures and conditions of approval, including requirements to construct noise attenuation walls along the perimeter of the site and to construct access gates with solid materials to address on-site noise generation would be effective in containing operational noise. With implementation of similar mitigation measures and conditions of approval imposed on the proposed Project, site operational noise affecting nearby sensitive receptors would be below the City's 65 dBA CNEL exterior standard and impacts would be less than significant. Overall, operational noise impacts would be decreased as compared to the proposed Project due to the 373 vehicle fewer average daily trips associated with this alternative.

Off-site transportation related impacts would be less than significant in association with this alternative and the proposed Project. Since this alternative would result in 373 fewer average daily vehicle trips as compared to the proposed Project, off-site noise impacts would decrease under this alternative in comparison to the proposed Project.

Near-term ground-borne vibration or ground-borne noise effects would be temporary and infrequent during construction and would be less than significant under both this alternative and the proposed Project. Under long-term operational conditions, there would be no sources of ground-borne vibration or ground-borne noise associated with either the Reduced Project/North Building Alternative or the proposed Project. Also, neither this alternative nor the proposed Project are noise-sensitive uses or involve an air travel component. Thus, there would be no impact associated with public or private airport usage with either the Reduced Project/North Building Alternative or the proposed Project.

☐ Transportation and Traffic

The Reduced Project/North Building Alternative would retain the parking lot in the southern portion of the site and result in the construction and operation of a 194,525 s.f. industrial warehouse building in the northern portion of the site, which would result in the generation of approximately 693 average daily vehicle trips (utilizing the ITE rates for industrial warehousing). It is anticipated that implementation of this alternative would result in cumulatively significant impacts at the same seven roadway segments and five intersections that would be impacted by the proposed Project under Horizon Year Cumulative (2017) conditions, although such impacts would be reduced in comparison to the proposed Project. Cumulative impacts at the intersections of Western Way/ Harley Knox Boulevard and Indian Street/ Harley Knox Boulevard would remain significant and unavoidable under both this alternative and the proposed Project, although this alternative would produce less traffic and would therefore have a lesser degree of cumulative impact at these intersections.

Implementation of the Reduced Project/North Building Alternative would likely impact the same CMP facilities as the proposed Project (I-215 SB Ramps at Harley Knox Boulevard and I-215 NB Ramps at Harley Knox Boulevard); however, such impacts would be reduced since this alternative would produce 373 fewer average daily trips than the proposed Project. Accordingly, impacts to CMP facilities would be reduced under this alternative as compared to the proposed Project, and such impacts would be reduced to a level below significant through the payment of DIF and/or TUMF fees.

Neither the Reduced Project/North Building Alternative nor the proposed Project has the potential to affect air traffic patterns. As such, impacts to air traffic patterns would not occur, and would be similar under either this alternative or the proposed Project.

Under both the Reduced Project/North Building Alternative and the proposed Project, roadway frontage improvements would be required to adhere to City requirements, thereby precluding the potential for introducing hazards due to a design feature. Additionally, because both the proposed Project and Reduced Project/North Building Alternative would involve industrial-related uses, and the site is located within a predominantly industrial area, there would be no impacts due to incompatible uses. In both cases, impacts would be similar under both the Reduced Project/North Building Alternative and the proposed Project and would not be significant.

Both the Reduced Project/North Building Alternative and the proposed Project would be served by a minimum of two access points, which would provide for adequate emergency access. Accordingly, an impact due to inadequate emergency access would not occur, and such impacts would be identical under either the proposed Project or Reduced Project/North Building Alternative.

Frontage improvements along San Michele Road and Perris Boulevard would occur under both the Reduced Project/North Building Alternative and the proposed Project, and would accommodate all required sidewalks, bike lanes, and bus turnouts. There are no other pedestrian, bicycle, or public transit facilities planned near the proposed Project site (with exception of the bus turnout). Accordingly, impacts due to a conflict with adopted policies or programs regarding public transit, bicycle, and pedestrian facilities would be identical under this alternative and the proposed Project, and no impact would occur.

☐ Biological Resources

This alternative would result in full disturbance of the property, as would occur under the proposed Project. As such, impacts to biological resources that would occur under this alternative are the same as those impacts described in EIR Subsection 4.5 for the proposed Project. No biological resource impacts would be reduced or avoided.

☐ Conclusion

Implementation of the Reduced Project/North Building Alternative would retain the existing truck trailer parking yard in the southern portion of the property and result in the construction of 194,525 s.f. of industrial warehouse building area in the northern portion of the property. This would result in 205,605 s.f. less building area than the proposed Project (a reduction in building area by approximately 51%). Implementation of this alternative would reduce the proposed Project's significant unavoidable impacts to air quality, noise, and transportation/traffic, although such impacts would not be fully avoided under this alternative. Other Project-related operational impacts that are related to average daily traffic also would be reduced under this alternative.

The Reduced Project/North Building Alternative would meet most of the Project's objectives, but generally to a lesser degree. This alternative would not achieve the Project's objective to achieve a minimum FAR of 0.5, and would be less effective in providing logistics center warehouse building space in comparison to the proposed Project. This alternative, while providing logistics center warehouse building space within five miles of major regional transportation corridors, would provide less building space than the proposed Project. Additionally, this alternative would attract fewer businesses and jobs to the City of Moreno Valley as compared to the proposed Project. Moreover, selection of the Reduced Project/North Building Alternative would not result in a reduction in demand for industrial business park development in western Riverside County; thus, it is likely for a portion of the Project's environmental impacts to occur elsewhere rather than be avoided.

Table 6-1 Alternatives – Comparison of Environmental Effects

ENVIRONMENTAL TOPIC	PROPOSED PROJECT SIGNIFICANCE OF IMPACTS AFTER MITIGATION	LEVEL OF IMPACT COMPARED TO THE PROPOSED PROJECT			
		NO PROJECT/ TRAILER YARD ALTERNATIVE	NO PROJECT/ INDUSTRIAL BUILDING ALTERNATIVE	REDUCED PROJECT/ SMALL BUILDINGS ALTERNATIVE	REDUCED PROJECT/ NORTH BUILDING ALTERNATIVE
Air Quality – Construction	Less than Significant	Reduced	Reduced	Increased	Reduced
Air Quality - Operational	Significant and Unavoidable	Reduced and Avoided	Reduced but Not Avoided	Increased	Reduced but Not Avoided
Greenhouse Gas Emissions	Less than Significant	Reduced	Reduced	Increased	Reduced
Noise - Construction	Significant and Unavoidable	Reduced but Not Avoided	Reduced but Not Avoided	Increased	Reduced but Not Avoided
Noise - Operational	Less than Significant	Reduced	Reduced	Increased	Reduced
Transportation/ Traffic - Operational	Significant and Unavoidable	Reduced and Avoided	Reduced but Not Avoided	Increased	Reduced but Not Avoided
Biological Resources	Less than Significant	Same	Same	Same	Same
ABILITY TO MEET THE BASIC OBJECTIVES OF THE PROJECT[1]					
	Objective A:	No	Yes, but to a lesser degree	Yes, but to a lesser degree	Yes, but to a lesser degree
	Objective B:	No	Yes, but to a lesser degree	Yes, but to a lesser degree	Yes, but to a lesser degree
	Objective C:	No	No	Yes, but to a lesser degree	Yes, but to a lesser degree
	Objective D:	No	Yes, but to a lesser degree	Yes	Yes, but to a lesser degree
	Objective E:	No	Yes, but to a lesser degree	Yes, but to a lesser degree	Yes, but to a lesser degree

1. Refer to EIR Subsection 6.3 for a list of the proposed Project's basic objectives.

7.0 REFERENCES

7.1 EIR PREPARERS

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7.2 DOCUMENTS INCORPORATED BY REFERENCE

Project Applications. 2012. Application for Building Plot Plan (PA12-0023) on file at the City of Moreno Valley Community and Economic Development Department, Planning Division, 14177 Frederick Street, Moreno Valley, CA 92552.

Moreno Valley, City of. 2008. Mitigated Negative Declaration for Nandina III Distribution Center and associated Addendum No. 1 (2011) and Addendum No. 2 (2012).

Moreno Valley, City of. 2007. *City of Moreno Valley Transportation Engineering Division Traffic Impact Analysis Preparation Guide*. Available at the City of Moreno Valley Public Works Departmetn, 14177 Frederick Street, Moreno Valley, CA 92552, or online at http://www.moreno-valley.ca.us/city_hall/departments/pub-works/transportation/pdfs/traffic-studyguide.pdf

Moreno Valley, City of. 2006a. *Moreno Valley General Plan*. Approved July 11, 2006. Available at the City of Moreno Valley Community & Economic Development Department, Planning Division, 14177 Frederick Street, Moreno Valley, CA 92552, or online at http://www.moreno-valley.ca.us/city_hall/general_plan.shtml

Moreno Valley, City of. 2006b. *Moreno Valley General Plan Final Environmental Impact Report*. Certified July 11, 2006. Available at the City of Moreno Valley Community & Economic Development Department, Planning Division, 14177 Frederick Street, Moreno Valley, CA 92552, or online at http://www.moreno-valley.ca.us/city_hall/general_plan.shtml.

Moreno Valley, City of. 2002. *Moreno Valley Industrial Area Plan (Specific Plan 208)*. Amended March 12, 2002. Available at the City of Moreno Valley Community & Economic Development Department, Planning Division, 14177 Frederick Street, Moreno Valley, CA 92552, or online at http://www.moreno-valley.ca.us/city_hall/general_plan.shtml.

Perris, City of. 2005. *City of Perris General Plan and Final Program Environmental Impact Report*. Certified April 2005. Available at the City of Perris Department of Community Development, 135 North "D" Street, Perris, CA 92570, or online at http://www.cityofperris.org/city-hall/general-plan.html.

Riverside, City of. 2007. *City of Riverside General Plan Final Program Environmental Impact Report*. Certified November 2007. Available at the City of Riverside Community Development Department, Planning Division, 3900 Main Street, Riverside, CA 92522, or online at http://www.riversideca.gov/planning/gp2025program.

Riverside, County of. 2003a. *County of Riverside General Plan Final Program Environmental Impact Report*. Certified October 2003. Available at the County of Riverside County Planning Department, 4080 Lemon Street, 12th Floor, Riverside, CA 92502, or online at http://www.rctlma.org/genplan/default.aspx.

7.3 DOCUMENTS AND WEBSITES CONSULTED

Air Force, Department of. 2005. *Air Installation Compatible Use Zone Study for March Air Reserve Base*. Available at: http://www.marchjpa.com/docs_forms/aicuz2005.pdf. August 2005. Accessed March 14, 2011.

Albert A. Webb Associates. (2008). *North Perris Road and Bridge Benefit District Analysis Report*. City of Perris. Retrieved November 27, 2012, from http://www.cityofperris.org/business/news/northperris-bridgedist-report-v3_0308.pdf

Alfred A. Webb Associates. 2012a. *Preliminary Water Quality Management Plan First Inland Logistics Center II*. July 2012.

Alfred A. Webb Associates. 2012b. *Preliminary Drainage Study First Inland Logistics Center II*. May 2012.

Building Plot Plan (PA12-0023) on file at the City of Moreno Valley Community and Economic Development Department, Planning Division.

California Air Resources Board. 2011. "Air Quality and Emissions" Available at: http://www.arb.ca.gov/html/ds.htm. Updated February 24, 2011 and accessed September 16, 2011.

California Air Resources Board, 2009. "2009 Air Quality Almanac." Web. Available at: http://www.arb.ca.gov/aqd/almanac/almanac09/almanac09.htm. Accessed January 29, 2013.

California Department of Conservation. 2010. "Alquist-Priolo Earthquake Fault Zone Maps." Web. Available at: http://www.quake.ca.gov/gmaps/ap/ap_maps.htm. Accessed: May 22, 2012.

California Department of Resources Recycling and Recovery. n.d. *Solid Waste Information System, Facility/Site Listing.* Web. Available: http://www.calrecycle.ca.gov/SWFacilities/Directory/SearchList/List?FAC=Disposal&OPSTATUS=Active&REGSTATUS=Permitted. Accessed October 18, 2012.

California Department of Toxic Substances Control. n.d. "Cleanup Sites and Hazardous Waste Permitted Facilities." Web. Available: http://www.envirostor.dtsc.ca.gov/public/. Accessed: May 22, 2012.

California Department of Toxic Substances Control. n.d. *EnviroStor*. Available at: http://www.envirostor.dtsc.ca.gov/public. Accessed: March 17, 2011.

California Department of Toxic Substances Control. 2007. "Fact Sheet, August 2007: Hazardous Waste Transporter Requirements" Web. Available at: http://www.dtsc.ca.gov/ContactDTSC/Transporters.cfm. Accessed September 20, 2011.

California Department of Transportation. "California Scenic Highway Program." Web. Available: <http://www.dot.ca.gov/hq/LandArch/scenic_highways/scenic_hwy.htm>. Accessed: May 22, 2012.

California State Legislature. 2006. *Assembly Bill 32 (Nunez).*

California State Legislature. 2004. *Senate Bill 50 (Greene).*

City of Moreno Valley. 2006a. Moreno Valley General Plan. Retrieved from http://www.moreno-valley.ca.us/city_hall/general_plan.shtml

City of Moreno Valley. 2007. City of Moreno Valley Transportation Engineering Division Traffic Impact Analysis Preparation Guide. Retrieved from www.moreno-valley.ca.us/city_hall/departments/pub-works/transportation/pdfs/traffic-studyguide.pdf

County of Riverside. 2003a, October. County of Riverside General Plan Final Program Environmental Impact Report. Retrieved from www.riversideca.gov/planning/gp2025program

Department of the Air Force. 2005. March Air Reserve Base/ Inland Port Airport Joint Land Use Study. March Joint Powers Authority.

Eastern Municipal Water District, 2011. *2010 Urban Water Management Plan.* Available at http://www.emwd.org/news/pubs_uwmp.html.

Eastern Municipal Water District. 2007a. Mitigated Negative Declaration (SCH No. 2007031155) for the Moreno Valley Regional Wastewater Reclamation Facility Expansion Project. June 20, 2007.

Eastern Municipal Water District. 2005a. Mitigated Negative Declaration (SCH No. 2004101086) for the Perris Valley Regional Wastewater Reclamation Facility Expansion Project.

Eastern Municipal Water District, 2005b. *2005 Urban Water Management Plan.* Retrieved from http://www.emwd.org/news/pubs_uwmp.html.

ESNR Corporation. 2007. *Phase I Environmental Site Assessment of Eight Parcels Located at Nandina Avenue and Perris Boulevard in Moreno Valley, California.* August 2007.

Google. *Google Earth.* Vers. 6.1.0.5001. Computer software. Google, 2011.

March Joint Powers Authority. 2007. *General Plan of the March Joint Powers Authority.*

March Joint Powers Authority. 2010. *March Air Reserve Base/Inland Port Airport Joint Land Use Study*, December 2010 (prepared by Mead & Hunt). Available at: http://www.marchjpa.com/docs_forms/jlus2010.pdf.

March Joint Powers Authority. 2010. *Draft Vision 2030: March JPA General Plan.* March 2010 Draft.

March Joint Powers Authority, 2009. *Final Program Environmental Impact Report for the March LIfecare Campus Specific Plan.* October 2009.

Master Plot Plan (PA11-0002) on file at the City of Moreno Valley Planning Department.

Moreno Valley, City of. n.d. *Municipal Code*. Web. Available: <http://qcode.us/codes/morenovalley/>. Accessed: May 22, 2012.

Moreno Valley, City of. 2012. Addendum No. 2 to Mitigated Negative Declaration for Nandina III Distribution Center.

Moreno Valley, City of. 2011. *GIS Maps OnLine.* Web. Available: www.moreno-valley.ca.us/city_hall/city_maps.shtml. Accessed: October, 2012.

Moreno Valley, City of. 2010. *Adopted Land Use Map.* Web. Available at: http://www.moreno-valley.ca.us/city_hall/general_plan.shtml. Accessed: October, 2012

Moreno Valley, City of. 2008. Mitigated Negative Declaration for Nandina III Distribution Center.

Moreno Valley, City of. 2006a. *Moreno Valley General Plan.* Web. Available at: www.moreno-valley.ca.us/city_hall/general_plan.shtml. Accessed: November, 2012.

Moreno Valley, City of. 2006b. Moreno *Valley General Plan Final Environmental Impact Report.* Web. Available at: http://www.moreno-valley.ca.us/city_hall/general_plan.shtml.

Moreno Valley, City of. 2002. *Moreno Valley Industrial Area Plan (Specific Plan 208).* Available at: www.moreno-valley.ca.us/city_hall/departments/specificplans.shtml.

Moreno Valley, City of. n.d. *Municipal Code*. Available at: http://qcode.us/codes/morenovalley/.

Perris, City of. 2010. *Zoning Ordinance*. Available at: http://www.cityofperris.org/city-hall/zoning.html Amended through February 4, 2010.

Perris, City of. 2005. *City of Perris General Plan Final Program Environmental Impact Report*. Certified April 2005. Available at: http://www.cityofperris.org/city-hall/general-plan.html.

Riverside, City of. 2007. *City of Riverside General Plan Final Program Environmental Impact Report*. Certified November 2007. Available at: http://www.riversideca.gov/planning/gp2025program/.

Riverside, City of. n.d. Municipal Code Chapter 19.590, Performance Standards. Available at: http://www.riversideca.gov/municode/pdf/19/article-8/19-590.pdf. Accessed: October 2012.

Riverside, County of. 2011. *Request for Qualifications #TLARC-315 March Air Reserve Base Airport Land Use Compatibility Plan Environmental Impact Report Services.* Available at: http://www.purchasing.co.riverside.ca.us/document/903/TLARC315%20.pdf. Closing date September 15, 2011.

Riverside, County of. 2003a. *County of Riverside General Plan Final Program Environmental Impact Report*. Certified October 2003. Available at: http://www.rctlma.org/genplan/default.aspx.

Riverside, County of. 2003b. *Western Riverside County Multiple Species Habitat Conservation Plan.* Vols. 1-5. Web. Available at: http://www.rctlma.org/mshcp/index.html.

Riverside, County of. 2003c. *County of Riverside General Plan*. Approved October 2003. Available at http://www.rctlma.org/genplan/default.aspx>.

Riverside, County of. 1986. *Fire Protection and Emergency Medical Master Plan*. November 15, 1986.

Riverside County Airport Land Use Commission. 1986. *Riverside County Airport Land Use Compatibility Plan, March ARB*. Web. Available at: http://www.rcaluc.org/filemanager/plan/old//March%20Air%20Reserve%20Base%20(MARB).pdf.

Riverside County Flood Control and Water Conservation District. n.d. *Perris Valley Master Drainage Plan;* and, *Sunnymead Master Drainage Plan* Available at: http://rcflood.org/RCFCInternetText/DistrictDocuments.html.

Riverside County Transportation and Land Management Agency. 2011. Geographic Information System. Accessed May 2011 through November 2011.

Riverside County Transportation Commission. 2010. *2010 Riverside County Congestion Management Program*. Web. Available at: www.rctc.org/downloads/congestionmanagementprogram.pdf.

Riverside County Transportation Commission. n.d. "North I-215 Project." Available at: http://www.i215project.info/north/.

Riverside County Transportation Commission. n.d. "Perris Valley Line." Web. Available: http://www.perrisvalleyline.info/index.asp.

Riverside County Waste Management Department. 2012. *Countywide Disposal Tonnage Tracking System (CDTTS) Disposal Reports – 2nd Quarter 2012 (April 1, 2012 thru June 30, 2012).* October 10, 2012. Web. Available: www.rivcowm.org/opencms/ab939/pdf/DisposalReportsPDFs/2012-2QTR-RCDisposalReports.PDF. Accessed October 18, 2012.

Riverside County Waste Management Department. 2011. *Countywide Disposal Tonnage Tracking System (CDTTS) Disposal Reports – 1st Quarter 2011 (January 1, 2011 thru March 31, 2011).* July 6, 2011. Web. Available at : http://www.rivcowm.org/opencms/ab939/pdf/DisposalReportsPDFs/2011-1QTR-RCDisposalReports.pdf.

Riverside County Waste Management Department. n.d. "Landfill Information." Available: http://www.rivcowm.org/opencms/landfill_info/index.html.

San Jacinto River Watershed Council. 2007. *Integrated Regional Watershed Management Plan for the San Jacinto River Watershed*. December 31, 2007. Available at: http://www.cityofcanyonlake.com/uploads/files/SanJacintoIRWMP_EntireDocument.pdf.

Santa Ana Watershed Project Authority. 2010. *2009 Santa Ana Integrated Watershed Plan*. November 16, 2010. Available at: www.sawpa.org/owow-generalinfo.html.

Santa Ana Regional Water Quality Control Board, 2008. *The Santa Ana River Basin Water Quality Control Plan.* Available at: www.waterboards.ca.gov/santaana/water_issues/programs/basin_plan/index.shtml.

South Coast Air Quality Management District. 2007. *2007 Final Air Quality Management Plan*. June 2007. Available at: http://www.aqmd.gov/aqmp/07aqmp/index.html.

South Coast Air Quality Management District. 2007. *Air Quality Management Plan*. Available at: www.aqmd.gov/aqmp/aqmpintro.htm.

Southern California Association of Governments. 2008b. 2008 Regional Transporation Plan. Available at: www.scag.ca.gov/rtp2008/final.htm\

Southern California Association of Governments. 2012. 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy. Available at: http://rtpscs.scag.ca.gov/Pages/2012-2035-RTP-SCS.aspx . Accessed: August 31, 2012.

Southern California Association of Governments. 2008a. *Integrated Growth Forecast: 2008 Regional Transportation Plan*. Web. Available at: http://www.scag.ca.gov/forecast/index.htm.

Southern California Association of Governments. 2008b. 2008 *Regional Transportation Plan*. Available at: http://www.scag.ca.gov/rtp2008/final.htm.

Southern California Association of Governments. 2008c. *Final Regional Comprehensive Plan*. 2008. Available at: http://scag.ca.gov/rcp/index.htm.

Southern California Association of Governments. 2001. *Employment Density Study Summary Report*. Available at: http://www.scag.ca.gov/forecast/downloads/employ_den.pdf. October 31, 2001.

Southern California Geotechnical. *Supplementary Geotechnical Investigation Proposed Building 4 - Nandina III and IV*. January 12, 2012.

T&B Planning. 2012. Field Reconnaissance by Jeramey Harding. May 22, 2012.

United States Air Force. 2005. *March ARB Air Installation Compatible Use Zone Study*. Web. Available at: www.marchjpa.com/docs_forms/aicuz2005.pdf.

United States Department of Homeland Security, Federal Emergency Management Agency. 2011. *Flood Map Viewer*. Available at https://hazards.fema.gov/wps/portal/mapviewer.

Urban Crossroads, Inc. 2012a. *First Inland Logistics Center II Air Quality Impact Analysis*. November 14, 2012.

Urban Crossroads, Inc. 2012b. *First Inland Logistics Center II Mobile Source Health Risk Assessment*. November 14, 2012.

Urban Crossroads, Inc. 2012c. *First Inland Logistics Center II Greenhouse Gas Analysis*. November 14, 2012.

Urban Crossroads, Inc. 2012d. *First Inland Logistics Center II Noise Impact Analysis*. October 31, 2012.

Urban Crossroads, Inc. 2013. *First Inland Logistics Center II Traffic Impact Analysis*. January 03, 2013.

URS Corporation. 2012a. *First Industrial, L.P., Daniel's Property Project Biological Technical Report*. January 2012.

URS Corporation. 2012b. *2012 Protocol Burrowing Owl Survey – San Michele Property Project, City of Moreno Valley, Riverside County, California.* June 29, 2012.

URS Corporation. 2012c. *2012 Special-Status Plant Survey Results – San Michele Property Project, City of Moreno Valley, Riverside, California.* June 29, 2012.

URS Corporation. 2012d. *Cultural Resources Assessment of Daniel's Property Project, Moreno Valley, CA.* January 2012.

URS Corporation. 2012e. *Phase I Environmental Site Assessment – Daniel's Property, Southwest Corner of San Michele Road and Perris Boulevard, Moreno Valley, CA.* January 23, 2012.

7.4 PERSONS CONSULTED/WRITTEN OR VERBAL COMMUNICATION

Cochran, Larry (LDC Consulting). 2012a. Verbal communication among Larry Cochran of LDC Consulting and Tracy Zinn of T&B Planning regarding the proposed Project's construction and operational characteristics. May 15, 2012.

Chandler, Sandy (Albert A. Webb Associates), 2012. E-mail correspondence from Sandy Chandler, Entitlement Specialist of Albert A. Webb Associates to Tracy Zinn of T&B Planning. May 29, 2012.

7.5 DOCUMENTS APPENDED TO THIS EIR

The following reports, studies, and supporting documentation were used in preparing the March Business Center EIR and are bound separately as Technical Appendices. A copy of the Technical Appendices is available for review at the City of Moreno Valley Community and Economic Development Department, Planning Division, 14177 Frederick Street, Moreno Valley, California, 92552.

Appendix A	Initial Study for First Inland Logistics Center II, Notice of Preparation, and Written Comments.
Appendix B	Urban Crossroads, Inc. 2012a. *First Inland Logistics Center II Air Quality Impact Analysis*. November 14, 2012.
Appendix C	Urban Crossroads, Inc. 2012b. First Inland Logistics Center II Mobile Source Health Risk Assessment. November 14, 2012.

Appendix D	Urban Crossroads, Inc. 2012c. First Inland Logistics Center II Greenhouse Gas Analysis. November 14, 2012.
Appendix E	Urban Crossroads, Inc. 2012d. First Inland Logistics Center II Noise Impact Analysis. October 31, 2012.
Appendix F	Urban Crossroads, Inc. 2013. First Inland Logistics Center II Traffic Impact Analysis. January 03, 2013.
Appendix G	URS Corporation. 2012a. First Industrial, L.P., Daniel's Property Project Biological Technical Report. January 2012.
Appendix G1	URS Corporation. 2012b. 2012 Protocol Burrowing Owl Survey – San Michele Property Project, City of Moreno Valley, Riverside County, California. June 29, 2012.
Appendix G2	URS Corporation. 2012c. 2012 Special-Status Plant Survey Results – San Michele Property Project, City of Moreno Valley, Riverside, California. June 29, 2012.
Appendix H	Southern California Geotechnical. 2012. Supplementary Geotechnical Investigation Proposed Building 4 - Nandina III and IV. January 12, 2012.
Appendix I	URS Corporation. 2012e. Phase I Environmental Site Assessment – Daniel's Property, Southwest Corner of San Michele Road and Perris Boulevard, Moreno Valley, CA. January 23, 2012.


East Elevation


South Elevation


North Elevation


West Elevation


Enlarged East Elevation


Enlarged North Elevation

Item No. E.1

400,130 S.F BUILDING

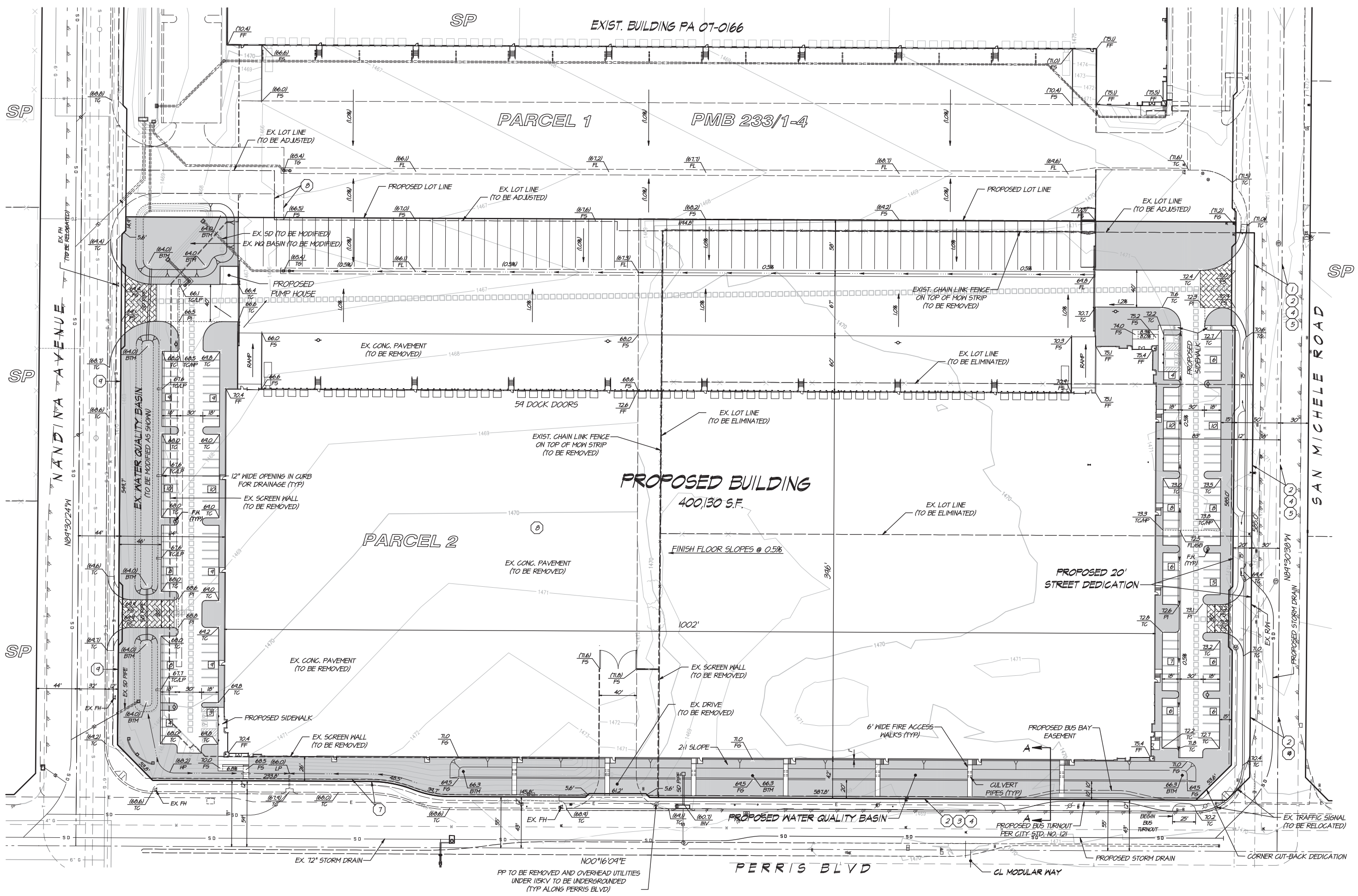
First Inland Logistics Center II

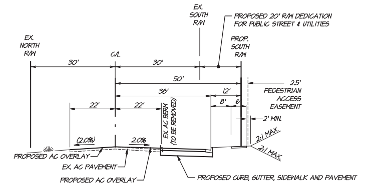
MORENO VALLEY CALIFORNIA

rdeen Ave. Irvine, CA 92612
1770 • www.hparchs.com

Conceptual Colored Elevations

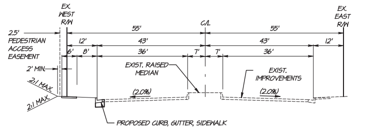
May 7, 2012 / Job #12005





TYPICAL SECTION SAN MICHELE ROAD

NOT TO SCALE
CITY STANDARD NO. 104A T.I.=10



TYPICAL SECTION PERRIS BOULEVARD

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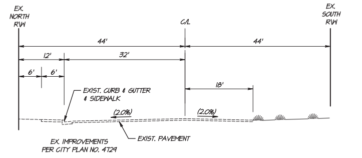


TYPICAL SECTION NANDINA AVENUE

NOT TO SCALE
CITY STANDARD NO. 105A T.I.=9

OWNER:
FIRST INDUSTRIAL, LP
ATTN: LARRY COCHRUN
898 N. SEPULVEDA BOULEVARD; SUITE 750
EL SEGUNDO, CA 90245
TEL: (310) 414-5400
FAX: (310) 414-5462

APPLICANT:
FIRST INDUSTRIAL REALTY TRUST
ATTN: LARRY COCHRUN
898 N. SEPULVEDA BOULEVARD; SUITE 750
EL SEGUNDO, CA 90245
TEL: (310) 414-5400
FAX: (310) 414-5462

ENGINEER:
ALBERT A. WEBB ASSOCIATES
ATTN: ROBERT BERNDT
3788 McCRAY STREET
RIVERSIDE, CA 92506
TEL: (951) 686-1070
FAX: (951) 788-1256

ARCHITECT:
HILL-PINCKERT ARCHITECTS, INC..
ATTN; HONG JANG
18831 BARDEEN AVE., SUITE #100
IRVINE, CA 92612
TEL: (949) 863-1770
FAX: (949) 863-0851

LAND USE / ZONING:

EXISTING LAND USE:	VACANT
PROPOSED LAND USE:	INDUSTRIAL
EXISTING ZONING:	INDUSTRIAL SP #208
PROPOSED ZONING:	INDUSTRIAL SP #208

SCHOOL DISTRICT:
VAL VERDE UNIFIED SCHOOL DISTRICT

TOPOGRAPHY:
FIELD SURVEY BY: ALBERT A. WEBB ASSOCIATES
APRIL 2012

ACREAGE:
17.3 AC. GROSS (TO EX. ROW)
-0.3 AC. ROAD DEDICATIONS (SAN MICHELE ROAD)
17.0 AC. NET (TO PROP. ROW)

A.P.N.:
316-200-001, 316-200-015,
316-200-019, 316-200-035 &
PORTION OF 316-200-034

PRELIMINARY EARTHWORK
CUT= 13,500 CUBIC YARDS
FILL= 42,000 CUBIC YARDS
28,500 CUBIC YARDS (IMPORT)

SETBACKS:

MINIMUM SITE AREA	5 AC
MINIMUM SITE WIDTH	300'
MINIMUM SITE DEPTH	150'
MINIMUM SETBACKS:	
PERRIS BOULEVARD	20'
NANDINA AVENUE	15'
SAN MICHELE ROAD	15'

EASEMENT NOTES:

1. AN EASEMENT FOR EITHER OR BOTH POLE LINES, CONDUITS OR UNDERGROUND FACILITIES AND INCIDENTAL PURPOSES, RECORDED JUNE 16, 1927 IN BOOK 718 OF DEEDS, PAGE 211.
2. AN EASEMENT SHOWN OR DEDICATED ON THE MAP OF PARCEL MAP NO. 12367 ON FILE IN BOOK 56, PAGE 84, OF PARCEL MAPS.
FOR: PUBLIC USE FOR STREET AND PUBLIC UTILITY AND INCIDENTAL PURPOSES.
3. ABUTTER'S RIGHT OF INGRESS AND EGRESS TO OR FROM PERRIS BOULEVARD AS SUCH EXCEPT THE GENERAL EASMENT OF TRAVEL, HAVE BEEN DEDICATED OR RELINQUISHED ON THE MAP OF PARCEL MAP NO. 12367 ON FILE IN BOOK 56, PAGE 84, OF PARCEL MAPS.
4. AN EASEMENT FOR EITHER OR BOTH POLE LINES, CONDUITS OR UNDERGROUND FACILITIES AND INCIDENTAL PURPOSES, RECORDED FEBRUARY 21, 1979 AS INSTRUMENT NO. 25256 OF OFFICIAL RECORDS.
5. AN EASEMENT SHOWN OR DEDICATED ON THE MAP OF PARCEL MAP NO. 17644 ON FILE IN BOOK 113, PAGE 35, OF PARCEL MAPS. FOR: PUBLIC USE FOR STREET AND PUBLIC UTILITY AND INCIDENTAL PURPOSES.

   THE EFFECT OF A RESOLUTION, ON SAID MAP, BY THE RIVERSIDE COUNTY BOARD OF SUPERVISORS ACCEPTING SAID OFFER OF DEDICATION FOR THE PURPOSES OF VESTING TITLE IN THE COUNTY OF RIVERSIDE ON BEHALF OF THE PUBLIC, BUT NOT AS PART OF THE COUNTY MAINTAINED ROAD SYSTEM.
6. THE FACT THAT THE LAND LIES WITHIN THE BOUNDARIES OF THE MARCH AIR FORCE BASE DEVELOPMENT PORJECT AREA, AS DISCLOSED BY THE DOCUMENT RECORDED JUNE 11, 2007 AS INSTRUMENT NO. 2007-0380610 OF OFFICIAL RECORDS.
7. 2.5' PEDESTRIAN ACCESS EASEMENT TO THE CITY OF MORENO VALLEY DEDICATED ON THE MAP OF PARCEL MAP NO. 35859 ON FILE IN BOOK 233, PAGE 1, OF PARCEL MAPS.
8. ACCESS EASEMENT FOR THE BENIFIT OF PARCEL 1 RESERVED ON THE MAP OF PARCEL MAP NO. 35859 ON FILE IN BOOK 233, PAGE 1, OF PARCEL MAPS.
9. ABUTTER'S RIGHTS OF VEHICULAR AND PEDESTRIAN ACCESS RELEASED AND RELINQUISHED ON THE MAP OF PARCEL MAP NO. 35859 ON FILE IN BOOK 233, PAGE 1, OF PARCEL MAPS.

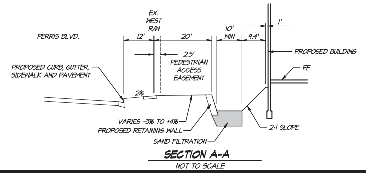
SITE TABULATION:	TOTAL
PROPOSED PARCEL NET AREA	739,850 SF (17.0 AC)
OFFICE/MEZZANINE= TYPE:III-N OCC:B	6,000 SF
WAREHOUSE= TYPE:III-N OCC:S-1	391,080 SF
TOTAL BUILDING AREA	400,130 SF
LOT COVERAGE	54.1%
LANDSCAPING REQUIRED (10%)	73,985 SF
LANDSCAPING PROVIDED	97,580 SF
LANDSCAPE COVERAGE	13.2%
OFFICE PARKING (REQ'D) 0 - 20,000 SF @ 1/250 SF	24 STALLS
WAREHOUSE PARKING (REQ'D)	
0 - 20,000 SF @ 1/1,000 SF	20 STALLS
20,001 - 40,000 SF @ 1/2,000 SF	10 STALLS
OVER 40,001 SF @ 1\4,000 SF	88 STALLS
TOTAL REQUIRED PARKING	142 STALLS
HANDICAP PARKING REQUIRED	6 STALLS
AUTO PARKING PROVIDED:	
STANDARD PER PROP. PLAN	153 STALLS
COMPACT PER PROP. PLAN	0 STALLS (5%)
HANDICAP	6 STALLS
TOTAL PARKING	159 STALLS
TRAILER PARKING PROVIDED	63 STALLS
LOADING BAYS	54 BAYS

NOTES:

1. 2008 THOMAS BROS. MAP-PAGE 747, GRID G5
2. THIS AREA IS NOT SUBJECT TO GEOLOGIC HAZARDS WITHIN A SPECIAL STUDIES ZONE, BUT IS SUBJECT TO LOW LIQUIFACTION
3. FEMA COMMUNITY PANEL NO. 065074-0020-B ZONE X.
4. CONTOUR INTERVAL, ONE FOOT.
5. THIS AREA IS WITHIN THE MORENO VALLEY INDUSTRIAL SPECIFIC PLAN #208.
6. THIS PROJECT IS WITHIN CITY OF MORENO VALLEY COMMUNITY SERVICES DISTRICT No. 1
7. ALL GATES ARE AT LEAST 24' IN WIDTH, AUTOMATIC WITH THE KNOX RAPID ENTRY SYSTEM.
8. DRIVEWAYS ARE PER CITY STANDARD PLAN NO. 118C.
9. ALL TRASH ENCLOSURES SHALL BE DUAL BIN (TRASH/RECYCLE) PER CITY STD. PLAN 627.
10. DECORATIVE PAVING SHALL BE USED AT ALL NON-DOCK ENTRANCES.
11. CURB AND GUTTER TO BE NOTCHED 12" WIDE (MINIMUM) WHERE NOTED.
12. ALL PARKING STALLS ABUTTING LANDSCAPED AREAS INCLUDE A TWO (2') FOOT OVERHANG AREA (NOT INCLUDED IN LANDSCAPE CALC'S).

LEGEND:

▒	PROPOSED LANDSCAPING
▨	ENHANCED ENTRY PAVEMENT
DI	DROP INLET
EX	EXISTING
FF	FINISH FLOOR
FL	FLOW LINE
FG	FINISH GRADE
FH	FIRE HYDRANT
FS	FINISH SURFACE
GB	GRADE BREAK
HP	HIGH POINT
INV	INVERT
LP	LOW POINT
PP	POWER POLE
R/W	RIGHT-OF-WAY
SD	STORM DRAIN
TB	TOP BERM
TC	TOP OF CURB
TG	TOP OF GRATE
TYP	TYPICAL
⇦⇨	INGRESS AND EGRESS
Y	SLOPE SYMBOL
▭▭▭▭	ADA PATH OF TRAVEL
□□□□□	FIRE LANE
♿	HANDICAPPED PARKING
━ ━ ━ ━	BOUNDARY LINE
━━ ━ ━━	PROPOSED R/W
— — —	EXISTING R/W
— — —	EXISTING LOT LINE
←···←	RIBBON GUTTER
←	FLOW ARROW
—×—×—	EXISTING FENCE
----W----	EXISTING WATER LINE
----S----	EXISTING SEWER LINE
----G----	EXISTING GAS LINE
— — —	PROPOSED SET BACK LINE



SECTION A-A

NOT TO SCALE

PROJECT DESCRIPTION:

THIS PROJECT PROPOSES A 400,130 SF WAREHOUSE BUILDING ON 17 ACRES. CONSISTING OF 391,080 S.F. WAREHOUSE, 6,000 S.F. OFFICE/MEZZANINE. IT REPLACES THE EXISTING TRAILER PARKING APPROVED UNDER PA 11-0011. THE PROJECT PROPOSES 59 LOADING DOCKS, 2 TRASH COMPACTORS, SURFACE PARKING AREAS AND DRIVE ISLE ROADWAY IMPROVEMENTS, UTILITY INFRASTRUCTURE, LANDSCAPING, WATER QUALITY BASINS AND OTHER SITE IMPROVEMENTS. THIS PROJECT PROPOSES TO MODIFY THE EXISTING WESTERLY PROPERTY LINE AND MERGE 4 EXISTING PARCELS AS WELL AS VACATE RESTRICTED ACCESS ALONG NANDINA AVENUE TO ALLOW FOR 2 PROPOSED DRIVEWAYS.

LEGAL DESCRIPTION:

PORTIONS OF PARCEL 1 AND PARCEL 2 OF PARCEL MAP NO. 35859 AS SHOWN BY MAP ON FILE IN BOOK 233 OF PARCEL MAPS AT PAGES 1 THROUGH 4 AND PARCEL 3 AND PARCEL 4 OF PARCEL MAP NO. 17644 AS SHOWN BY MAP ON FILE IN BOOK 113 AT PAGE 35 AND PARCEL 4 OF PARCEL MAP NO. 12367 AS SHOWN BY MAP ON FILE IN BOOK 56 AT PAGE 84, ALL RECORDS OF RIVERSIDE COUNTY, CA.

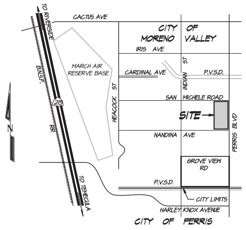
UTILITIES:

WATER & SEWER
EASTERN MUNICIPAL WATER DISTRICT
P.O. BOX 8300
PERRIS, CA 92572
PH: (951) 928-6107
ATTN: JOHN FOSTER

GAS
SOUTHERN CALIFORNIA GAS COMPANY
1981 W. LUGONIA AVE.
REDLANDS, CA 92373
(909) 335-3928

ELECTRIC
MORENO VALLEY UTILITIES
14325 FREDRICK STREET
SUITE 9
MORENO VALLEY, CA 92553

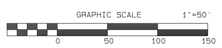
TELEPHONE
VERIZON
150 S. JUANITA STREET
HEMET, CA 92543
PH: (909) 658-7305
ATTN: TOM DRISKALL



VICINITY MAP

NOT TO SCALE

PROJECT IS LOCATED IN: SECTION 31, T3S, R3W



AMENDMENTS	DATE	BY

FIRST INLAND LOGISTICS CENTER II

CITY OF MORENO VALLEY

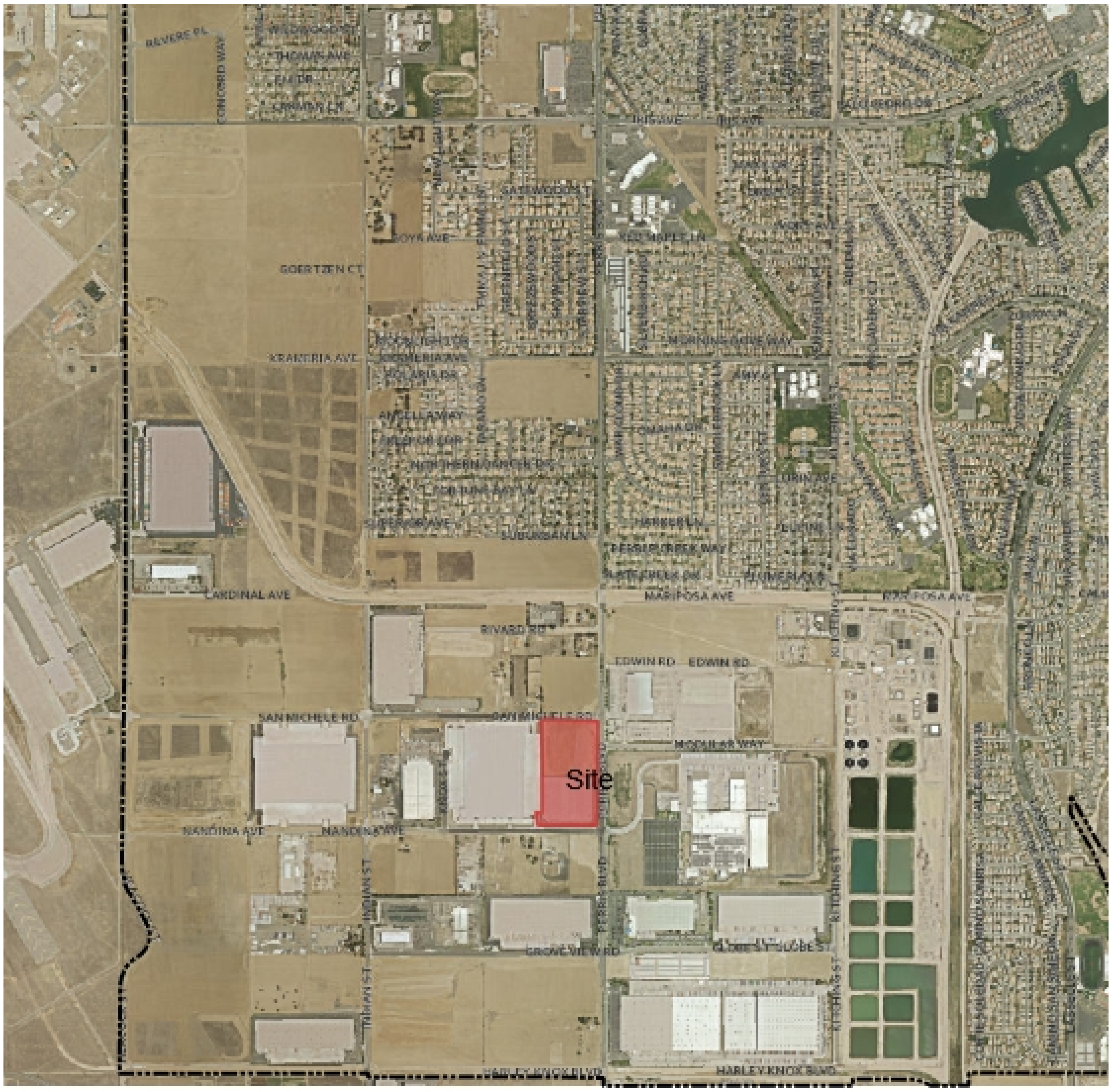
PLOT PLAN & PRELIMINARY GRADING PLAN
PA-12-0023

SCALE 1'= 50'	ALBERT A. WEBB ASSOCIATES CIVIL ENGINEERS 3788 McCRAY ST. RIVERSIDE CA. 92506 TEL: (951) 686-1070 FAX: (951) 788-1256	W.O. 12-0053
DATE: Nov 2013		SHEET 1 OF 1 SHEETS
DESIGNED:		
CHECKED:		
PLN CK REF:	FILE: G:\2012\12-0053\Entitlement\12-0053PP.pro PLOT DATE: 11/25/2013	DWG. NO. 12-0053PP.PRO
F.B.		

Attachment 7

MORENO VALLEY
WHERE DREAMS SOAR

PA12-0023jd



Legend

Public Facilities

■ Public Facilities

★ Fire Stations

⬚ City Boundary

▨ Sphere of Influence

Notes

N

4,310.1 0 2,155.07 4,310.1 Feet

WGS_1984_Web_Mercator_Auxiliary_Sphere

Print Date: 10/9/2013

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

Item No. E.1

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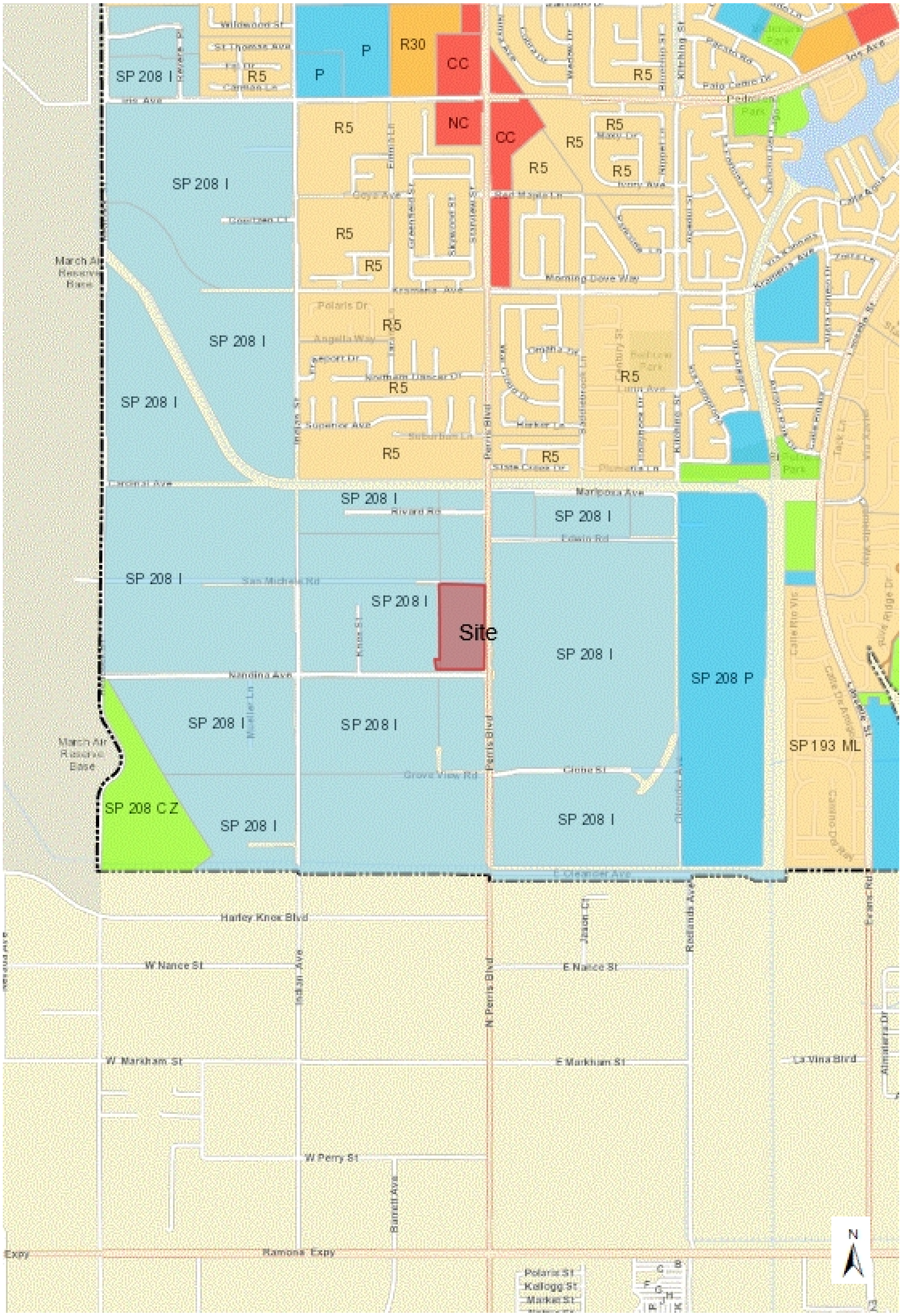
Attachment 8

MORENO VALLEY
WHERE DREAMS SOAR

PA12-0023jd



Legend

Zoning

- 🟥 Commercial
- 🟦 Industrial/Business Park
- 🟦 Public Facilities
- 🟪 Office
- 🟪 Planned Development
- 🟫 Large Lot Residential
- 🟨 Residential Agriculture 2 DU/AC
- 🟨 Residential 2 DU/AC
- 🟧 Suburban Residential
- 🟧 Multi-family
- 🟩 Open Space/Park

Master Plan of Trails

- — Bridge
- — Improved
- — Multiuse
- — Proposed
- — Regional
- — State

⬚ City Boundary

▨ Sphere of Influence

Notes

4,310.1 0 2,155.07 4,310.1 Feet

WGS_1984_Web_Mercator_Auxiliary_Sphere

Print Date: 10/9/2013

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

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December 11, 2013

Planning Commission
City of Moreno Valley
14177 Frederick Street
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VIA EMAIL AND US MAIL

RE: Comments on Final EIR: First Inland Logistics Center II (Plot Plan PA 12-0023)

Greetings Planning Commissioners:

Please consider these comments submitted on behalf of concerned area residents, Sierra Club, and Residents for a Livable Moreno Valley concerning the Final Environmental Impact Report (FEIR) for the First Inland Logistics Center II Project. The firm previously submitted comments on the Draft EIR, and incorporates those comments herein by reference.

While the FEIR incorporated some of the recommended mitigation measures from these comments and made some alterations to the EIR, the FEIR for this Project still fails to comply with the California Environmental Quality Act ("CEQA"). The FEIR fails as an informational document by omitting to evaluate several sources of significant effects. The FEIR misleads decision makers and the public as to the extent and severity of the Project's environmental impacts. The FEIR fails to adequately evaluate impacts to state highways. The FEIR also persists in failing to consider feasible mitigation, particularly the phase in of cleaner truck fleets, to reduce impacts from mobile source emissions.

For these reasons, and as detailed herein, I ask that you deny the Project and refuse to certify the EIR.

Air Quality Impacts

Mitigation exists for mobile emission impacts through, for example, the required use, or phased in use, of clean fuel technologies and cleaner trucks and restriction of emitting trucks. The FEIR did not respond in good faith to this suggested mitigation. The specific manner of implementing such mitigation may include:

1. Require any operator mandate a phase in schedule that increases the number of heavy duty trucks entering the property that meet or exceed 2010 engine emissions standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025; to achieve emissions reductions faster than existing regulations.
2. Require the facility operator maintain a log of all trucks entering the facility to ensure that on average, the daily truck fleet meets the quantities and emission standards listed in the Draft EIR. The log shall be available for inspection by City staff.
3. Limit the daily number of trucks allowed at the facility to levels (trips) analyzed in the EIR.
4. Require a portion of the fleet use alternative fuel technologies.

The FEIR claims at Response to Comment E-9 that imposing fleet controls would not be feasible because users and tenants would relocate to other cities within the air basin. There is no evidence supporting this claim, particularly where Moreno Valley has become a haven of logistics warehousing for a variety of reasons which would be unlikely to evaporate simply through the implementation of fleet controls. Moreover, a system phasing in newer fleet technology over time would be unlikely to have such detrimental effects.

Truck trips should also be directed away from school sites, residential areas, and other sensitive receptors.

Electric yard trucks at the project site may also reduce emissions. Response to Comment E-9 claims that electric yard trucks would simply transfer emissions from one portion of the air basin to another. Not so. The generation of electricity may come from green sources such as solar or wind. Additionally, particulate controls may be more easily installed and better controlled at electric generating facilities than on mobile yard trucks. Lastly, diesel yard goats would emit NOX and PM *locally* and regionally- hence use of electric yard goats would reduce these local air quality emissions, including cumulative emissions, particularly where there are numerous projects with similar emissions in the Project area.

The responses to comments also suggest that SCAQMD is against fleet controls or the implementation of other action by the City because SCAQMD is already taking action to improve air quality. In fact, SCAQMD routinely recommends that Moreno Valley require the phase in of cleaner truck fleets, use zero or near-zero emission (electric) cargo handling equipment (e.g. yard trucks), and adopt other mitigation to reduce mobile source emissions since the air quality in the SCAB remains one of the least healthful in the nation. Furthermore, the impacts of such emissions are only lately being understood and studied by SCAQMD and include cancer, respiratory impacts, reproductive impacts, developmental impacts on children, neurological effects, etc.
(https://www.aqmd.gov/prdas/matesIII/MATESIIIFinalReportSept2008.html;
https://www.aqmd.gov/forstudents/health_effects_on_children.html;
https://www.aqmd.gov/aqmd/bltapfoundation.html;
https://www.aqmd.gov/prdas/asthmaconsortium.html.)
Hence while reductions are being made through State and SCAQMD regulations, SCAQMD continues to seek reductions through the CEQA process and implementation of mitigation measures on a Project level as well.

In addition, the Final EIR understates impacts from soils import. Response to Comment E-10 acknowledges that the Air Quality studies did not specifically consider the import of material. This import of material would require substantial truck trips. MM 4.1-3(o) limits import to 66 *loads* (~2,000 cubic yards) per day, claiming soils import would require 66 *trips* per day to import of 28,000 and 30,000 cubic yards of material. (See, Response to Comment E-10) In fact, *trips* would be doubled, as soils would need to be brought in, and empty trucks would travel out. Hence 2,000 total trips, approximately 132 *trips* for these 15 days would be needed. The EIR utterly fails to evaluate any impacts from these 2,000 truck trips but concludes, based on no evidence in the record, that "there would be no greater air quality impact associated with hauling than disclosed in the EIR for grading and construction operations themselves." (Response to Comment E-10).

Moreover, most dump trucks do not carry 30 cubic yards of material but less than half that amount, between 11 and 12 cubic yards. The number of days needed for soils work may thus be as many as 41 days and as many as 5,091 truck trips. (1 cubic yard of soil weighs approximately 1.35 tons; average dump truck capacity= 15 tons.)

There FEIR continues to omit discussion of export of fill, or trips required for such export, from the site. The FEIR also does not disclose where soils will be imported from or exported to, or the vehicle miles to be travelled for such a purpose. By failing to consider truck trips and the miles these trucks will travel in evaluating the Project's construction air quality impacts, the EIR fails in its information role, and the conclusion that these impacts would not be significant is unsupported.

Cumulative Air Quality Impacts

The EIR concludes that because individual air quality impacts will be less than significant, cumulative air quality impacts are also insignificant. Johnson & Sedlack previously commented, "This entirely misses the purpose of a cumulative impact evaluation. Given the construction plan of this Project and construction timing of other nearby projects including, for instance, VIP Moreno Valley, Prologis Eucalyptus, World Logistics, March Lifecare Campus, etc., it is entirely plausible that the Project may result in cumulatively significant construction air quality impacts. The EIR must evaluate these potentially significant effects rather than just conclude, based on no evidence, that such effects will be insignificant."

The response to this comment, E-13 is that SCAQMD's significance thresholds indicate that if daily emissions exceed individual significance thresholds, then they should be considered as having an individually and cumulatively significant impact. The opposite- that if a project does not exceed individual significance thresholds, it is also not cumulatively significant- is not explicitly stated by SCAQMD and does not logically follow. Particularly where many similar projects are being developed nearby, evaluation of cumulative impacts is essential, and CEQA requires that such cumulative impacts of a project be considered. (Guidelines § 15130) By failing to undertake such evaluation here, the EIR fails as an informational document.

Biological Impacts

Cumulative impacts to raptor foraging are not adequately evaluated in the EIR, and are likely significant given the extensive new development in Moreno Valley. Mitigation should be adopted to reduce these impacts, such as contributions to a conservation agency or purchase of off-site conservation land.

Traffic Impacts

The City of Riverside raised concerns regarding Project contributions to I-215, SR-60, and local Riverside city roads. In response to these concerns, at Response to Comments D-3 the FEIR makes the claim that the City complied with Caltrans' *Guide for the Preparation of Traffic Impact Studies* (December 2002) by analyzing freeway mainline segments anticipated to contribute 100 or more two-way peak hour trips. "Where the Project generates less than 100 peak hour trips, no impact to state facilities occurs."

This is a false interpretation of the Caltrans' *Guide for the Preparation of Traffic Impact Studies* (December 2002) (< http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/tisguide.pdf>). In fact, Caltrans uses several distinct trip generation thresholds from which analysis of freeway impacts should commence:

1. Generates over 100 peak hour trips assigned to a State highway facility
2. Generates 50 to 100 peak hour trips assigned to a state highway facility- and affected state highway facilities are experiencing noticeable delay; approaching unstable traffic flow conditions (LOS "C" or "D").
3. Generates 1 to 49 peak hour trips assigned to a State highway facility- the following are examples that may require a full TIS or some lesser degree of analysis:
    a. Affected State highway facilities experiencing significant delay; unstable or forced traffic flow conditions (LOS "E" or "F").
    b. The potential risk for a traffic incident is significantly increased (i.e., congestion related collisions, non-standard sight distance considerations, increase in traffic conflict points, etc.).
    c. Change in local circulation networks that impact a State highway facility.

The claim that no impact to state highway facilities occurs with less than 100 two-way peak hour trips consequently does not conform to the Caltrans' guide. Impacts to SR-60 or I-215 may occur along segments not considered in the EIR accounting for existing delay or other considerations. This is of particular concern where, as stated by Riverside, the EIR for the Prologis Eucalyptus Project determined SR-60 currently operates at an *unacceptable* LOS, so that 1 to 49 peak hour trips to this highway may result in a significant impact; and at least requires some evaluation. (http://www.moval.org/misc/pdf/prologis/ProLogis%20DEIR-min.pdf)

The FEIR also maintains that funding contributions for "Opening Year 2017" impacts would reduce impacts to roadway segments to less than significant. The FEIR acknowledges that intersections *are not scheduled for improvements*, so there is no showing that improvements will be timely made. For instance, payment of TUMF funds for cumulative impacts at Harley Knox Blvd/ I-215 interchange is stated to reduce impacts *below significance*, even though there is no evidence that the improvements will be timely developed.

The response to comment C-9 even acknowledges that there is no way to guarantee that improvements will be timely so as to adequately reduce project/cumulative project effects. Yet nevertheless the EIR concluded impacts will be less than significant. While the Project need not cause full improvement of these intersections or bear the full expense of such improvements, it cannot deem such impacts less than significant absent evidence of the timely development of such improvements. (Response to Comments E-22, 23.) Traffic impacts reliant on the TUMF and DIF programs must be deemed significant and unavoidable.

Furthermore, MM 4.4-1 is unenforceable and uncertain where there is no evidence to show that the City of Perris has or will establish a fair-share funding program for improvements to the Western Way/Harley Knox and Indian Street/Harley Knox intersections, or that there will be sufficient funding under any program or a schedule in place for the improvements under any program.

As to trip length and frequency, it is noted in the Draft EIR that the SCAQMD predicts a greater frequency of truck trips for similarly situated industrial/warehouse projects. As the agency with expertise in the area of air emissions in Southern California, the guidance of the AQMD must be followed for project analyses. Truck trips are understated.

An EIR's cumulative impact analysis should look at all other projects causing related impacts, e.g. here all projects that contribute to traffic impacts. (*Bakersfield Citizens for Local Control, supra,*124 Cal. App. 4th at1215, Guidelines § 15130, *City of Long Beach v. Los Angeles Unified Sch. Dist.* (2009) 176 Cal.App.4th 889, 907.) Projects are wrongly omitted where their exclusion prevents the severity and significance of cumulative impacts from being accurately reflected. (*Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal. App. 4th1184, 1215, *citing, Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal. App. 3d 692, 723.) An agency must use reasonable efforts to discover, disclose, and discuss cumulative projects that are "reasonably foreseeable" at the time of EIR preparation. (*Cadiz Land Co., Inc. v. County of San D=Bernardino* (2000) 83 Cal.App.4th 74, 110, *City of Antioch v. City Council of the City or Pittsburg* (1986) 187 Cal.App.3d 1325, 1337.)

53 cumulative projects were included in the opening year 2017 cumulative conditions analysis on the basis of list on file with the various cities in 2012 and an allegedly "reasonably distance at which the traffic of other projects would mix with the traffic from the proposed Project." (Response to Comment E-26). The cumulative project list, however, is unreasonable and ignores projects reasonably foreseeable at the time of EIR preparation. The NOP for this Project was issued in December 2012. By that time, the World Logistics Center, a proposed 40 million square foot logistics warehouse with associated truck traffic, had been unveiled for development in the City. (e.g. http://www.moval.org/city_hall/departments/econ-dev/move/spring2012.pdf) This Project would utilize the same highway facilities, SR-60 and I-215, yet was excluded from consideration. A 2 percent increase based on annual growth does not account for cumulative projects but only basic growth rates, and certainly does not account the amount of traffic expected with this omitted project.

Overall, the conclusions of the Draft EIR with respect to analysis of traffic impacts are not supported by substantial evidence.

Noise

The Response to Comments regarding a temporary noise barrier appears to assume that any noise barrier must fully mitigate noise impact below a level of significance. A lesser barrier than a 30 foot wall would provide some noise attenuation, be significantly more cost effective, and would not require weeks of construction. The determination that a noise barrier is infeasible mitigation is not supported by evidence.

Alternatives Analysis

Where there is an environmentally superior alternative that significantly decreases the significant impacts of the Project, then that alternative must be approved rather than the Project if that alternative is feasible. (Public Resources § 21002; *Uphold Our Heritage v. Town of Woodside* (2007) 147 Cal.App.4th 587, 597, State CEQA Guidelines § 15126.6(b).) In this case, the reduced project alternative would reduce impacts when compared with the Project, in particular the air quality noise and traffic impacts. The reduced intensity alternative EIR would meet all project objectives. Accordingly, absent legally adequate findings of infeasibility, the reduced intensity alternative must be approved over the Project.

Statement of Overriding Considerations:

A statement of overriding considerations is improper with this project as the project will have extensive environmental impacts, as discussed above, and minimal benefits. (Pub. Res. C. §§ 21081 (b), 21081.5) The Project will have significant adverse environmental impacts to/from: air quality, noise, traffic. Contrarily, the Project will generate comparatively minimal benefits. A statement of overriding considerations cannot be adopted for this project.

Thank you for your consider of the above comments.

Sincerely,

Raymond W. Johnson

Raymond W. Johnson
JOHNSON & SEDLACK

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*Regional Groups Serving Riverside and San Bernardino Counties: Big Bear,
Los Serranos, Mojave, Moreno Valley, Mountains, Tahquitz, Santa Margarita.*

Good evening Moreno Valley Planning Commissioners,
RE: First Inland Logistic II warehouse project – 12-11-2013

The Sierra Club has serious concerns about the increased cumulative impacts of previously approved warehouse/logistic centers combined with those, which are proposed, like the First Inland Logistic II warehouse. You cannot keep approving these one by one without considering their cumulative negative impact on the residents of Moreno Valley and especially the warehouse workers who must breath in toxic diesel pollution all day. Below my name are only some of the articles which you should read and understand that show what happens when people breath air pollution as those of us in Moreno Valley are increasingly subjected to in our non-attainment area. The Sierra Club expects this project to do more to reduce its toxic diesel pollution prior to you voting to approve it.

I know you all have read the environmental documents and letters submitted to the Draft EIR prior to your vote. The Sierra Club has for several years stated that all these documents also need to be in Spanish. We have at least 55% Latino population and almost 25% who speak another language. As you read in response to our comments the developer and staff do not believe there is a reason for concern. The City's website begins with "Moreno Valley Commits to Cooperation and Transparency." It this were true, all these environmental documents would be in Spanish. The Planning Commission needs to step forward and demand such.

Sincerely,

George Hague
Sierra Club
Moreno Valley Group
Conservation Chair

RESOURCES—AIR POLLUTION, DIESEL, HEALTH ISSUES

AIR POLLUTION: CBS correspondent calls Riverside nation's worst; Dan Bernstein; The Press Enterprise, July 21, 2013 **http://blog.pe.com/2013/07/21/air-pollution-cbs-correspondent-calls-riverside-nations-worst/**

Air Pollution and Academic Performance: Evidence from California Schools; Jacqueline S. Zeig, USC; John C Ham, Univ. of Maryland; Edward L. Avol, Univ. of Maryland; December 2009; 36 p.

Air Pollution and Primary Care Medicine; Jefferson H. Dickey, M.D.; Physicians for Social Responsibility
http://www.psr.org/chapters/boston/health-and-environment/air-pollution-and-primary.html

Air pollution and the gut: Are fine particles linked to bowel disease? Lindsey Konkel Staff Writer; Environmental Health News; September 20, 2013.
http://www.environmentalhealthnews.org/ehs/news/2013/air-pollution-and-the-gut

Air pollution a leading cause of cancer - U.N. agency; By Kate Kelland and Stephanie Nebehay
LONDON/GENEVA | Thu Oct 17, 2013 11:40am EDT
http://www.reuters.com/article/2013/10/17/us-cancer-pollution-idUSBRE99G0BB20131017

Air pollution causes lung cancer, WHO agency announces; NBC Nightly News, October 17,

2013
http://www.nbcnews.com/video/nightly-news/53309399/#53309399

Air Pollution Linked to Depression, Forgetfulness/David Danelski; The Press Enterprise; July 12, 2011; http://www.pe.com/local-news/topics/topics-environment-headlines/20110713-science-air-pollution-linked-to-depression-forgetfulness.ece

The Air We Breathe: Environmental Justice and the Goods Movement Industry in the Inland Valley/Chelsea Muir, intern CCAEJ; posted September 1, 2009; The Claremont Progressive http://claremontprogressive.com/tag/ccaej/

An Analysis of Diesel Air Pollution and Public Health in American; ***Revised 2005 54 p.*** **(v. 1.3)** Clean Air Task Force; 54 p. (8 pages of technical references)
http://www.catf.us/resources/whitepapers/files/Diesel_in_America_Technical_Paper.pdf

Are We There Yet? The Air Pollution Threat/July 2, 2013; on-line blog
http://www.reconnectingamerica.org/news-center/half-mile-circles/2013/are-we-there-yet-the-air-pollution-threat/

As California Warehouses Grow, Labor Issues Are a Concern/Jennifer Medina; The New York Times; July 23, 2013
http://www.nytimes.com/2012/07/23/us/in-california-warehouse-industry-is-expanding.html?pagewanted=all&_r=1

Asthma disproportionately affects low-income populations; Press Release | The California Endowment Newsroom;
http://tcenews.calendow.org/releases/Asthma-low-income-communities

Asthma found in children near rail yard; Inland News Today; March 26, 2013
http://www.inlandnewstoday.com/story.php?s=28090
INCREDIBLE!

Asthma More Prevalent in Children Near Rail Yard/David Danelski; The Press-Enterprise; April 22, 2013; http://www.pe.com/local-news/topics/topics-health-care-headlines/20130422-health-asthma-more-prevalent-in-children-near-rail-yard.ece

Autism Tied to Air Pollution, Brain-Wiring Disconnection/Elizabeth Lopatto and Nicole Ostrow; Bloomberg; June 18, 2013; http://www.bloomberg.com/news/2013-06-18/autism-tied-to-air-pollution-brain-wiring-disconnection.html Harvard University's School of Public Health report.

California Pollution Map: LA has 3 of the top polluted areas/AP with Machiko Yasuda; April 23rd, 2013; on website for **89.3 KPCC (California Public Radio)**
Map/Enter Zip Code to see pollution levels
http://www.scpr.org/news/2013/04/23/36934/map-3-los-angeles-neighborhoods-among-most-pollute/
http://oehha.maps.arcgis.com/apps/OnePane/basicviewer/index.html?&extent=%7B%22xmin%22:-15258078.058859076,%22ymin%22:3548564.614538959,%22xmax%22:-11315150.391797591,%22ymax%22:5441756.931105701,%22spatialReference%22:%7B%22wkid%22:102100%7D%7D&appid=e508a6f9af534fcc98e7884558c467d6

Danger in the Air: Air Pollution and Cardiovascular Disease/American Heart Association, American Stroke Association, February 2013, 2 pg. Fact Sheet
http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_437394.pdf

Diesel and Health in America: The Lingering Threat
Published: February 2005; Clean Air Task Force; 24 p.
File Size: 552 KB; 84 citations listed;
http://www.catf.us/resources/publications/files/Diesel_Health_in_America.pdf

Diesel Exhaust; What is Diesel Exhaust; American Cancer Society
http://www.cancer.org/cancer/cancercauses/othercarcinogens/pollution/diesel-exhaust
List of references

Diesel Exhaust Particulates Exacerbate Asthma-like Inflammation By Increasing CXC Chemokines (Abstract); American Journal of Pathology, December 2011] - **PubMed – NCBI**
http://www.ncbi.nlm.nih.gov/pubmed/21967814

Diesel Pollution and Asthma: More evidence that the two are closely linked | Diane Bailey's Blog | Switchboard, from Natural Resources Defense Council, September 20, 2011
http://switchboard.nrdc.org/blogs/dbailey/diesel_pollution_and_asthma_mo.html

Diesel Pollution Cancer and Other Health Risks/Kevin M. Stewart, Director of Environmental Health, American Lung Association of the Mid-Atlantic, September 23, 2011; http://www.cleanair.org/sites/default/files/American%20Lung%20Association%20Goods%20Movement%20Presentation%20092311.ppt *Excellent explanation of particulates and how they affect health*

Diesel Soot Health Impacts; Clean Air Task Force; map
http://www.catf.us/diesel/dieselhealth/

- The average lifetime diesel soot cancer risk for a resident of Riverside County is 1 in 3,917.
- This risk is 255 times greater than EPA's acceptable cancer level of 1 in a million.

Driving Harm: Health and Community Impacts of Living near Truck Corridors (The Impact Project Policy Brief Series) January 2012 (10 pg)
http://hydra.usc.edu/scehsc/pdfs/Trucks%20issue%20brief.%20January%202012.pdf

Global Trade Comes Home: Community Impacts of Goods Movement/Andrea Hricko
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2235209/

The Harmful Effects of Vehicle Exhaust; Summary of Findings; Summary/Environment and Human Health Inc.
http://www.ehhi.org/reports/exhaust/summary.shtml

Hidden Hazards: A Call to Action for Healthy, Livable Communities; Los Angeles Collaborative for Environmental Health and Justice, A project of Liberty Hill Foundation; 44 p.
http://www.libertyhill.org/document.doc?id=202

Inland Ports of Southern California—Warehouses, Distribution Centers, Intermodal Facilities Impacts, Costs and Trends; Center for Community Action and Environmental Justice www.ccaej.org, (951) 360-8451, Penny Newman, penny.n@ccaej.org ; (38 literature citations)
http://caseygrants.org/wp-content/uploads/2012/08/Inland+Ports+of+Southern+California+-+Wareshouses+Distribution+Centers+and+Intermodal+Facilities+-+Impacts+Costs+and+Trends.pdf

Lesson from Jurupa Valley: Striking a Balance between warehouse and your house; Dan Bernstein, The Press-Enterprise, February 19, 2013; http://blog.pe.com/dan-bernstein/2013/02/19/jurupa-valley-striking-a-balance-between-warehouse-and-your-house/

Local Air Quality Index (AQI); enter ZIP Code to get information about local air quality;
http://www.airnow.gov/

Lower IQ In Children Linked to Pre-Birth Air Pollution Exposure, Study/Medical News Today; article date: July 22, 2009 http://www.medicalnewstoday.com/articles/158456.php

Particulate Matter Air Pollution and Cardiovascular Disease: An Update to the Scientific Statement From the American Heart Association
http://circ.ahajournals.org/content/121/21/2331.full.pdf
Print ISSN: 0009-7322. Online ISSN: 1524-4539
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http://circ.ahajournals.org/content/121/21/2331
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Robert D. Brook, MD, Chair; Sanjay Rajagopalan, MD; C. Arden Pope III, PhD;
Jeffrey R. Brook, PhD; Aruni Bhatnagar, PhD, FAHA; Ana V. Diez-Roux, MD, PhD, MPH;
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Murray A. Mittleman, MD, DrPH, FAHA; Annette Peters, PhD; David Siscovick, MD, MPH, FAHA;
Sidney C. Smith, Jr, MD, FAHA; Laurie Whitsel, PhD; Joel D. Kaufman, MD, MPH; on behalf of the
American Heart Association Council on Epidemiology and Prevention, Council on the Kidney in
Cardiovascular Disease, and Council on Nutrition, Physical Activity and Metabolism

Abstract—In 2004, the first American Heart Association scientific statement on "Air Pollution and Cardiovascular Disease" concluded that exposure to particulate matter (PM) air pollution contributes to cardiovascular morbidity and mortality. In the interim, numerous studies have expanded our understanding of this association and further elucidated the physiological and molecular mechanisms involved. The main objective of this updated American Heart Association scientific statement is to provide a comprehensive review of the new evidence linking PM exposure with cardiovascular disease, with a specific focus on highlighting the clinical implications for researchers and healthcare providers. The writing group also sought to provide expert consensus opinions on many aspects of the current state of science and updated suggestions for areas of future research. On the basis of the findings of this review, several new conclusions

were reached, including the following: Exposure to PM _2.5 _m in diameter (PM2.5) over a few hours to weeks can trigger cardiovascular disease–related mortality and nonfatal events; longer-term exposure (eg, a few years) increases the risk for cardiovascular mortality to an even greater extent than exposures over a few days and reduces life expectancy within more highly exposed segments of the population by several months to a few years; reductions in PM levels are associated with decreases in cardiovascular mortality within a time frame as short as a few years; and many credible pathological mechanisms have been elucidated that lend biological plausibility to these findings. It is the opinion of the writing group that the overall evidence is consistent with a causal relationship between PM2.5 exposure and cardiovascular morbidity and mortality. This body of evidence has grown and been strengthened substantially since the
first American Heart Association scientific statement was published. Finally, $PM_{2.5}$ exposure is deemed a modifiable factor that contributes to cardiovascular morbidity and mortality. **(*Circulation*. 2010;121:2331-2378.)**

Key Words:
AHA Scientific Statements __atherosclerosis __epidemiology __prevention
__air pollution __public policy

Paying with Our Health: The Real Cost of Freight Transportation in California, by Meena Palaniappan et al**, The Pacific Institute, 2006**
http://www.pacinst.org/reports/freight_transport/PayingWithOurHealth_Web.pdf

Planned Warehouse Complex would be Major Polluter/David Danelski; The Press-Enterprise, April 26, 2013 http://www.pe.com/local-news/topics/topics-environment-headlines/20130426-air-quality-moreno-valley-warehouse-complex-would-be-major-polluter.ece

Poverty, Pollution and Environmental Racism: Strategies for Building Healthy and Sustainable Communities/Robert D. Bullard, Ph.D., Environmental Justice Resource Center, Clark Atlanta University; A Discussion Paper prepared for the National Black Environmental Justice Network (NBEJN) Environmental Racism Forum World Summit on Sustainable Development (WSSD) Global Forum Johannesburg, South Africa July 2, 2002
http://www.ejrc.cau.edu/PovpolEj.html

Reducing Diesel Emissions Crucial to Fighting Asthma; Inland Valley Daily Bulletin; May 5, 2006
http://www.dailybulletin.com/opinions/ci_3785148

Region's Kids Left Gasping for Air Higher Asthma Rates Tied to Increase in Exhaust; Free Online Library, Charles F. Bostwick Staff Writer, 2004
http://www.thefreelibrary.com/REGION'S+KIDS+LEFT+GASPING+FOR+AIR+HIGHER+ASTHMA+RATES+TIED+TO...-a0113580039

Storing Harm: the Health and Community Impacts of Goods Movement Warehousing and Logistics (The Impact Project Policy Brief Series) January 2012 (8 pg)
http://hydra.usc.edu/scehsc/pdfs/Warehouse%20issue%20brief.%20January%202012.pdf

A Toxic Tour: Neighborhoods struggle with health threats from traffic pollution; Environmental Health News/Published by Environmental Health Sciences; October 7, 2011
http://www.environmentalhealthnews.org/ehs/news/2011/1008a-toxic-tour-of-la

Tougher Pollution Standard Set for Deadly Soot/Janet Zimmerman; The Press Enterprise; December 14, 2012; http://www.pe.com/local-news/topics/topics-environment-headlines/20121214-region-tougher-pollution-standard-set-for-deadly-soot.ece

Warehouses, Trucks and PM2.5: Human Health and Logistics Industry Growth in the Eastern Inland Empire RANDALL A. BLUFFSTONE and BRAD OUDERKIRK (31 p)
http://www.pdx.edu/sites/www.pdx.edu.econ/files/bluff_warehouses_and_trucks.pdf

Why Place Matters: Building a Movement for Healthy Communities; PolicyLink; The California Endowment, 2007. http://www.policylink.org/atf/cf/%7B97c6d565-bb43-406d-a6d5-eca3bbf35af0%7D/WHYPLACEMATTERS_FINAL.PDF 72 p.

Attorney General Kamala D. Harris Seeks to Join Suit to Protect Public Health in Mira Loma; *Press Release*; State of California - Department of Justice, September 8, 2011
http://oag.ca.gov/news/press-releases/attorney-general-kamala-d-harris-seeks-join-suit-protect-public-health-mira-loma

Clean Air Task Force; list of publications
http://www.catf.us/resources/publications/view/83

LA Times Articles on Diesel Exhaust
http://articles.latimes.com/keyword/diesel-exhaust

Trade Health & Environmental Health Impact Project/Index to reports, etc.
http://hydra.usc.edu/scehsc/web/index.html

Trade, Health & Environmental Health Impact Report; *Key Research Studies*
http://hydra.usc.edu/scehsc/web/Resources/Key%20Research%20Studies/Resources-%20Key%20Research%20Studies.html

Trade, Health & Environmental Health Impact Project; *Reports, Publications and Presentations*
http://hydra.usc.edu/scehsc/web/Resources/Reports%20and%20Publications/Resources-%20Reports%20and%20Publications.html

ORGANIZATIONS

East Yard Communities for Environmental Justice
http://eycej.org/about/history/

Long Beach Alliance for Children with Asthma
http://lbaca.org/about-lbaca/staff/

Urban Air Initiative; http://urbanairinitiative.com/ https://www.facebook.com/UrbanAirInitiative

MEDIA—VIDEO, ETC.

The Right to Breath; South Coast Air Quality Management District; YouTube: Uploaded on Oct 21, 2011; (video) 20:56; "The Right to Breathe" is a documentary film by the South Coast Air Quality Management District on the serious health effects of Southern California's air pollution shared through stories of individuals. This film captures air quality issues in Southern California from an emotionally powerful and personal perspective. Directed by award-winning documentary filmmaker Alexandre Philippe, creative director of Cinema Vertige, the film is meant to make viewers aware of the serious health effects of air pollution while also inspiring them to take action and participate in practical solutions to help improve our air.
http://www.youtube.com/watch?v=B1M894GH4q4 minutes;
http://www.aqmd.gov/news1/2011/RighttoBreathe.htm Press Release
The Right to Breath, 19:58; documentary film South Coast Air Quality Management District

American Lung Association Goods Movement Presentation, September 23, 2011; PowerPointhttp://www.docstoc.com/docs/125364619/American-Lung-Association-Goods-Movement-Presentation-092311

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December 18, 2013

City Council
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

Community Development Director
City of Moreno Valley
14177 Frederick St.
Moreno Valley, CA 92552

VIA US MAIL AND EMAIL

RE: Appeal of the Planning Commission Decisions Approving First Inland Logistics Center II Project (Plot Plan PA 12-0023, EIR P12-064) made December 12, 2013.

Greetings City Council:

By this letter, Residents for a Livable Moreno Valley and Sierra Club hereby appeal the Planning Commission decisions approving the First Inland Logistics Center II Project made on December 12, 2013, including the decisions: to certify the Final Environmental Impact Report (P12-064), adopt finding and a Statement of Overriding Consideration, approve a mitigation monitoring program, and approve Plot Plan PA 12-0023.

The bases for the appeal are that the environmental review undertaken for the project was procedurally and substantively inadequate. The Environmental Impact Report is inadequate and fails to comply with the requirements of CEQA by inadequately analyzing impacts pertaining to, at least, air quality, biology, GHGs, noise, traffic/ transportation, and cumulative and regional effects, among others. The EIR fails to adopt all feasible mitigation measures and ensure that mitigation measures are fully enforceable through permit conditions, agreements, and/or other legally binding instruments. (State CEQA Guidelines § 15126.4(a)(2)).

The City also failed to adopt the environmentally superior alternative despite the fact that the alternative would substantially reduce adverse environmental impacts and meet most Project objectives. The Findings made by the City and the Statement of Overriding Considerations adopted for the Project are unsupported by evidence in the record.

In addition to these grounds for appeal, Residents for a Livable Moreno Valley and Sierra Club hereby incorporate all comments previously made concerning this Project and ask that they additionally be considered as the bases for this appeal.

Thank you in advance for your consideration of this appeal and please advise me of the hearing date for the appeal upon its being scheduled.

Sincerely,

Raymond W. Johnson
JOHNSON & SEDLACK

CHAIR VAN NATTA – Okay we have a motion and a second… all in favor?

Opposed – 0

Motion carries 6 – 0

INTERIM PLANNING OFFICIAL ORMSBY – The approval is final unless an appeal is filed within 15 calendar days.

CHAIR VAN NATTA – Thank you

6. Case Description: PA12-0023 Plot Plan

Case Planner: Julia Descoteaux

CHAIR VAN NATTA – Our next case is PA12-0023 a Plot Plan. The Applicant is First Industrial LP and the Case Planner is Julia Descoteaux. Did I get it right that time?

ASSOCIATE PLANNER DESCOTEAUX - Yes

COMMISSIONER LOWELL – Due to my familiarity with the project I need to recuse myself from this.

CHAIR VAN NATTA – You are excused. Okay Ms. Descoteaux. There is just so many letters there, it just seems like there should be more syllables to it than I want to give it. Go ahead.

ASSOCIATE PLANNER DESCOTEAUX – Good evening Planning Commissioners, I'm Julia Descoteaux, Associate Planner and before you this evening is a request by the Applicant, First Industrial for the approval of a Plot Plan to construct a 400,130 square foot warehouse distribution facility on 17.69 acres located in the Industrial Area Specific Plan 208 I on the southwest corner of Perris Boulevard and San Michele Road. The project is proposed as being built as a single or multi-tenant occupancy; however a tenant has not been identified yet. The building will include approximately 59 loading docks with rollup doors and a truck staging and parking areas on the west side of the building. The Staff Report does say the east side but it will be the west side, with auto parking on the north and south sides of the building.

The existing site has a truck storage facility on the south portion of the site in conjunction with the existing building to the west. The north portion of the site is currently vacant, however there is a truck storage facility approved for that site. Additionally on the existing truck storage facility area which is on the south side of this site, there is an approved 181,031 square foot warehouse building already approved, so there are already two entitlements for this property. Once precise grading plans are completed for this new building should it be approved, then the other two projects would be closed. All of the surrounding land uses are within the Specific Plan. Properties to the east and west are developed industrial uses and properties to the north include some vacant land and a vacant single family residence and to the south has some existing development as well. The project will have access from San Michele Road and Nandina and that will be for both trucks and vehicles. They'll both have access from both of those streets. The existing driveway along Perris Boulevard will be closed and no trucks or vehicles will enter from that side of the building. The architectural design of the building is a concrete tilt-up design. The colors of the building will include earth-tones with some accent colors and designed to complement the existing building to the west and roof top equipment will be screened from public view. All the landscaping will be required per the current City standards.

An Initial Study was prepared by the consultant T & B Planning and based on the Initial Study a focused Environmental Impact Report was recommended. The draft of the Environmental Impact Report was distributed per the CEQA Guidelines and then the Final EIR was completed and distributed per CEQA Guidelines. The response to comments and related documents were mailed to all the interested parties who had commented on the Draft EIR on November 27th, noting that the Final EIR was provided and T & B Planning is the consultant who prepared the Environmental Impact Report and Tracey Zen is here tonight as well to answer any questions that you might have on the Environmental Impact Report. The mitigation measures; there are approximately 22 mitigation measures as provided to you in Exhibit C of the Resolution and the mitigation measures are included to reduce the environmental impacts where possible even where the impacts could not be reduced to less than significant levels. There is an error in the Staff Report under Approval and Certifications.

The Planning Commission will take Public Testimony on the EIR on the project. Before action on the proposed project the Planning Commission will review the Final Environmental document and make a determination on it. It's not required to go to the City Council unless it is appealed. Public notice was sent to all property owners within 300 feet, noticed in the newspaper and posted on the site. Notice was also sent to all those who commented on the EIR and to date I have received two emails, both of which you have received copies of… one from Johnson and Sedlak and one from Sierra Club. Staff recommends that the Planning Commission approve Resolution No. 2013-30 and thereby certify that the Final Environmental Impact EIR for the First Inland Logistics on file in the Community and Economic Development Department has been completed in compliance with the California Environmental Quality Act, that the Planning Commission reviewed and considered the information contained in the Final EIR and that the Final EIR reflects the City's independent judgment and analysis and adopt the findings and statement of overriding considerations, approve the

Mitigation Monitoring Program and then approve the project Plot Plan PA12-0023. The concludes my presentation and again Tracey Zen is here from T & B Planning, Larry Cochrane is here from First Industrial and Bernie Burnt is here from Web is here as the Engineer. Thank you.

CHAIR VAN NATTA – Thank you. Does anybody have questions for Staff before we call up the Applicant? I am going to open up the Public Hearing portion for this item and start with the Applicant.

APPLICANT COCHRANE – Hi, good evening. My name is Larry Cochrane. I am with First Industrial Realty. First off, I'd like to thank Staff for all their hard work in putting all this together and I'm here to answer any questions that you all might have and look forward to hearing them.

CHAIR VAN NATTA – Okay who wants to start with questions?

VICE CHAIR GIBA – First of all I want to say I've read a lot of these and this is probably one the cleanest ones that I've ever had. Thank you very much for the hard copy because I'm an old man and I use hard copies.

APPLICANT COCHRANE – You can thank Tracey for that. She worked very, very hard on it.

VICE CHAIR GIBA – Thank you. There are several items here that were significant, right and so you had a lot of mitigation measures to take.

APPLICANT COCHRANE – Yes

VICE CHAIR GIBA - I'm not going to waste a lot of our time with a lot of questions but the one thing that I did want to enquire about is when I was reading this over and also was surprising there wasn't really too many letters or any concerns, however the one letter of concern had a question in there dealing with assertions that a feasible and environmentally superior alternative exists that must be adopted; the word must bothered me anyway and your response to that basically was that no there isn't and yet when I was reading the alternative projects, you actually stated that there was and that would have been alternative… I think it was (h)… am I correct where you actually made that statement that this is was the most environmentally friendly alternative. Am I correct on that and I'm flipping through my book here…

APPLICANT COCHRANE – I'll bring up Tracey to answer that question directly.

VICE CHAIR GIBA – So in response to the letter and by the way I appreciate that. You line itemed every dog gone response and trust me I read through it, but that one caught my eye. On the one hand you are saying in the document that there is a better environmental option alternative, but in here you are responding that there isn't, so can you help me with that one.

SPEAKER ZENS – Sure, under the Environmental Quality Act we are required to analyze a reasonable rate of alternatives that are available to the decision making body in light of the environmental impacts that the project will cause. As mentioned in the Staff Report, the project site is already entitled with a trailer yard on the south side which is constructed, a trailer yard on the north side which is approved but not yet constructed and a building on the south side. Those are considered the no project alternatives and under CEQA if the no project alternative is environmentally superior and in this case it would be in regards to there would be less trucks attracted to or from the truck yard as compared to the building proposed, because that truck yard is primarily serving the building immediately adjacent, then a different alternative has to be selected because you can't pick the no project alternative under CEQA; that's not allowed, so we did analyze a variety of alternatives. Most of them are smaller buildings similar to what is already entitled on the property, so again it is environmentally superior because less trucks are attracted to and from, but in the bigger scheme of things, that does not diminish the fact that there is a demand for this type of use and the City and the Region and it is very likely that the use if this project is not approved would just be displaced somewhere else, so for a project like this where the impacts are mostly mobile source emissions or traffic, if that use displaces to a different property, you don't improve the environmental result, you just move it somewhere else. So that is the logic in dismissing part in part to dismiss the alternatives that are environmentally superior for this property when you look at the property insolation, but not the City or the area as a whole. Does that make sense?

VICE CHAIR GIBA – Yes it does, but going to move forward on that so you understand where I'm coming from on this because you have an alternative and I found that alternative four reduced project north building alternative and you said the north building alternative is identified as the environmentally superior alternative. Now you didn't say that in the other ones. This is the one that you are stating and implementation of this alternative would reduce the proposed project significant unavoidable impacts to near and long term air quality, near term noise, near term transportation and traffic but would not result in a reduction in demand of industrial park. In other words, what you are saying is let's leave what we've got on one side and build half the size of the unit. Okay, you've already got a building. You've already got a truck lot, so let's reduce it to 200,000 square feet, instead scrap the whole thing and build one 400,000 square feet, right, so my question then leads to a very important point for me if I was the public or anybody else out there. You are building this without having a tenant already available. You are going to out and shop for a tenant. Am I correct?

APPLICANT COCHRANE – Correct

VICE CHAIR GIBA – So I would like to know and understand that how many tenants… there is not everybody out there. There is not… not every tenant needs a 400,000 square foot warehouse, so if you were to go with alternative number 4 and just reduce the size of the warehouse which reduces the size of the impacts, then you would have to look for a tenant that is looking for a 200,000 square foot site. Am I correct? So what is the limitation there for you because you are making the case that if you don't do what we want for the whole thing, then it is going to be displaced to somebody else, but you are just out to sell the lot, the property to a certain tenant, so why wouldn't alternative four be an actually good option for you? Are there so many… are there not enough tenants out there for a 200,000 square foot warehouse that already has an existing warehouse and lot?

APPLICANT COCHRANE – That is correct

VICE CHAIR GIBA – They are all looking for the big stuff.

APPLICANT COCHRANE – That actually is a correct statement. Primarily the larger facilities are what attract tenants right now. They are looking to do e-commerce type of facilities. An e-commerce type of facility is usually greater than 300,000 square feet though they can be smaller, but you drive past a lot of completed older 200,000 square footers on your way to get out here that are available to the public with less drayage; so drayage being trucking costs, so that being said, it is going to be awhile till we see a strong demand for the 200,000 square foot below market in this area. Does that make sense? Does that answer your question?

VICE CHAIR GIBA – Yes but you already have a how many square foot warehouse already on that south side of the property.

APPLICANT COCHRANE – It is 184,000 square feet I believe

VICE CHAIR GIBA – Oh… and then the reduced one would make 194,000 or 196,000 and so there is your almost… right…the north side; if you just build the north side; roughly half, but you'd still have between the two warehouses of over 300,000; almost 400,000 square feet. Am I correct? Am I missing something?

APPLICANT COCHRANE – I think you are losing me there.

VICE CHAIR GIBA – No way to connect the two

COMMUNITY AND ECONOMIC DEVELOPMENT DIRECTOR TERELL – Oh Vice Chair…

SPEAKER ZENS – That alternative is alternative three that discusses buildings on both the north and south sides of the parcels. Additionally when you get down into the smaller spaces the trip generation rate is actually higher on a square footage basis, so alternative three would actually generate more traffic than the building that is currently proposed.

COMMUNITY AND ECONOMIC DEVELOPMENT DIRECTOR TERELL – Vice Chair… There is no building on the site right now, there is just an approval for the half the site.

VICE CHAIR GIBA – Oh an approval for it; the truck lot there

COMMUNITY AND ECONOMIC DEVELOPMENT DIRECTOR TERELL – Right; half the site is a truck storage lot, so that is the only development that is on the site, but there is an approval where that storage lot is for an 184,000 square foot building and I think the basic premise is when you look at something, there is an assumption that something that is smaller on a site is environmentally superior because it has less impacts, but if there is a demand for the product, whether it's that size or a larger size, if the development doesn't occur there, it does occur elsewhere, so you don't reduce the impacts within this area.

VICE CHAIR GIBA – I understand that totally. My question was leading to why couldn't we do a smaller one. Is it really that big of a demand; you know alternative four really gave a feasible alternative for you. If it is not from an economic standpoint than building the thing, that is what I wanted to find out after digging through all of this. They still would have the lot on the one side; maybe you built it later or whatever. In other words, I'm asking these questions not just for myself. Okay, thank you.

CHAIR VAN NATTA – Actually environmentally, it would be better to not build anything you know. You could put a few trees there and a little bit of grass, but that doesn't make for highest and best use of the land right?

APPLICANT COCHRANE – Right, correct

CHAIR VAN NATTA – And I'm not sure that you'd really call 400,000 a large building these days. We're talking about millions of square feet; you know 1.1 million or 1.2 or 1.8 you know is what we are seeing going up and approving, so it's not that it's that huge of a project.

APPLICANT COCHRANE – And again, I want to reiterate it is already approved to be a trailer yard and with our final design we would be taking that curb off of Perris Boulevard, which that itself would help traffic flow on Perris.

CHAIR VAN NATTA – Yes…are there any other questions of the Applicant?

COMMISSIONER SIMS – On page 286 of the Staff Report here or the packet, there is and I won't go into a lot of the details here but it is talking about the application of some mitigation measures to address the NOX emissions you know for the air quality for the proposed project and so I was just curious you know, it looked like and based on what I was reading, that there is no way to mitigate the long term totally, just looks like essentially that more of a regional solution with having South Coast Air Quality eventually through regulations, getting more cleaner diesel will regulate itself towards smaller emissions, however on the mitigation measures that are going to be implemented into the facility if is approved, is there or was there a calculation showing you know and it is saying here there is 221 and 236 depending on the time of the year, the NOX poundage going in. With the mitigation how much is that knocked down?

SPEAKER ZENS – The Air Quality Consultant is here and I think he is looking that up right now for you. I don't believe we quantified that numerically after the Final EIR was published. As a result of the public comments on the EIR, 14 mitigation measures were added as a result of public comment and we fully vetted all of the recommendations that were made and discussed with City Staff of what was feasible and what was not feasible and as I mentioned, approximately 14 measures were added as a result of public comment. Quantitatively the Air Quality Consultant will need to answer that for you.

COMMISSIONER SIMS – Yes I guess for the record, I just was I guess… it looks like the threshold is 55 pounds per day and this is about a magnitude of four times over; close to 5 times over without the mitigation… I was reading how the mitigation measures closed the gap between the 221 down to the 55 threshold.

SPEAKER QUERESHI – Good evening…I'm Haseeb Quereshi, Urban Crossroads. I can answer that for you here. As Tracey mentioned, what we did as a conservative measure is not take any numerical credit for those approximately 14 mitigation measures, so the results you see in the analysis are without mitigation and kind of the worst case scenario if you will. But to put the results in context if you will, the regional air quality thresholds are relatively low in that you could have a variety of uses that are not an industrial use if you will. If you had commercial uses; shopping center let's say, you'd have a similar type of impact in that you'd significantly exceed the NOX threshold of 55 pounds per day. So just putting that into context a little bit. It is not uncommon for you know most relatively large projects if you will; you know 5 or 10 acres plus to have a significant impact as it relates to that NOX threshold.

CHAIR VAN NATTA – Are there any other questions?

VICE CHAIR GIBA – I just had a note here about your noise levels. A lot of the information I was reading was over a year ago. Any significant changes in the noise levels?

SPEAKER COCHRANE – No

VICE CHAIR GIBA – It's all staying pretty much the same?

SPEAKER COCHRANE – Everything is…

VICE CHAIR GIBA - The traffic studies were from 2007 I think they were showing; they were using 2007 data. Was that it? I was just curious, are there any recent or current traffic studies being used?

SPEAKER ZENS – Sorry the 2007 date was referring to the City's guidelines for preparation of traffic reports. It was early this year in 2013 that the traffic study was published, which means the data was from 2012. While I'm up here, I did want to make one comment. Staff mentioned that two letters were received yesterday. Referring to the Johnson and Sedlak letter, I did review the comments made in that letter. On page 3, there are some comments made regarding the mitigation measure 4.1-3O regarding import of earth materials. This project is going to require a minimal of earth materials to be brought into the site as part of the grading operation. Mr. Sedlak was correct that the calculation was done incorrectly. When the calculation was performed we were assuming that the trucks would be coming in using kind of double belly dump truck, which may not be the case, so we would like to City to change mitigation measure 4.1-30 which currently states the limitation of 66 inbound trips per day carrying earth materials to 66 total trips per day. So if 33 trucks were coming in and 33 trucks were going out, that would total the 66. It is not inbound that was said, it is an error in the wording of mitigation of 4.1-3O which we would like to have corrected.

VICE CHAIR GIBA – In the impact report, it is 4.1-29

SPEAKER ZENS – That would be in mitigation monitoring reporting program

VICE CHAIR GIBA – What were those numbers again?

SPEAKER ZENS – That was mitigation measure 4.1-3O

VICE CHAIR GIBA – Yes and you said that you wanted a change from where to what?

CHAIR VAN NATTA – She said instead of 66 inbounds, it would be 66 trips total, which is basically half of that amount

SPEAKER ZENS – Correct

CHAIR VAN NATTA – Okay, I think we can do as modified to cover that

VICE CHAIR GIBA – As modified, yes

CHAIR VAN NATTA – Is there anything else you wanted to address in response to the letters we received?

SPEAKER ZENS – If you would like I can respond to the entire letter. If there are particular points I'm happy to address just those. I could hit the highlights for the record if you have the patience listen to me for five minutes or so. I'm not going to go in the order of the letter, I'm going to start with traffic because the order of the letter starts with air quality but on a project like this, the air quality impacts are primarily driven by the traffic, so I'd like to address traffic first. The two main points raised in the letter are that the comment was that the traffic trips on the regional highway facilities; so the freeways weren't studied far enough out was a comment that was made. The traffic report was prepared per City guidelines and per Cal Tran's guidelines for a peak hour, 2 way trips on freeway facilities and 50 peak hour trips on local road intersections. Mr. Johnson peak suggests that the 100 2 way peak hour trips is not sufficient and that the traffic study should have studied more freeway segments. The significance threshold that is stated in the EIR on which the analysis was based was a 100 2 way peak hour trips. For this particular project the traffic is circulating down Indian to Harley Knox and accessing the freeway at the Harley Knox interchange. So the freeway segments both north and south of Harley Knox Boulevard were analyzed. After that the traffic dissipates to less than 100 2 way peak hour trips, so it is not necessary to study that further because even though if it was studied it would acknowledge that there are congestion on other freeway segments and I think that any rational person really realizes that there is congestion on freeway segments and that this project trips are circulating beyond the two segments just north and south of Harley Knox Boulevard.

The EIR discloses that the trips go as far as 20, 30, 40, 50, 60 miles some of them. It is absolutely not feasible and not appropriate and not professional standard to chase every single trip down to one trip. We would be studying the entire way up to the City of Los Angeles if that was the case and that is not done; that is not a professional standard to do. The other comment that was made was regarding the timing and funding of improvements at Harley Knox interchange at I-215. Under CEQA impacts are considered sufficiently mitigated if there is a funding program to which the project can contribute and there is a program in place for that improvement. There is a program in place to make improvements at that intersection. It is TUMF. The project is paying TUMF fees. That is adequate mitigation. Based on Mr. Johnson's comment letter on the Draft EIR, we reached out to the City of Perris to get as much detailed information as we possibly could from them and with the timing of the improvements are at that facility. They said they are going to be starting planning of the design of the improvements within the next five years, so it is coming; yes it is not coming tomorrow, but it is coming. There is a timeline identified by the City, so the payment of the TUMF fee is adequate mitigation and does lessen this project's impact to the below the level of significance.

CHAIR VAN NATTA – Are there any questions?

VICE CHAIR GIBA – I did notice that everything was going through Harley Knox, but traffic can go in other directions if it chooses. Why was it focused on the Harley Knox and I know they are improving that route.

SPEAKER ZENS – Correct… so the truck travel will go in that direction. If you read the traffic report, the passenger cars are not all being analyzed as going south to that direction. There will be I believe signs usually at the exit driveways directing the trucks to the truck route and based on the distribution pattern that the traffic analyst works out with the City, it was determined that that is the route that the trucks will be taking from this project.

VICE CHAIR GIBA – That is specified that they'll be taking that route, right Michael?

TRAFFIC DIVISION ENGINEER LLOYD – That was the assumption made in the traffic study because it was the most direct route to the closest freeway. That was the rationale behind that.

VICE CHAIR GIBA – Down Perris to Ramona or anything?

TRAFFIC DIVISION ENGINEER LLOYD – I did not see any advantage of routing traffic into the City of Perris over to Ramona when they've got their own congestion issues that they are also working through. The most direct and least amount of time to get on the freeway was putting them onto Harley Knox and through that interchange.

VICE CHAIR GIBA – I remember we discussed this pretty heavy one time before already so just reiterating that.

SPEAKER ZENS – In comparison, the impacts that cannot be mitigated that we are asking you to override this evening are two local road intersections along Harley Knox Boulevard at Western Way and I believe Indian. Projects in the City of Moreno Valley, there is no fee program in place to which this project can pay funds to the City of Perris for local roads, so we're asking you; conversely TUMF is available for the freeway interchange. It is not available for the local road intersection and so because that mitigation is out of the City of Moreno Valley's control we've identified that as insignificant and unmitigable. There is a program in place but this project cannot contribute funds to it.

CHAIR VAN NATTA – Okay, anything else. Last chance. Okay, thank you very much.

ASSOCIATE PLANNER DESCOTEAUX – Excuse me on minute, were there any comments in the Sierra Club letter that needed to be…

SPEAKER ZENS – The Sierra Club letter comments about cumulative impacts mostly related to air quality and suggests the City keeps approving these projects one by one by one. There is a very thorough cumulative impact analysis in the Environmental Impact Report and in the technical studies and just as a reminder, this project is in a Specific Plan area. The Moreno Valley Industrial Area Plan where projects weren't considered one by one by one. It is a planned Specific Plan. The land use has been determined two decades ago. It was comprehensively looked at then and the phase of development that we are in now is that Specific Plan is merely being implemented, so how CEQA works, is when a project is approved, that project is analyzed and that is what we've done here. We haven't ignored the cumulative growth that is going on around the project, but acknowledging that it is in a Specific Plan area that is merely just being built out now.

CHAIR VAN NATTA – Do we have Speaker Slips?

INTERIM PLANNING OFFICIAL ORMSBY – There is one…Tom Thornsley

SPEAKER THORNSLEY – Good evening again Commissioners. I do want to thank Tracey and her firm for putting together a very good EIR. In the past I have worked on writing the EIR's so when I read them I really appreciate my ability to follow through and understand them. I may not like what the results are and what level of mitigations there are and as you know I am one of the commenters to the EIR and forgive me but I left the house earlier today to come and interview for the vacant seat there and I never went back to get my notes that I wrote on this a couple of days ago.

One of my comments had a response to it that indicated the Applicant could make an improvement. I think it had to do with providing electrical plug-in sites and Larry mentioned to me the other night and I think you drive one and that the response to the comments was that they could. I never like mitigation measures that are not a should or a will or comments or a shall. Ones that say could that leaves it up to the Applicant and I believe this one had to do is they could put conduit out to the site and then it is based upon whether or not the end user wants to have that. It doesn't really achieve the goal of make sure something is truly provided. Hopefully she can look that up and find out where it is. It was somewhere in the middle of my comments, but I'm just not remembering. When I looked in the packet here I couldn't find the entire list of stuff. Commissioner Giba made a big point of what goes on with the TUMF fees being collected and yet there is no timeline planned yet for Harley Knox. I feel the same concerns. I see that Johnson Sedlak letter says the same thing. If is five years out for them to start doing the planning and then they deal with Cal Trans, that's 10 more years out, so we are looking at 15 years before those improvements are in the ground and that the highway can handle the traffic. That seems like a long time. There have been a lot of projects approved. There are a lot of projects being constructed in this area. I see those impacts getting to point where projects like this, when they leave that site they'll go north on Perris and go up to Cactus. If they need to be going eastbound then they'll take Cactus out to Moreno Beach and then go up to the freeway, so I really see that there will come a congestion point with projects being approved and letting mitigation measures eliminate a problem only in text, not in reality, so by putting money in a bank, you are saying you are correcting the problem, but until actual stuff is built…so at some point we're going to have find a way to have mitigation measures that basically say you can't do this until this actually happens or we're going to choke ourselves out before we get around to getting these things built.

One of the things in the Specific Plan is they encourage the mix of uses and this project is not doing what others have done where you have taken an rezoned properties, but we're not getting a mix of use of the Specific Plan any longer. It seems like anything that is coming is coming in large size warehouses. We're no longer utilizing the small lots for smaller industrial type buildings for different types of uses to take place in the industrial realm of projects, so we're not diversifying ourselves as the Specific Plan would like us to do and I hope in future as you look at projects, you realize that we no longer have the small shop industrial facilities. Everything in this town is going large and that stifles a lot of creativity that could come here. I take issue with some of the design stuff that I don't see in this project, which I don't see in all the industrial projects in this area.

CHAIR VAN NATTA – Sir you are well over your three minutes.

SPEAKER THORNSLEY – I thought it was five

CHAIR VAN NATTA – No it is three and you already have spoken for four

SPEAKER THORNSLEY – Okay

CITY ATTORNEY BRYANT – I believe it is five for a Public Hearing.

CHAIR VAN NATTA – Okay, I'll give you another minute

SPEAKER THORNSLEY – The design guidelines ask for a variety of relief elements to the project. The scale and massing of these buildings, the relief would have to be substantial and what little bit that is on there is minor and I continually point out that if you look at the landscaping around here and what you see in front of these buildings can never be planted that way because they have parking stalls right up to the sidewalk leading right into the building and because these are all concept buildings or speculative buildings, we're not getting the type of design that a known tenant would want as part of a showcase building and I really wish that the City would start asking for a little more in that realm. Thank you.

CHAIR VAN NATTA – Thank you for your comments. Do we have any other Speakers?

INTERIM PLANNING OFFICIAL ORMSBY – There are no other Speakers.

CHAIR VAN NATTA – Thank you. We're going to close Public Comments now and go to Commissioner Discussion. Who would like to start on this one?

COMMISSIONER SIMS – Well I'm reading an interesting book and it is called Basic Economics and the one line in it says economics is the allocation of resources that alternative uses and usually then alternatives uses are guided by market demand and so I see in this case the project proponent is looking going to a 400,000 square foot building if that I what the market demands that is probably what needs to be on the property. As far as the things, you know when you read these things and you look through the air quality and the traffic, I think the thing that alleviates some of my concern about it is this particular warehouse project is within an area that is pre-approved for this kind of specific use. It is very consistent with the development activity that is in that area. It is consistent with the land use that March JPA is doing along in that area for a global port, so there is a lot of reasons why this project is very consistent. As far as the air quality it would appear they are working towards mitigation. How effective those are you know that is to be seen but the South Coast; you know the displacement of the… if economics drive the need for the warehousing, the displacement of the NOX and various contaminants would still be within the basin to support the need. So I would believe over time South Coast Air Quality Management District is more the applicable leader in applying clean technology for diesels and regulatory to bring that into check and as far as paying the TUMF fees, I believe that is probably adequate mitigation for the traffic generated for the project. Anyhow, the last part I find favorable for the project as generated 191 recurrent jobs for the City.

CHAIR VAN NATTA – Thank you Commissioner Sims. Does anyone else have any more comments?

VICE CHAIR GIBA – I dug through this and dug through this and I kept trying to find… I do that sometimes to try to find a reason why I shouldn't approve this because there are so many people that are not in favor of warehouses and stuff, but as Commissioner Sims says it is the right location, it is the right size… actually it is fairly small warehouse facility compared to what is being built. When I looked at the cumulative development project location map on page 4.4-55… I see on the west side of that freeway a heck of a lot more building going on than our east side of the freeway and so how much of the mitigation that we can do on a 400,000 square foot facility versus I'm seeing something that has to be in the huge amount in Riverside. They are probably dumping a lot more into that air from their warehousing than we would in the dividing line of the 215 freeway. I see no reason in as much as I tried to find the alternatives for it, I see no reason why we shouldn't approve this project. I think it is exactly what it was designed to do in the place it was designed to do it and I personally am going to vote in favor of it.

CHAIR VAN NATTA – Any more comments?

COMMISSIONER BAKER – I'm favor of the project. I think as things move forward you just go with what the demand is out there in the public and it is for warehousing right now and like Meli said 400,000 square feet is not a big warehouse nowadays compared to some, so I'm in favor of this project and I think we need to move it forward.

CHAIR VAN NATTA – Do have anything to say Commissioner Ramirez?

COMMISSIONER RAMIREZ – Well once again I'm pretty much echoing what everybody has said. The project is in an ideal location. It is conformance with the General Plan and I don't see a reason why we should not vote this through, especially given that mitigation measures were taken to ensure that emissions and all that are regulated and controlled effectively, so I am going to be voting for this project.

CHAIR VAN NATTA – Thank you. I would agree with just about everything that Commissioner Sims said except for one thing. I can't see myself saying I was reading an interesting book and the title of it was Basic Economics, but other than that it does look like a good project and in an appropriate location and well planned and well mitigated, so would someone like to…

INTERIM PLANNING OFFICIAL ORMSBY – Chair Van Natta I just wanted to check to see if you wanted to give the opportunity for the Applicant to rebut because I don't believe they had an opportunity to rebut any of the comments.

CHAIR VAN NATTA – Do you want an opportunity to rebut unless they want to change our minds?

INTERIM PLANNING OFFICIAL ORMSBY – It is for the record… I mean for anything they might want to put on the record in regard to rebuttal.

CHAIR VAN NATTA – Is there anything you would like to rebut? Okay I didn't think so. Okay who would like to…

COMMISSIONER BAKER – I can do it if you like.

CHAIR VAN NATTA – Okay go ahead.

COMMISSIONER BAKER – Okay I hear a motion that we **APPROVE** Resolution No. 2013-30 and;

1. **CERTIFY** that the Final Environmental Impact Report EIR, P12-064 for the First Inland Logistics Center 2 on file with the Community and Economic Development Department has been completed in compliance with the California Environmental Quality Act and that the Planning Commission reviewed and considered the information contained in the Final EIR and that the Final EIR reflects the City's independent judgment and analysis and;

2. **ADOPT** the findings and Statement of Overriding Considerations regarding the Final EIR for the First Inland Logistics Center 2 attached hereto as Exhibit B and;

3. **APPROVE** the Mitigation Monitoring Program for the Final EIR for the proposed project attached hereto as Exhibit C and;

4. **APPROVE** Plot Plan PA12-0023 subject to the attached conditions of approval included as Exhibit A.

CHAIR VAN NATTA – Which one had the modification?

ASSOCIATE PLANNER DESCOTEAUX – Number 3

CHAIR VAN NATTA – Number 3 that would have been as modified

COMMISSIONER BAKER – And number 3 as modified

VICE CHAIR GIBA – Second

CHAIR VAN NATTA – Okay we have a motion and a second… all in favor?

Opposed – 0

Motion carries 5 – 0 – 1 (with one recused, Commissioner Lowell)

CHAIR VAN NATTA – Staff wrap up please

INTERIM PLANNING OFFICIAL ORMSBY – The action of the Planning Commission is final unless an appeal is filed within 15 calendar days.

CHAIR VAN NATTA – Thank you and Staff Comments

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Attachment 13

tb PLANNING
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JN 739-005

March 3, 2014

Ms. Julia Descoteaux, Associate Planner
CITY OF MORENO VALLEY
Community and Economic Development Department
14177 Frederick Street
Moreno Valley, CA 92553

RE: FIRST INLAND LOGISTICS CENTER EIR (EIR CASE P12-064; SCH NO. 2012121011)

Dear Ms. Descoteaux:

This letter responds to the December 11, 2013 letter addressed to the City of Moreno Valley Planning Commission by Mr. Raymond W. Johnson of Johnson & Sedlack. Please include this response in the City's Administrative Record for EIR Case P12-062. The Moreno Valley City Council is scheduled to consider the appeal of EIR Case P12-062 on March 11, 2014. The appeal was filed by Mr. Johnson.

Each substantive point raised in Mr. Johnson's December 11, 2012 letter is addressed below. As concluded herein, the Final EIR complies with the California Environmental Quality Act (CEQA) and adequately evaluates the impacts of Plot Plan PA12-0023 (First Inland Logistics Center II).

AIR QUALITY IMPACTS

Mitigation of Operational Emission Levels

The Final EIR concludes that nitrogen oxides (NOx) air emissions generated by the operation of the proposed Project would exceed South Coast Air Quality Management District (SCAQMD) daily emissions thresholds. Over 90% of the subject emissions would be emitted from mobile sources (vehicles traveling to and from the Project site).

Mr. Johnson submitted a comment letter on the Draft EIR that contained a list of 98 items for the City to consider to further reduce the Project's effects on air quality. Although CEQA does not require the City to analyze a list of every imaginable mitigation measure, the Final EIR contained written responses to all 98 items addressing the feasibility and practicality of each suggestion. Many of Mr. Johnson's suggestions were duplicative of mandatory regulatory requirements or of mitigation measures already set forth in the EIR. Some of the suggestions were not applicable because they discussed residential projects whereas the Project proposed is a warehouse. The City gave careful consideration of each applicable suggestion not duplicative of a state or federal requirement or SCAQMD Rule, and added 17 items to the Final EIR's Mitigation Monitoring Program.

The Final EIR and the City's Administrative Record contain substantial evidence demonstrating why it is not feasible for the City or Project Applicant to impose Mr. Johnson's other suggestions on the Project and in particular his suggestions for tailpipe emission controls, motor engine requirements, fuel type use, and power choices for on-site equipment beyond what is required by state and federal law throughout the South Coast Air Basin and State of California.

Please refer to *Attachment A* of this letter, which is a memorandum from Urban Crossroads that summarizes the trend of air quality improvement in the South Coast Air Basin and expectations for continued improvement through state and federal vehicle emissions control programs and regulations in place in the Ports of Los Angeles and Long Beach.

Continued improvement in air quality is expected to occur through the ongoing implementation of federal, state, and SCAQMD regulations such as California's low carbon fuel (Pavley) requirements, low sulfur diesel fuel programs, and renewable electricity standards. California AB 1493, enacted on July 22, 2002 (Pavley), required the California Air Resources Board (CARB) to develop and adopt regulations that reduce passenger vehicle and light duty truck emissions. Executive Order S-01-07 (2007) directed the establishment of a Low Carbon Fuel Standard, which CARB adopted on April 23, 2009. Regarding renewable electricity standards, Executive Order S-21-09 (2009) requires the state's load serving entities to meet a 33 percent renewable energy target by 2020. The CARB Board approved the Renewable Electricity Standard on September 23, 2010 by Resolution 10-23. The CARB Truck and Bus Regulation requires diesel trucks and buses to be upgraded to reduce emissions. The regulation applies to nearly all privately and federally-owned diesel fueled trucks and buses with a gross vehicle weight rating (GVWR) greater than 14,000 pounds. By January 1, 2012, heavy trucks must have been retrofitted with particulate matter (PM) filters. By January 1, 2015, older trucks will need to be replaced and by January 1, 2023, nearly all trucks and buses must have 2010 model year engines or equivalent.

Given that substantial regulations are already enforced by federal and state law and SCAQMD Rules, and these regulations will continue to become more stringent over time, sufficient regulations are already in place to address air quality improvement on a Basin-wide scale. The imposition of stricter tailpipe emission controls, motor engine requirements, fuel type use standards, or power choices for on-site equipment beyond what is required by the state and federal government on one project in Moreno Valley would merely limit the economic competitiveness of the Project while offering no measurable environmental benefit to the Air Basin.

Impacts from Soils Import

Mr. Johnson asserts that the Final EIR underestimated air quality impacts from soil import. The Planning Commission addressed this comment and revised Mitigation Measure 4.1-3(o) accordingly to restrict the maximum number of soil import loads to 66 daily trips (inbound + outbound) instead of 66 inbound trips.

CUMULATIVE AIR QUALITY IMPACTS

The conclusion drawn in the Final EIR is accurate. Buildout of land uses in the region and across the South Coast Air Basin would result in construction activity-related air emissions from development and redevelopment projects, including emissions associated with construction activities at the Project site. Given that many construction projects occur simultaneously throughout the region, the Air Basin would continue to be subjected to significant, cumulative construction-related impacts for every criteria pollutant. Taken together, cumulative emissions from simultaneous construction projects are significant. The specific evaluation of emissions presented in the Final EIR demonstrates that prior to application of mitigation measures, the Project's construction-source air pollutant emissions would exceed regional thresholds of VOCs and NOx, which is considered a cumulatively considerable contribution to the cumulative impact. After implementation of the Final EIR's mitigation measures, Project construction-source emissions would be reduced to levels considered by the SCAQMD to be less than cumulatively considerable. See Final EIR Tables 4.1-8 and 4.1-13. Thus, the proposed Project creates a less than significant cumulatively considerable impact with respect to construction-related air emissions.

Mr. Johnson also appears to be implicitly attacking the EIR and the SCAQMD's use of a single threshold of significance to determine project-specific and cumulative impacts. Mr. Johnson's attack on the use of the SCAQMD's thresholds of significance is without merit. As set forth in greater detail in the technical memorandum prepared by Urban Crossroads (refer to *Attachment A* of this letter), the use of the SCAQMD's threshold of significance is appropriate and proper for the following reasons: (i) The SCAQMD's single threshold of significance is the by-product of the judgment of SCAQMD's air quality engineers and scientists who believe the threshold of significance adequately identifies potentially significant direct and cumulative impacts. (ii) The SCAQMD requires the use of this threshold of significance in all projects located in the South Coast Air Basin as part of the SCAQMD's role in providing uniform CEQA review throughout the Basin. (iii) The use of a single, uniform threshold of significance facilitates the ability of SCAQMD to promulgate uniform regulatory responses in an effort to achieve air quality attainment goals. (iv) The use of a single, uniform threshold of significance has worked insofar as the air quality in the South Coast Air Basin has greatly improved (over the full spectrum of criteria pollutants) over the past several decades following the creation of uniform CEQA review procedures by SCAQMD. (v) For all of these reasons, the SCAQMD did not object to and in fact requires the use of the single threshold of significance set forth in its CEQA handbook.

BIOLOGICAL IMPACTS

Cumulative effects to raptor foraging habitat are addressed through the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The Project is required to comply with the City of Moreno Valley Municipal Code Title 3, Chapter 3.48, MSHCP Fee Program, which requires a per-acre local development mitigation fee that provides revenue to acquire and preserve vegetation communities and natural areas that are known to support threatened, endangered or key sensitive populations of plant and wildlife species. Mandatory payment of the MSHCP Fee would reduce any Project-related impact to raptor foraging habitat to below a level of significance. See Final EIR, Project Requirement PR4.5-1. MSHCP Section 5.3.5, "Identifying Wildlife Habitat Types" describes the general California Wildlife Habitat Relationships (CWHR) methodology used to identify the planned MSHCP Conservation Area. The CWHR " makes predictions about a habitat's value to wildlife in terms of its capacity to fulfill reproduction, foraging, and cover needs of wildlife" (MSHCP Section 5.3.5). Thus, the MSHCP accounts for foraging. The conclusion of the Final EIR is accurate.

TRAFFIC IMPACTS

Caltrans’ Guide for the Preparation of Traffic Impact Studies

Refer to *Attachment B* of this letter, in which Caltrans District 8 clarifies their *Guide for the Preparation of Traffic Impact Studies.* Following the direction given by Caltrans in *Attachment B* (to study segments that receive 50 or more peak hour trips as opposed to 100 or more peak hour trips studied in the Final EIR), Urban Crossroads conducted analyses of 22 additional freeway mainline segments to determine if the Final EIR’s conclusion is accurate. In summary, the Final EIR’s conclusion is accurate and the additional analysis does not raise any new significant information within the meaning of CEQA Guideline §15162. The proposed Project would have a less than significant direct and less than significant cumulatively considerable impact on freeway mainlines.

Refer to *Attachment C* for the additional technical analysis. As concluded in *Attachment C*, no segments of SR-60 would receive 50 or more peak hour trips from the Project and therefore the EIR and this supplemental analysis have concluded that no foreseeable, cumulatively considerable, significant impacts would occur to segments where the Project would contribute less than 50 peak hour trips. As stated by Caltrans “when a project’s traffic volumes dissipate to fewer than 50 peak hour trips on a freeway mainline segment, they become unrecognizable from other traffic on the SHS [state highway system].” For all freeway segments to which the Project would contribute 50 or more peak hour trips, *Appendix C* shows that the proposed Project would result in less than significant direct impacts and less than significant cumulatively considerable impacts (see Table 3 and Table 4 of *Attachment C*). All segments would operate at levels superior to Caltrans’ definition of deficient conditions (LOS E or F) in the “Existing + Project” condition and the “Opening Year (2017) + Cumulative + Project” condition except for one northbound and southbound segment of I-215 (Van Buren Blvd. to Harley Knox Blvd.), which would operate at LOS E. LOS E is superior to RCTC’s definition of a deficient condition (LOS F), which the Final EIR utilizes to determine significant effects. Thus, the Final EIR’s conclusion of less than significant and less than cumulatively considerable is accurate.

Funding Contributions to Caltrans’ Facilities

Refer to *Attachment B* of this letter, in which Caltrans District 8 clarifies the availability of mitigation for traffic contributions to the state highway system. *Attachment B* (page 2, item 4) confirms that Caltrans has no fee programs or other mitigation programs in place for impacts to the state highway system caused by development projects in the Moreno Valley Industrial Area Plan (MVIAP). Caltrans also states that mitigation of direct and cumulative impacts to freeway ramps are satisfied by mandatory participation in the TUMF program. The proposed Project is required to pay TUMF fees. CEQA allows for the assessment of a fee as an appropriate form of mitigation when it is linked to a specific mitigation program. In this case, the TUMF is an established mitigation program; therefore, payment of TUMF fees is adequate to reduce the proposed Project’s impact to below a level of significance. Final EIR, Response to Comment C-9, discloses the City’s understanding of the timing of TUMF-funded improvements to the Harley Knox Boulevard/I-215 interchange. As such, the City made a fully informed decision in its certification of the Final EIR. There is ample evidence that TUMF is a successful mitigation program. According to the Western Riverside Council of Governments (WRCOG) *2012 TUMF*

Annual Report, 54 TUMF-funded projects have been successfully completed to-date (WRCOG 2013, p 7). Additionally, there were 19 additional TUMF-funded projects under construction, 23 projects in the engineering or right-of-way acquisition stage, and 15 projects in the planning and environmental review stages at the close of fiscal year 2011/12 (WRCOG 2013, p 26). (Information for fiscal year 2012/13 is not yet available.) In the TUMF Central Zone, where the proposed Project is located, there were 10 completed projects, five (5) under construction, four (4) in the engineering or right-of-way acquisition stage, and four (4) in the planning and environmental review stages at the close of fiscal year 2011/12 (WRCOG 2013, pp 28, 29, 48). WRCOG's *2012 TUMF Annual Report* is available online and accessible to the public for review at http://www.wrcog.cog.ca.us/uploads/media_items/tumfar-2012-web.original.pdf. It also is attached to this letter as *Attachment F*.

Mitigation Measure MM 4.4-1

The Final EIR acknowledges that improvements at the two intersections identified in Mitigation Measure MM 4.4-1 fall outside of the City's jurisdiction (see Final EIR Section 4.4.8, p. 4.4-25). Given this fact, the City appropriately identified the Project's traffic impact at these intersections as significant and unavoidable.

Trip Length and Frequency

Regarding trip length, the traffic analysis in the Final EIR applies an average one-way truck trip length of 61 miles, whereas the SCAQMD's URBEMIS computer model uses a default length of 12.6 miles and the SCAQMD generally recommends the use of a 40-mile one-way trip length. Thus, the Final EIR already over-states average trip lengths which has the effect of over-stating Project impacts. Any assertion by Mr. Johnson that the Final EIR somehow under estimates traffic and air quality impacts is incorrect; more accurately, the Final EIR purposefully overstates traffic and air quality impacts in order to provide a worst-case scenario analysis.

The SCAQMD has recently commented on numerous warehouse projects calling for the use of a greatly exaggerated trip generation rate based on the 95th percentile of all high-cube warehouses. Use of this exaggerated rate would assume that the proposed Project would have a trip rate equivalent to the busiest 5% of all warehouses in the study conducted by the SCAQMD. There is no evidentiary basis to support this hypothesis (i.e., that this Project would generate traffic equivalent to the busiest 5% of all warehouses in Southern California) and thus the use of this greatly exaggerated trip rate would significantly overestimate anticipated Project total trips. The Project-generated daily passenger car and truck trips utilized in the traffic study are derived from trip generation rates specified in the Institute of Transportation Engineers (ITE) Trip Generation manual (8th Edition, 2008). Use of the ITE rates are (i) conservative and as discussed below already overestimate Project trips, and are (ii) standard industry practice for the calculation of projected traffic volumes in traffic studies supporting CEQA documents throughout the State of California.

As stated above, the use of the ITE Manual Trip Rates are conservative and likely over estimate Project trips because six of the seven trip generation studies included in the SCAQMD meta-analysis were also included as part of the dataset for estimating the daily and peak hour trip generation rates for ITE Land Use Code 152 (High-Cube Warehouse/Distribution Center) in ITE's 8th Edition of the Trip Generation manual.

The SCAQMD Study acknowledges that a lack of historical photographic coverage and/or business history make it difficult to discern the degree of correlation between the variation in site specific observations and SCAQMD's assertion that the ITE rates may be understated. In addition, the use of a 95th percentile trip generation rate is not standard traffic engineering practice as this approach would substantially overstate vehicle trip estimates and associated emissions. Therefore, the City of Moreno Valley determined that the trip generation rates for high-cube warehouse/distribution center use (Land Use 152) as published in the 8th Edition of ITE's Trip Generation manual, which are currently widely accepted throughout Riverside and San Bernardino Counties, are the most appropriate trip rates to be utilized in calculating vehicle trips for the proposed Project.

Similarly, the City of Perris has provided a comprehensive response to the SCAQMD for a similar comment that was provided on the Stratford Ranch Environmental Impact Report (State Clearinghouse No. 2012011037), July 27, 2013. Appendix L-3 to the Stratford Ranch DEIR (see *Attachment D*), includes a December 2011 study by Crain & Associates that identifies numerous technical flaws in the SCAQMD study, essentially discrediting it as a viable reference for trip generation rates of high-cube warehouse/distribution centers.

At the time the traffic study for the proposed Project was prepared, vehicle mix percentages for high-cube warehouse/distribution center projects in the City of Moreno Valley was based on the vehicle mix for Truck Terminals (Land Use Code 030) as published in the City of Fontana Truck Trip Generation Study (August 2003). The Truck Terminal vehicle mix consists of 46.0% passenger cars, 6.1% 2-axle trucks, 13.9% 3-axle trucks and 34.0% 4+-Axle trucks. In the Fall of 2013, The City of Moreno Valley commissioned a survey of six (6) existing high-cube warehouse/distribution centers within the City of Moreno Valley to determine a new vehicle mix based on empirical data that would be specific to high-cube warehouse/distribution centers within the City. The empirical data indicated an average vehicle mix of 76.0% passenger cars, 3.0% 2-axle trucks, 3% 3-axle trucks and 18% 4+-axle trucks. The survey results, which are on file with the City of Moreno Valley Public Works Department Transportation Engineering Division, confirm that the vehicle classification percentages used in the Final EIR are conservative and likely overstate the amount of trucks as compared to "real world" surveys conducted by the City of Moreno Valley.

Thus, because the Final EIR uses the trip generation rates and vehicle mix percentages for the truck terminal land use, the trip generation estimated and assessed in the EIR's traffic impact analysis is conservative and would overstate as opposed to understate potential traffic impacts. Mr. Johnson's assertions that somehow the technical traffic report attended to the Final EIR and the Final EIR itself under estimate traffic and air quality impacts is incorrect.

Cumulative Analysis

The geographic scope of study applied in the Final EIR for the analysis of cumulative traffic impacts is appropriate and accurate. As stated in the Final EIR Response to Comment E-26, the geographic area of study was determined based on a reasonable distance at which the traffic of other projects would mix with traffic from the proposed Project in the Project's traffic study area. Traffic from other projects beyond this distance is adequately provided for within the analysis by the application of a 2% annually compounded growth rate over five (5) years. To verify the accuracy of this assumption, Urban Crossroads conducted an additional analysis that adds traffic projected from the World Logistics Center Project (see *Attachment E*). As demonstrated in *Attachment E*, the addition of World Logistics Center traffic would not change the significance conclusions drawn in the Final EIR.

CONSTRUCTION NOISE IMPACTS

As disclosed in the Final EIR, the Project is proposed in the middle of the Moreno Valley Industrial Area Plan (MVIAP), which is developing as a center for distribution warehousing and light industrial land uses (see Final EIR Figure 2-3). Immediately abutting the proposed Project site on the west is a warehouse building occupied by Harbor Freight Tools, beyond which is a warehouse distribution facility occupied by Modular Metal Fabrications, Inc. Land immediately east of the Project site includes undeveloped land and two warehouse distribution facilities occupied by El Dorado Stone and Walgreens. Lands to the north and south are planned or approved for distribution warehouse buildings, but until those properties redevelop, approximately seven (7) non-conforming single-family residences located south of the Perris Valley Storm Drain Channel and north of Grove View Road will remain in place. The temporary, significant noise impact during construction activities identified in the Final EIR relates to effects on those non-conforming residential structures. In order for a noise barrier to be effective, it must be a solid barrier with no openings, and high enough to block the line of sight from the noise source from the receiver location. Mr. Johnson's suggestion to surround the Project site with a solid sound barrier during construction activities, which would only partially reduce the identified noise effect but not to a less than significant level, is neither practical nor feasible.

The process of constructing the barrier itself and securing it into the ground would cause temporary noise effects to the non-conforming residential homes. Furthermore, there is no feasible location to place such a barrier in a way that would not substantially interfere with either the construction of roadway frontage improvements and utility connections, or the Project's grading operation. Lastly, even if a barrier could be established, it would need to have openings to allow ingress and egress to the site, which would negate its effectiveness and yield no environmental benefit.

ALTERNATIVES ANALYSIS

The City of Moreno Valley property rejected the alternatives identified in the EIR. The reduced project alternative is a variation of the proposed Project, with a smaller building, and would not avoid or substantially reduce the proposed Project's significant environmental effects. To determine if an alternative is infeasible as that term is used in CEQA and the CEQA Guidelines, any agency must examine the pros and cons of the alternative across a broad range of factors. After weighing these factors, any agency may conclude that the alternative is physically or economically infeasible and/or impractical and undesirable from a policy standpoint and reject the alternative on those grounds. The City's specific reasons for finding that the alternatives identified in the Final EIR are infeasible are clearly stated in the Findings of Fact and Statement of Overriding Considerations approved by the Planning Commission.

STATEMENT OF OVERRIDING CONSIDERATIONS

When approving the Project and certifying its Final EIR, the Planning Commission made a fully informed and publically disclosed decision that specifically identified the expected benefits from the Project that outweigh the policy of reducing or avoiding significant environmental impacts of the project. These reasons were stated in writing in a Statement of Overriding Considerations. As such, the Planning Commission properly acted in its decision to adopt the Statement of Overriding Considerations, certify the Final EIR, and approve the Project.

T&B Planning has reviewed all of the additional analysis and materials set forth in these responses and the accompanying technical documents. None of this information contains significant new information within the meaning of CEQA Guideline §15162 and therefore re-circulation of the Final EIR is not required. The materials that are the subject of this letter and its Attachments merely clarify and amplify the analysis and conclusions already contained within the Final EIR.

Sincerely,
T&B PLANNING, INC.

Tracy Zinn

Tracy Zinn, AICP
Principal

Attachments:

- A. Air Quality Responses, Urban Crossroads
- B. Caltrans Letter, February 10, 2014
- C. Additional Freeway Analysis, Urban Crossroads
- D. City of Perris, Stafford Ranch Response to SCAQMD White Paper
- E. Additional Intersection Analysis, Urban Crossroads
- F. WRCOG's 2012 TUMF Annual Report

Attachment A

Air Quality Responses, Urban Crossroads

URBAN CROSSROADS
41 Corporate Park | Suite 300 | Irvine, CA 92606 | (949) 660-1994
www.urbanXroads.com

February 28, 2014

Ms. Tracy Zinn
T&B Planning
17542 East 17th Street, Suite 100
Tustin, CA 92780

SUBJECT: FIRST INLAND LOGISTICS II AIR QUALITY IMPACT ANALYSIS – RESPONSE TO SELECTED COMMENTS FROM JOHNSON & SEDLACK LETTER DATED DECEMBER 11, 2013

Dear Ms. Zinn:

This letter serves as a selected response to comments from Johnson & Sedlack's letter dated December 11, 2013 on the subject Project's DEIR.

REGIONAL AIR QUALITY IMPROVEMENT

The Project is within the jurisdiction of the SCAQMD. In 1976, California adopted the Lewis Air Quality Management Act which created SCAQMD from a voluntary association of air pollution control districts in Los Angeles, Orange, Riverside, and San Bernardino counties. The geographic area of which SCAQMD consists is known as the Basin. SCAQMD develops comprehensive plans and regulatory programs for the region to attain federal standards by dates specified in federal law. The agency is also responsible for meeting state standards by the earliest date achievable, using reasonably available control measures.

SCAQMD rule development through the 1970sand 1980s resulted in dramatic improvement in Basin air quality. Nearly all control programs developed through the early 1990s relied on (i) the development and application of cleaner technology; (ii) add-on emission controls, and (iii) uniform CEQA review throughout the Basin. Industrial emission sources have been significantly reduced by this approach and vehicular emissions have been reduced by technologies implemented at the state level by CARB.

As discussed above, the SCAQMD is the lead agency charged with regulating air quality emission reductions for the entire Basin. SCAQMD created AQMPs which represent a regional blueprint for achieving healthful air on behalf of the 16 million residents of the South Coast Basin. The remarkable historical improvement in air quality since the 1970's is the direct result of Southern California's comprehensive, multiyear strategy of reducing air pollution from all sources as outlined in its Air Quality Management Plans (AQMPs) and by utilizing uniform CEQA review throughout the Basin.

The 2012 AQMP states, " the remarkable historical improvement in air quality since the 1970's is the direct result of Southern California's comprehensive, multiyear strategy of reducing air pollution from all sources as outlined in its AQMPs,"(1). Ozone, NOx, VOC, and CO have been decreasing in the Basin since 1975 and are projected to continue to decrease through 2020(2). These decreases result primarily from motor vehicle controls and reductions in evaporative emissions. Although vehicle miles traveled in the Basin continue to increase, NOx and VOC levels are decreasing because of the mandated controls on motor vehicles and the replacement of older polluting vehicles with lower-emitting vehicles. NOx emissions from electric utilities have also decreased due to use of cleaner fuels and renewable energy. Ozone contour maps, show that the number of days exceeding the national 8-hour standard has decreased between 1997 and 2007. In the 2007 period, there was an overall decrease in exceedance days compared with the 1997 period. The overall trends of PM10 and PM2.5 in the air (not emissions) show an overall improvement since 1975. Direct emissions of PM10 have remained somewhat constant in the Basin and direct emissions of PM2.5 have decreased slightly since 1975. Area wide sources (fugitive dust from roads, dust from construction and demolition, and other sources) contribute the greatest amount of direct particulate matter emissions.

Ozone air quality in the SCAB has improved substantially over the last 30 years as shown in Table 1. During the 1960s, maximum 1-hour concentrations were above 0.60 ppm. Today, the maximum measured concentrations are less than one-third of that. The 2007 ozone season in the SCAB was on a par with 2006. The 2007 peak 8-hour indicator value was 42 percent lower than the 1988 value. The 2008 three-year average of the maximum 8-hour concentration was over 41 percent lower than 1990. The number of days above the standards has also declined dramatically, and the trend for 1-hour ozone is similar to that for 8-hour.

As with other pollutants, the PM10 statistics also show overall improvement as illustrated in Table 2. During the period for which data are available, the three-year average of the annual average (State) decreased by 35 percent. Although the values in the late 1990’s show some variability, this is probably due to meteorology rather than a change in emissions. Despite the overall decrease, ambient concentrations still exceed the State annual and 24-hour PM10 standards. Similar to the ambient concentrations, the calculated number of days above the 24-hour PM10 standards has also shown an overall drop. During 1989, there were 305 calculated days above the State standard and 34 calculated days above the national standard. By 2007, there were 273 calculated State standard exceedance days and 13 national standard exceedance days. The high 24-hour concentration in 2007 was due to a national windblown dust event.

Table 3 shows the annual average PM$_{2.5}$ concentrations (national) in the SCAB from 1999 through 2007. Overall, the annual average concentrations have decreased over 37 percent. The State annual average concentrations also show a declining trend, although the trend looks less pronounced, due to differences in State and national monitoring methods. The 98th percentile of 24 hour PM$_{2.5}$ concentrations has also declined within the last nine years. The SCAB is currently designated as nonattainment for the State and national PM$_{2.5}$ standards. Measures adopted as part of the upcoming PM$_{2.5}$ SIP, as well as programs to reduce ozone and diesel PM will help in reducing public exposure to PM$_{2.5}$ in this region.

Carbon monoxide concentrations in the SCAB have decreased markedly — a total decrease of more than 72 percent in the peak 8-hour indicator since 1988 as shown in Table 4. The number of exceedance days has also declined. During 1988 there were 73 days above the State standard and 65 days above the national standard. However, since 2003, there were no exceedance days for either standard. The entire SCAB is now designated as attainment for both the state and national CO standards. Ongoing reductions from motor vehicle control programs should continue the downward trend in ambient CO concentrations.

Part of the control process of the SCAQMD's duty to greatly improve the air quality in the Basin is the uniform CEQA review procedures required by SCAQMD's CEQA Handbook(3). The single threshold of significance used to assess Project direct and cumulative impacts has in fact "worked" as evidenced by the track record of the air quality in the Basin dramatically improving over the course of the past decades. As stated by the SCAQMD the District's thresholds of significance are based on factual and scientific data and are therefore appropriate thresholds of significance to use for this Project.

TABLE 1: SOUTH COAST AIR BASIN OZONE TREND

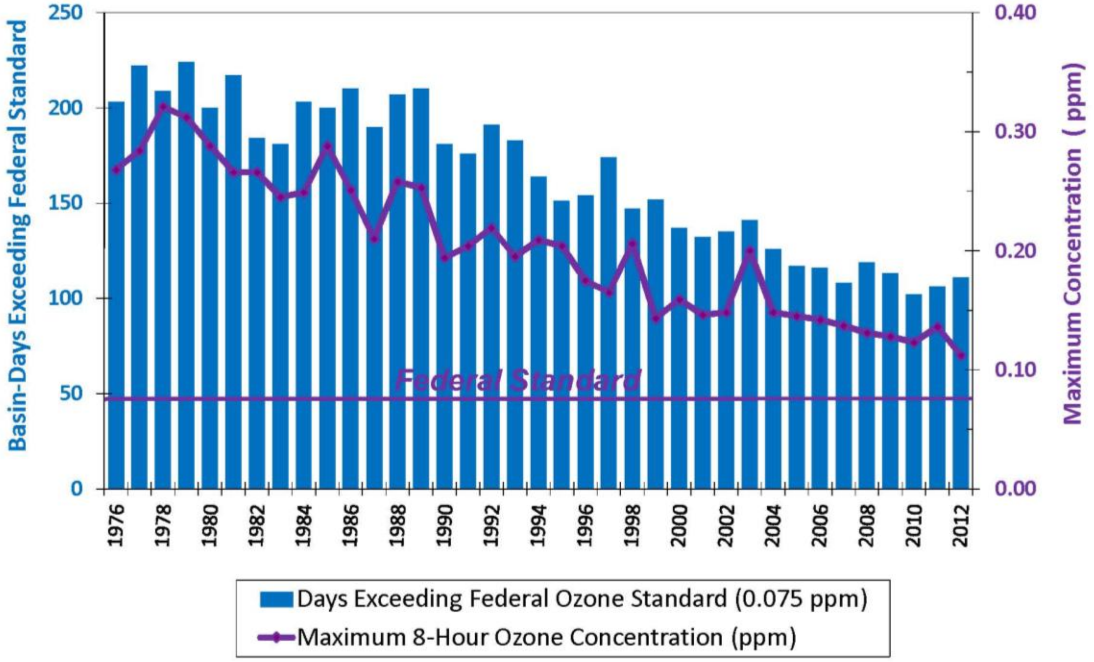


TABLE 2: SOUTH COAST AIR BASIN PM_{10} TREND

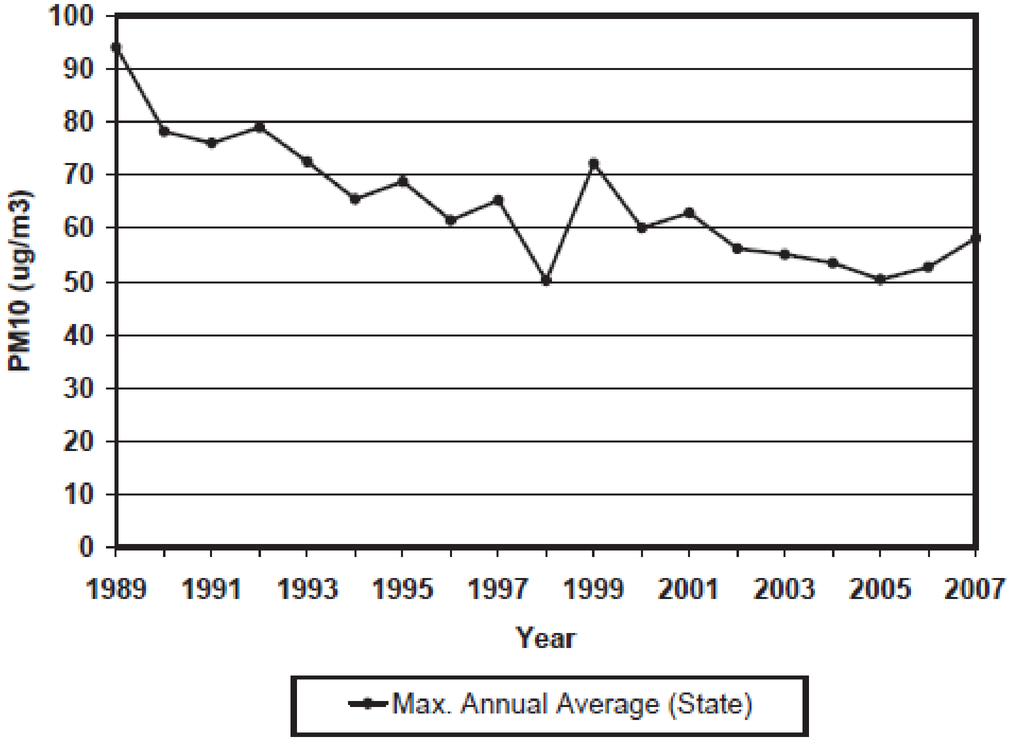


TABLE 3: SOUTH COAST AIR BASIN $PM_{2.5}$ TREND

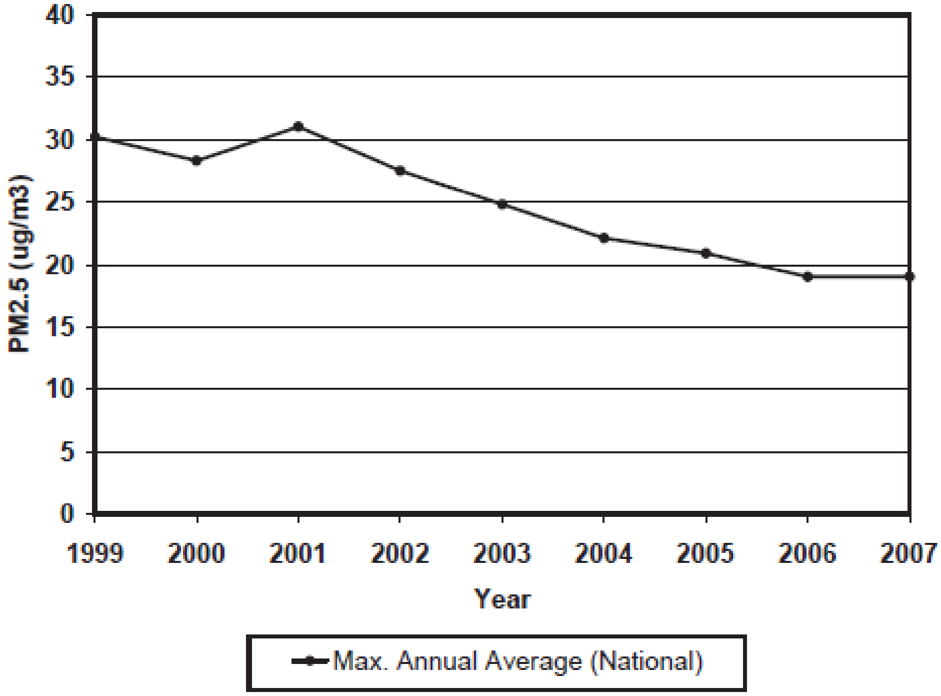
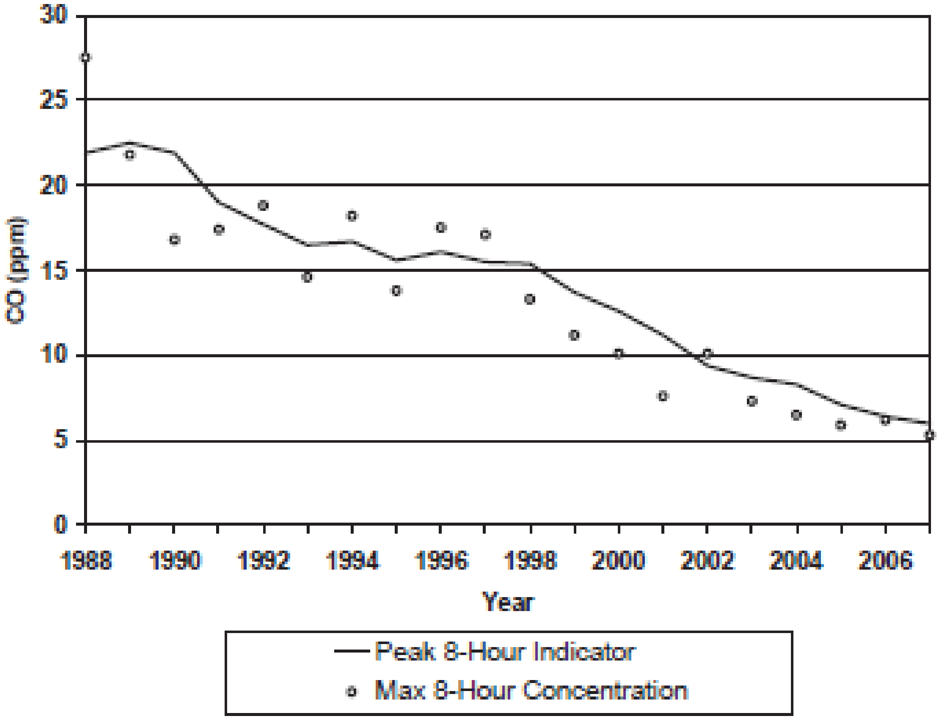


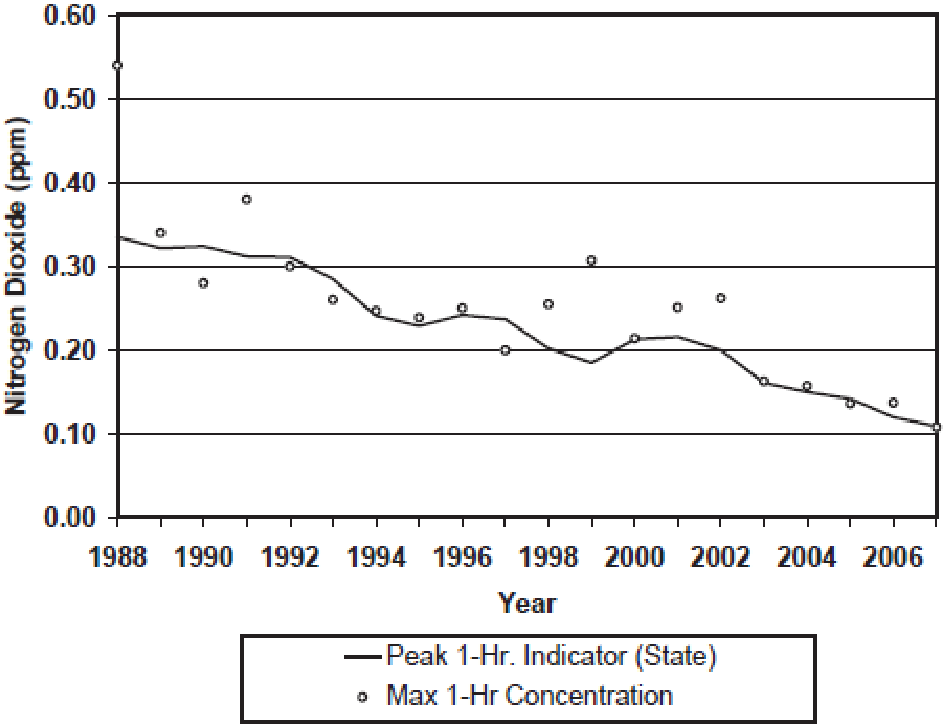
TABLE 4: SOUTH COAST AIR BASIN CARBON MONOXIDE TREND



Over the last 20 years, NO_2 values have decreased significantly in the SCAB as shown in Table 5. The peak 1-hour indicator for 2007 was over 67 percent lower than what it was during 1988. The SCAB attained the State 1-hour NO_2 standard in 1994, bringing the entire State into attainment. The national annual average standard has not been exceeded since 1991. A new state annual average standard was adopted by the ARB in February 2007. The new standard is just barely exceeded in the South Coast. NO_2 is formed from NO_x emissions, which also contribute to ozone. As a result, the majority of the future emission control measures will be implemented as part of the overall ozone control strategy. Many of these control measures will target mobile sources, which account for more than three-quarters of California's NO_x emissions. These measures are expected to bring the South Coast into attainment of the State annual average standard.

The American Lung Association website includes data collected from State air quality monitors that are used to compile an annual State of the Air report. These reports have been published over the last 13 years. The latest State of the Air Report compiled for the Basin was in 2010 (4). As noted in this report, air quality in the Basin has significantly improved in terms of both pollution levels and high pollution days over the past three decades. The area's average number of high ozone days dropped from 189.5 day per year in the initial 2000 State of the Air report (1996–1998) to 141.8 in the 2006–2008 report. The region has seen dramatic reduction in particle pollution since the initial State of the Air report (4).

TABLE 5: SOUTH COAST AIR BASIN NITROGEN DIOXIDE TREND



DIESEL REGULATIONS

The CARB and the Ports of Los Angeles and Long Beach have adopted several iterations of regulations for diesel trucks that are aimed at reducing DPM. More specifically, the CARB Drayage Truck Regulation (5), the CARB statewide On-road Truck and Bus Regulation (6), and the Ports of Los Angeles and Long Beach "Clean Truck Program" (CTP) require accelerated implementation of "clean trucks" into the statewide truck fleet (7). In other words, older more polluting trucks will be replaced with newer, cleaner trucks as a function of these regulatory requirements.

Moreover, the average statewide DPM emissions for Heavy Duty Trucks (HHDT), in terms of grams of DPM generated per mile traveled, will dramatically be reduced due to the aforementioned regulatory requirements. Table 6 provides a comparison of the estimated DPM emissions from that would occur under the statewide programs, reflected in EMFAC 2011, and what would occur under the Ports CTP (8).

Diesel emissions identified in this analysis would therefore overstate future DPM emissions since not all the regulatory requirements are reflected in the modeling.

CANCER RISK TRENDS

Based on information available from CARB, overall cancer risk throughout the basin has had a declining trend since 1990. In 1998, following an exhaustive 10-year scientific assessment process, the State of California Air Resources Board (ARB) identified particulate matter from diesel-fueled engines as a toxic air contaminant. Subsequent to this determination, the SCAQMD initiated a comprehensive urban toxic air pollution study, called MATES-II (for Multiple Air Toxics Exposure Study). MATES-II showed that average cancer risk in the SCAB ranges from 1,100 in a million to 1,750 in a million, with an average regional risk of about 1,400 in a million. Moreover, diesel particulate matter (DPM) accounts for more than 70 percent of the cancer risk.

In 2008 the SCAQMD prepared an update to the MATES-II study, referred to as MATES-III. MATES-III is the most comprehensive dataset documenting the ambient air toxic levels and health risks associated with the South Coast Air Basin emissions. Therefore, MATES-III study represents the baseline health risk for a cumulative analysis. MATES-III estimates the average excess cancer risk level from exposure to TACs is approximately 1,200 in one million basin-wide. These model estimates were based on monitoring data collected at ten fixed sites within the South Coast Air Basin. None of the fixed monitoring sites are within the local area of the Project site. However, MATES-III has extrapolated the excess cancer risk levels throughout the basin by modeling the specific grids. MATES-III modeling predicted an excess cancer risk of 566 in one million for the Project area. DPM is included in this cancer risk along with all other TAC sources. DPM accounts for 83.6% of the total risk shown in MATES-III. Cumulative Project generated TACs are limited to DPM. MATES-III data shows that the region around the Project site has an ambient cancer risk of 566 in one million (9).

As Shown on Table 7 Annual DPM concentration have been steadily declining since 1990 (2). Additional reductions in diesel risk exposure are anticipated to result from ARB's Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles. The annual average basin-wide cancer risk has also been steadily declining since 1990 as shown on Table 8.

The key elements of the Plan are to clean up existing engines through engine retrofit emission control devices, to adopt stringent standards for new diesel engines, and to lower the sulfur content of diesel fuel to protect new, and very effective, advanced technology emission control devices on diesel engines. When fully implemented, the Diesel Risk Reduction Plan will significantly reduce emissions from both old and new diesel-fueled motor vehicles and from stationary sources that burn diesel fuel. The goal of the Diesel Risk Reduction Plan is to reduce concentrations by 75 percent by 2010 and 85 percent by 2020.

TABLE 6: COMPARISON OF CALIFORNIA HHDT DPM EMISSIONS CONTROL PROGRAMS

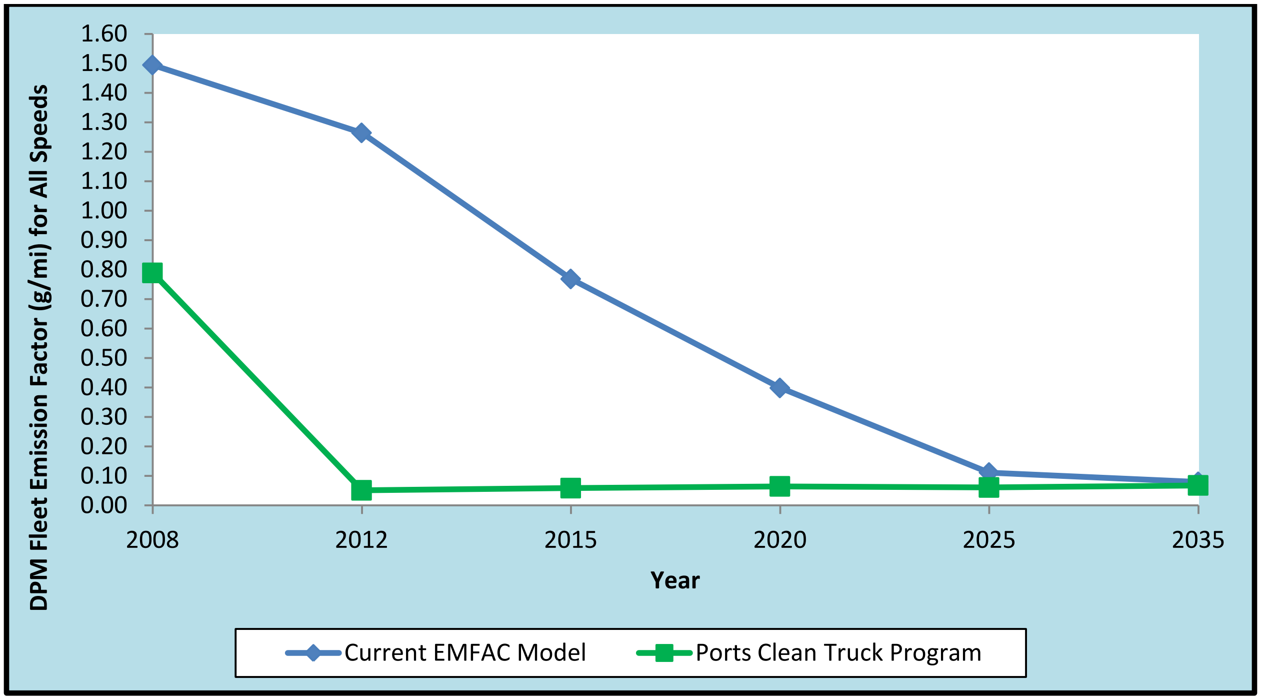


TABLE 7: DIESEL PARTICULATE MATTER ANNUAL AVERAGE CONCENTRATION

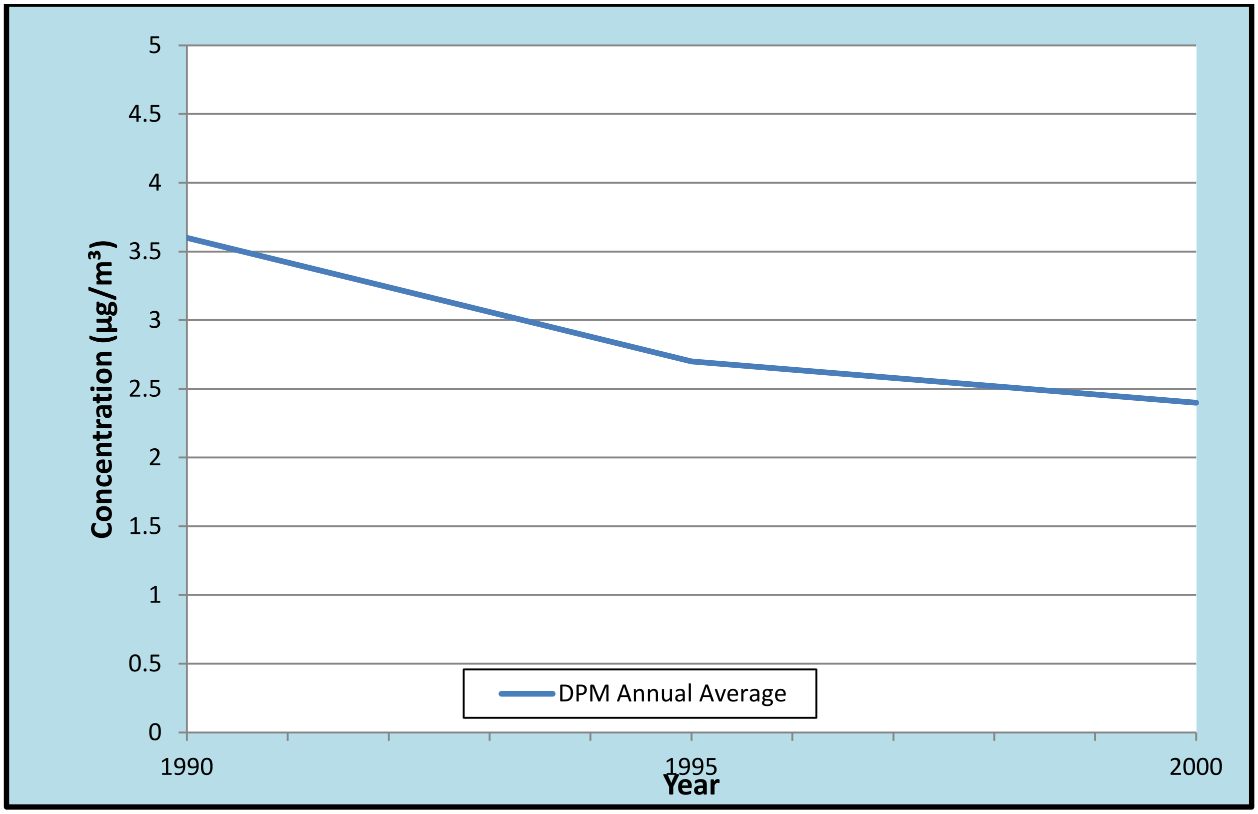
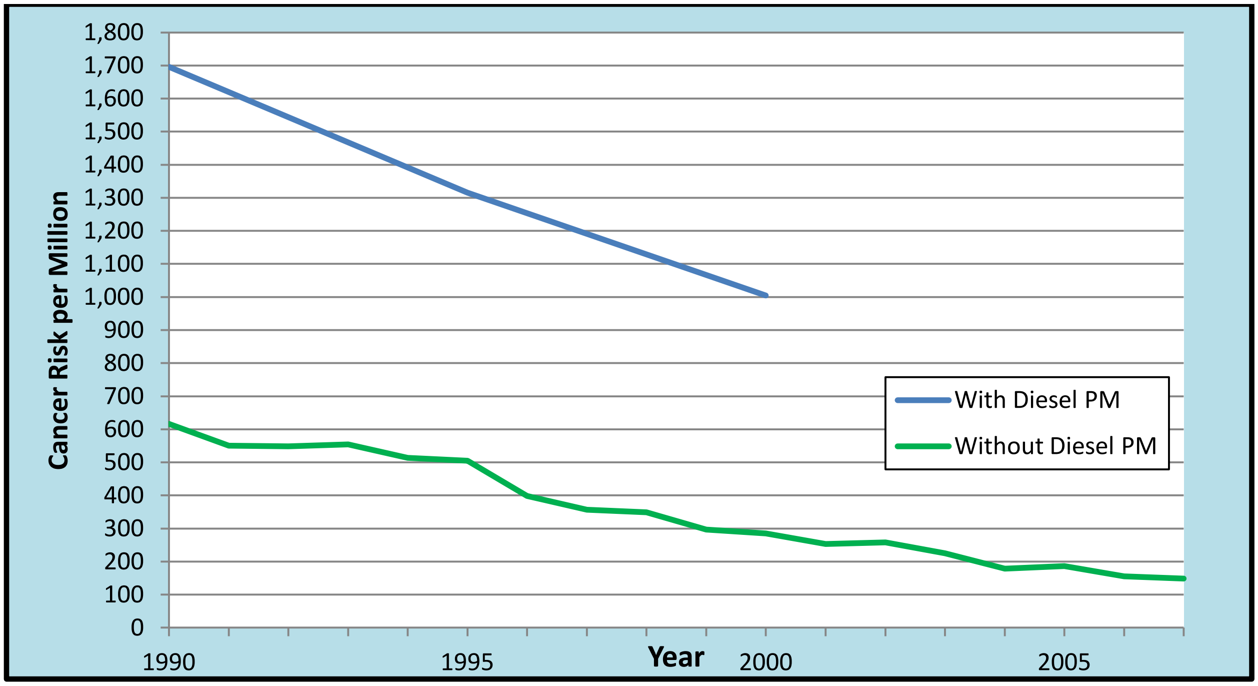


TABLE 8: ANNUAL AVERAGE BASIN CANCER RISK



SOIL IMPORT

At the Planning Commission hearing, the Commission imposed a mitigation measure requiring earth hauling trips to be limited to 66 total haul trips per day (33 inbound and 33 outbound, or any combination thereof). The addition of 66 total haul trips was modeled and added to the previously prepared construction emissions assessment included in the DEIR. Results of the analysis show that the maximum impacts resulting from construction activity would remain unchanged from what was reported in the DEIR. This is due to the fact that soil import would occur concurrent with grading activity however that is not the peak construction emissions scenario. Thus allowing for soil import with the aforementioned restrictions would not result in any new impacts that were not previously disclosed. Attachment "A" to this letter contains the CalEEMod modeling output files that include soil import from 66 total haul trips concurrent with grading activity.

CUMULATIVE CONSTRUCTION-RELATED IMPACTS

Buildout of land uses in the region and across the Air Basin would result in construction activity-related air emissions from development and redevelopment projects, including emissions associated with construction activities at the Project site. Given that many construction projects occur simultaneously throughout the region, the Air Basin would continue to be subjected to significant, cumulative construction-related impacts. Taken together, cumulative emissions from simultaneous construction projects would exceed every SCAQMD regional threshold (VOC, NOx, CO, SOx, PM10 and PM2.5). The Project-specific evaluation of emissions presented in the preceding analysis demonstrates that prior to application of appropriate mitigation measures, Project construction-source air pollutant emissions will result in exceedances of regional thresholds of VOCs and NOx, which is considered a cumulatively considerable contribution to the cumulative impact. After implementation of appropriate mitigation measures, project construction-source emissions would be reduced to levels that the SCAQMD considers to be less than cumulatively considerable.

If you have any questions, please contact me directly at (949) 660-1994 x217.

Respectfully submitted,

URBAN CROSSROADS, INC.

Haseeb Qureshi,
Senior Associate

REFERENCES

1. **South Coast Air Quality Management District.** *Air Quality Management Plan.* 2012.

2. **California Air Resources Board.** *The California Almanac of Emissions and Air Quality.* 2009.

3. **South coast Air Quality Management District.** CEQA Air Quality Handbook (1993). [Online] 1993. [Cited: November 13, 2013.] http://www.aqmd.gov/ceqa/oldhdbk.html.

4. **American Lung Association.** What's the State of Your Air. [Online] http://www.lung.org/associations/states/california/assets/pdfs/sota/south-coast-fact-sheet.pdf.

5. **Air Resources Board.** ARB's Drayage Truck Regulatory Activities. [Online] http://www.arb.ca.gov/msprog/onroad/porttruck/porttruck.htm.

6. —. Truck and Bus Regulation. *On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation.* [Online] http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm.

7. **The Port of Los Angeles.** Clean Truck Program. [Online] http://www.portoflosangeles.org/ctp/idx_ctp.asp.

8. **Air Resources Board.** Mobile Source Emission Inventory -- Current Methods and Data. [Online] http://www.arb.ca.gov/msei/modeling.htm.

9. **South Coast Air Quality Management District.** Multiple Air Toxics Exposure Study III Model Estimated Carcinogenic Risk. [Online] 2008. http://www3.aqmd.gov/webappl/matesiii/.

Attachment B

Caltrans Letter, February 10, 2014

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY EDMUND G. BROWN Jr, Governor

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Flex your power!
Be energy efficient!

February 10, 2014

Michael Lloyd
Senior Traffic Engineer
City of Moreno Valley
Planning Department
14177 Frederick Street
Moreno Valley, CA 92552

RE: Scope of Study for State Highway Facilities in CEQA Documents

Mr. Lloyd:

It has been brought to our attention that clarification is needed related to the interpretation and use of the California Department of Transportation's "Guide for the Preparation of Traffic Impact Studies" (December 2002). On January 21, 2014, Tracy Zinn of T&B Planning, Inc. and Aric Evatt of Urban Crossroads, Inc. attended a meeting in our office, during which they asked for clarification of our Guidelines and particularly Section II (When a Traffic Impact Study is Needed) Subsection A (Trip Generation Thresholds). It is our understanding that Ms. Zinn and Mr. Evatt are consultants working on several traffic studies and California Environmental Quality Act (CEQA) compliance documents for which the City of Moreno Valley is the CEQA lead agency.

As the owner of the State Highway System (SHS), it is our responsibility to coordinate and consult with local jurisdictions when proposed development may impact our facilities. As a responsible agency under CEQA, it is also our responsibility to make recommendations to offset impacts associated with projects that add traffic to the SHS.

This letter clarifies Section II, Subsection A of our Guidelines. It also describes the approach and geographic scope of analysis that Caltrans District 8 finds acceptable for the evaluation of direct and cumulative impacts to the SHS that may be caused by industrial, warehouse, and logistics center development in the geographic area of the Moreno Valley Industrial Area Plan (MVIAP). This area is generally bounded by March Air Reserve Base to the west, Oleander Avenue to the south, Wildwood Street to the north, and Indian Avenue (north of Cardinal Avenue) and Kitching Street (south of Cardinal Avenue) to the east.

1. <u>When a TIS is Needed:</u> If a development project will add traffic to the SHS, a traffic impact study (TIS) is recommended by Caltrans if either of the first two criteria are met. The third criteria may come into play based on consultations with Caltrans. The third criteria under section II subsection A is slightly different then criteria 1 and 2. We point out that it <u>MAY</u> need a study. This is due to specific or unique contexts causing potentially significant impacts with lesser volumes.

2. Requested Geographic Scope of Study for Freeway Mainline Segments: Once it is determined that a traffic study is needed the criteria set forth in section ii and based on consultation with Caltrans can be used to determine the geographical scope of the study. For industrial, warehouse, and logistics center development projects in the MVIAP, Caltrans District 8 requests quantitative analysis of project-related traffic on freeway mainline segments where the project would add 50 or more peak hour trips and/or the most heavily impacted segment in each direction. Because impacts to freeway segments dissipate with distance from the point of SHS entry, quantitative study of a larger area is not highly useful to Caltrans decision-making. Typically, when a project's traffic volumes dissipate to fewer than 50 peak hour trips on a freeway mainline segment, they become unrecognizable from other traffic on the SHS.

3. Significance Thresholds for SHS Roadway Segments: Caltrans District 8 recommends that the City apply the following significance thresholds in its CEQA documents for impacts to SHS freeway segments. Impacts are considered significant by Caltrans if:
    i. The traffic study finds that the LOS of a segment will degrade form D or better to E or F.
    ii. The traffic study finds that the project will exacerbate an already deficient condition. A segment that is operating at or near capacity or under saturated conditions (LOS E&F) is deemed to be deficient.

4. Mitigation for Significant Impacts: At this time, Caltrans has no fee programs or other mitigation programs in place for the mitigation of direct or cumulative impacts caused by development projects in the MVIAP on SHS roadway segments. Mitigation of direct and cumulative impacts to freeway ramps are satisfied by mandatory participation in the TUMF program.

We appreciate the opportunity to offer comments concerning this project. If you have any questions regarding this letter, please contact Talvin Dennis at (909) 806-3957 or myself at (909) 383-4557 for assistance.

Sincerely,

Original signed by Daniel Kopulsky

DANIEL KOPULSKY
Office Chief
Community and Regional Planning

Cc: Tracy Zinn, T&B Planning, Inc.
Aric Evatt, Urban Crossroads, Inc.

Attachment C
Additional Freeway Analysis, Urban Crossroads

URBAN CROSSROADS
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www.urbanXroads.com

February 27, 2014

Ms. Tracy Zinn
T&B Planning
17542 East 17th Street, Suite 100
Tustin, CA 92780

SUBJECT: FIRST INLAND LOGISTICS II TRAFFIC IMPACT ANALYSIS – SUPPLEMENTAL BASIC FREEWAY SEGMENT ANALYSIS

Dear Ms. Zinn:

This letter serves as a supplement to the *First Inland Logistics II Traffic Impact Analysis* (revised January 3, 2013) (referred to as "2013 Traffic Study") that assesses freeway mainline segments for the following scenarios found in the 2013 Traffic Study:

- Existing (2012) Conditions
- Existing plus Project Conditions
- Opening Year Cumulative (2017) Without Project Conditions
- Opening Year Cumulative (2017) With Project Conditions

The purpose of the supplemental analysis is to respond to last minute comments made by Mr. Ray Johnson asserting that the traffic impact analysis prepared for the Project was inadequate because it did not allegedly analyze segments where fewer than 100 peak hour trips would occur. Pursuant to recent clarification from Caltrans, study area mainline segments were selected based on the Project's contribution of 50 or more peak hour trips on a segment, which is a wider study area than the I-215 Freeway segments north and south of Harley Knox Boulevard that were studied in the Project's EIR and that receive 100 or more peak hour trips.

SUMMARY OF FINDINGS

Based on the results of this analysis, no segments of SR-60 would receive 50 or more peak hour trips from the Project. Additionally, the proposed Project will result in a less than significant traffic impact on the I-215 Freeway for E+P traffic conditions (see Table 3 attached to this report). Similarly, near-term cumulative traffic growth representative of Opening Year Cumulative (2017) traffic conditions along the I-215 Freeway is also anticipated to result in a less than significant traffic impact on the I-215 Freeway with the planned improvements (see Table 4 attached to this report).

INTRODUCTION

The *Caltrans Guide for the Preparation of Traffic Impact Studies* (December 2002) specifies when an assessment of a state highway facility (SHF) is typically required. Caltrans has also clarified their traffic study guidelines in a letter to the City of Moreno Valley and have further defined the scope of study for State Highway facilities in CEQA documents (dated February 10, 2014), by indicating analysis of freeway segments where a project is anticipated to contribute 50 or more peak hour trips and recognizing that a project's contribution to freeway segments dissipates with distance from the point of entry onto the State Highway System (SHS). The proposed First Inland Logistics II Project (referred to as "Project") is anticipated to contribute 50 or more peak hour trips to the I-215 Freeway north of Harley Knox Boulevard. As the proposed Project is not anticipated to contribute 50 or more peak hour trips south of Harley Knox Boulevard, to any segment of SR-60 Freeway or other freeways, the freeway mainline segments south of Harley Knox Boulevard, segments of SR-60, and segments of other freeways have not been included for the purposes of this analysis and are not required to be included by Caltrans. The following freeway segments are included in this supplemental analysis:

TABLE 1: BASIC FREEWAY SEGMENT ANALYSIS LOCATIONS

ID	Freeway	Direction	Segment
1	I-215	Southbound	SR-60/SR-91 Freeway to Blaine St.
2	I-215	Southbound	Blaine St. to University Av.
3	I-215	Southbound	University Av. to Martin Luther King Bl.
4	I-215	Southbound	Martin Luther King Bl. to Central Av.
5	I-215	Southbound	Central Av. to Box Springs Rd.
6	I-215	Southbound	Box Springs Rd. to SR-60/I-215 Freeway
7	I-215	Southbound	SR-60 Freeway to Eucalyptus Av.
8	I-215	Southbound	Eucalyptus Av. to Alessandro Bl.
9	I-215	Southbound	Alessandro Bl. to Cactus Av.
10	I-215	Southbound	Cactus Av. to Van Buren Bl.
11	I-215	Southbound	Van Buren Bl. to Harley Knox Bl.
12	I-215	Northbound	SR-60/SR-91 Freeway to Blaine St.
13	I-215	Northbound	Blaine St. to University Av.
14	I-215	Northbound	University Av. to Martin Luther King Bl.
15	I-215	Northbound	Martin Luther King Bl. to Central Av.
16	I-215	Northbound	Central Av. to Box Springs Rd.
17	I-215	Northbound	Box Springs Rd. to SR-60/I-215 Freeway
18	I-215	Northbound	SR-60 Freeway to Eucalyptus Av.
19	I-215	Northbound	Eucalyptus Av. to Alessandro Bl.

ID	Freeway	Direction	Segment
20	I-215	Northbound	Alessandro Bl. to Cactus Av.
21	I-215	Northbound	Cactus Av. to Van Buren Bl.
22	I-215	Northbound	Van Buren Bl. to Harley Knox Bl.

REGIONAL GOODS MOVEMENT

The Southern California Association of Governments (SCAG) is a regional agency established pursuant to California Government Code §6500, also referred to as the Joint Powers Authority law. On April 4, 2012, SCAG adopted the 2012-2035 Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) with goals to: 1) maximize mobility and accessibility for all people and goods in the region; 2) ensure travel safety and reliability for all people and goods in the region; 3) preserve and ensure a sustainable transportation system; 4) maximize productivity of the transportation system; 5) protect the environment, improve air quality, and promote energy efficiency; 6) encourage land use and growth patterns that complement the transportation investments and improve the cost-effectiveness of expenditures; and 7) maximize the security of the transportation system The RTP/SCS includes a chapter titled “Goods Movement.” It states that the SCAG region hosts one of the largest clusters of logistics activity in North America. Logistics activities, and the jobs that go with them, depend on complex transportation network. The Goods Movement section of the RTP/SCS sets forth regional strategies to achieve an efficient movement of goods throughout Southern California. It recognizes that the SCAG region will experience dramatic increases in truck traffic on east-west corridors that will cause increased congestion and longer delays to both trucks and general traffic on existing routes.

Goods movements within the SCAG region ranges from moving goods directly from manufacturing centers to local consumers, to those traveling from the San Pedro Bay Ports, to distance destinations across the United States. Goods movements and freight transportation are essential to the SCAG regional economy and quality of life. The regional goods movement system has six primary components: seaports, land ports, air cargo facilities, interstate/highways/local roads, railroads and warehousing/distribution centers. Each component is discussed below:

- Seaports – There are three major ports within the SCAG region: Los Angeles, Long Beach and Hueneme. The Ports of Los Angeles and Long Beach combined are the largest container port complex within the United States. Port Hueneme specializes in the import/export of automobiles, fresh fruit, produce and serves as the primary support facility for the offshore oil industry.
- Land Ports – There are three international border crossings in Imperial County (Calexico West-Mexicali I, Calexico East-Mexicali II and Andrade-Los Algodones. These border crossings are busy commercial land ports primarily used for the transport of agricultural products.
- Air Cargo Facilities – Los Angeles International Airport (LAX) and Ontario International Airport (ONT) handle a combined 96 percent of the SCAG region’s air cargo.

- Interstate, Highways, and Local Roads – The roadway system carries a mix of local, domestic trade and international cargoes. The roadway system also provides connections between the ports, manufacturing facilities, intermodal terminals, warehouses and distribution centers.
- Railroads – The Burlington Northern Santa Fe Railway (NBSF) and the Union Pacific (UP) are two Class I railroads that are responsible for carrying international and domestic cargo to and from various areas of the country. Both railroads connect directly to the San Pedro Bay Ports.
- Warehousing and Distribution Centers – As of 2008, the SCAG region consisted of approximately 837 million square feet of warehousing space. Roughly 15 percent of the occupied warehouse space served port-related uses while the remaining 85 percent supported a mix of domestic and international cargo. Distribution facilities for domestic cargo tend to be located in areas farther away from the Ports – such as the Inland Empire.

REGIONAL FREEWAY SYSTEM

Sections of the I-710, I-605, SR-60 and SR-91 carry the highest volumes of truck traffic within the SCAG region, with each averaging approximately 25,000 trucks per day. Other major freeways within the area include the I-5, I-10, I-15 and I-210 where some carry as much as 20,000 trucks per day. The regional freeway system is a key component to the regional goods movement within the SCAG region. Trucks use the freeway system to carry freight between businesses and consumers throughout the SCAG region. The I-710 is anticipated to experience the highest growth in truck traffic related to the growth in port-related traffic. Considerable growth in truck traffic is also anticipated on the I-10 and I-210 Freeway with the highest growth of the east-west corridors is expected for the SR-60 Freeway.

Based on information from the 2012-2035 Regional Transportation Plan (RTP), 87.9 percent of all truck trips are anticipated to remain internal to Riverside County. The remaining 12.1 percent are external trips generated within Riverside County and leaving the SCAG region. The internal truck trips have origins and destinations within the SCAG region and are generated by local industries, construction sites, domestic warehouses, domestic truck terminals and residences. The external truck trips are interregional that reflect trade between the SCAG region and the remainder of the United States. There are also port truck trips, secondary port truck trips and intermodal truck trips; however, these trips account for less than six percent of the overall truck trips.

Exhibit 1 illustrates the SCAG region truck routes and show the distribution of truck traffic external to the SCAG region, per the 2012-2035 RTP. Based on the Project trip distribution patterns, the Project PM peak hour trips are shown on Exhibit 2. Based on the 50 peak hour trip threshold, the I-215 Freeway segments listed previously on Table 1 would receive 50 or more Project-related peak hour trips and were thus selected for analysis.

FREEWAY MAINLINE SEGMENT ANALYSIS METHODOLOGY & ASSUMPTIONS

The freeway segments of the I-215 Freeway shown on Table 1 have been selected for analysis based on Caltrans traffic study guidelines. The freeway segments evaluated in this supplemental analysis are based on peak hour directional volumes and direction given by Caltrans to the City of Moreno Valley in a letter dated February 10, 2014. The freeway segment analysis is based on the methodology described in Chapter 23 of the Highway Capacity Manual (HCM 2000), and performed using HCS+ software. The performance measure preferred by Caltrans to calculate LOS is density. Density is expressed in terms of passenger cars per mile per lane. Table 2 illustrates the freeway segment LOS thresholds for each density range utilized for this analysis.

The number of lanes for existing baseline conditions has been obtained from field observations conducted by Urban Crossroads or through aerial imagery. The existing freeway geometrics have been utilized for the following traffic conditions: Existing (2012) and Existing Plus Project (E+P) traffic conditions. The planned improvements for the I-215 Freeway have been assumed for Opening Year Cumulative (2017) Without and With Project traffic conditions.

The I-215 Freeway mainline volume data was obtained from the Caltrans Performance Measurement System (PeMS) website for each of the segments of the I-215 Freeway identified in Table 1. The data was obtained from May 15th to May 17th of 2012 as those were the closest dates to the original count dates in the 2013 Traffic Study for which reliable data could be obtained. In an effort to conduct a conservative analysis, the maximum value observed within the three (3) day period was utilized for the weekday morning (AM) and evening (PM) peak hours. In addition, truck traffic, represented as a percentage of total traffic, has been utilized for the purposes of this analysis in an effort to not overstate traffic volumes and potential impacts. As such, actual vehicles (as opposed to passenger-car-equivalent volumes) have been utilized for the purposes of the basic freeway segment analysis.

TABLE 2: FREEWAY MAINLINE LOS THRESHOLDS

Level of Service	Description	Density Range (pc/mi/ln)[1]
A	Free-flow operations in which vehicles are relatively unimpeded in their ability to maneuver within the traffic stream. Effects of incidents are easily absorbed.	0.0 – 11.0
B	Relative free-flow operations in which vehicle maneuvers within the traffic stream are slightly restricted. Effects of minor incidents are easily absorbed.	11.1 – 18.0
C	Travel is still at relative free-flow speeds, but freedom to maneuver within the traffic stream is noticeably restricted. Minor incidents may be absorbed, but local deterioration in service will be substantial. Queues begin to form behind significant blockages.	18.1 – 26.0

Level of Service	Description	Density Range (pc/mi/ln)[1]
D	Speeds begin to decline slightly and flows and densities begin to increase more quickly. Freedom to maneuver is noticeably limited. Minor incidents can be expected to create queuing as the traffic stream has little space to absorb disruptions.	26.1 – 35.0
E	Operation at capacity. Vehicles are closely spaced with little room to maneuver. Any disruption in the traffic stream can establish a disruption wave that propagates throughout the upstream traffic flow. Any incident can be expected to produce a serious disruption in traffic flow and extensive queuing.	35.1 – 45.0
F	Breakdown in vehicle flow.	>45.0

[1] *pc/mi/ln = passenger cars per mile per lane. Source: HCM 2000, Chapter 23*

EXISTING (2012) CONDITIONS ANALYSIS

Existing (2012) mainline directional volumes for the AM and PM peak hours are provided on Table 3. As shown on Table 3, I-215 Freeway segments analyzed were found to operate at an acceptable LOS (i.e., LOS “E” or better) during the peak hours. The Existing (2012) peak hour directional freeway mainline LOS is shown on Exhibit 3. Existing (2012) basic freeway segment analysis worksheets are provided in Attachment “A”.

EXISTING PLUS PROJECT CONDITIONS ANALYSIS

E+P conditions mainline directional volumes for the AM and PM peak hours are also shown on Table 3. Project traffic was added to the Existing (2012) volumes based on a combination of the Project’s trip distribution from the 2013 Traffic Study and the distribution of trucks within the SCAG region (see Exhibit 1).

As shown on Table 3, I-215 Freeway segments analyzed were found to operate at an acceptable LOS (i.e., LOS “D” or better) during the AM and PM peak hours under E+P conditions. The E+P peak hour directional freeway mainline LOS is shown on Exhibit 4. E+P conditions basic freeway segment analysis worksheets are provided in Attachment “B”.

OPENING YEAR CUMULATIVE (2017) CONDITIONS

PLANNED ENHANCEMENTS TO THE REGIONAL FREEWAY SYSTEM

The Riverside County Transportation Commission (RCTC) has plans in place for the widening of I-215 Freeway through the study area; however, a schedule for the widening of the I-215 between Nuevo Road in the City of Perris and Box Springs Road in the City of Riverside has not been set, due to the

State's ongoing budget challenges. The I-215 North Project proposes to add a carpool lane (high-occupancy vehicle or HOV lane) in each direction to a 10.75-mile section of the I-215 freeway, the northernmost section of the RCTC's widening efforts along this freeway. Once project costs and funding are determined, project development will begin and last about three (3) years. As indicated on project documents found on the I-215 North Project website, final design will follow for about two and a half (2 ½) years, followed by three (3) years for construction. As such, the future expansion of the I-215 Freeway has not been assumed to be in place for either Existing or Opening Year Cumulative (2017) analyses.

The SCAG RTP includes a list of projects included in the Federal Transportation Improvement Program (FTIP). The following are the applicable FTIP financially constrained projects within the study area, which have been assumed to be in place for Opening Year Cumulative (2017) conditions only:

- Interchange improvements at I-215/Cactus Avenue includes the extension of the northbound auxiliary lane between Alessandro Boulevard south to Cactus Avenue (to be completed by 2018).
- Interchange improvements at I-215/Van Buren Boulevard includes northbound and southbound auxiliary lanes between Cactus Avenue and Van Buren Boulevard (to be completed by 2014).

The I-215/SR-60 Freeway carpool lanes are currently under construction to connect the existing carpool lanes on either side of the I-215 Freeway along the I-215/SR-60 Freeway. Based on information on the RCTC website, this construction is anticipated to be completed by Summer 2014.

OPENING YEAR CUMULATIVE (2017) CONDITIONS ANALYSIS

Opening Year Cumulative (2017) mainline directional volumes for the AM and PM peak hours are provided on Table 4 for both Without and With Project conditions. Volumes for the I-215 Freeway mainline have been interpolated based on the regional growth anticipated from the RTP on an annual basis between Existing and Opening Year Cumulative (2017). Project traffic has been added to the Opening Year Cumulative (2017) Without Project forecasts for Opening Year Cumulative (2017) With Project traffic conditions. As shown on Table 4, the I-215 Freeway segments analyzed were found to operate at an acceptable LOS (i.e., LOS "E" or better) during the peak hours for both Without and With Project traffic conditions.

The Opening Year Cumulative (2017) Without Project peak hour directional freeway mainline LOS is shown on Exhibit 5. The Opening Year Cumulative (2017) With Project peak hour directional freeway mainline LOS is shown on Exhibit 6. Opening Year Cumulative (2017) Without Project basic freeway segment analysis worksheets are provided in Attachment "C". Opening Year Cumulative (2017) With Project basic freeway segment analysis worksheets are provided in Attachment "D".

If you have any questions, please contact me directly at (949) 660-1994 x204.

Respectfully submitted,

URBAN CROSSROADS, INC.

Charlene So

Aric Evatt, PTP
Principal

Charlene So, PE
Senior Transportation Engineer

REGISTERED PROFESSIONAL ENGINEER
CHARLENE HWANG SO
No. TR2414
Exp. 6/30/2015
TRAFFIC
STATE OF CALIFORNIA

Table 3: Existing Plus Project Conditions Basic Freeway Segment Analysis

Freeway	Direction	Mainline Segment	Lanes[1]	Time Period	Existing (2012)			Existing Plus Project		
					Volume	Density[2]	LOS	Volume	Density[2]	LOS
I-215 Freeway	Southbound	SR-60/SR-91 Freeway to Blaine St.	5	AM	4,967	16.3	B	5,002	16.4	B
				PM	4,574	15.0	B	4,593	15.0	B
		Blaine St. to University Av.	4	AM	4,758	19.5	C	4,793	19.7	C
				PM	5,106	20.9	C	5,125	21.0	C
		University Av. to Martin Luther King Bl.	4	AM	5,022	20.6	C	5,057	20.7	C
				PM	6,080	25.5	C	6,099	25.6	C
		Martin Luther King Bl. to Central Av.	5	AM	4,700	15.4	B	4,735	15.6	B
				PM	6,850	22.6	C	6,869	22.6	C
		Central Av. to Box Springs Rd.	5	AM	3,532	11.6	B	3,567	11.7	B
				PM	5,607	18.4	C	5,626	18.4	C
		Box Springs Rd. to SR-60/I-215 Freeway	4	AM	4,679	19.2	C	4,714	19.4	C
				PM	7,118	31.9	D	7,137	32.0	D
		SR-60 Freeway to Eucalyptus Av.	5	AM	5,945	19.8	C	5,980	20.0	C
				PM	5,893	19.7	C	5,912	19.7	C
		Eucalyptus Av. to Alessandro Bl.	3	AM	3,282	17.8	B	3,317	18.0	C
				PM	4,688	26.1	D	4,707	26.2	D
		Alessandro Bl. to Cactus Av.	4	AM	3,256	13.2	B	3,291	13.4	B
				PM	4,852	19.7	C	4,871	19.8	C
		Cactus Av. to Van Buren Bl.	3	AM	2,738	14.9	B	2,773	15.1	B
				PM	3,821	20.8	C	3,840	21.0	C
		Van Buren Bl. to Harley Knox Bl.	3	AM	2,578	13.5	B	2,613	13.8	B
				PM	3,837	20.2	C	3,856	20.3	C
I-215 Freeway	Northbound	SR-60/SR-91 Freeway to Blaine St.	5	AM	5,381	17.6	B	5,397	17.7	B
				PM	4,660	15.3	B	4,692	15.4	B
		Blaine St. to University Av.	5	AM	6,627	21.8	C	6,643	21.9	C
				PM	5,510	18.1	C	5,542	18.2	C
		University Av. to Martin Luther King Bl.	4	AM	5,623	23.2	C	5,639	23.3	C
				PM	5,293	21.7	C	5,325	21.9	C
		Martin Luther King Bl. to Central Av.	4	AM	5,808	24.1	C	5,824	24.2	C
				PM	5,536	22.8	C	5,568	23.0	C
		Central Av. to Box Springs Rd.	5	AM	5,497	18.0	C	5,513	18.1	C
				PM	4,487	14.7	B	4,519	14.8	B
		Box Springs Rd. to SR-60/I-215 Freeway	4	AM	6,034	25.2	C	6,050	25.3	C
				PM	5,753	23.8	C	5,785	24.0	C
		SR-60 Freeway to Eucalyptus Av.	3	AM	3,544	19.7	C	3,560	19.8	C
				PM	3,852	21.5	C	3,884	21.7	C
		Eucalyptus Av. to Alessandro Bl.	3	AM	3,219	17.4	B	3,235	17.5	B
				PM	3,264	17.7	B	3,296	17.9	B
		Alessandro Bl. to Cactus Av.	4	AM	3,857	15.6	B	3,873	15.7	B
				PM	3,942	16.0	B	3,974	16.2	B
		Cactus Av. to Van Buren Bl.	3	AM	3,882	21.1	C	3,898	21.3	C
				PM	2,755	15.0	B	2,787	15.2	B
		Van Buren Bl. to Harley Knox Bl.	3	AM	3,978	20.9	C	3,994	21.0	C
				PM	2,945	15.5	B	2,977	15.7	B

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

* **BOLD** = Unacceptable Level of Service

Table 4: Horizon Year (2035) Conditions Basic Freeway Segment Analysis

Freeway	Direction	Mainline Segment	Lanes[1]	Time Period	2017 Without Project			2017 With Project		
					Volume[2]	Density[3]	LOS	Volume[2]	Density[3]	LOS
I-215 Freeway	Southbound	SR-60/SR-91 Freeway to Blaine St.	5	AM	5,531	18.1	C	5,566	18.2	C
				PM	5,187	17.0	B	5,206	17.1	B
		Blaine St. to University Av.	4	AM	5,287	21.7	C	5,322	21.9	C
				PM	5,637	23.3	C	5,656	23.4	C
		University Av. to Martin Luther King Bl.	4	AM	5,548	22.9	C	5,583	23.1	C
				PM	6,577	28.3	D	6,596	28.4	D
		Martin Luther King Bl. to Central Av.	5	AM	5,426	17.7	B	5,461	17.9	B
				PM	7,573	25.4	C	7,592	25.4	C
		Central Av. to Box Springs Rd.	5	AM	4,441	14.5	B	4,476	14.6	B
				PM	6,606	21.6	C	6,625	21.7	C
		Box Springs Rd. to SR-60/I-215 Freeway	4	AM	5,195	21.3	C	5,230	21.5	C
				PM	7,265	33.3	D	7,284	33.4	D
		SR-60 Freeway to Eucalyptus Av.	5	AM	5,987	20.1	C	6,022	20.2	C
				PM	6,145	20.5	C	6,164	20.7	C
		Eucalyptus Av. to Alessandro Bl.	3	AM	3,737	20.2	C	3,772	20.5	C
				PM	5,134	29.5	D	5,153	29.7	D
		Alessandro Bl. to Cactus Av.	4	AM	3,737	15.2	B	3,772	15.3	B
				PM	5,330	21.7	C	5,349	21.8	C
		Cactus Av. to Van Buren Bl.	**4**	AM	3,201	13.0	B	3,236	13.3	B
				PM	4,498	18.3	C	4,517	18.4	C
		Van Buren Bl. to Harley Knox Bl.	3	AM	4,211	24.5	C	4,246	24.7	C
				PM	5,689	35.4	E	5,708	36.0	E
I-215 Freeway	Northbound	SR-60/SR-91 Freeway to Blaine St.	5	AM	5,748	18.8	C	5,764	18.9	C
				PM	5,329	17.5	B	5,361	17.6	B
		Blaine St. to University Av.	5	AM	6,819	22.6	C	6,835	22.6	C
				PM	6,054	19.8	C	6,086	20.0	C
		University Av. to Martin Luther King Bl.	4	AM	6,061	25.4	C	6,077	25.5	C
				PM	5,910	24.6	C	5,942	24.8	C
		Martin Luther King Bl. to Central Av.	4	AM	6,205	26.1	C	6,221	26.2	D
				PM	6,245	26.3	D	6,277	26.5	D
		Central Av. to Box Springs Rd.	5	AM	6,109	20.0	C	6,125	20.1	C
				PM	5,317	17.3	B	5,349	17.5	B
		Box Springs Rd. to SR-60/I-215 Freeway	4	AM	6,619	28.5	D	6,635	28.6	D
				PM	6,537	28.0	D	6,569	28.2	D
		SR-60 Freeway to Eucalyptus Av.	3	AM	3,921	21.8	C	3,937	22.0	C
				PM	4,359	24.5	C	4,391	24.9	C
		Eucalyptus Av. to Alessandro Bl.	3	AM	3,697	20.0	C	3,713	20.1	C
				PM	3,822	20.6	C	3,854	20.9	C
		Alessandro Bl. to Cactus Av.	**5**	AM	4,324	14.0	B	4,340	14.1	B
				PM	4,469	14.5	B	4,501	14.6	B
		Cactus Av. to Van Buren Bl.	**4**	AM	4,442	18.1	C	4,458	18.2	C
				PM	3,432	13.9	B	3,464	14.1	B
		Van Buren Bl. to Harley Knox Bl.	3	AM	5,735	35.6	E	5,751	35.8	E
				PM	4,654	27.3	D	4,686	27.7	D

[1] Number of lanes are in the specified direction and reflect new auxilary lanes and assume the HOV lane in each direction.

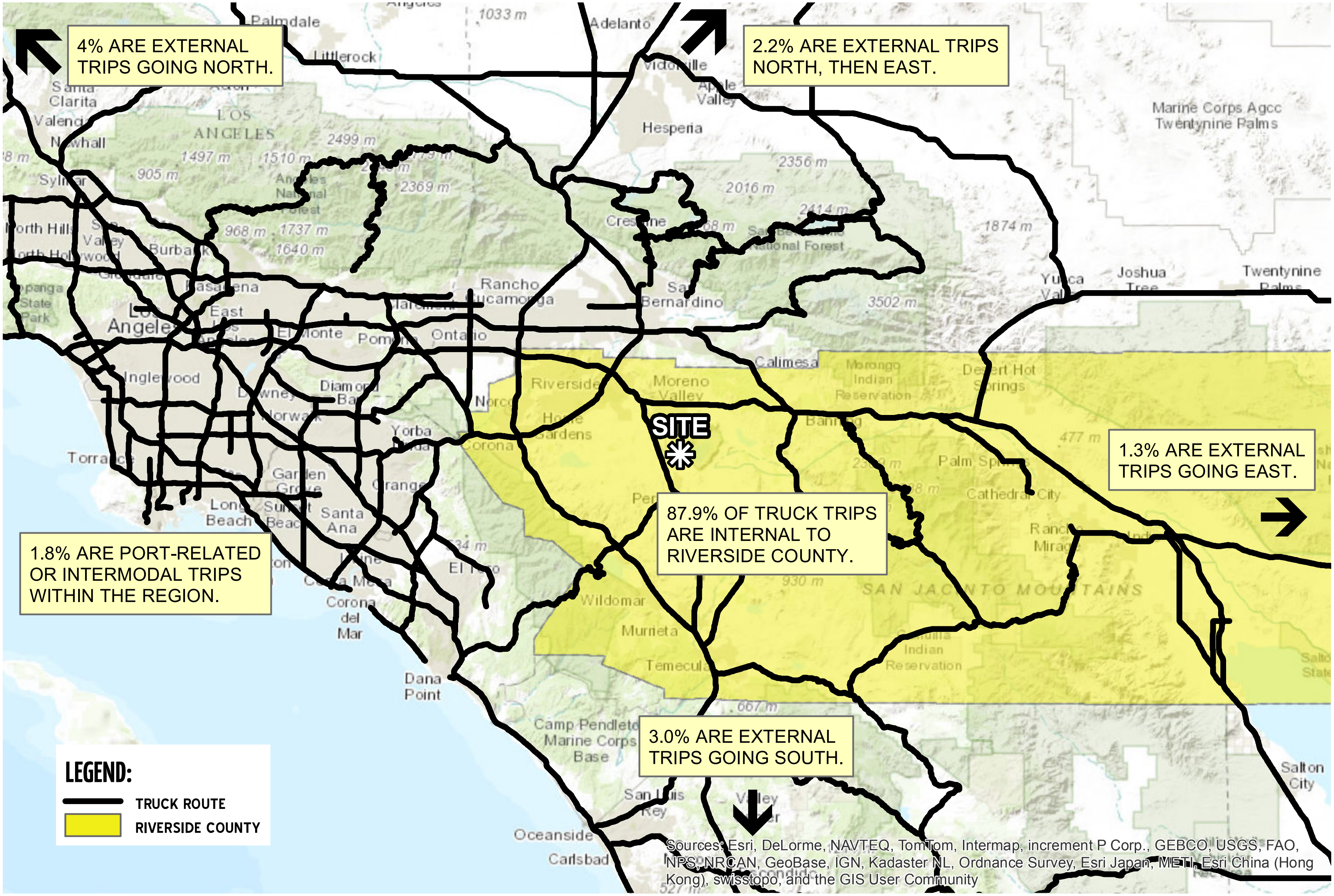
[2] Volumes shown on this table have been reduced to account for the proposed HOV lane in each direction.

[3] Density is measured by passenger cars per mile per lane (pc/mi/ln).

* **BOLD** = Unacceptable Level of Service

EXHIBIT 1

SCAG REGION TRUCK ROUTES



4% ARE EXTERNAL TRIPS GOING NORTH.

2.2% ARE EXTERNAL TRIPS NORTH, THEN EAST.

1.3% ARE EXTERNAL TRIPS GOING EAST.

87.9% OF TRUCK TRIPS ARE INTERNAL TO RIVERSIDE COUNTY.

1.8% ARE PORT-RELATED OR INTERMODAL TRIPS WITHIN THE REGION.

3.0% ARE EXTERNAL TRIPS GOING SOUTH.

LEGEND:

- TRUCK ROUTE
- 🟨 RIVERSIDE COUNTY

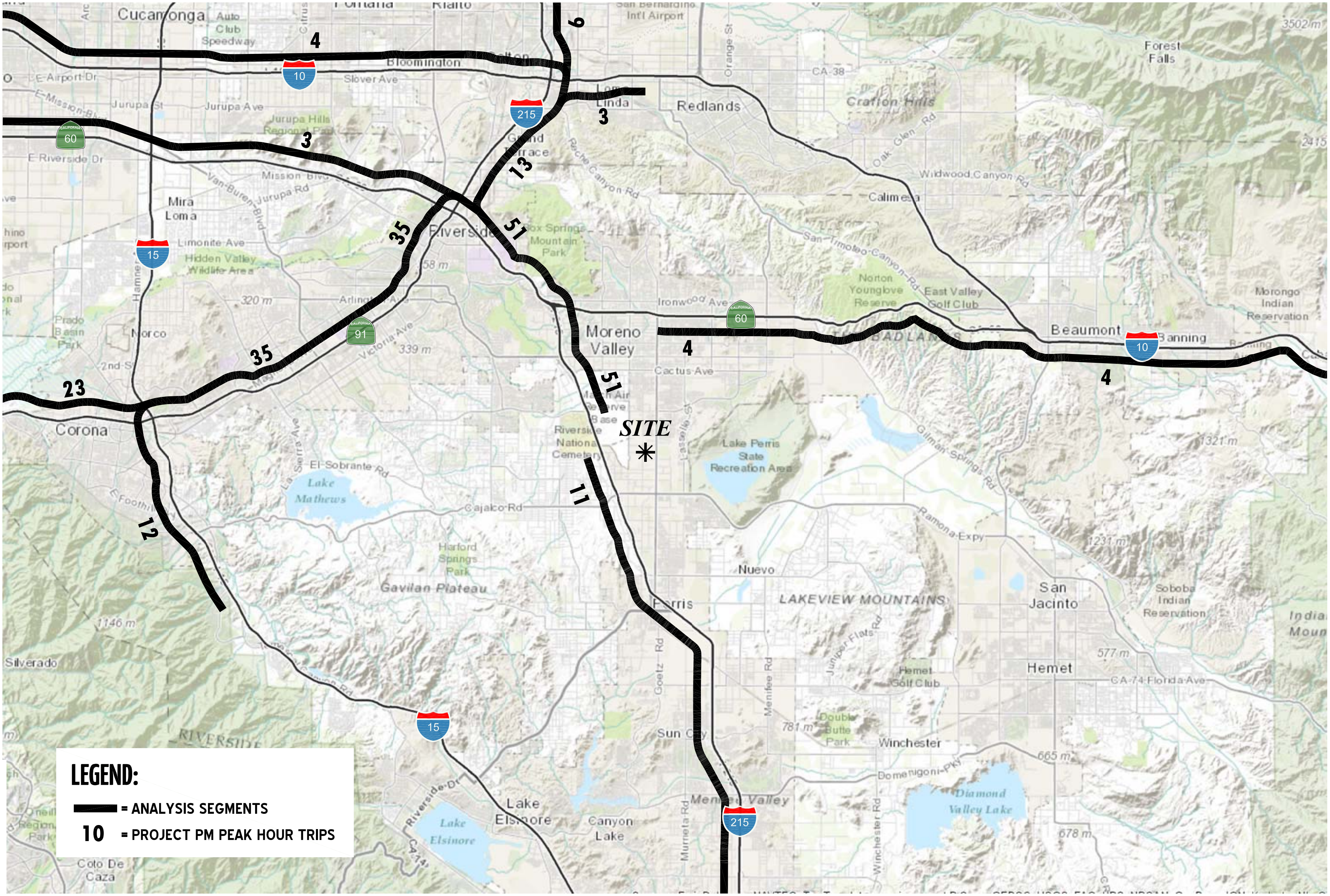
Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

(JN - 08179:scagtruck.mxd)

URBAN CROSSROADS

EXHIBIT 2

LOCATION MAP

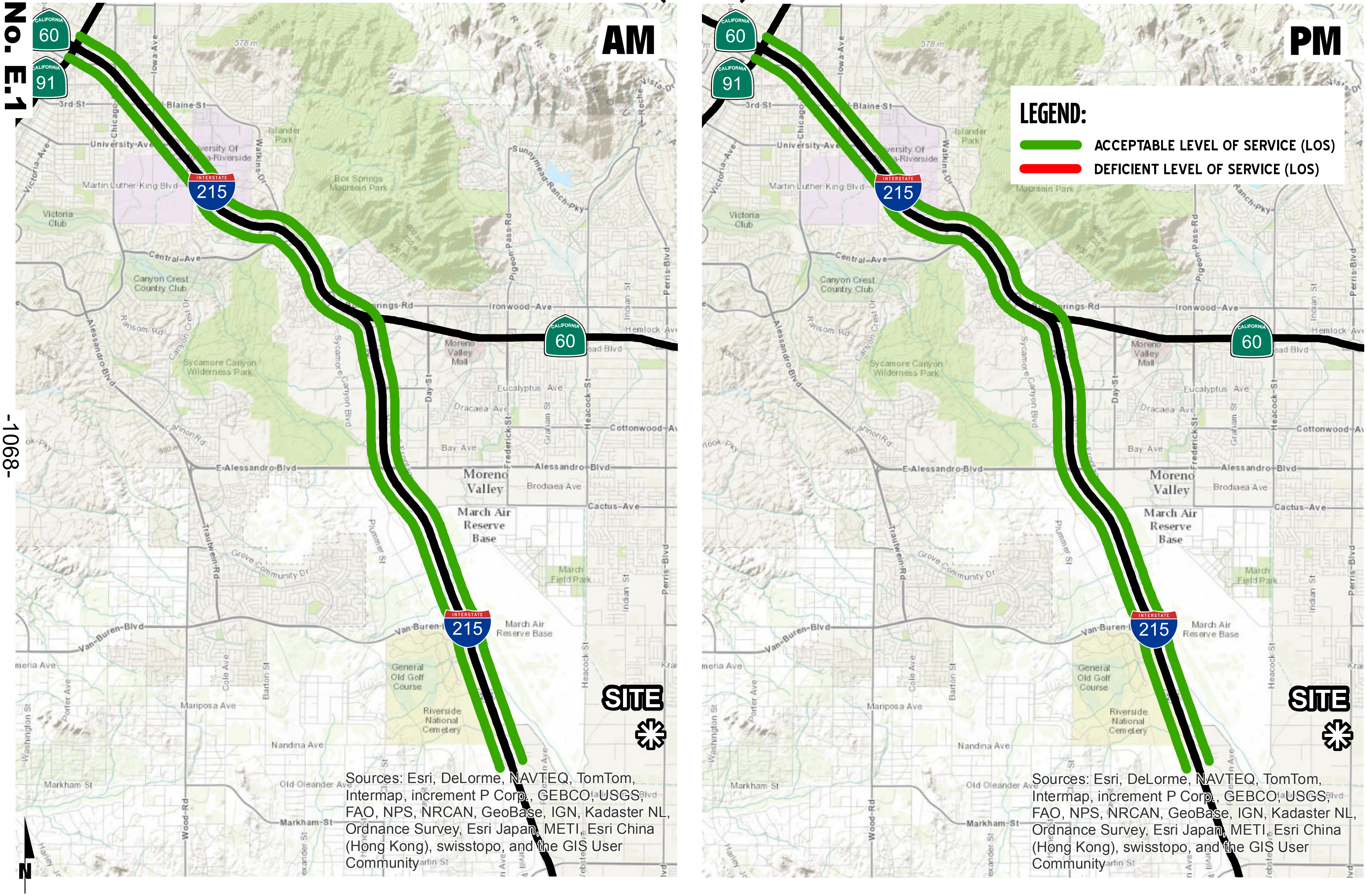


V - 08179:locmap.dwg)

URBAN CROSSROADS

EXHIBIT 3

EXISTING (2012) PEAK HOUR FREEWAY MAINLINE LOS



Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

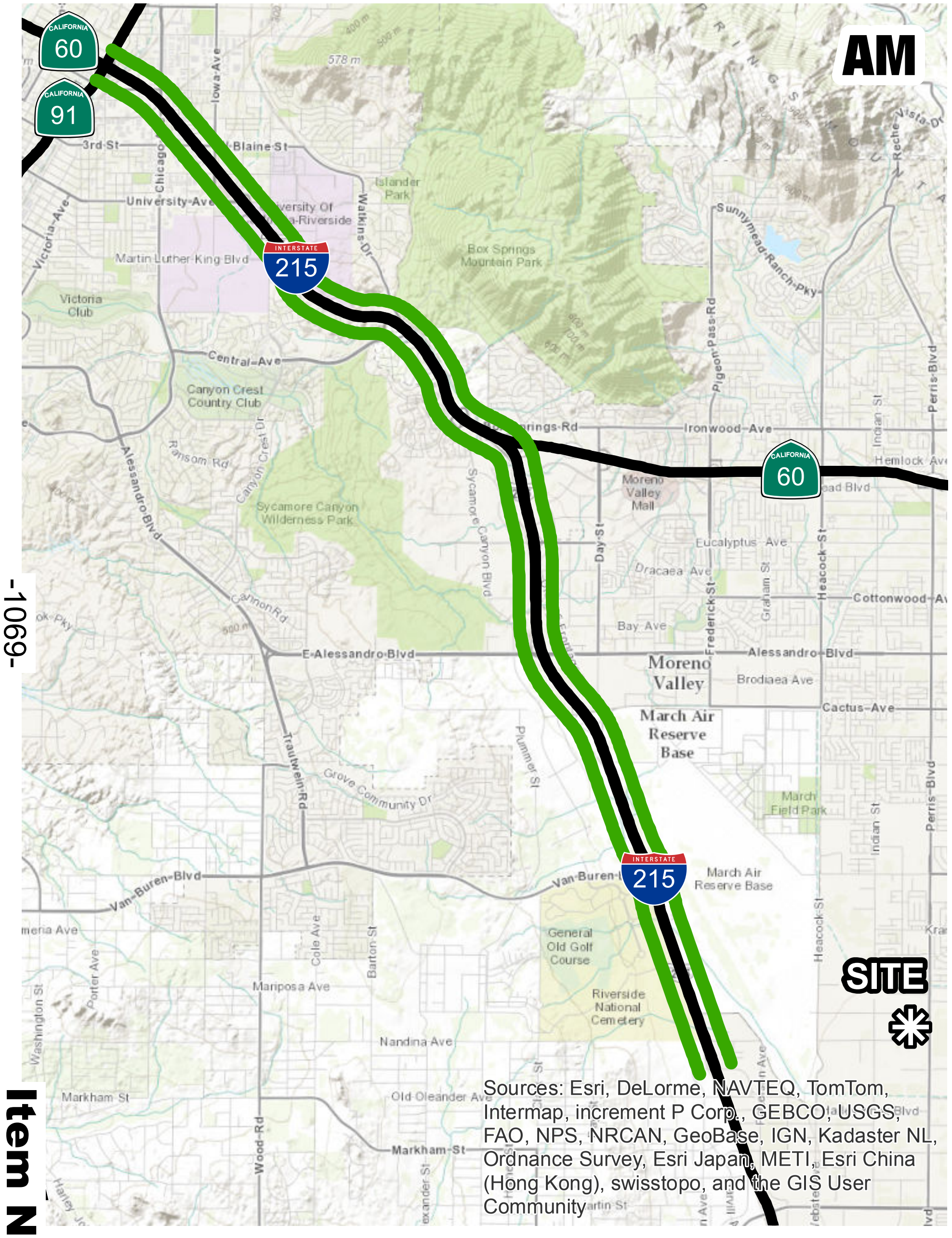
Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

(JN - 08179:exist-los)

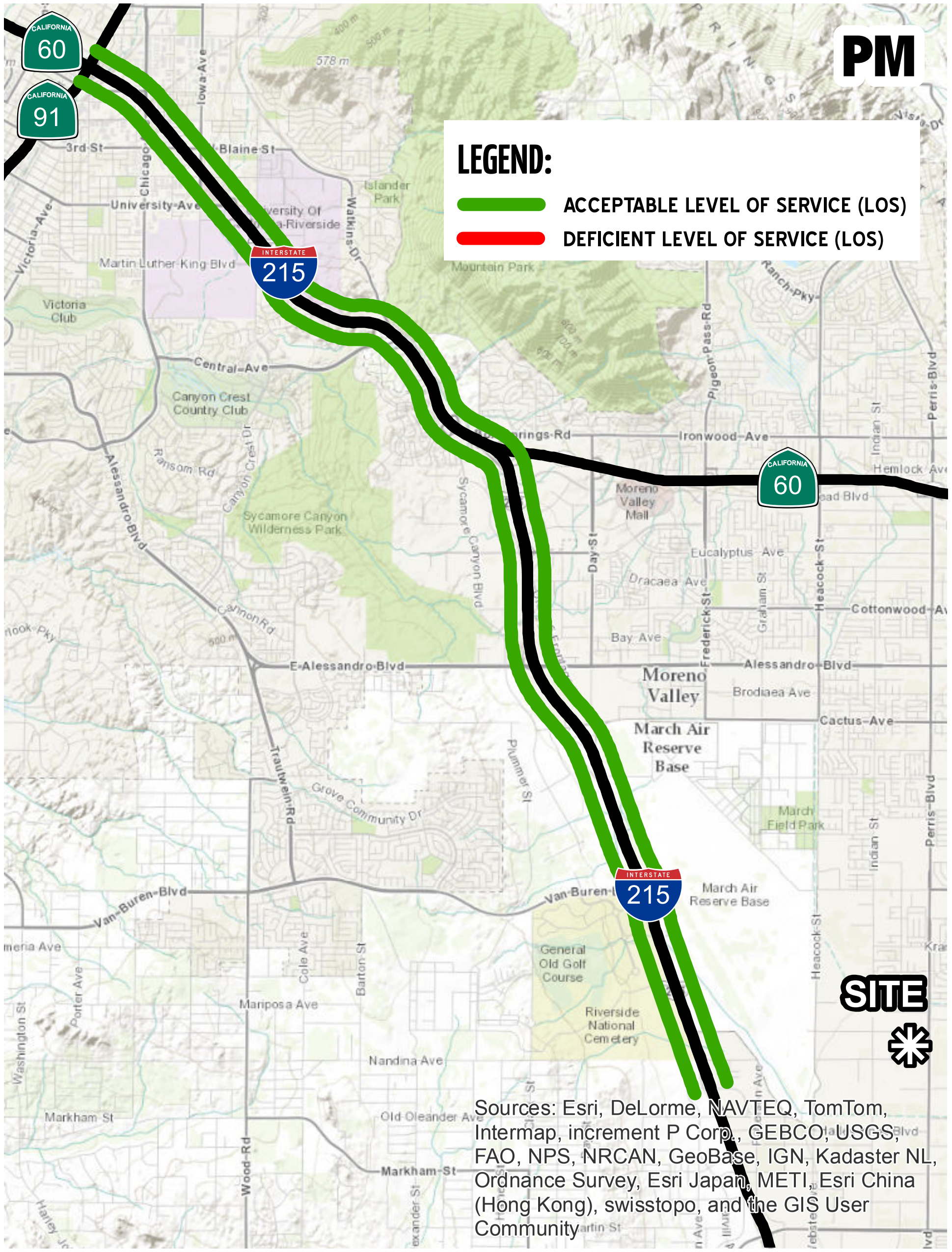
URBAN CROSSROADS

EXHIBIT 4

EXISTING PLUS PROJECT PEAK HOUR FREEWAY MAINLINE LOS



Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community



Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

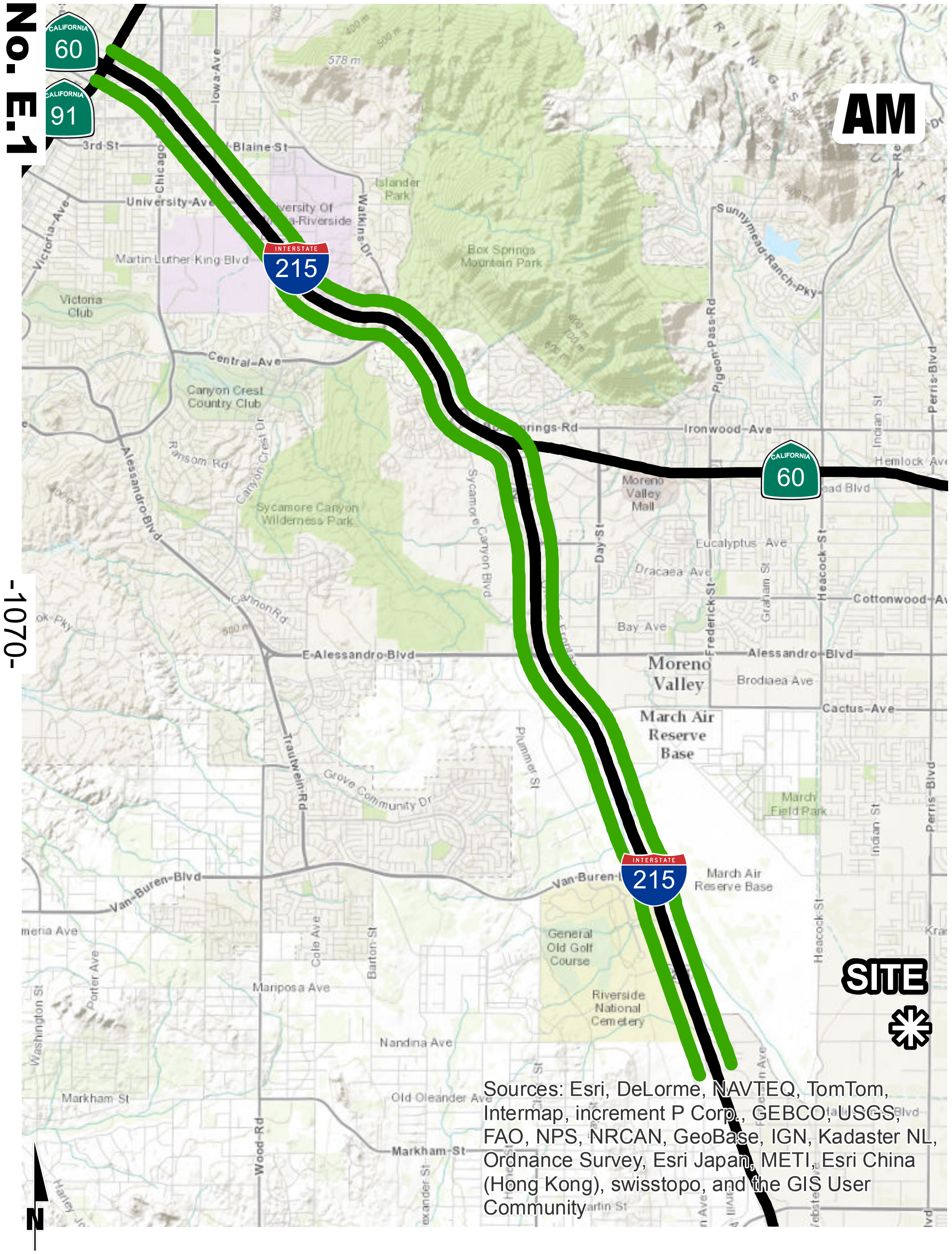
V - 08179:ep-los)

URBAN CROSSROADS

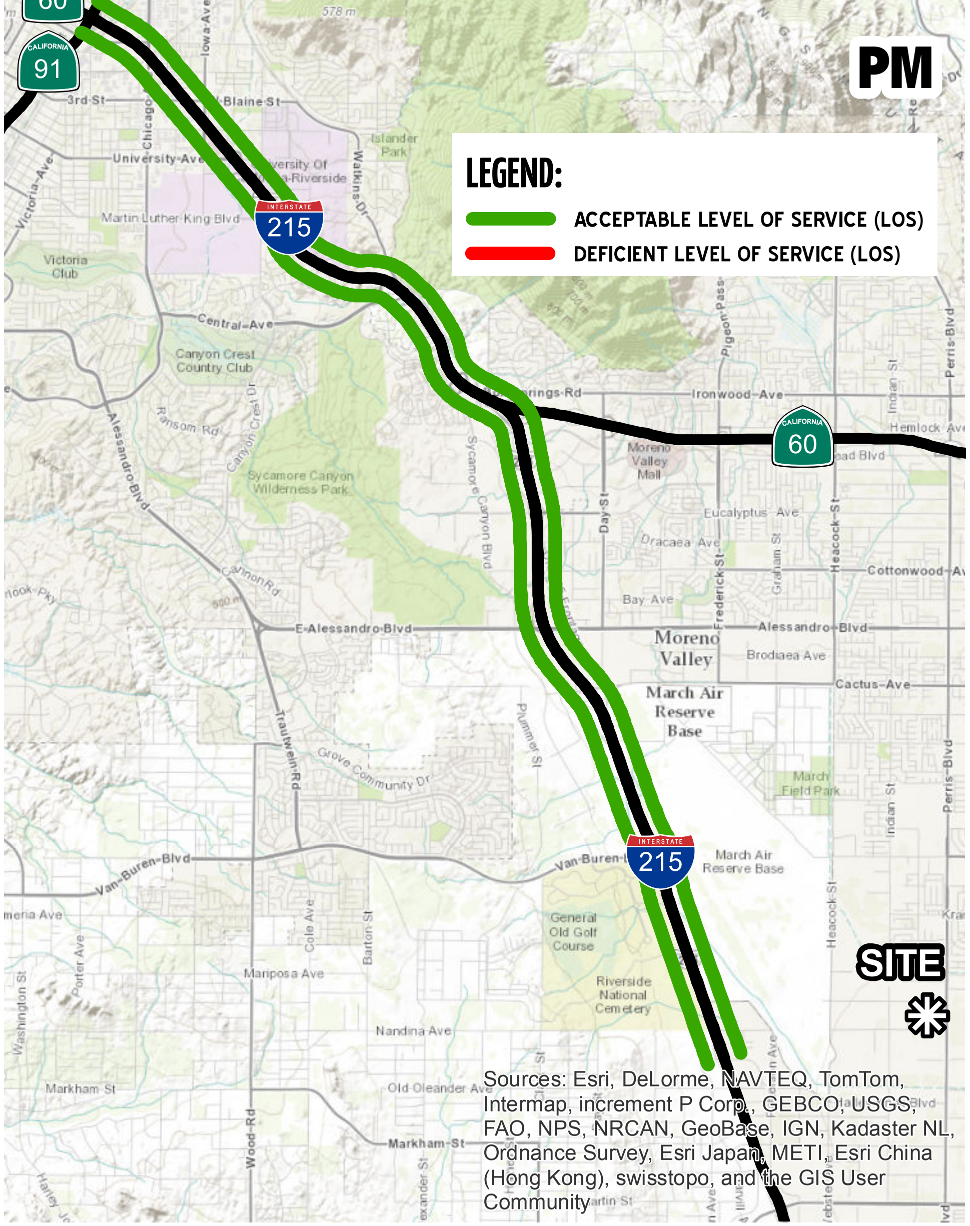
Item No. E.1

EXHIBIT 5

OPENING YEAR CUMULATIVE (2017) WITHOUT PROJECT PEAK HOUR FREEWAY MAINLINE LOS



Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community



LEGEND:

- 🟩 ACCEPTABLE LEVEL OF SERVICE (LOS)
- 🟥 DEFICIENT LEVEL OF SERVICE (LOS)

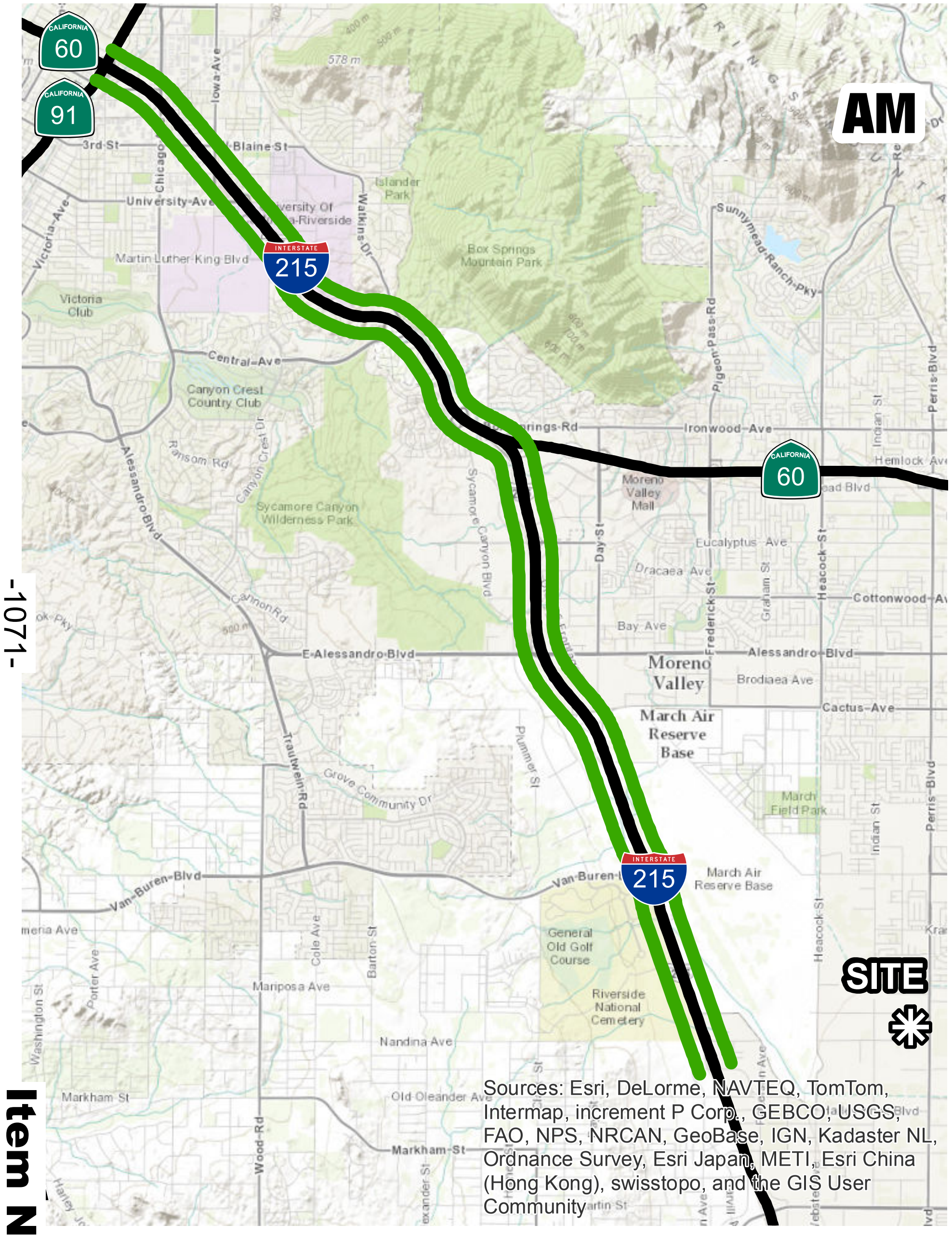
Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

(JN - 08179:2017np-los)

URBAN CROSSROADS

EXHIBIT 6

OPENING YEAR CUMULATIVE (2017) WITH PROJECT PEAK HOUR FREEWAY MAINLINE LOS

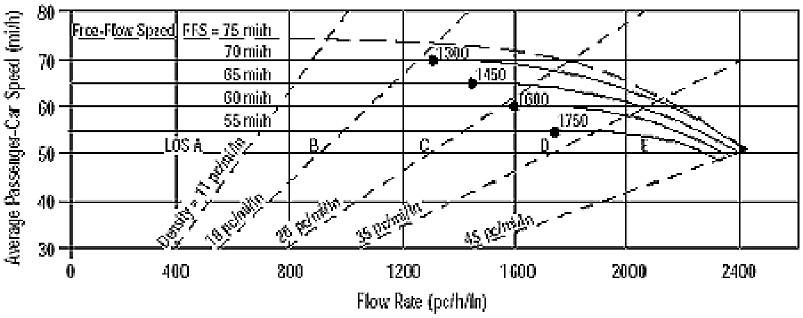


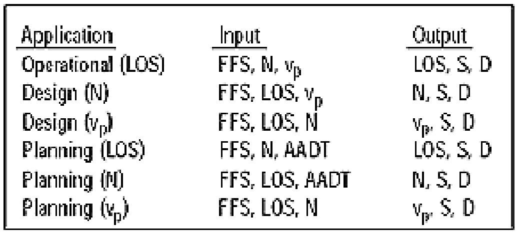
V - 08179:2017wp-los)

URBAN CROSSROADS

ATTACHMENT "A"
EXISTING (2012) CONDITIONS
HCS+ BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

BASIC FREEWAY SEGMENTS WORKSHEET





Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR-60 to Blaine St*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing 2012*

Site Information

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4967*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1139*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*16.3*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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Item No. E.1

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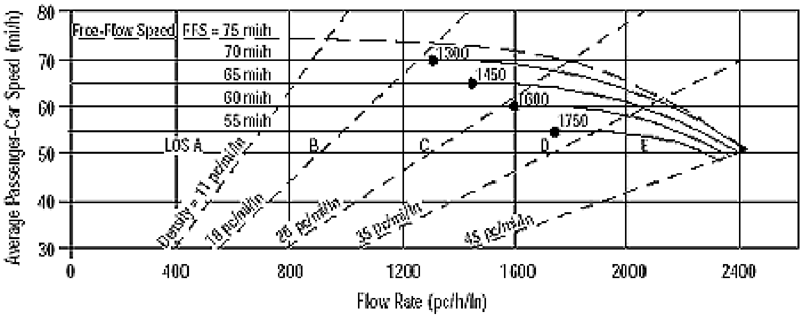

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Blaine St to University Av*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4758*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1364*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*19.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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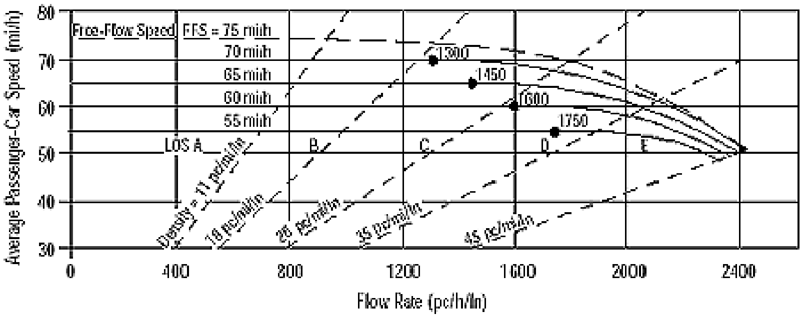

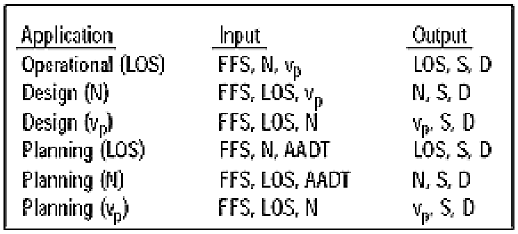

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*University Av to MLK Bl*
Jurisdiction	*Caltrans*
Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5022*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1440*	pc/h/ln
S	*69.9*	mi/h
D = v_p / S	*20.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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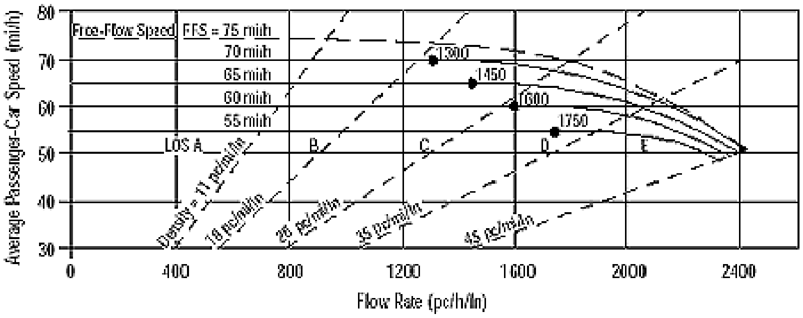

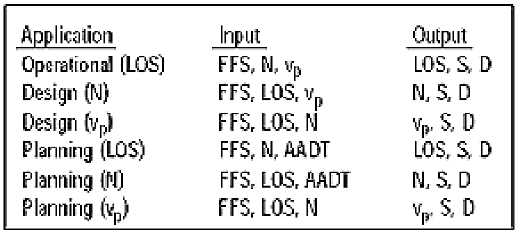

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*MLK Bl to Central Av*
Jurisdiction	*Caltrans*
Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4700*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1078*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*15.4*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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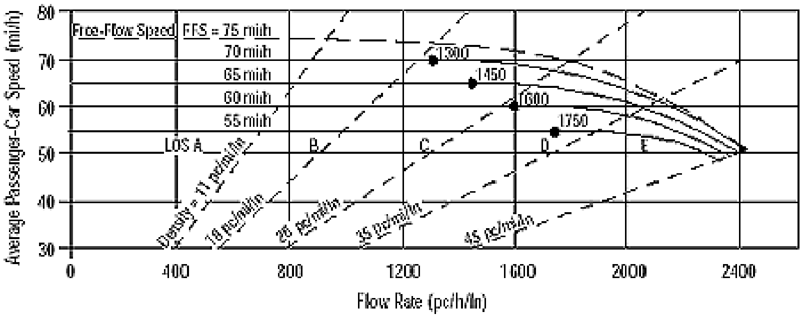

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing 2012*

Site Information

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3532*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*810*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*11.6*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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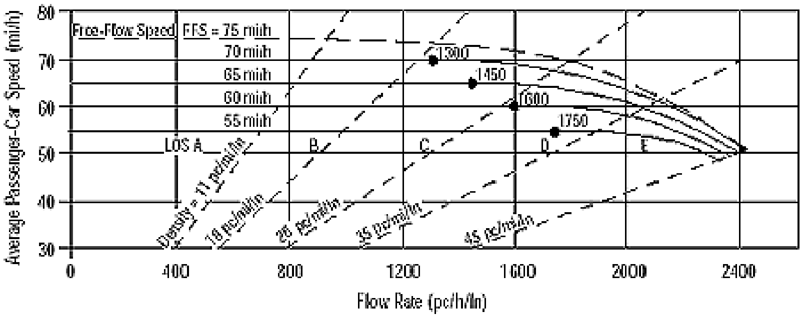

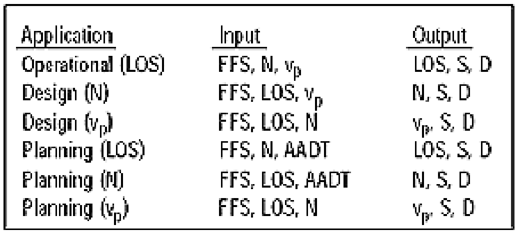

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Box Springs Rd to SR60/I215*
Jurisdiction	*Caltrans*
Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4679*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1341*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*19.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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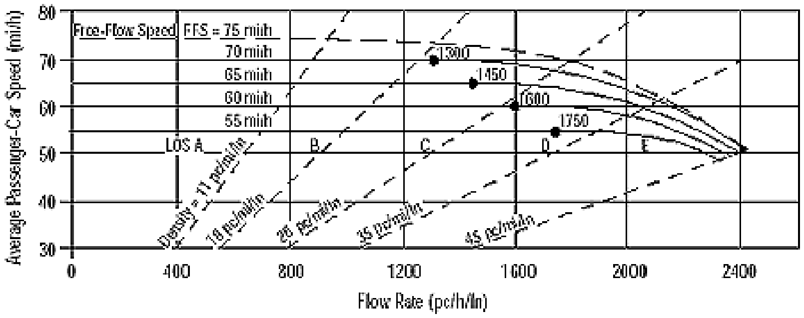

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR60/I215 to Eucalyptus Av.*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5945*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*15*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.930*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1389*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*19.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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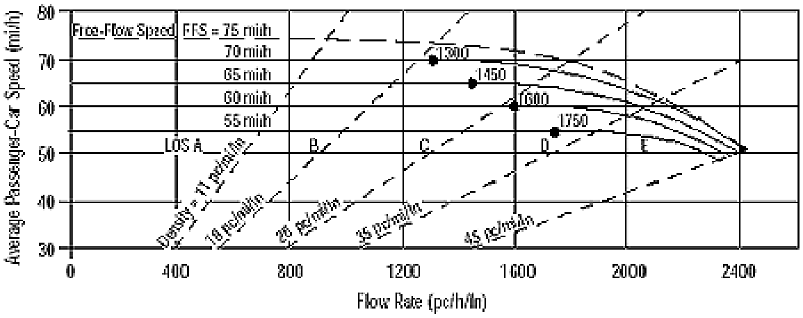

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*		
Agency or Company	*Urban Crossroads, Inc.*		
Date Performed	*2/6/2014*		
Analysis Time Period	*AM Peak Hour*		

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Eucalyptus Av. to Alessandro B*
Jurisdiction	*Caltrans*
Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3282*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1243*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*17.8*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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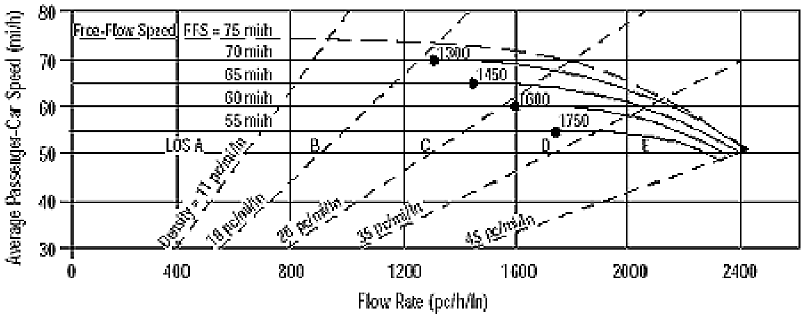

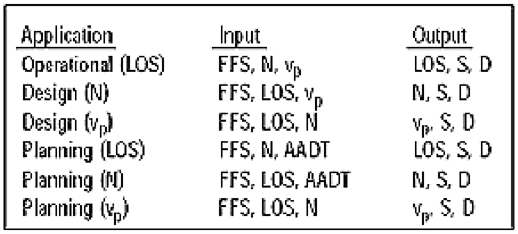

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information		***Site Information***	
Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Alessandro Bl. to Cactus Av.*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3256*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*925*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*70.0*	mi/h	S	mi/h
D = v_p / S	*13.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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Item No. E.1

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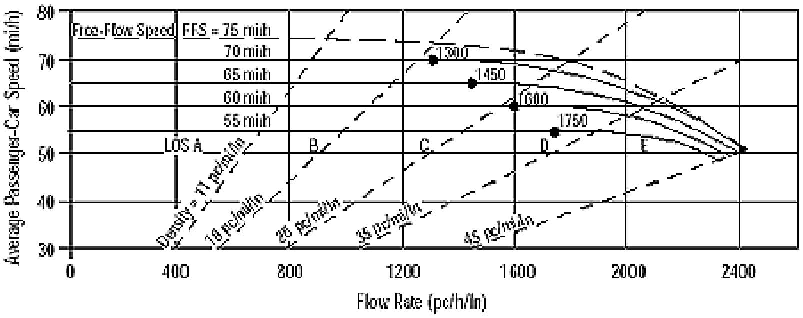

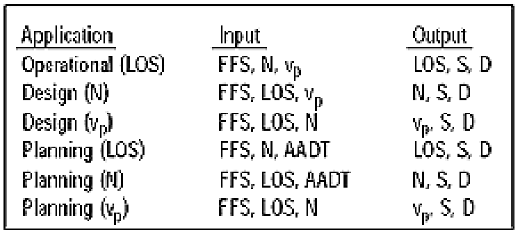

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Cactus Av. to Van Buren Bl.*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2738*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1042*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*70.0*	mi/h	S		mi/h
D = v_p / S	*14.9*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*B*		Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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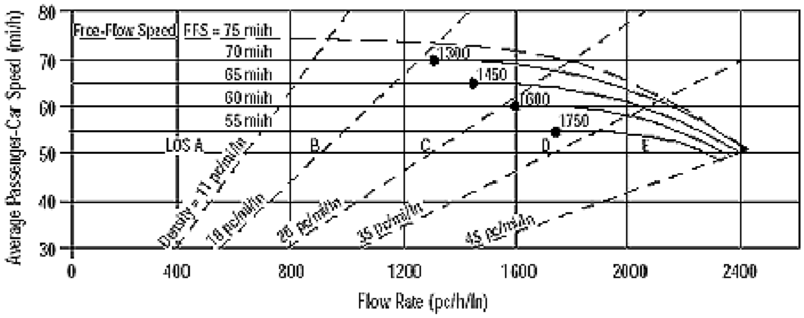

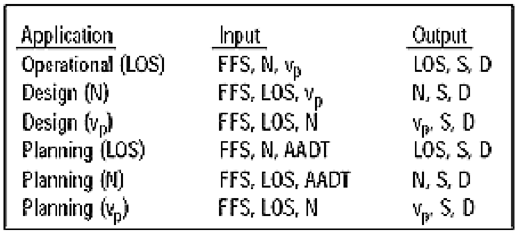

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Van Buren Bl. to Harley Knox B*
Jurisdiction	*Caltrans*
Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2578*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*948*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*13.5*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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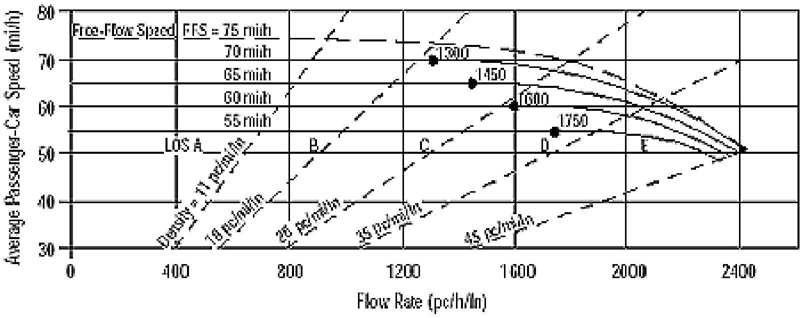

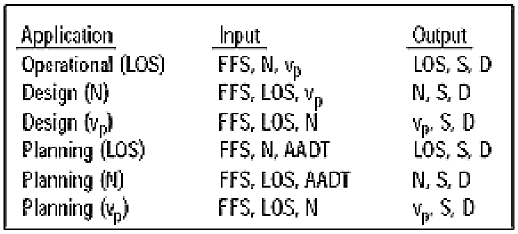

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*SR-60 to Blaine St*
Jurisdiction	*Caltrans*
Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5381*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1234*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*17.6*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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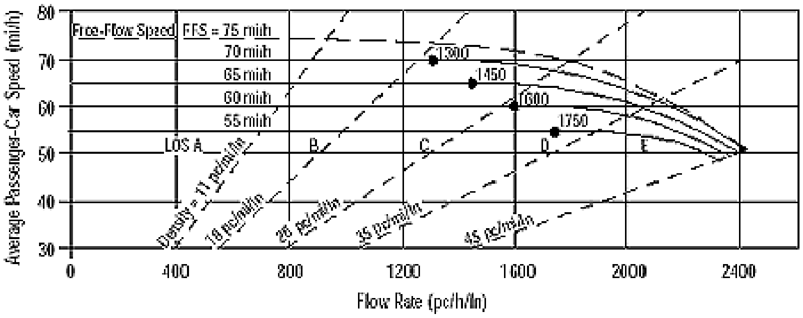

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Blaine St to University Av*
Jurisdiction	*Caltrans*
Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6627*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1520*	pc/h/ln
S	*69.7*	mi/h
D = v_p / S	*21.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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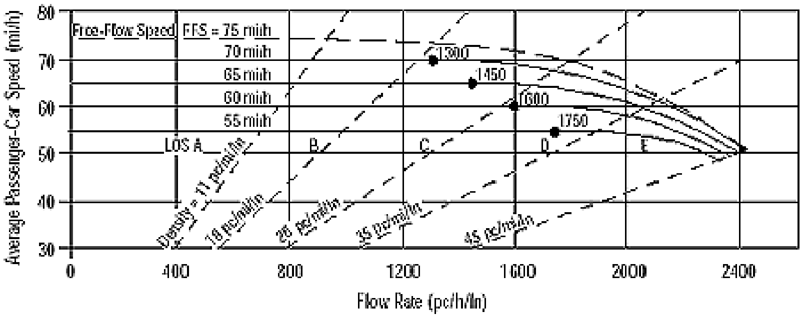

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information		Site Information	
Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University Av to MLK Bl*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5623*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1612*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*69.4*	mi/h	S	mi/h
D = v_p / S	*23.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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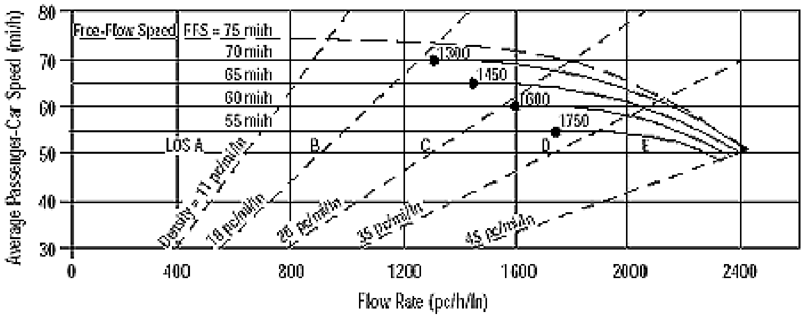

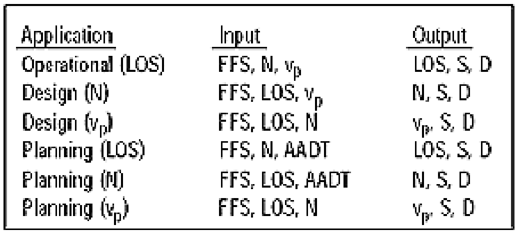

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information		***Site Information***	
Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*MLK Bl to Central Av*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5808*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1665*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*69.1*	mi/h	S	mi/h
D = v_p / S	*24.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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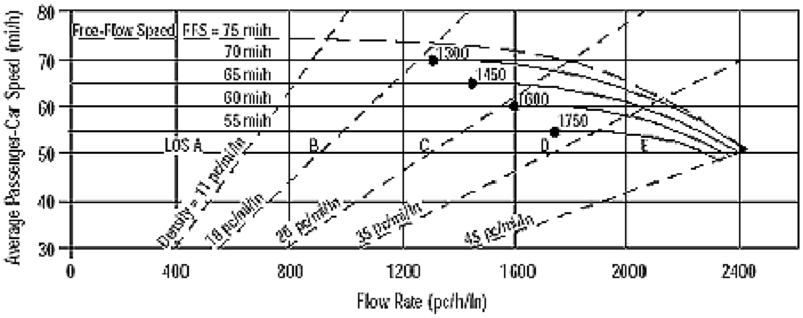

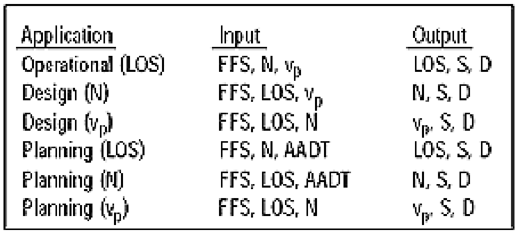

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5497*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1261*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*18.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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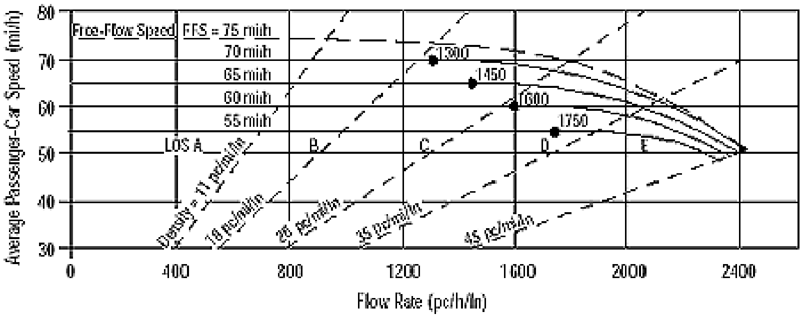

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Box Springs Rd to SR60/I215*
Jurisdiction	*Caltrans*
Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6034*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1730*	pc/h/ln
S	*68.6*	mi/h
D = v_p / S	*25.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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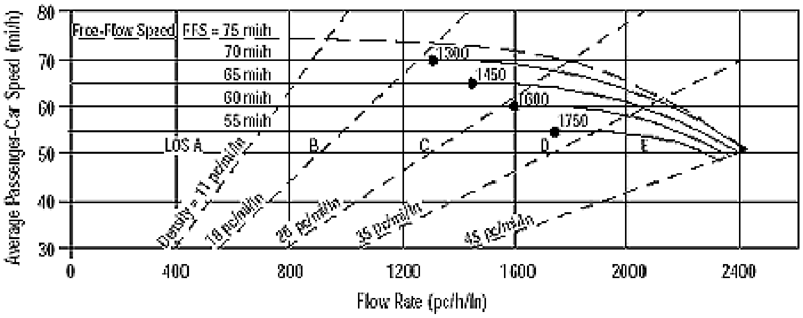

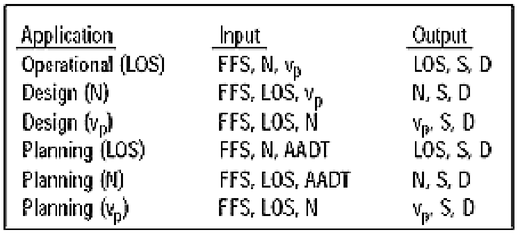

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*SR60/I215 to Eucalyptus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3544*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*15*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.930*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1380*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*19.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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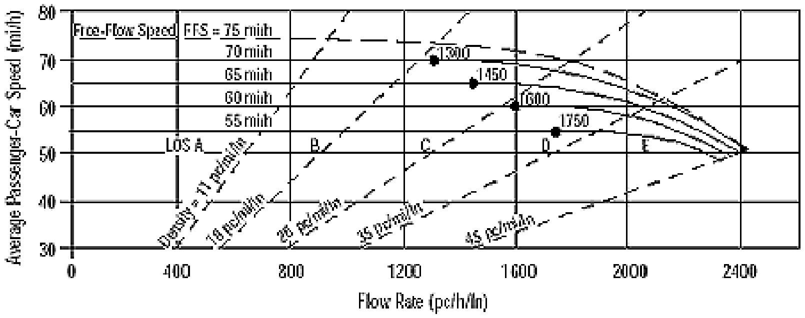

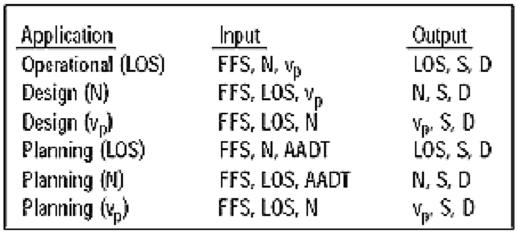

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3219*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

<u>Operational (LOS)</u>			<u>Design (N)</u>		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1219*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*70.0*	mi/h	S		mi/h
D = v_p / S	*17.4*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*B*		Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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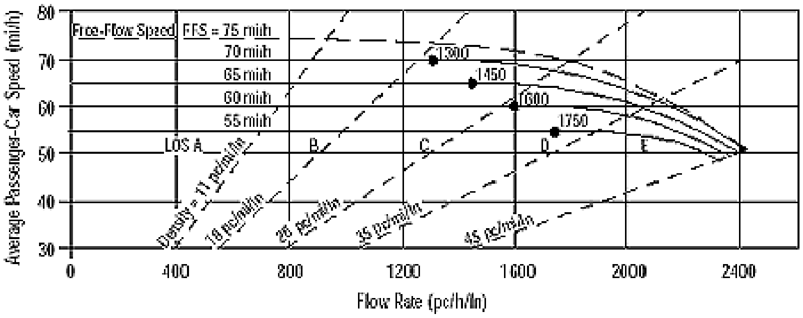

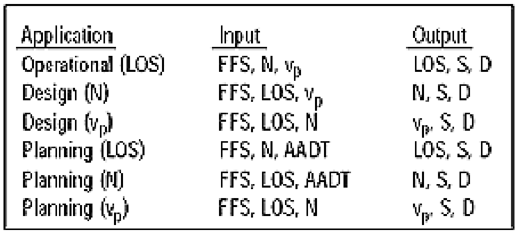

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Alessandro Bl. to Cactus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3857*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1095*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*15.6*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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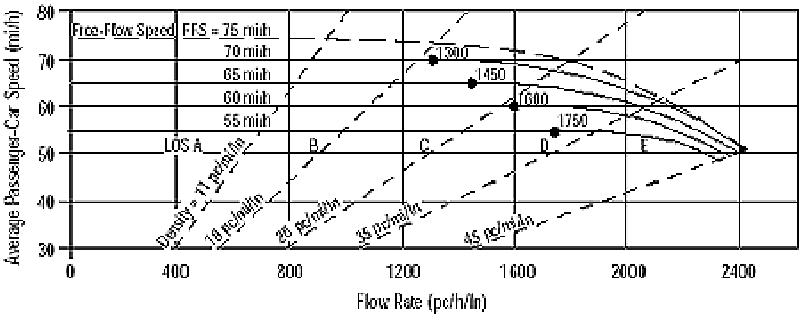
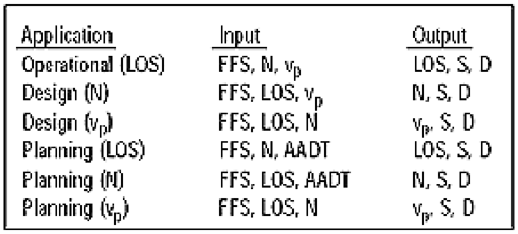
BASIC FREEWAY SEGMENTS WORKSHEET





Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Cactus Av. to Van Buren Bl.*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3882*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1477*	pc/h/ln
S	*69.9*	mi/h
D = v_p / S	*21.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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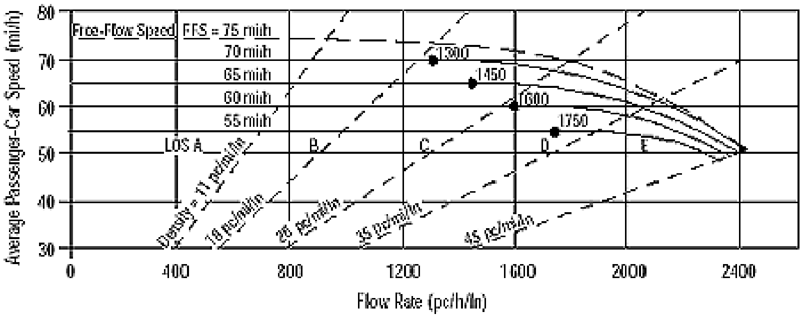

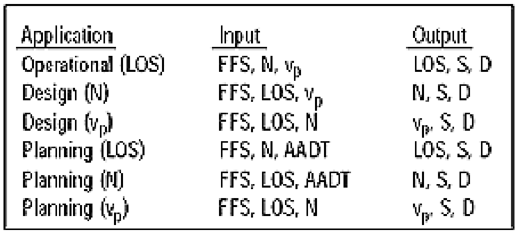

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3978*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1463*	pc/h/ln
S	*69.9*	mi/h
D = v_p / S	*20.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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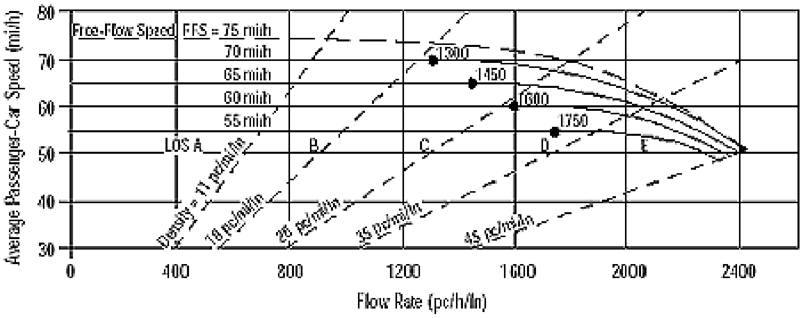

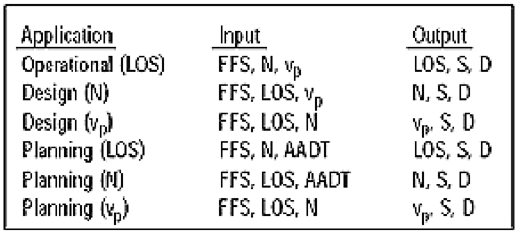

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR-60 to Blaine St*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4574*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1049*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*15.0*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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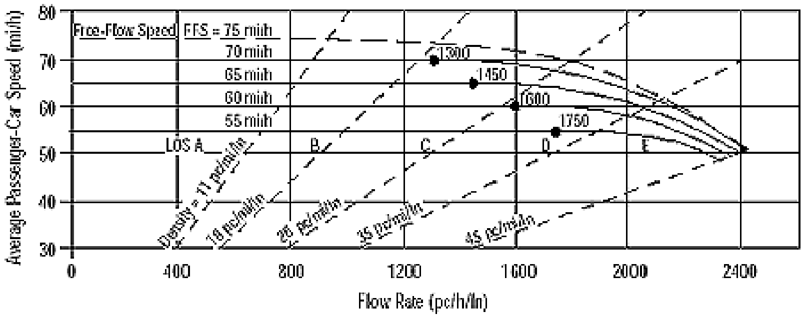

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Blaine St to University Av*
Jurisdiction	*Caltrans*
Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5106*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1464*	pc/h/ln
S	*69.9*	mi/h
D = v_p / S	*20.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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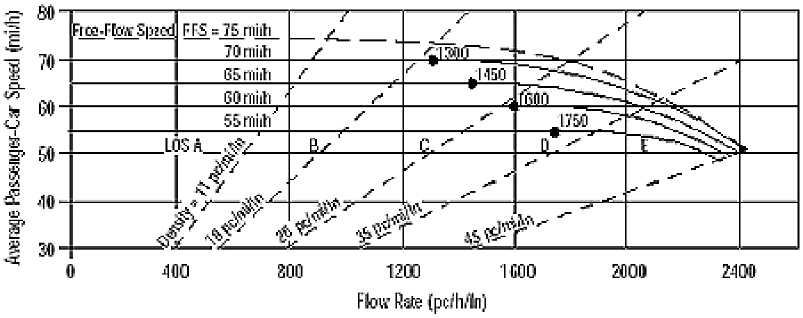

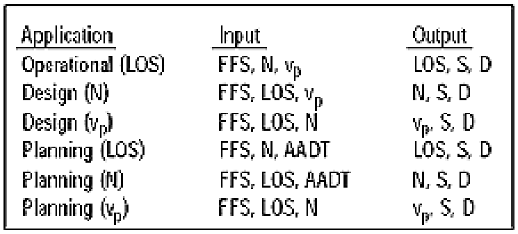

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University Av to MLK Bl*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6080*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1743*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*68.4*	mi/h	S		mi/h
D = v_p / S	*25.5*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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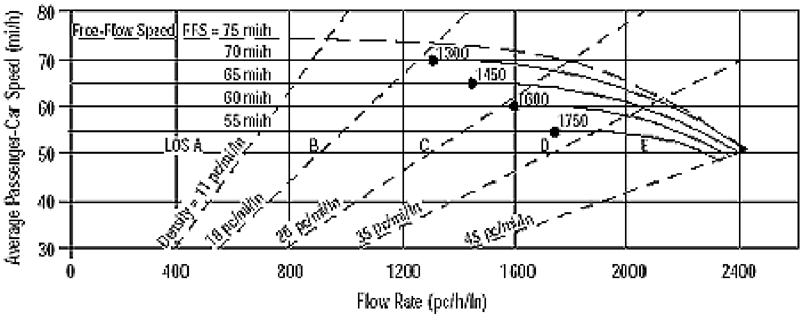

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information		***Site Information***	
Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*MLK Bl to Central Av*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6850*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*5*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1571*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*69.6*	mi/h	S	mi/h
D = v_p / S	*22.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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Item No. E.1

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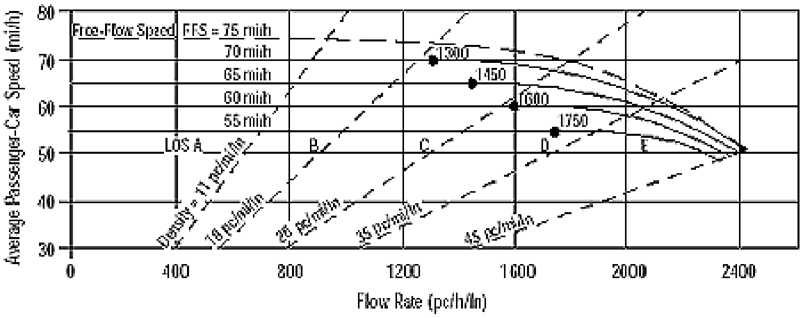

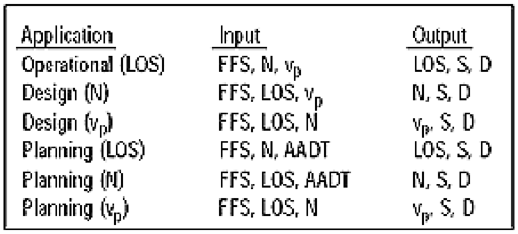

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Central Av to Box Springs Rd*
Jurisdiction	*Caltrans*
Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5607*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1286*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*18.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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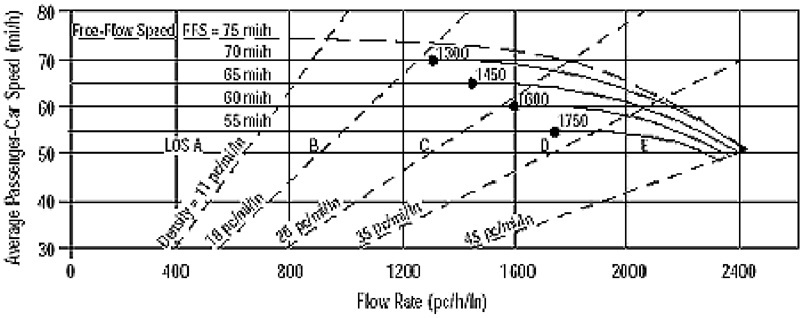

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information		**Site Information**	
Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Box Springs Rd to SR60/I215*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7118*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2041*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*64.0*	mi/h	S	mi/h
D = v_p / S	*31.9*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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Item No. E.1

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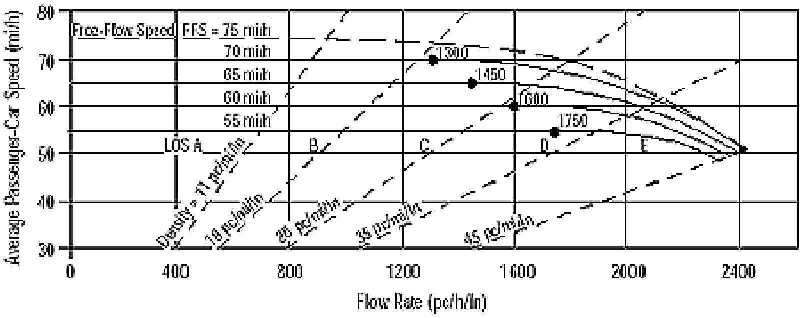

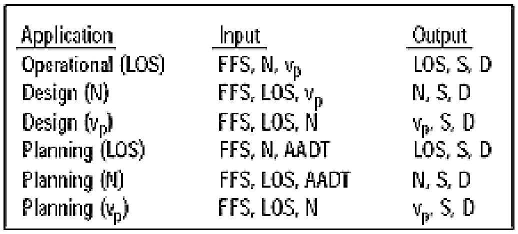

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*SR60/I215 to Eucalyptus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5893*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*15*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.930*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1377*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*19.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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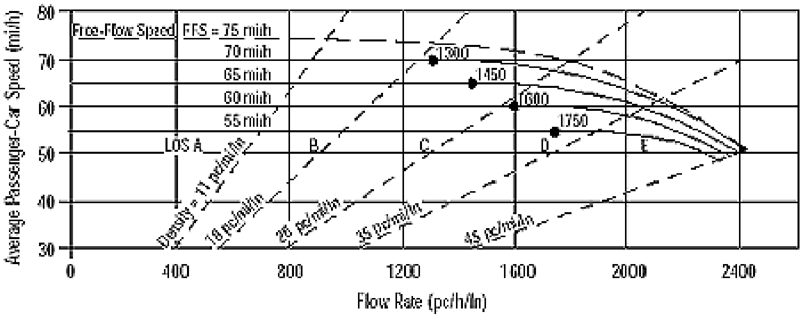

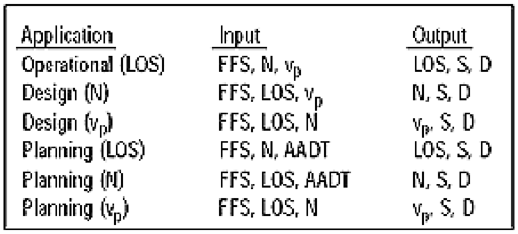

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Eucalyptus Av. to Alessandro B*
Jurisdiction	*Caltrans*
Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4688*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1775*	pc/h/ln
S	*68.1*	mi/h
D = v_p / S	*26.1*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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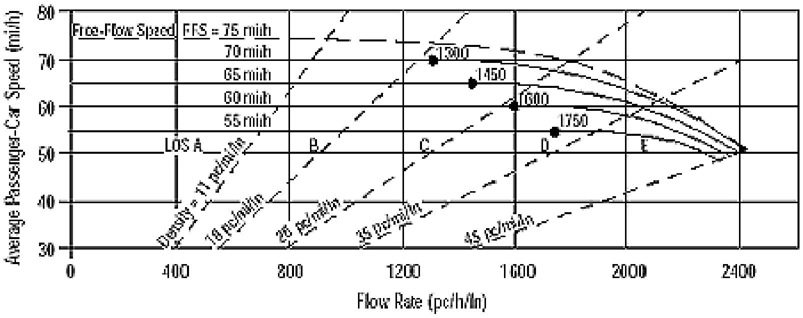

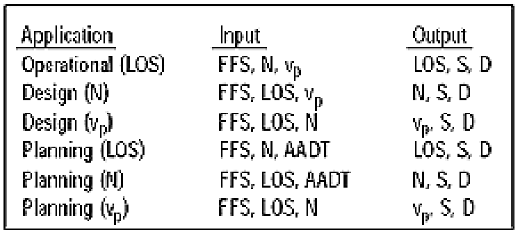

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Alessandro Bl. to Cactus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4852*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1378*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*19.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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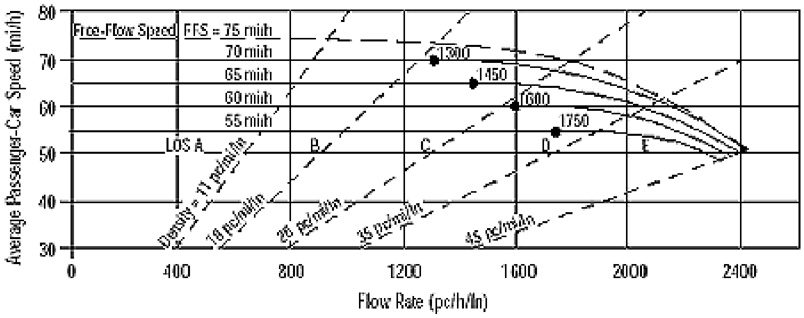

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Cactus Av. to Van Buren Bl.*
Jurisdiction	*Caltrans*
Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3821*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1454*	pc/h/ln
S	*69.9*	mi/h
D = v_p / S	*20.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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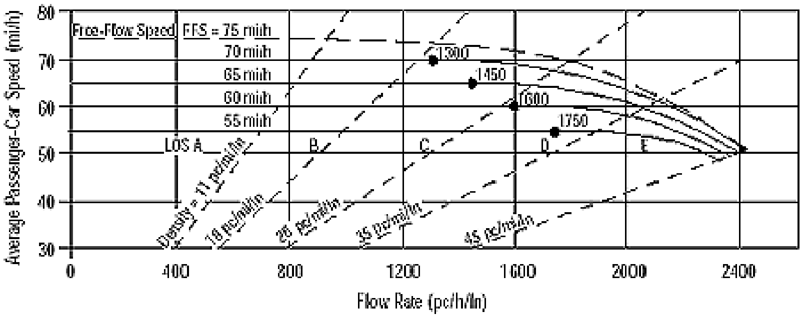

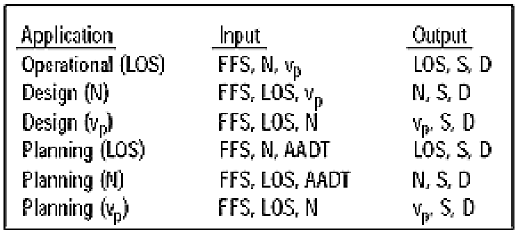

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Van Buren Bl. to Harley Knox B*
Jurisdiction	*Caltrans*
Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3837*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1411*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*20.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	mi/h
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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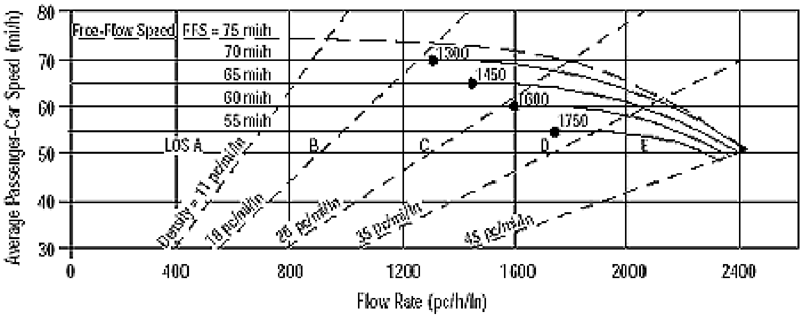

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*SR-60 to Blaine St*
Jurisdiction	*Caltrans*
Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4660*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1069*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*15.3*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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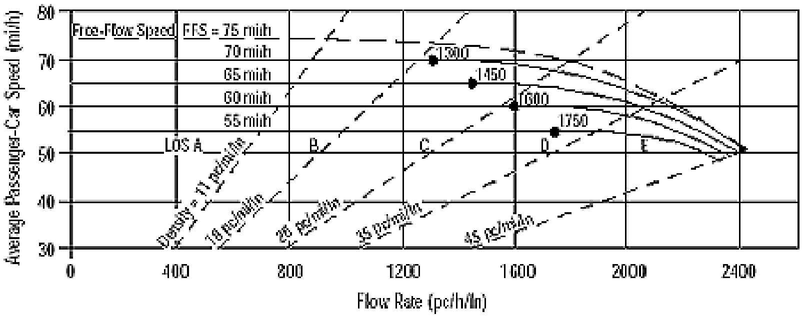

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Blaine St to University Av*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5510*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1264*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*18.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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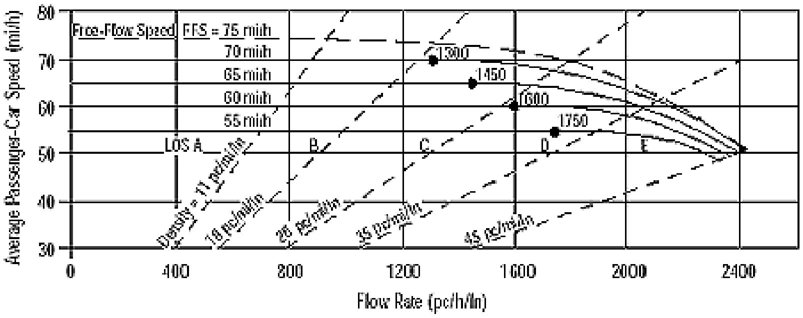

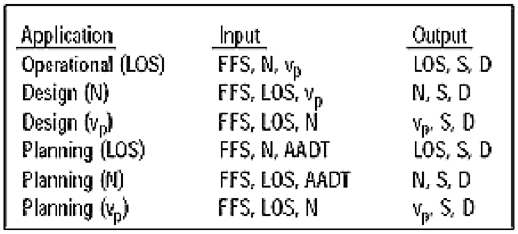

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*University Av to MLK Bl*
Jurisdiction	*Caltrans*
Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5293*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1517*	pc/h/ln
S	*69.8*	mi/h
D = v_p / S	*21.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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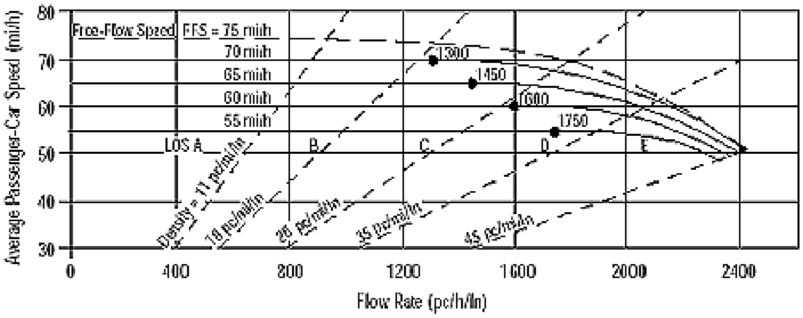

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*MLK Bl to Central Av*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5536*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1587*	pc/h/ln
S	*69.5*	mi/h
D = v_p / S	*22.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	mi/h
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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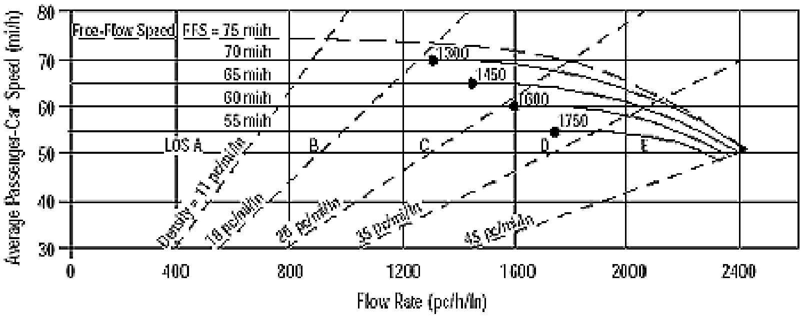

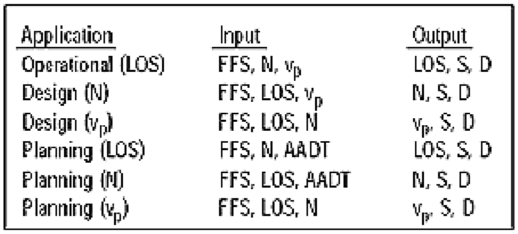

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Central Av to Box Springs Rd*
Jurisdiction	*Caltrans*
Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4487*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1029*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*14.7*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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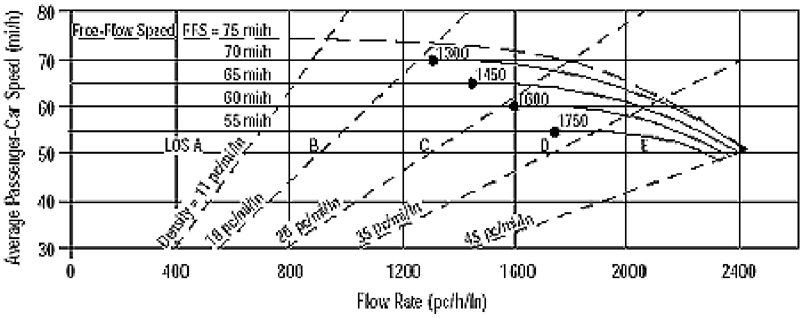

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Box Springs Rd to SR60/I215*
Jurisdiction	*Caltrans*
Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5753*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1649*	pc/h/ln
S	*69.2*	mi/h
D = v_p / S	*23.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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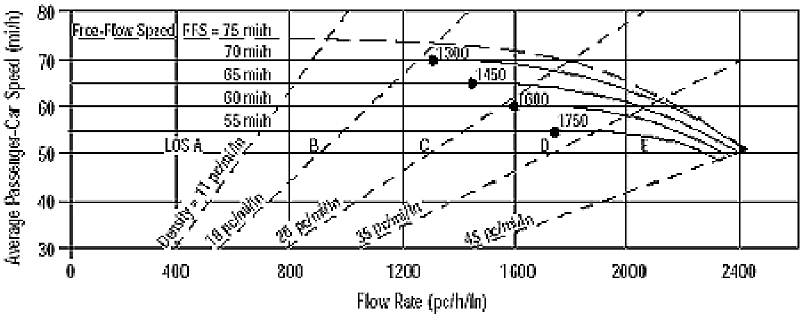
Item No. E.1

BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*SR60/I215 to Eucalyptus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3852*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*15*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.930*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1500*	pc/h/ln
S	*69.8*	mi/h
D = v_p / S	*21.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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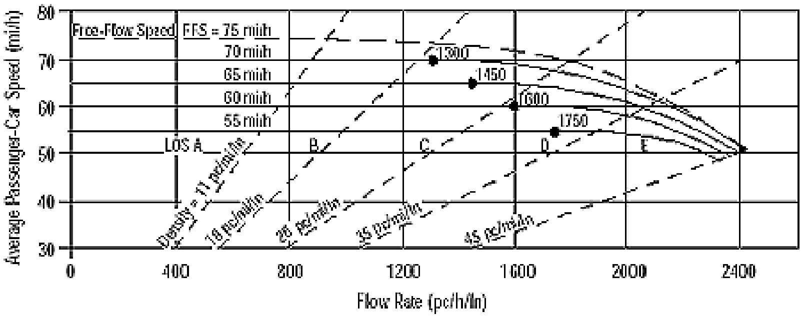
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information		***Site Information***	
Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3264*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1236*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*70.0*	mi/h	S	mi/h
D = v_p / S	*17.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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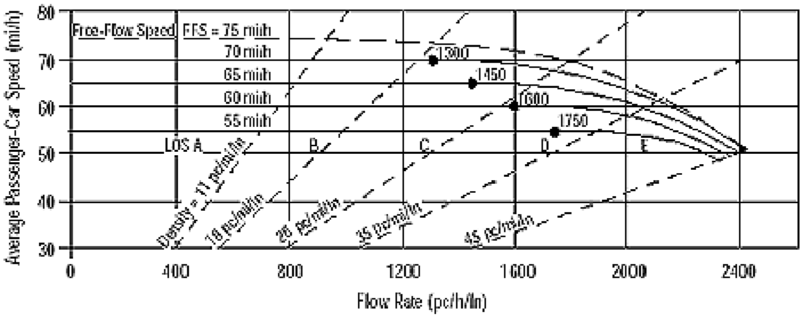

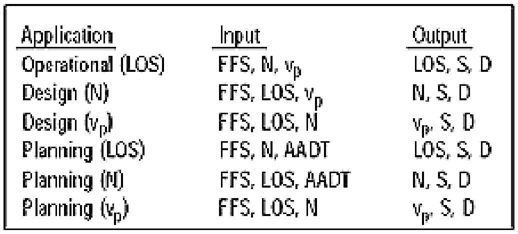

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Alessandro Bl. to Cactus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3942*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1119*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*16.0*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10

E_T - Exhibits 23-8, 23-10, 23-11

f_p - Page 23-12

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f_{LW} - Exhibit 23-4

f_{LC} - Exhibit 23-5

f_N - Exhibit 23-6

f_{ID} - Exhibit 23-7

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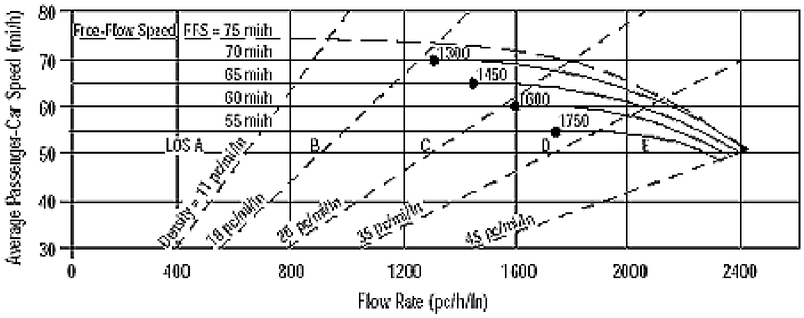

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Cactus Av. to Van Buren Bl.*
Jurisdiction	*Caltrans*
Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2755*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1048*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*15.0*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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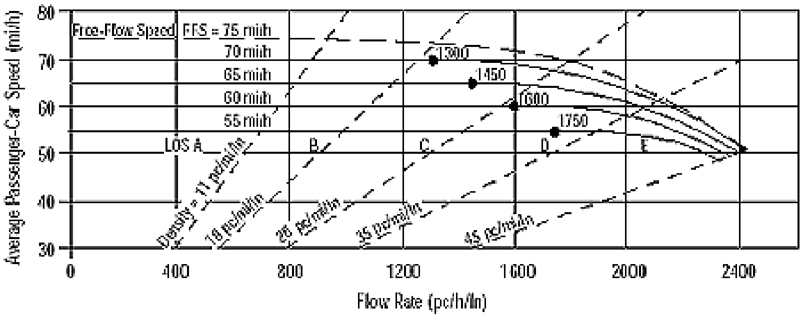

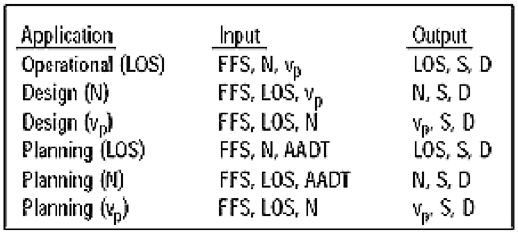

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing 2012*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2945*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1083*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*15.5*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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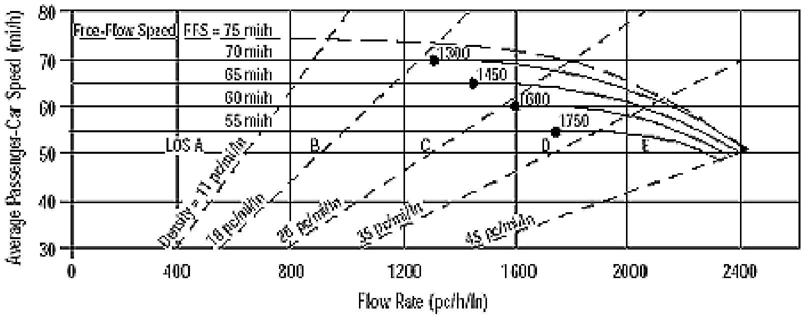
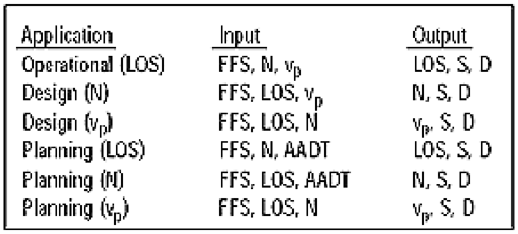
ATTACHMENT "B"
EXISTING PLUS PROJECT CONDITIONS
HCS+ BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

BASIC FREEWAY SEGMENTS WORKSHEET





Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*SR-60 to Blaine St*
Jurisdiction	*Caltrans*
Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5002*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1147*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*16.4*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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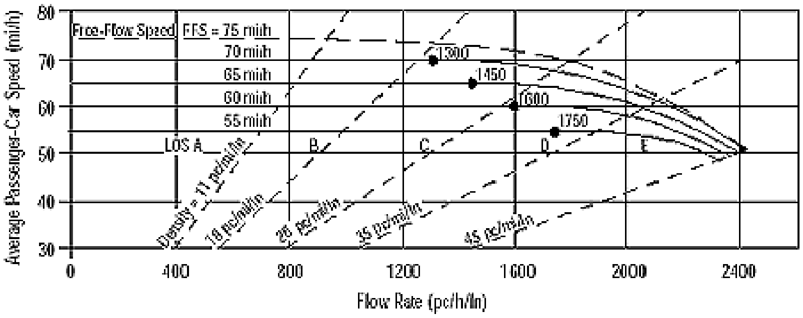

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Blaine St to University Av*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4793*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1381*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*70.0*	mi/h	S		mi/h
D = v_p / S	*19.7*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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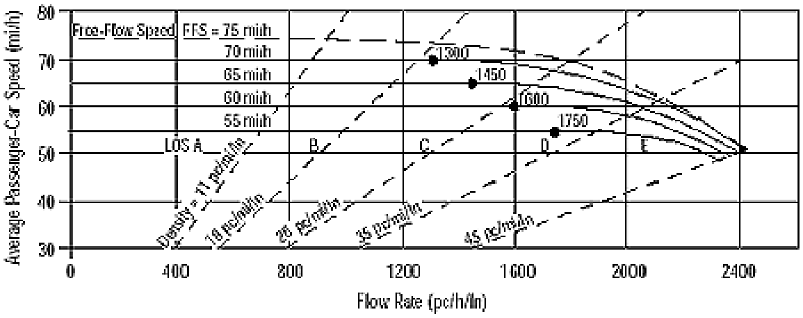

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University Av to MLK Bl*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5057*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1450*	pc/h/ln
S	*69.9*	mi/h
D = v_p / S	*20.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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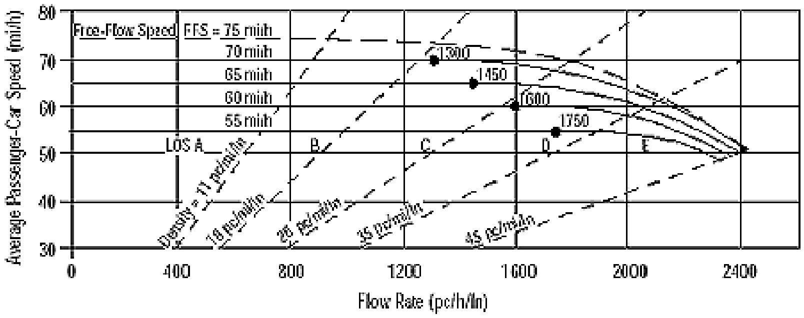

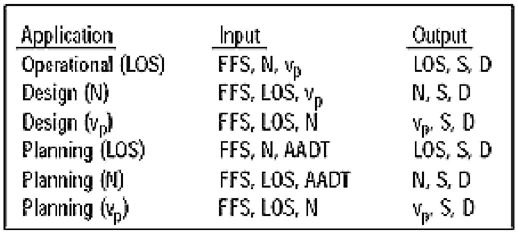

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information		**Site Information**	
Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*MLK Bl to Central Av*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4735*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*5*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1091*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*70.0*	mi/h	S	mi/h
D = v_p / S	*15.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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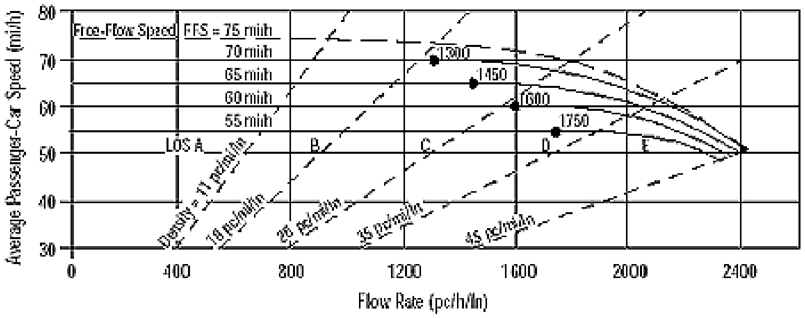

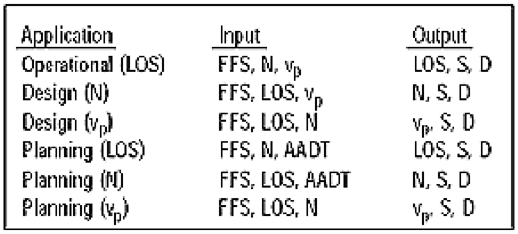

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3567*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*822*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*11.7*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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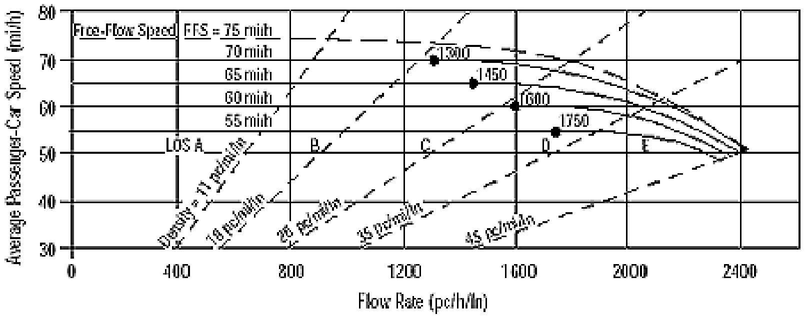

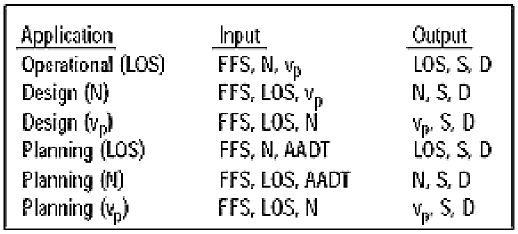

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Box Springs Rd to SR60/I215*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4714*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1358*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*70.0*	mi/h	S		mi/h
D = v_p / S	*19.4*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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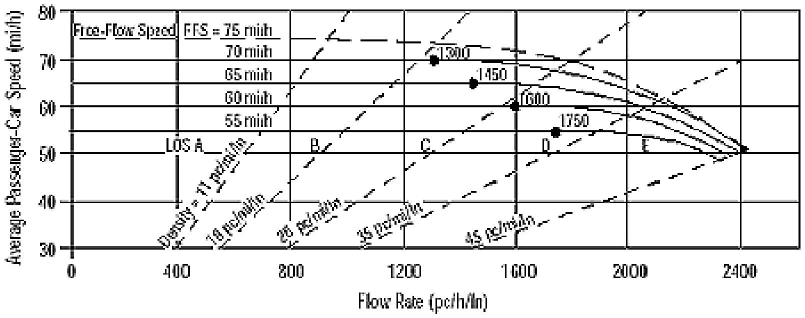

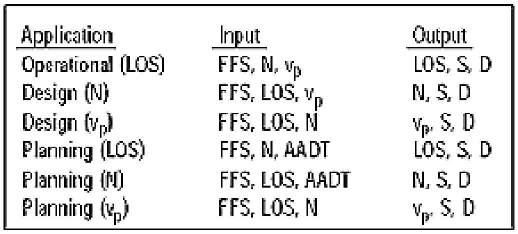

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*SR60/I215 to Eucalyptus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5980*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*15*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.930*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1397*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*20.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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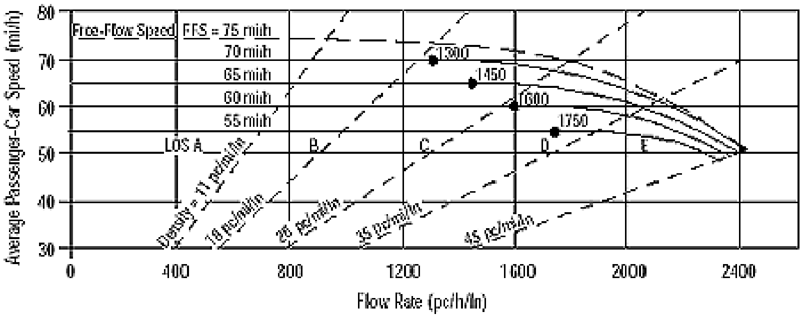

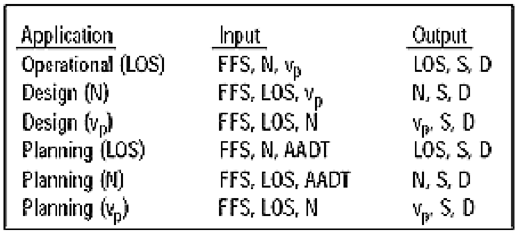

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information		***Site Information***	
Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs				
Volume, V	*3317*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments			
f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1262*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*70.0*	mi/h	S	mi/h
D = v_p / S	*18.0*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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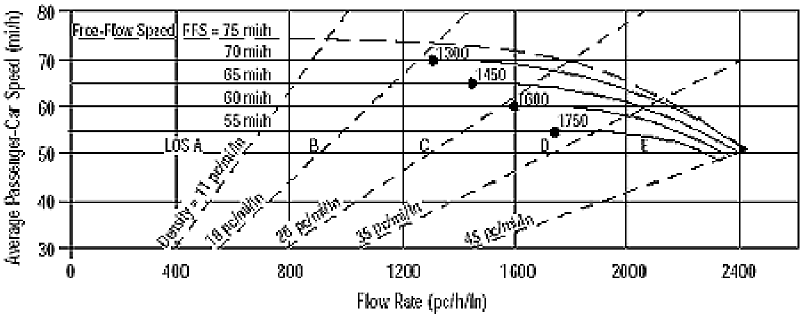

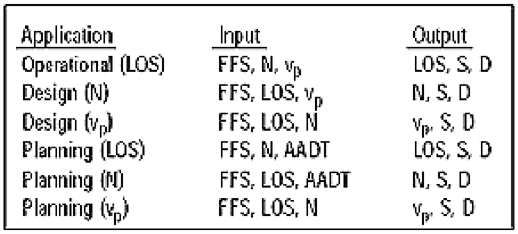

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Alessandro Bl. to Cactus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3291*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*939*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*13.4*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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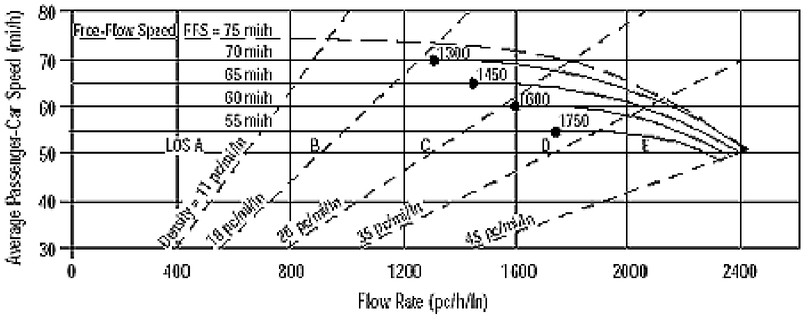

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Cactus Av. to Van Buren Bl.*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2773*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1060*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*15.1*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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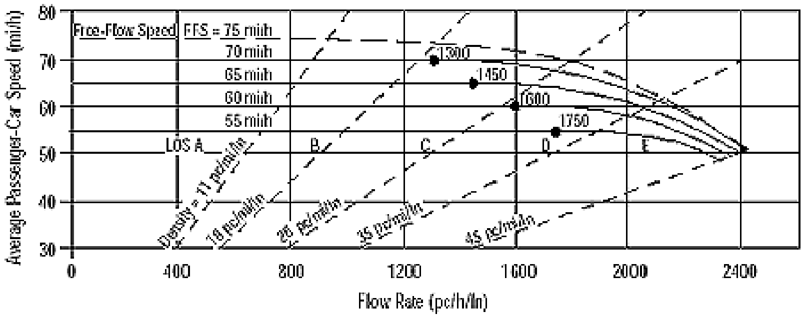

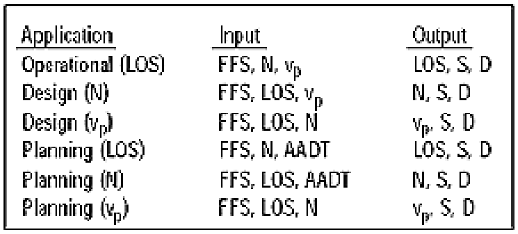

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Van Buren Bl. to Harley Knox B*
Jurisdiction	*Caltrans*
Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2613*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*966*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*13.8*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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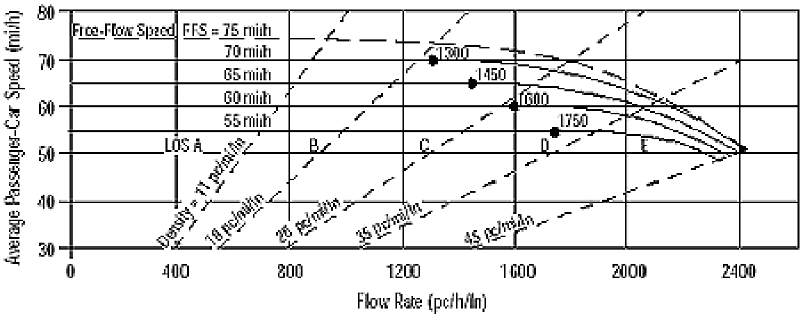

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*SR-60 to Blaine St*
Jurisdiction	*Caltrans*
Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5397*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1238*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*17.7*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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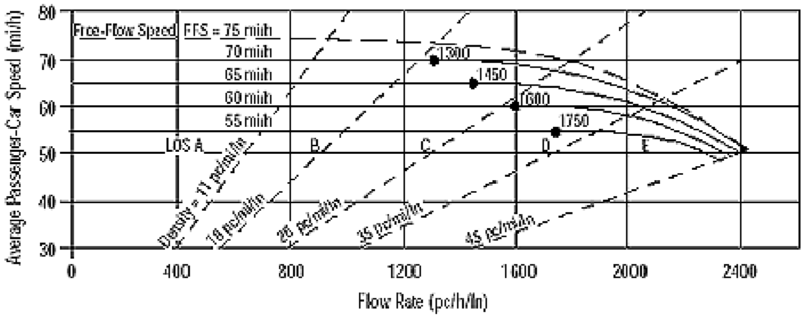

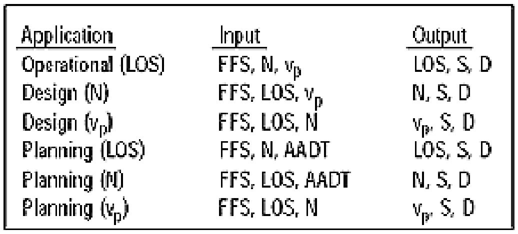

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Blaine St to University Av*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6643*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1524*	pc/h/ln
S	*69.7*	mi/h
D = v_p / S	*21.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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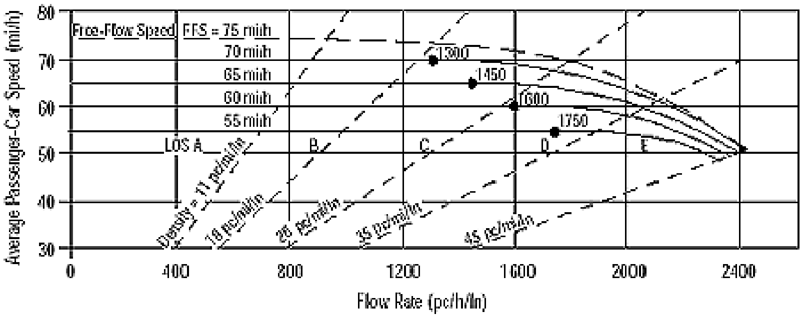

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University Av to MLK Bl*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5639*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1617*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*69.3*	mi/h	S		mi/h
D = v_p / S	*23.3*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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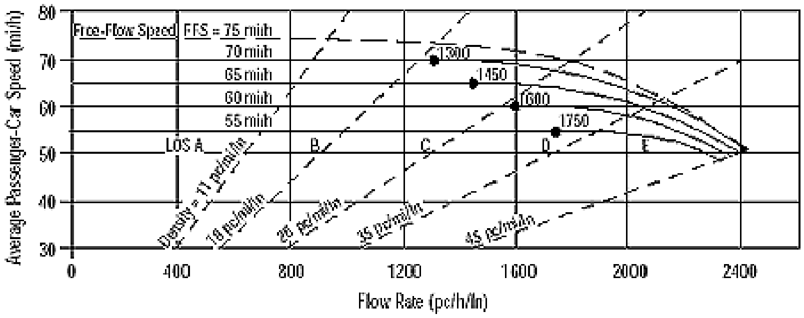

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*MLK Bl to Central Av*
Jurisdiction	*Caltrans*
Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5824*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1670*	pc/h/ln
S	*69.0*	mi/h
D = v_p / S	*24.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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Item No. E.1

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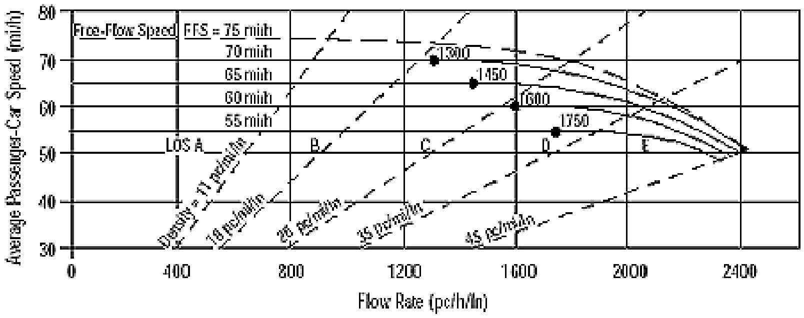

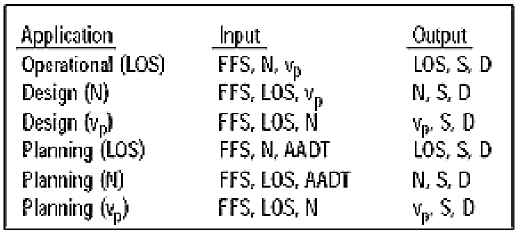

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Central Av to Box Springs Rd*
Jurisdiction	*Caltrans*
Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5513*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1264*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*18.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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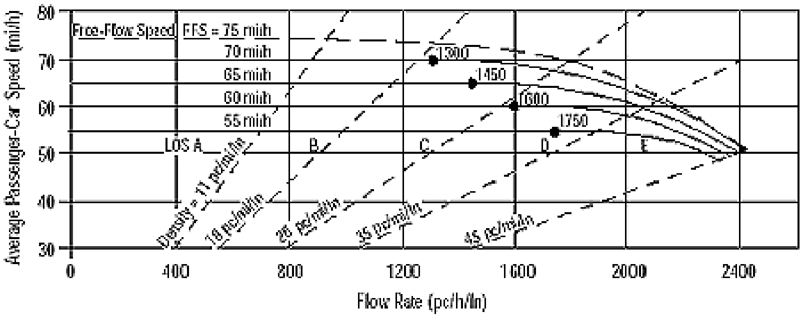

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Box Springs Rd to SR60/I215*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6050*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1734*	pc/h/ln
S	*68.5*	mi/h
D = v_p / S	*25.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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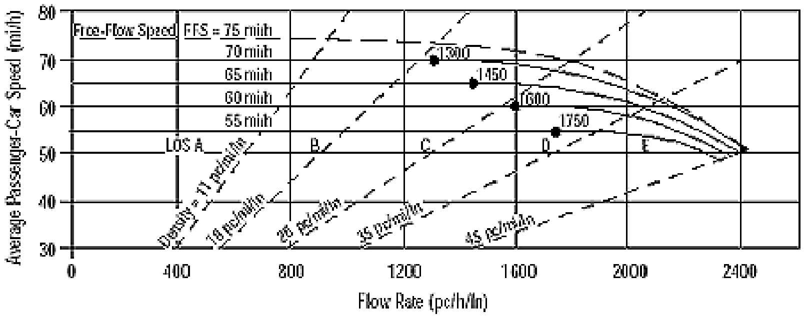

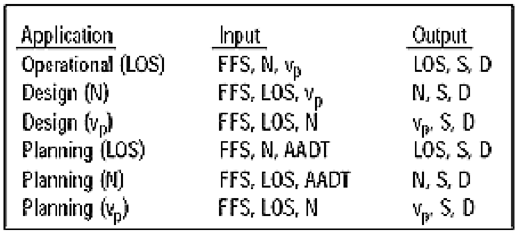

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / *Site Information*

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR60/I215 to Eucalyptus Av.*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3560*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*15*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.930*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1387*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*70.0*	mi/h	S		mi/h
D = v_p / S	*19.8*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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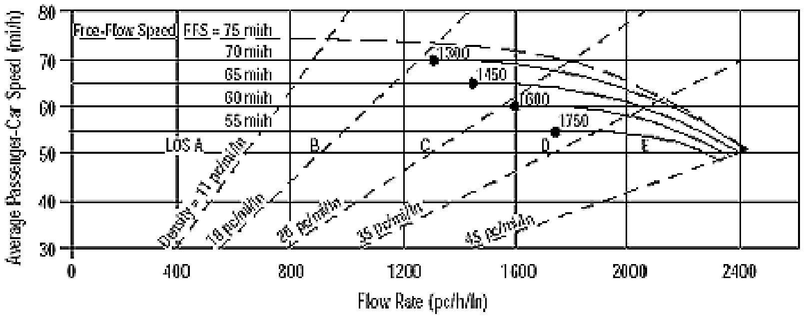

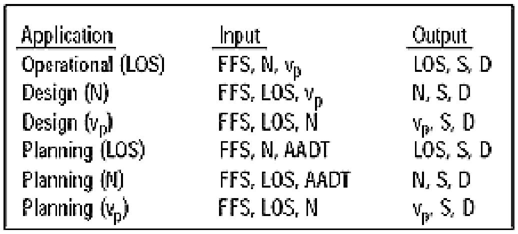

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3235*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1225*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*70.0*	mi/h	S		mi/h
D = v_p / S	*17.5*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*B*		Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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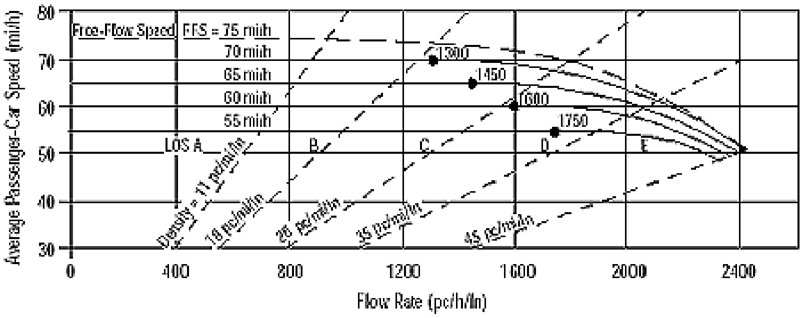

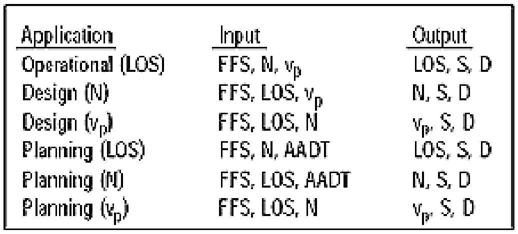

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Alessandro Bl. to Cactus Av.*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3873*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1100*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*15.7*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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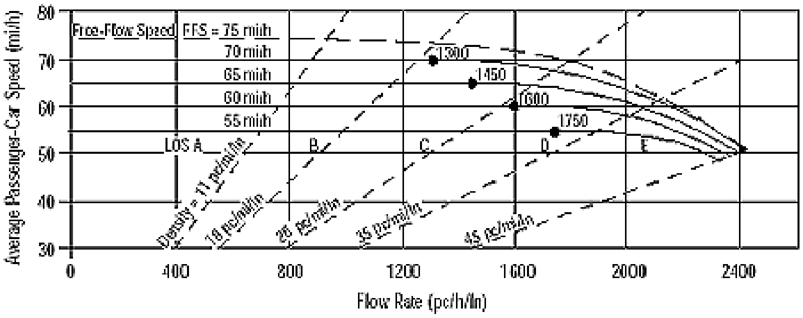

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Cactus Av. to Van Buren Bl.*
Jurisdiction	*Caltrans*
Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3898*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1490*	pc/h/ln
S	*69.8*	mi/h
D = v_p / S	*21.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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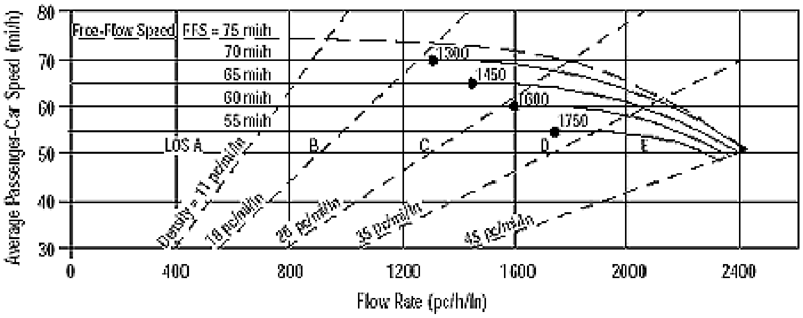

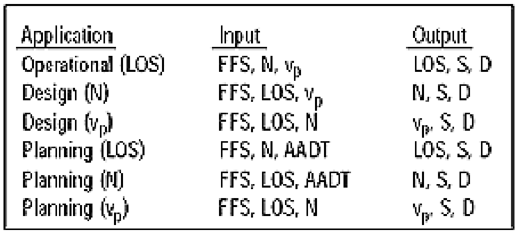

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Van Buren Bl. to Harley Knox B*
Jurisdiction	*Caltrans*
Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3994*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1469*	pc/h/ln
S	*69.9*	mi/h
D = v_p / S	*21.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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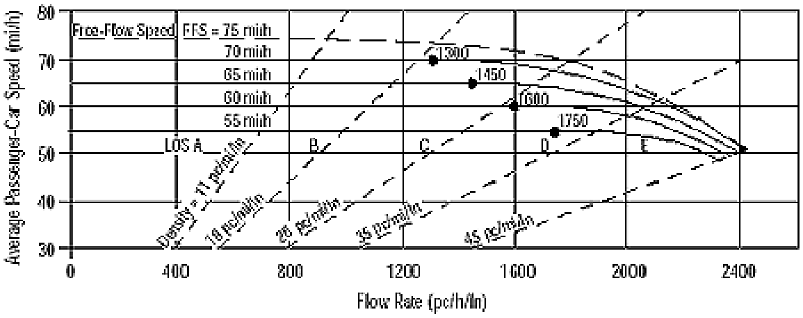

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*SR-60 to Blaine St*
Jurisdiction	*Caltrans*
Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4593*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1053*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*15.0*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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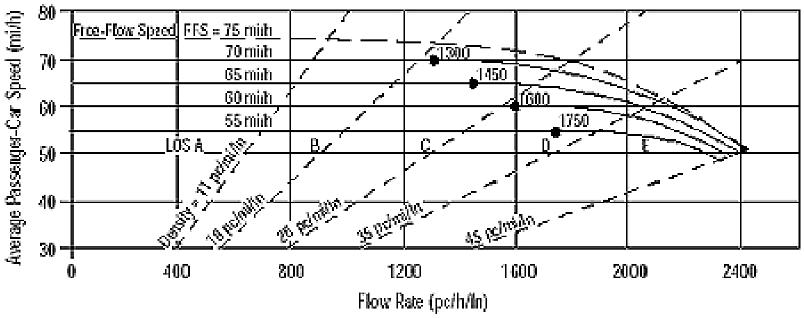

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Blaine St to University Av*
Jurisdiction	*Caltrans*
Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5125*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1469*	pc/h/ln
S	*69.9*	mi/h
D = v_p / S	*21.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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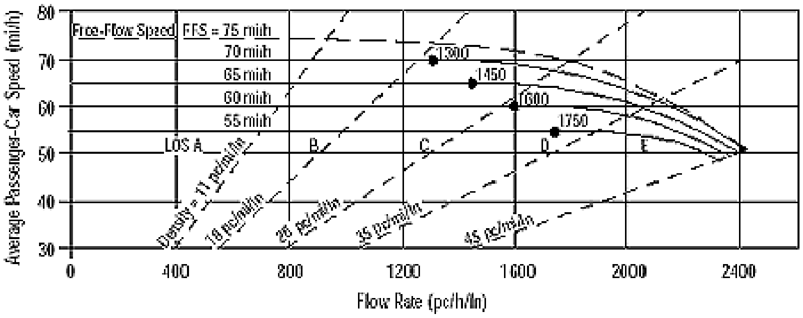

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information		Site Information	
Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University Av to MLK Bl*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6099*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1748*	pc/h/ln
S	*68.4*	mi/h
D = v_p / S	*25.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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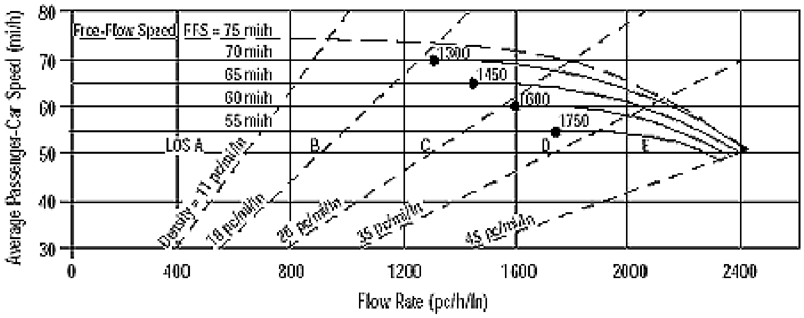

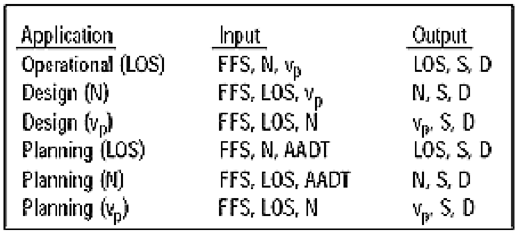

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*MLK Bl to Central Av*
Jurisdiction	*Caltrans*
Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6869*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1575*	pc/h/ln
S	*69.5*	mi/h
D = v_p / S	*22.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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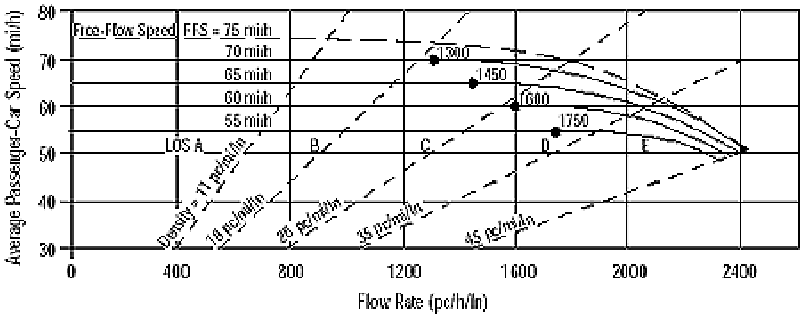

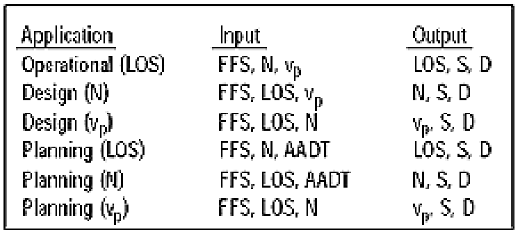

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5626*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1290*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*18.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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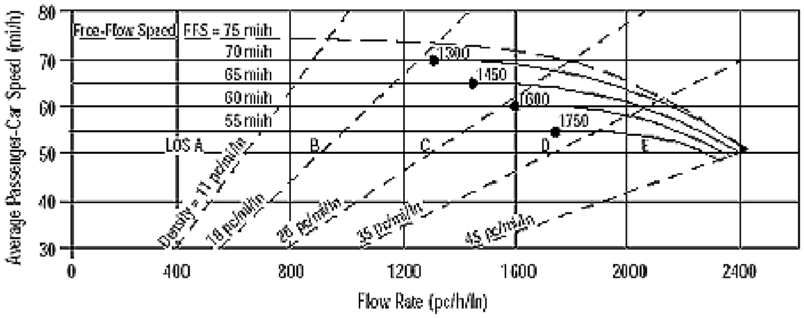
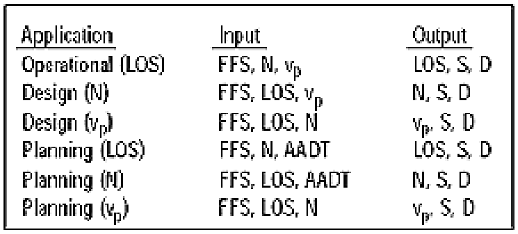
BASIC FREEWAY SEGMENTS WORKSHEET





Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Box Springs Rd to SR60/I215*
Jurisdiction	*Caltrans*
Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7137*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2046*	pc/h/ln
S	*63.9*	mi/h
D = v_p / S	*32.0*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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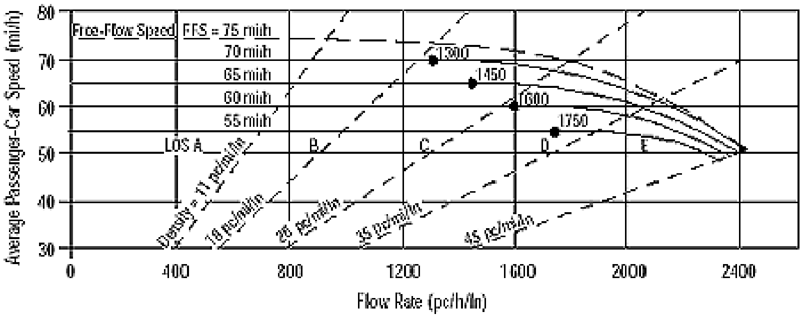
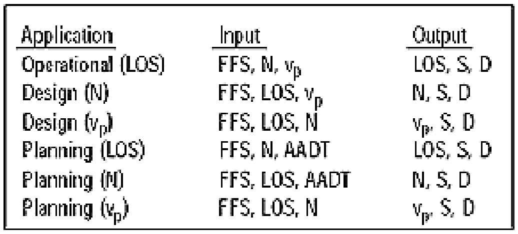
BASIC FREEWAY SEGMENTS WORKSHEET





Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*SR60/I215 to Eucalyptus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5912*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*15*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.930*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1382*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*19.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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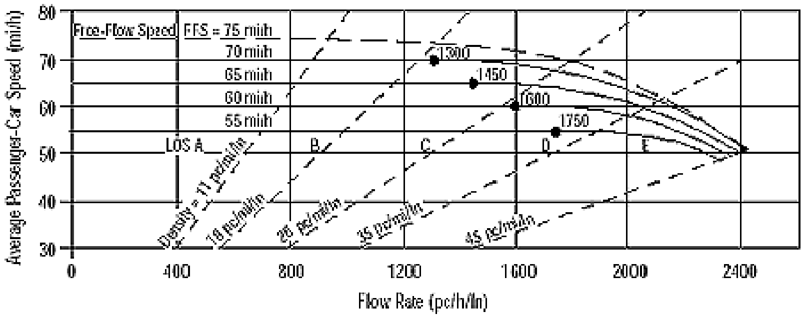

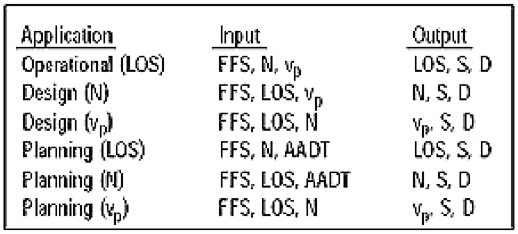

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information		Site Information	
Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4707*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1782*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*68.0*	mi/h	S		mi/h
D = v_p / S	*26.2*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*D*		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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Item No. E.1

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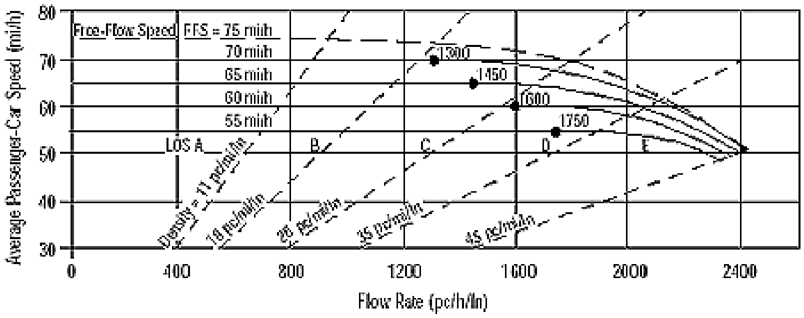

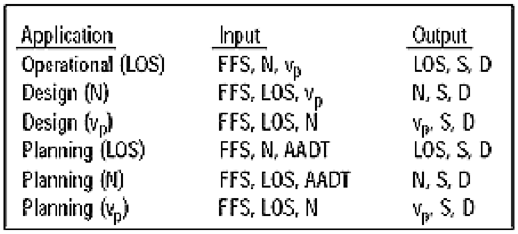

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Alessandro Bl. to Cactus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4871*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1383*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*19.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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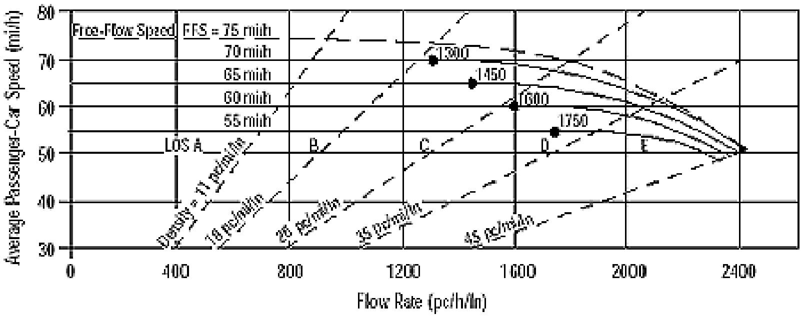

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information		***Site Information***	
Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Cactus Av. to Van Buren Bl.*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3840*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1468*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*69.9*	mi/h	S	mi/h
D = v_p / S	*21.0*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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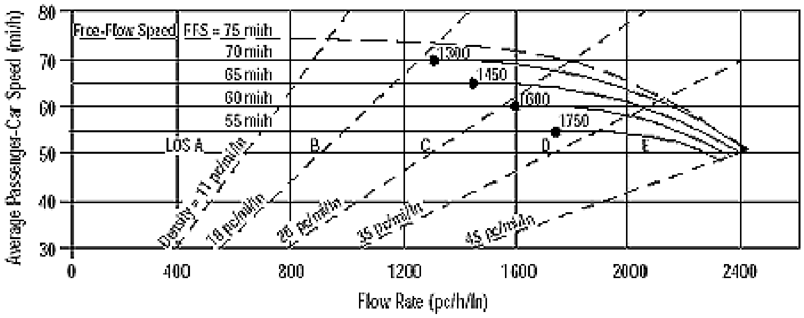

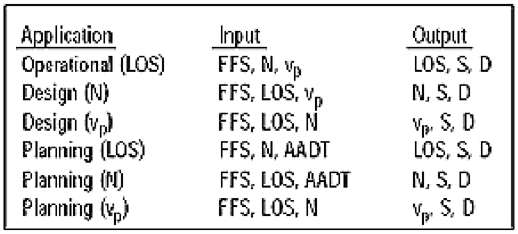

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3856*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1418*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*69.9*	mi/h	S		mi/h
D = v_p / S	*20.3*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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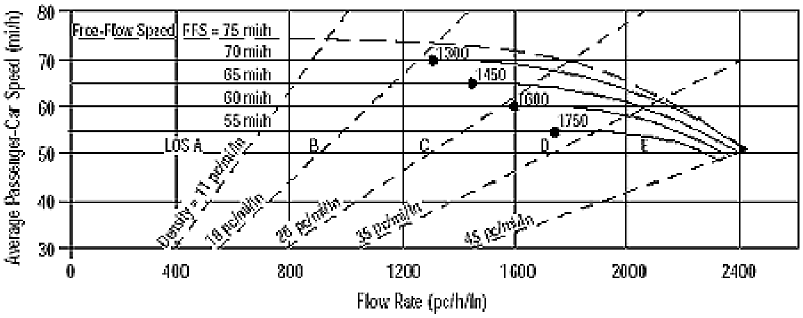
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR-60 to Blaine St*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4692*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*5*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1076*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*70.0*	mi/h	S		mi/h
D = v_p / S	*15.4*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*B*		Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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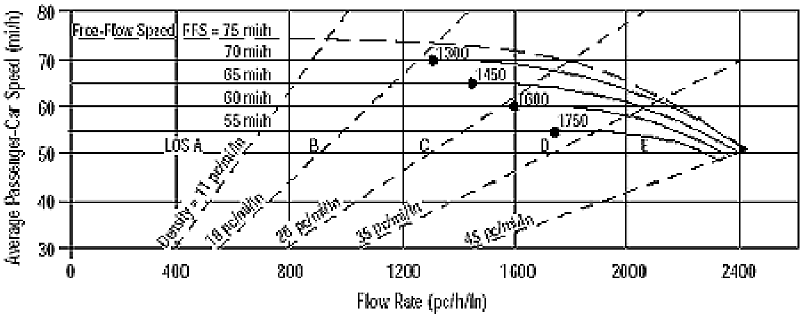

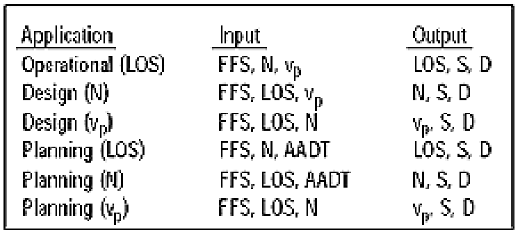

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Blaine St to University Av*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5542*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*5*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1271*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*70.0*	mi/h	S		mi/h
D = v_p / S	*18.2*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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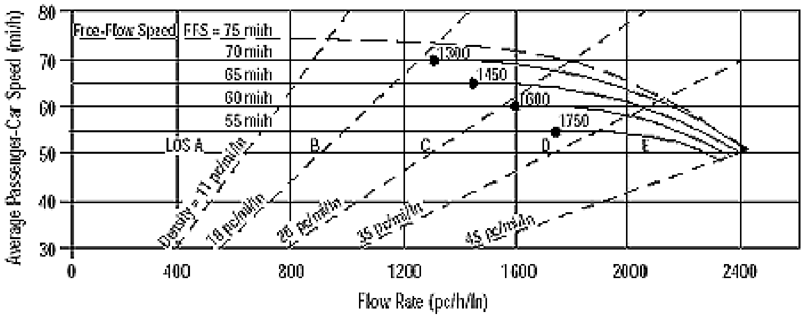

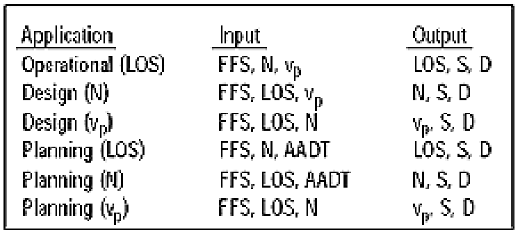

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University Av to MLK Bl*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5325*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1527*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*69.7*	mi/h	S	mi/h
D = v_p / S	*21.9*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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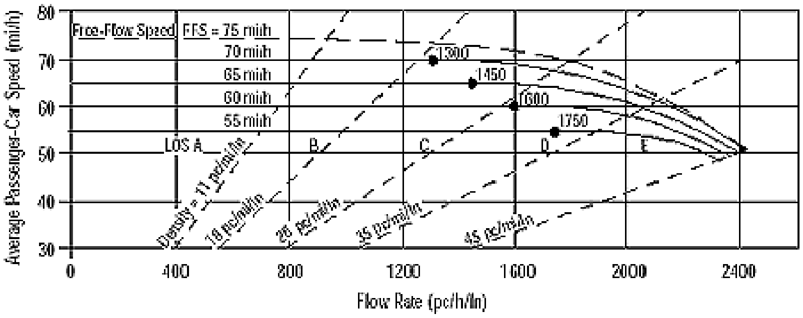

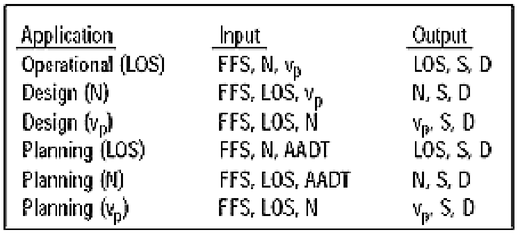

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*MLK Bl to Central Av*
Jurisdiction	*Caltrans*
Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5568*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1596*	pc/h/ln
S	*69.5*	mi/h
D = v_p / S	*23.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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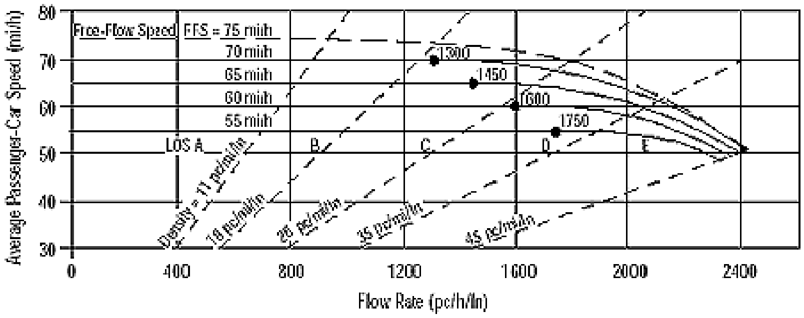

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4519*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1036*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*14.8*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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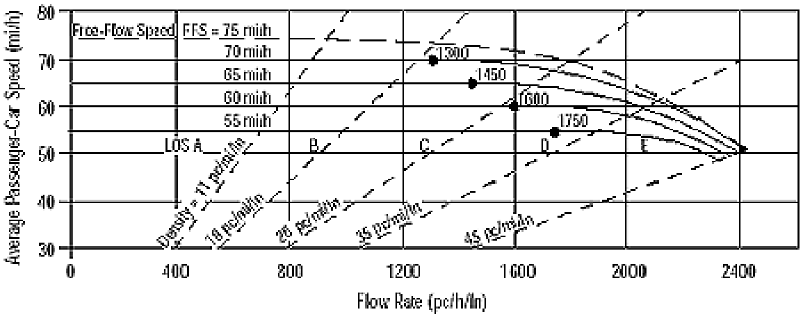

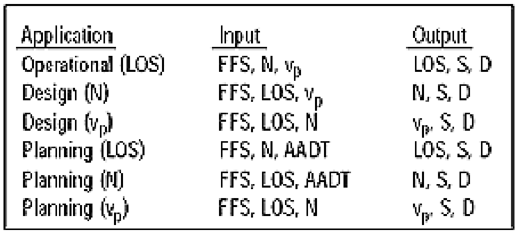

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Box Springs Rd to SR60/I215*
Jurisdiction	*Caltrans*
Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5785*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1658*	pc/h/ln
S	*69.1*	mi/h
D = v_p / S	*24.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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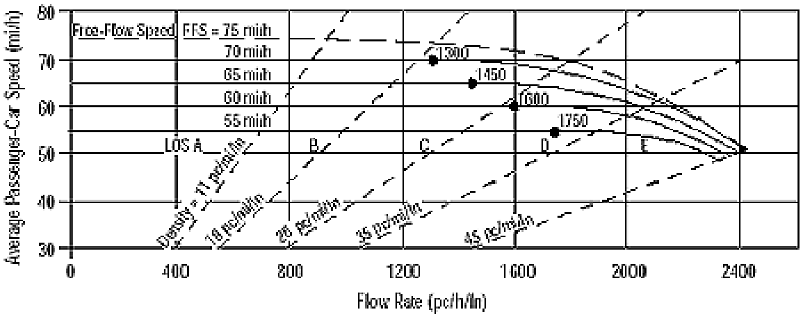

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*SR60/I215 to Eucalyptus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3884*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*15*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.930*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1513*	pc/h/ln
S	*69.8*	mi/h
D = v_p / S	*21.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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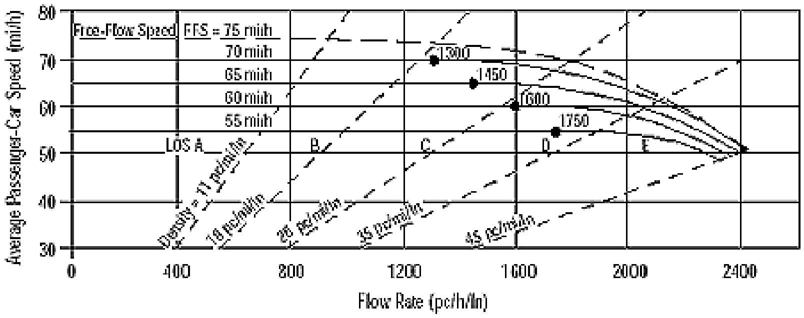
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Eucalyptus Av. to Alessandro B*
Jurisdiction	*Caltrans*
Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3296*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1254*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*17.9*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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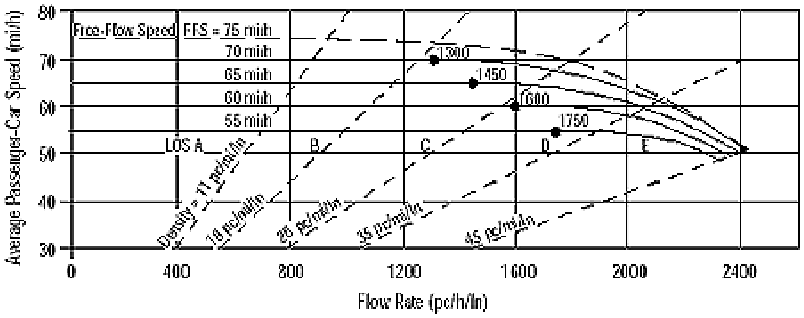

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/6/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Alessandro Bl. to Cactus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3974*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1134*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*16.2*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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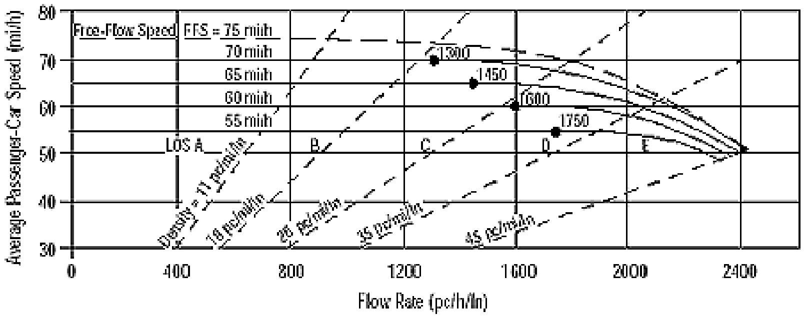

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / *Site Information*

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Cactus Av. to Van Buren Bl.*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing Plus Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2787*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1065*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*70.0*	mi/h	S	mi/h
D = v_p / S	*15.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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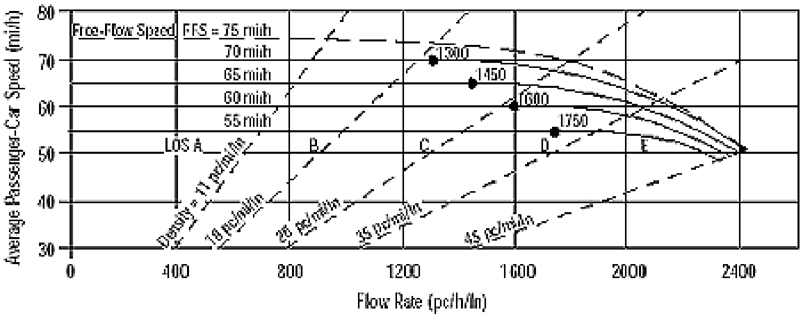

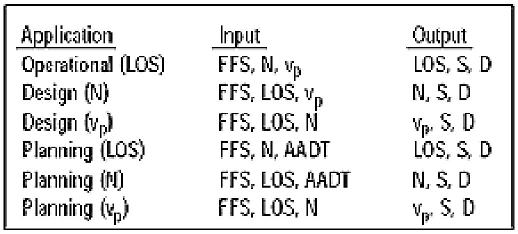

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*2/6/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing Plus Project*

Site Information

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2977*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1100*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*15.7*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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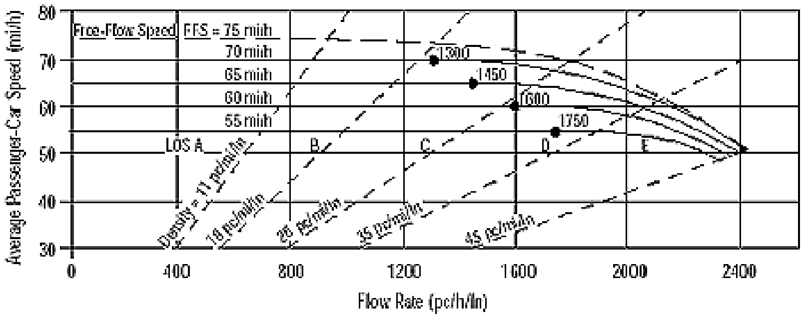
Item No. E.1

ATTACHMENT "C"
OPENING YEAR CUMULATIVE (2017) WITHOUT PROJECT CONDITIONS
HCS+ BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*SR-60 to Blaine St*
Jurisdiction	*Caltrans*
Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5531*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1269*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*18.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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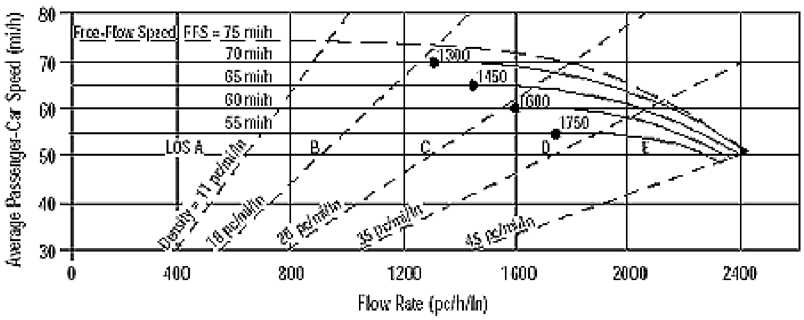

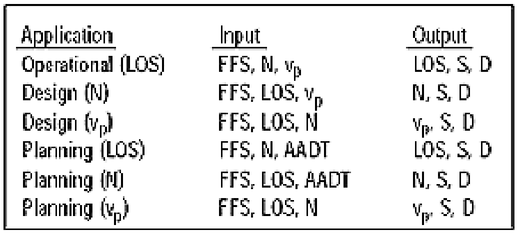

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information		Site Information	
Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Blaine St to University Av*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5287*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1516*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*69.8*	mi/h	S	mi/h
D = v_p / S	*21.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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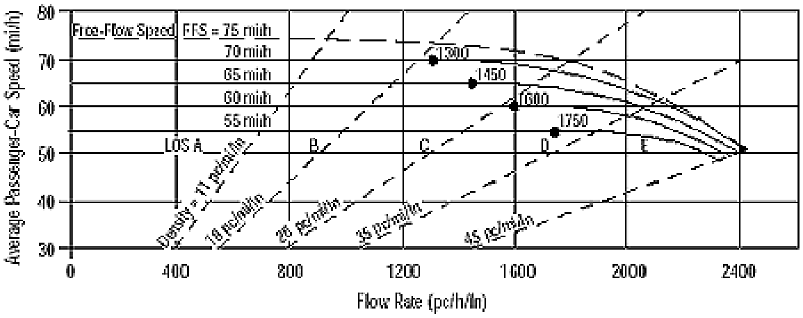

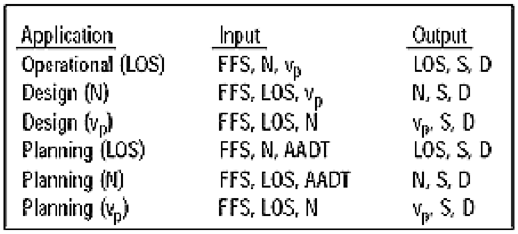

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University Av to MLK Bl*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5548*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1591*	pc/h/ln
S	*69.5*	mi/h
D = v_p / S	*22.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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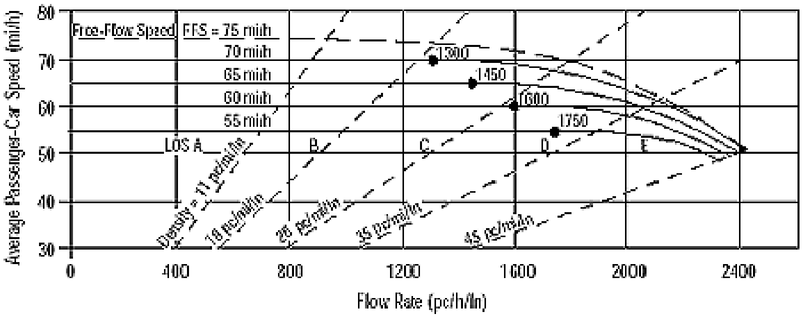

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*MLK Bl to Central Av*
Jurisdiction	*Caltrans*
Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5426*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1239*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*17.7*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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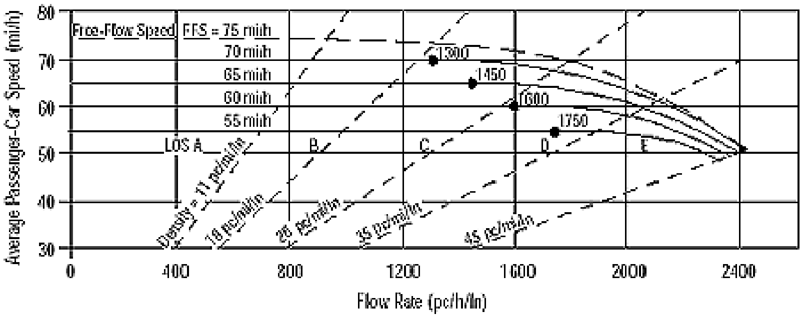

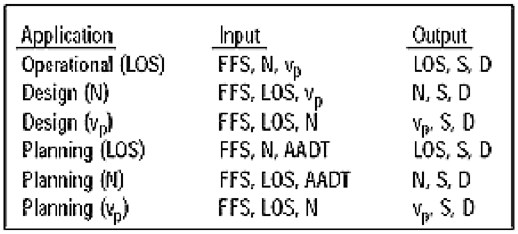

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information		***Site Information***	
Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4441*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*5*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1014*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*70.0*	mi/h	S	mi/h
D = v_p / S	*14.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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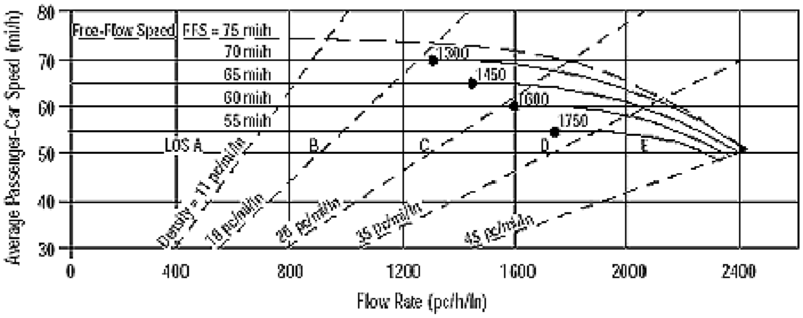

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Box Springs Rd to SR60/I215*
Jurisdiction	*Caltrans*
Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5195*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1489*	pc/h/ln
S	*69.8*	mi/h
D = v_p / S	*21.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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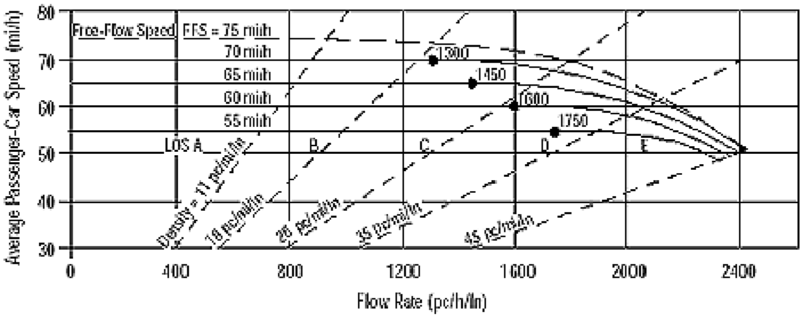

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*SR60/I215 to Eucalyptus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5987*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*16*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.5*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.926*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1406*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*20.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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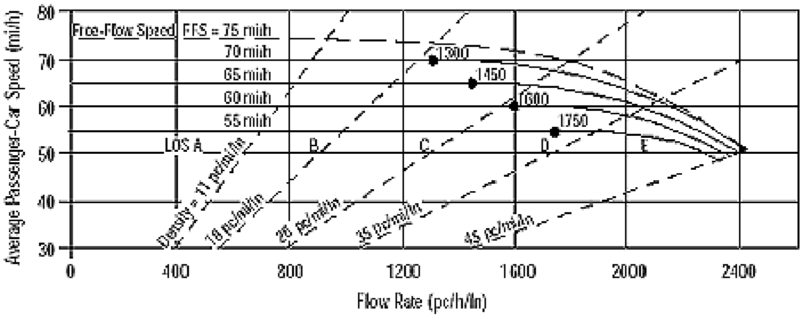

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Eucalyptus Av. to Alessandro B*
Jurisdiction	*Caltrans*
Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3737*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1415*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*20.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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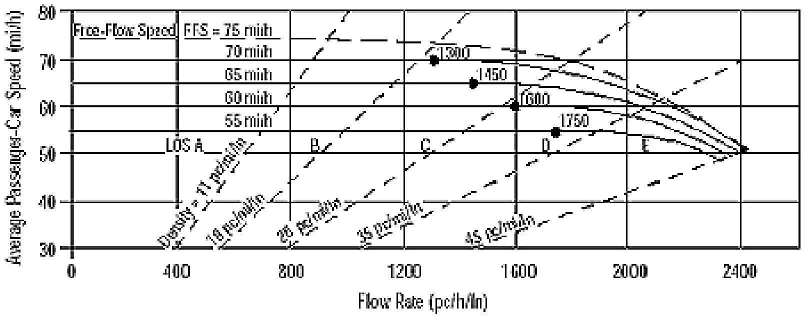
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Alessandro Bl. to Cactus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3737*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1061*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*15.2*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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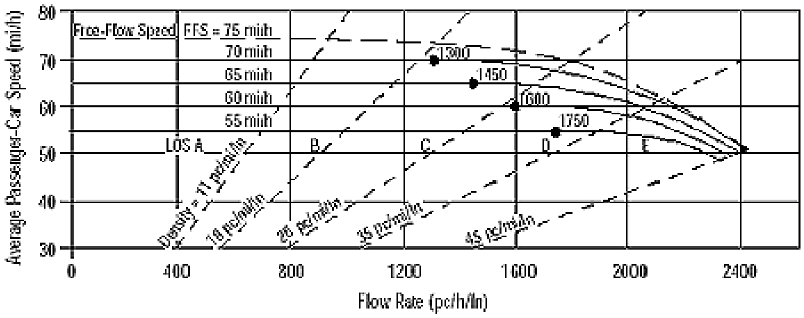

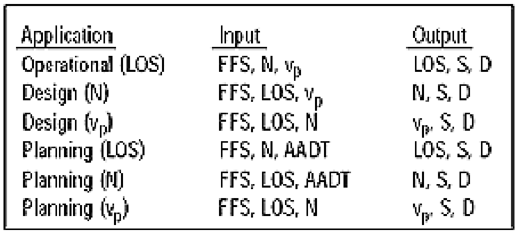

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Cactus Av. to Van Buren Bl.*
Jurisdiction	*Caltrans*
Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3201*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*913*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*13.0*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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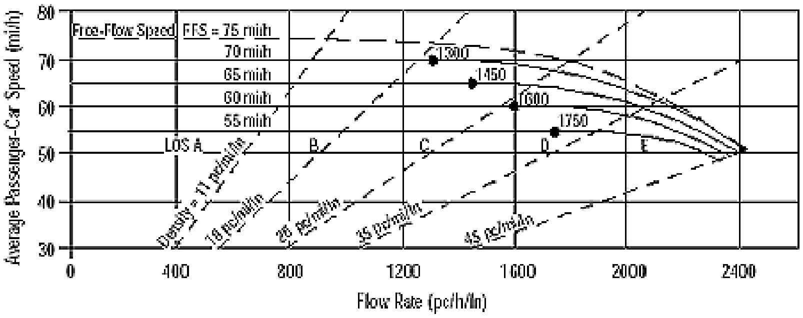

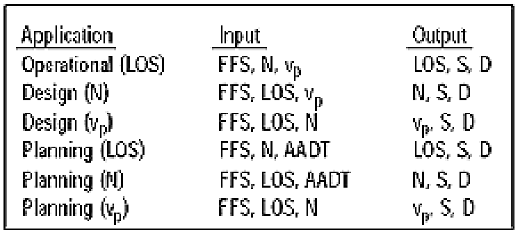

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Van Buren Bl. to Harley Knox B*
Jurisdiction	*Caltrans*
Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4211*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*21*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.905*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1686*	pc/h/ln
S	*68.9*	mi/h
D = v_p / S	*24.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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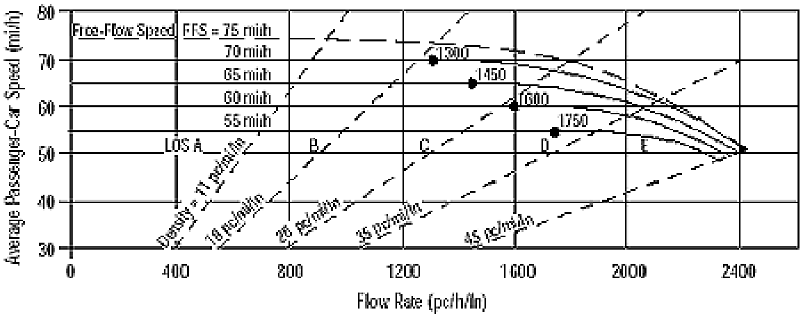

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*SR-60 to Blaine St*
Jurisdiction	*Caltrans*
Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5748*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1318*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*18.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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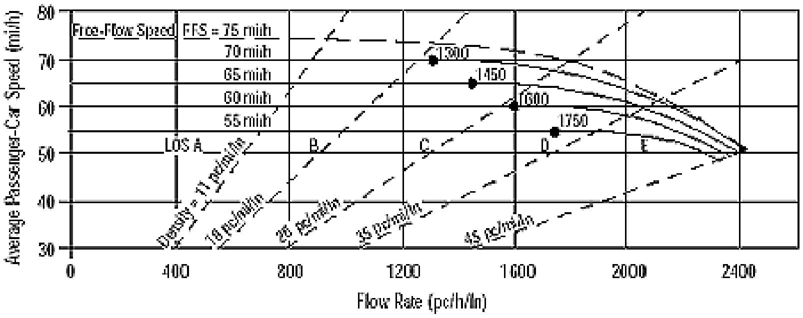

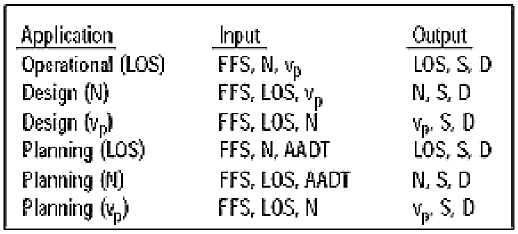

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Blaine St to University Av*
Jurisdiction	*Caltrans*
Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6819*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1571*	pc/h/ln
S	*69.6*	mi/h
D = v_p / S	*22.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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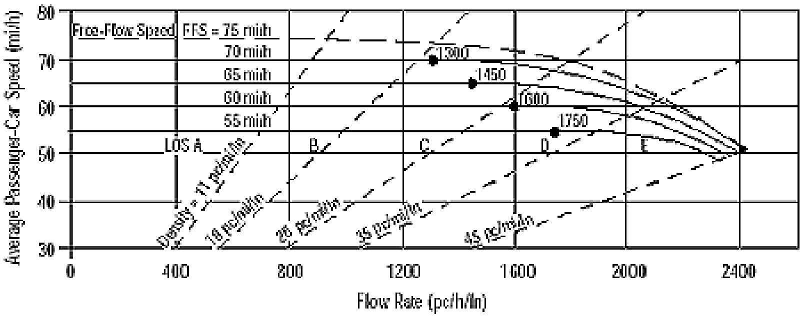

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University Av to MLK Bl*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6061*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1738*	pc/h/ln
S	*68.5*	mi/h
D = v_p / S	*25.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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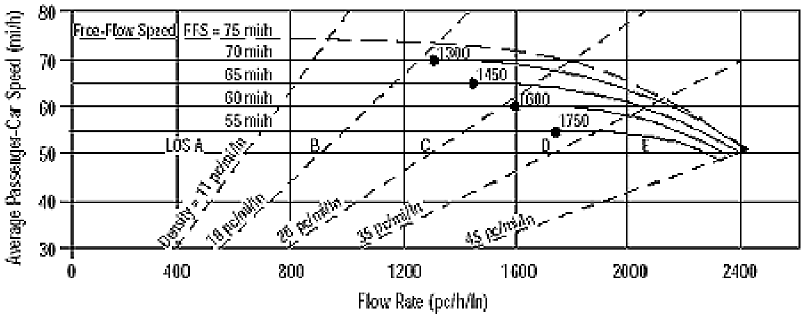

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*MLK Bl to Central Av*
Jurisdiction	*Caltrans*
Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6205*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1779*	pc/h/ln
S	*68.1*	mi/h
D = v_p / S	*26.1*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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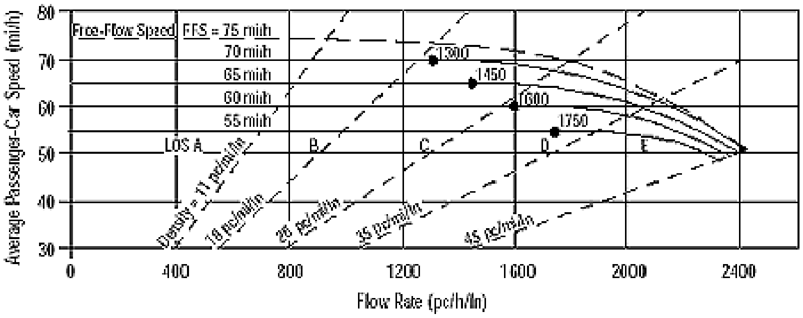
Item No. E.1

BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Central Av to Box Springs Rd*
Jurisdiction	*Caltrans*
Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6109*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1401*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*20.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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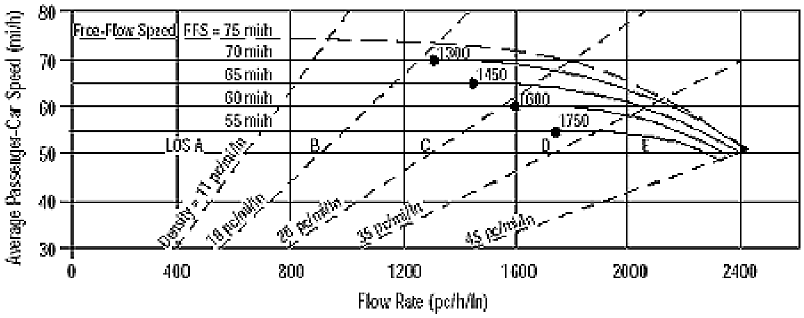
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Box Springs Rd to SR60/I215*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6619*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1898*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*66.6*	mi/h	S		mi/h
D = v_p / S	*28.5*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*D*		Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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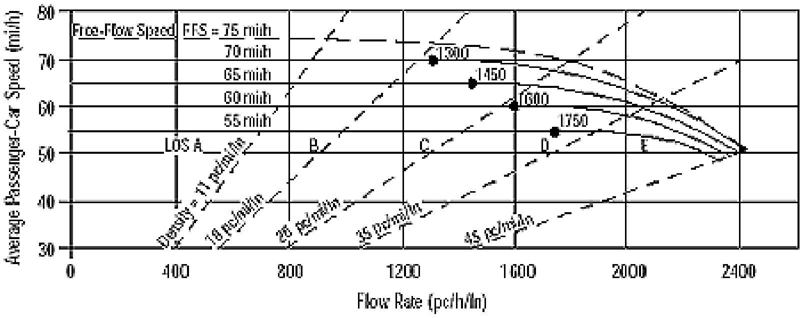

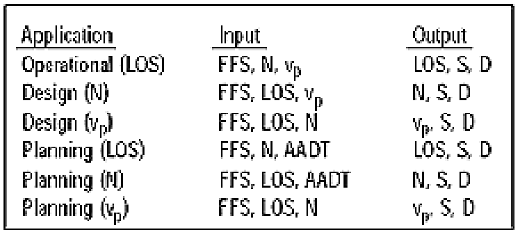

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*SR60/I215 to Eucalyptus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3921*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*14*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1520*	pc/h/ln
S	*69.7*	mi/h
D = v_p / S	*21.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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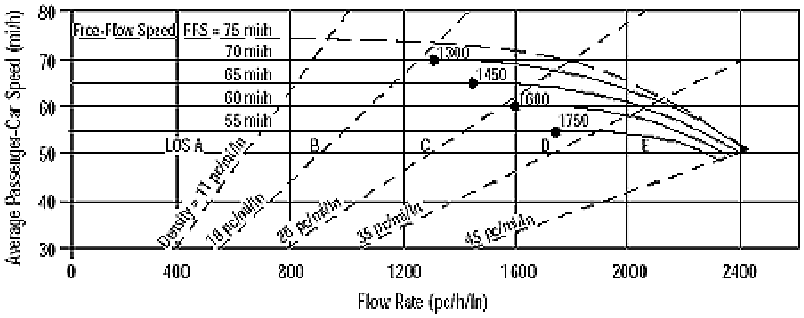

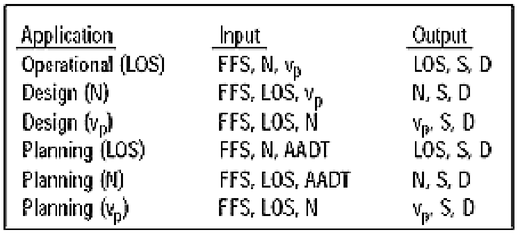

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3697*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1400*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*20.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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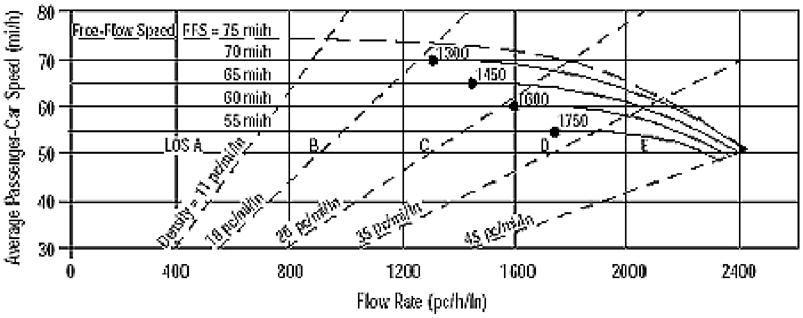

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Alessandro Bl. to Cactus Av.*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4324*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*982*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*14.0*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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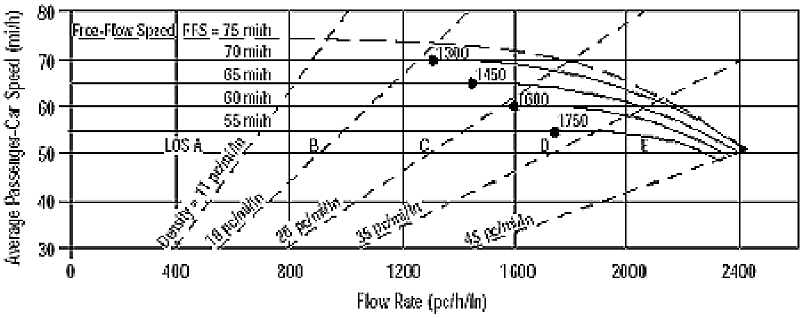

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Cactus Av. to Van Buren Bl.*
Jurisdiction	*Caltrans*
Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4442*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1267*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*18.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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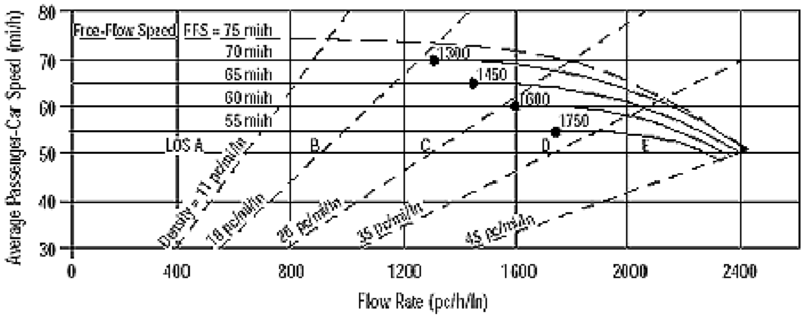

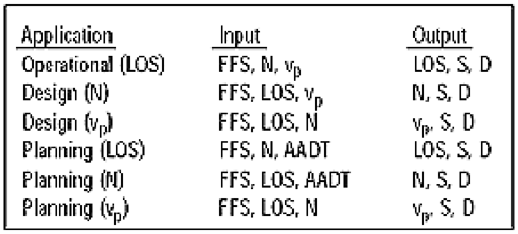

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Van Buren Bl. to Harley Knox B*
Jurisdiction	*Caltrans*
Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5735*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2171*	pc/h/ln
S	*60.9*	mi/h
D = v_p / S	*35.6*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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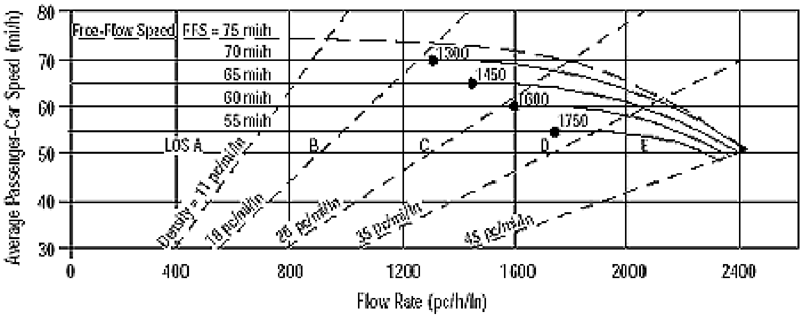

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*SR-60 to Blaine St*
Jurisdiction	*Caltrans*
Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5187*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1190*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*17.0*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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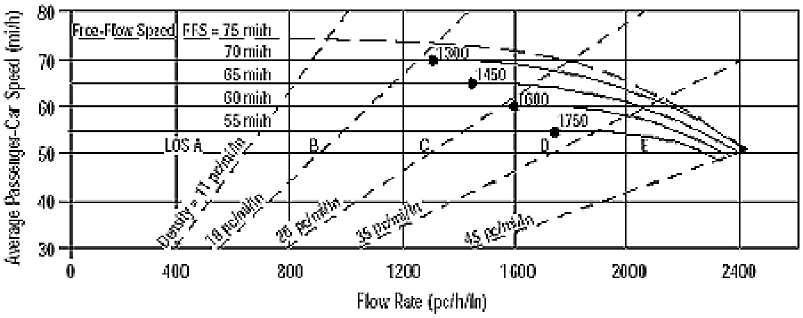

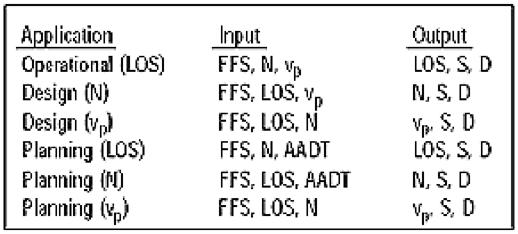

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Blaine St to University Av*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5637*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1616*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*69.3*	mi/h	S		mi/h
D = v_p / S	*23.3*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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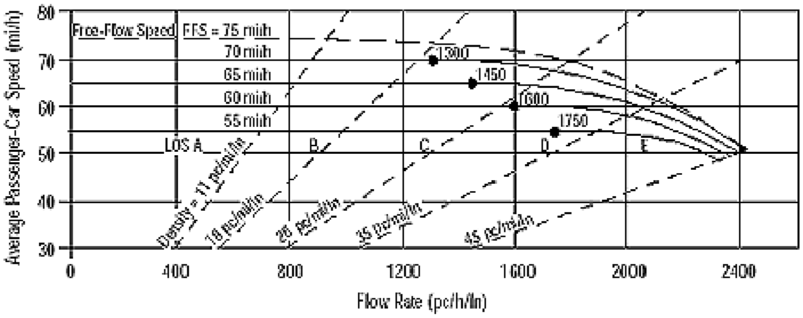

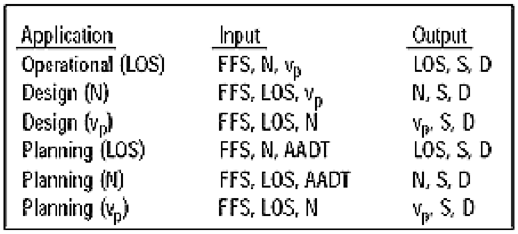

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*University Av to MLK Bl*
Jurisdiction	*Caltrans*
Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6577*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1886*	pc/h/ln
S	*66.8*	mi/h
D = v_p / S	*28.3*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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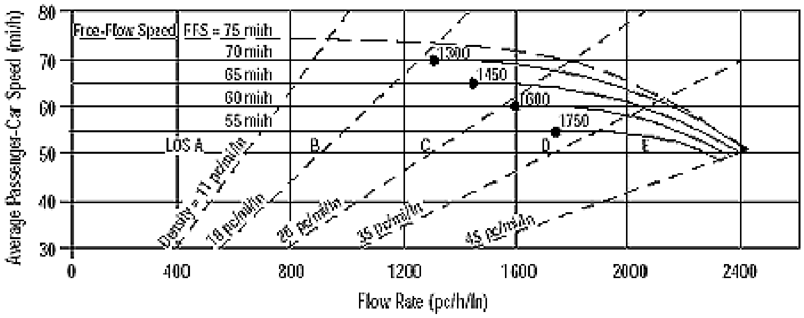

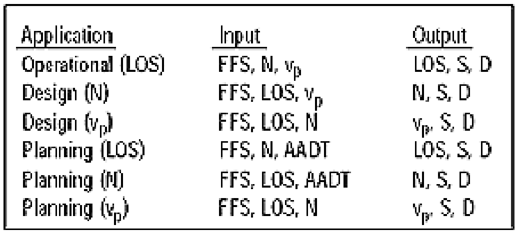

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*MLK Bl to Central Av*
Jurisdiction	*Caltrans*
Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7573*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1737*	pc/h/ln
S	*68.5*	mi/h
D = v_p / S	*25.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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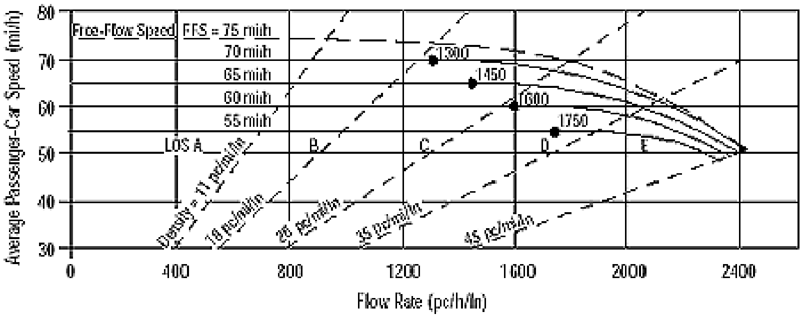

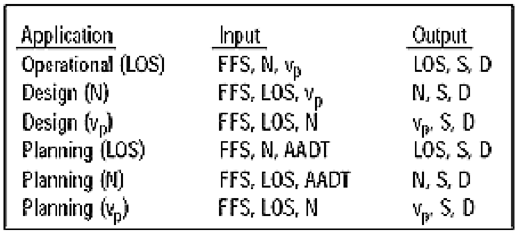

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6606*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*5*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1508*	pc/h/ln
S	*69.8*	mi/h
D = v_p / S	*21.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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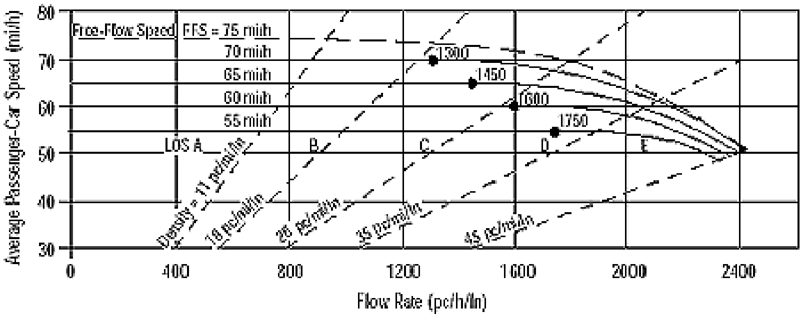

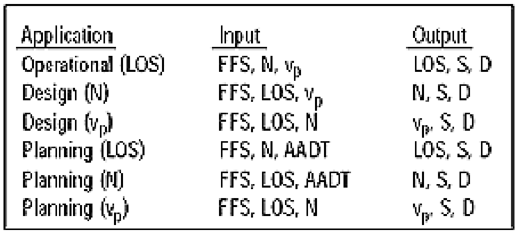

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Box Springs Rd to SR60/I215*
Jurisdiction	*Caltrans*
Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7265*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2093*	pc/h/ln
S	*62.9*	mi/h
D = v_p / S	*33.3*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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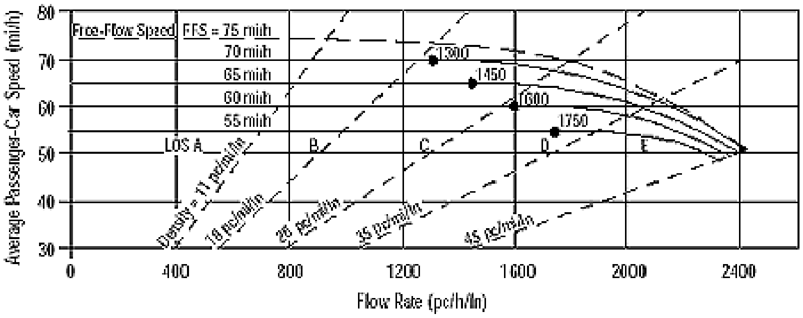

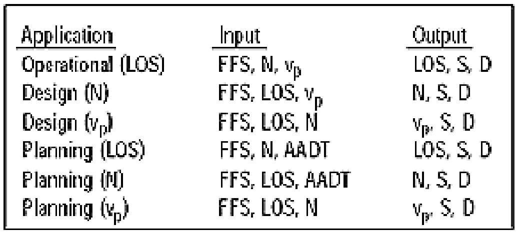

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*SR60/I215 to Eucalyptus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6145*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*15*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.930*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1436*	pc/h/ln
S	*69.9*	mi/h
D = v_p / S	*20.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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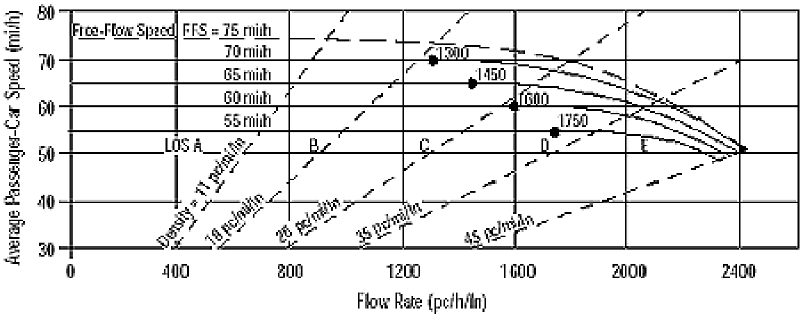

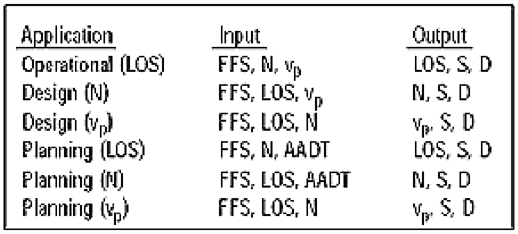

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Eucalyptus Av. to Alessandro B*
Jurisdiction	*Caltrans*
Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5134*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1944*	pc/h/ln
S	*65.9*	mi/h
D = v_p / S	*29.5*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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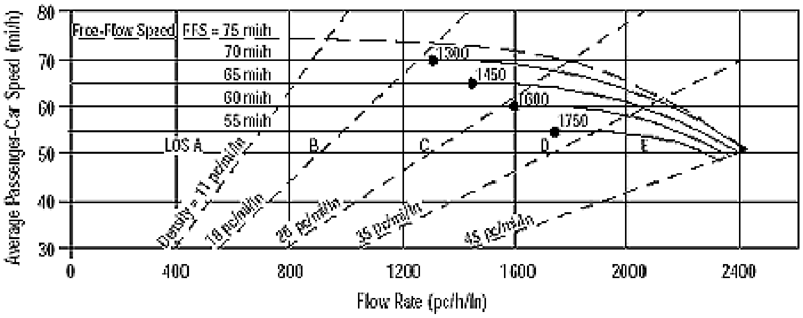

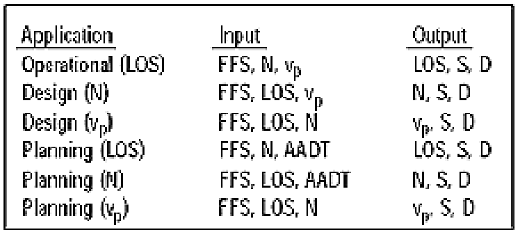

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Alessandro Bl. to Cactus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5330*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1514*	pc/h/ln
S	*69.8*	mi/h
D = v_p / S	*21.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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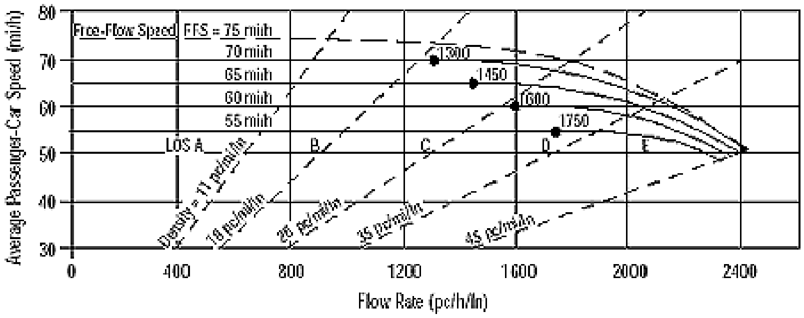

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Cactus Av. to Van Buren Bl.*
Jurisdiction	*Caltrans*
Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4498*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1283*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*18.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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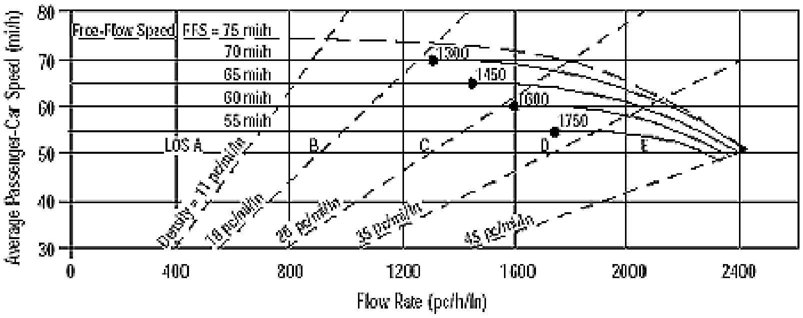

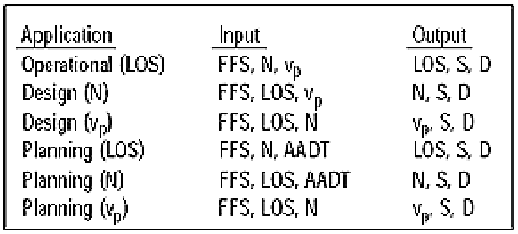

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5689*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2164*	pc/h/ln
S	*61.1*	mi/h
D = v_p / S	*35.4*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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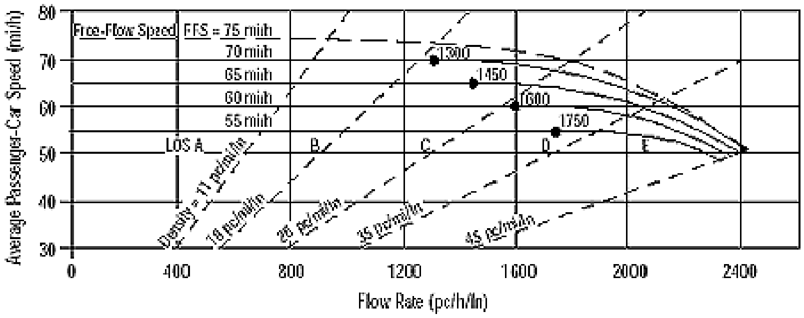

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*SR-60 to Blaine St*
Jurisdiction	*Caltrans*
Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5329*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1222*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*17.5*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
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f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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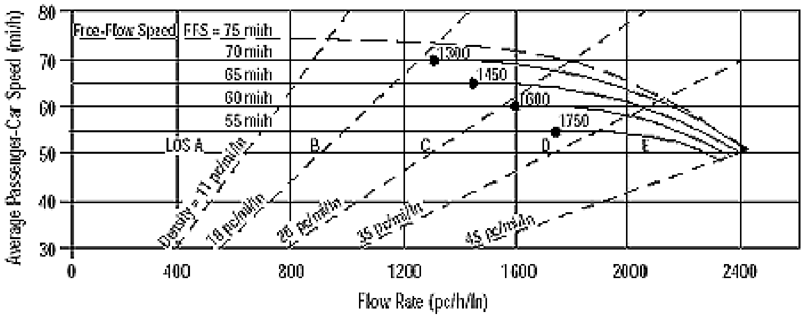
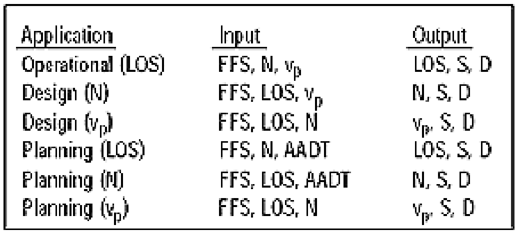
BASIC FREEWAY SEGMENTS WORKSHEET





Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Blaine St to University Av*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6054*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1388*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*19.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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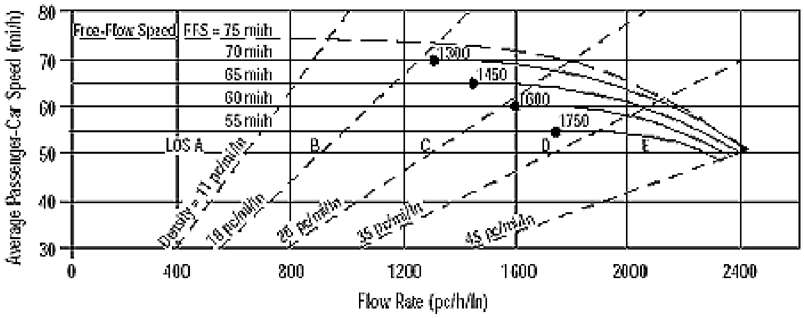

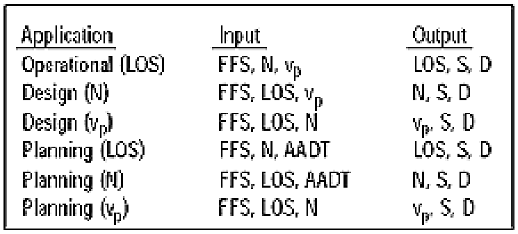

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*University Av to MLK Bl*
Jurisdiction	*Caltrans*
Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5910*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1694*	pc/h/ln
S	*68.8*	mi/h
D = v_p / S	*24.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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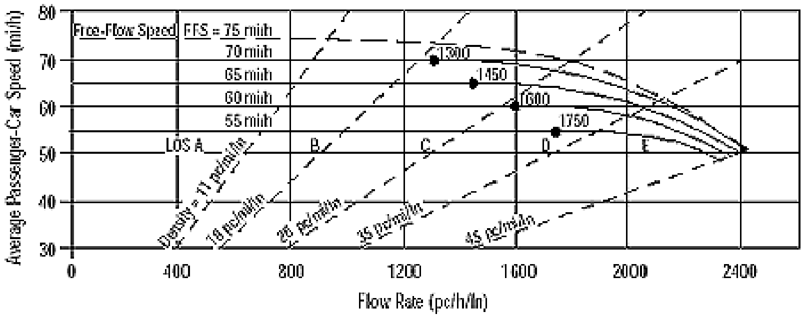

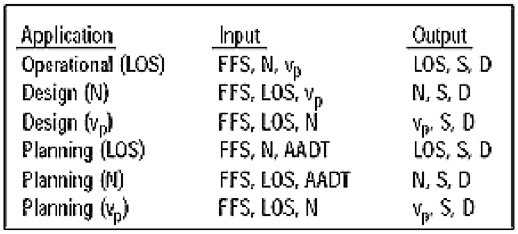

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*MLK Bl to Central Av*
Jurisdiction	*Caltrans*
Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6245*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1790*	pc/h/ln
S	*68.0*	mi/h
D = v_p / S	*26.3*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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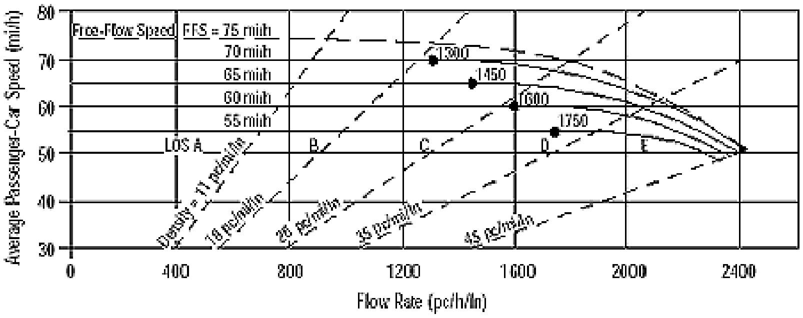

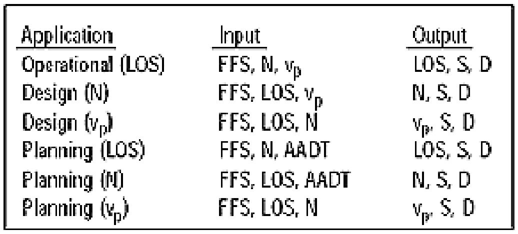

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5317*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1214*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*17.3*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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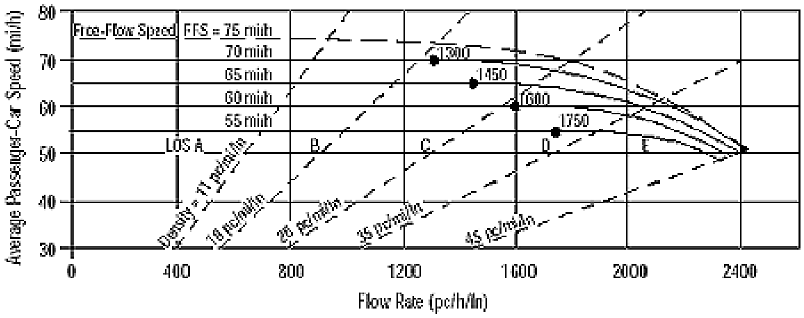

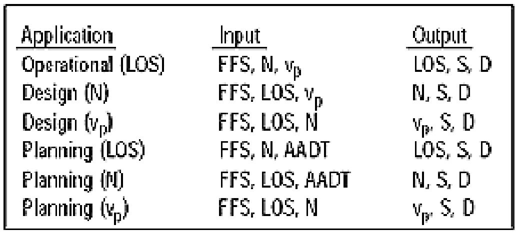

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Box Springs Rd to SR60/I215*
Jurisdiction	*Caltrans*
Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6537*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1874*	pc/h/ln
S	*66.9*	mi/h
D = v_p / S	*28.0*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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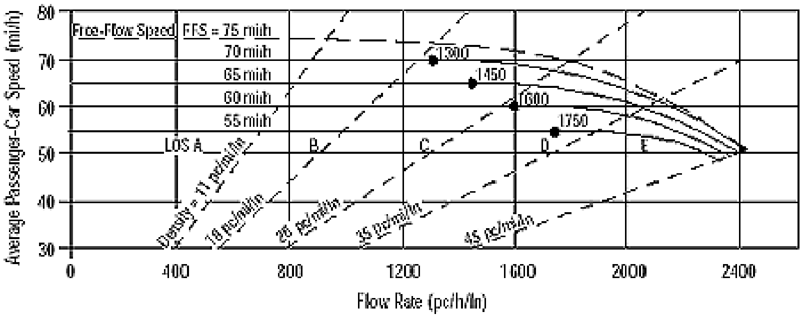

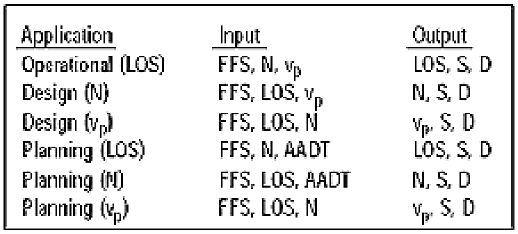

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information		**Site Information**	
Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR60/I215 to Eucalyptus Av.*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4359*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*14*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures			**Design (N)**	
			Design (N)	
Operational (LOS)			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1690*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*68.9*	mi/h	S	mi/h
D = v_p / S	*24.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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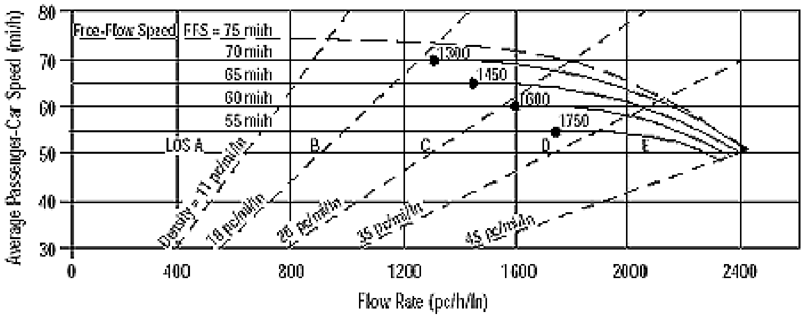

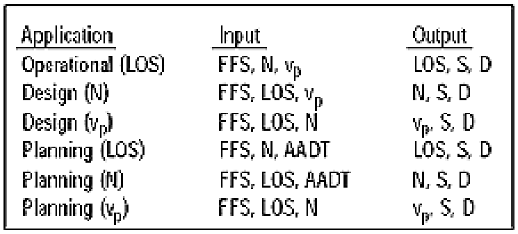

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information		***Site Information***	
Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3822*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1440*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*69.9*	mi/h	S	mi/h
D = v_p / S	*20.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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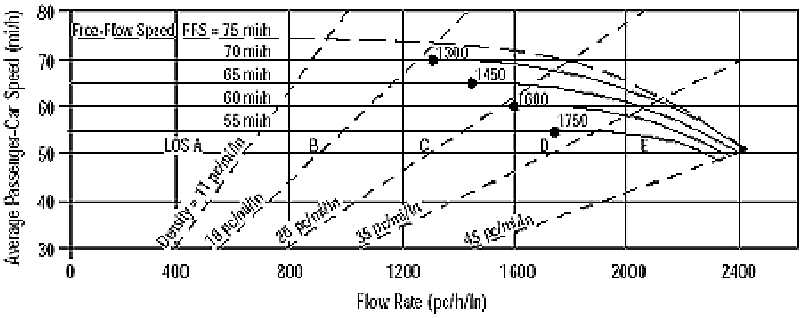

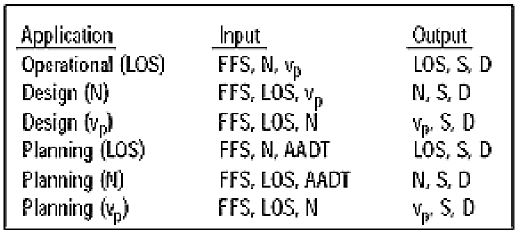

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Alessandro Bl. to Cactus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4469*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1015*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*14.5*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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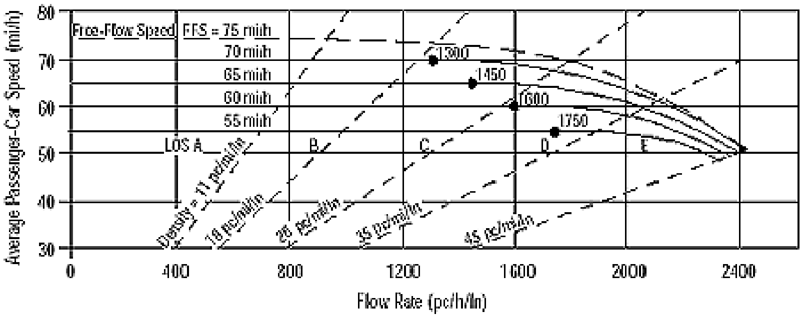

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Cactus Av. to Van Buren Bl.*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2017 Without Project*

Site Information

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3432*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*975*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*13.9*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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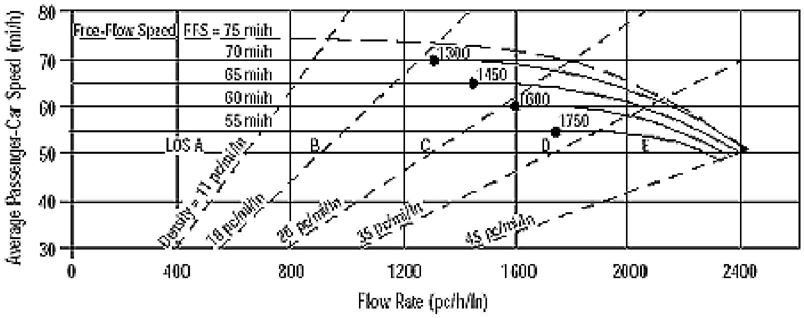

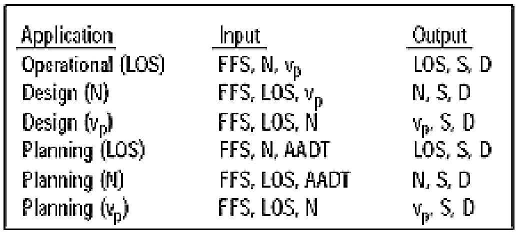

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4654*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*18*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.917*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1838*	pc/h/ln
S	*67.4*	mi/h
D = v_p / S	*27.3*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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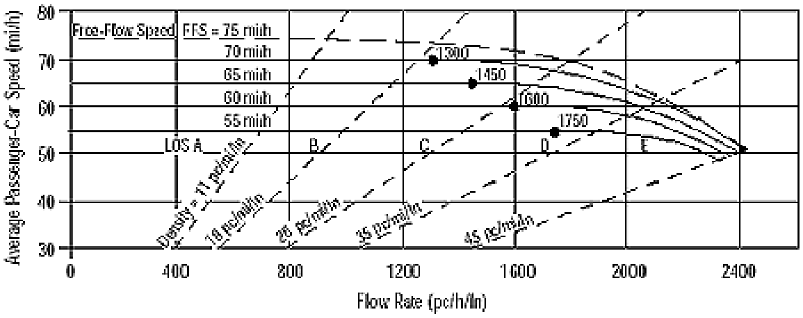
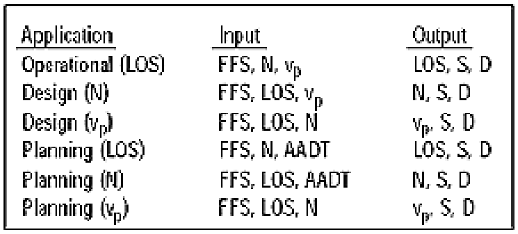
ATTACHMENT "D"
OPENING YEAR CUMULATIVE (2017) WITH PROJECT CONDITIONS
HCS+ BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

BASIC FREEWAY SEGMENTS WORKSHEET





Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR-60 to Blaine St*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5566*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1277*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*18.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	mi/h
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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Item No. E.1

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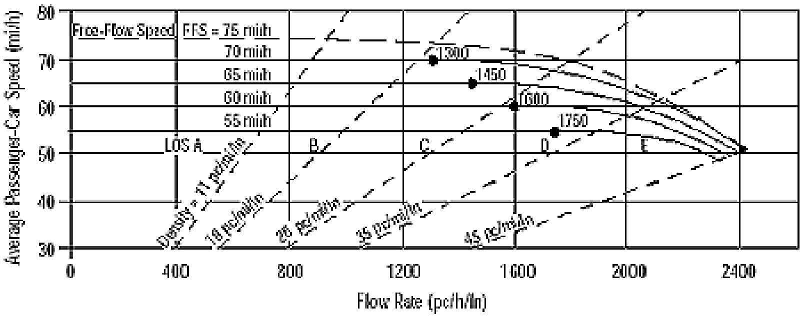

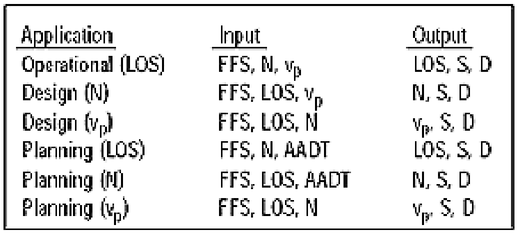

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Blaine St to University Av*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5322*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1526*	pc/h/ln
S	*69.7*	mi/h
D = v_p / S	*21.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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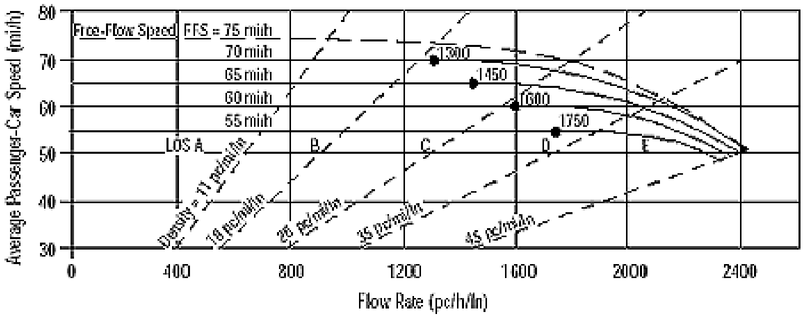

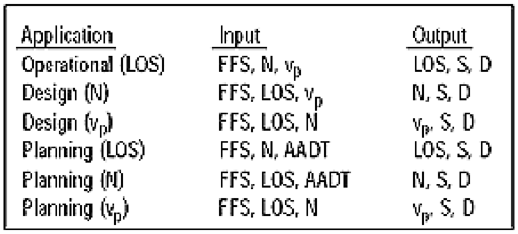

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University Av to MLK Bl*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5583*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1601*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*69.4*	mi/h	S		mi/h
D = v_p / S	*23.1*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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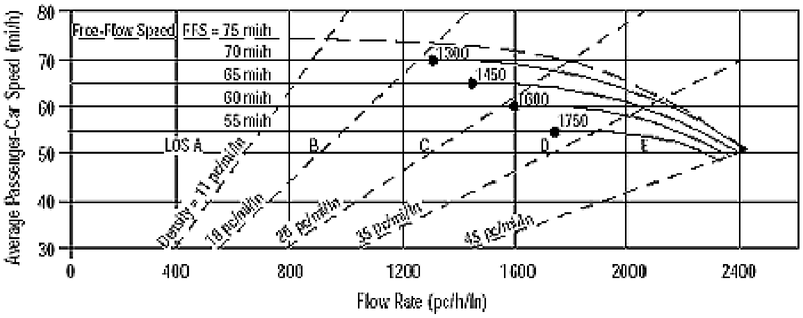

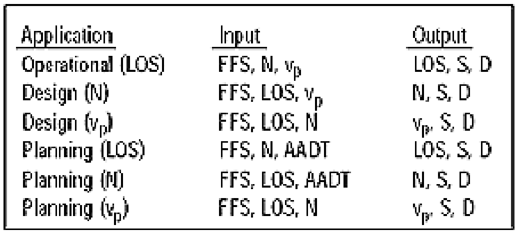

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*MLK Bl to Central Av*
Jurisdiction	*Caltrans*
Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5461*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1252*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*17.9*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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Item No. E.1

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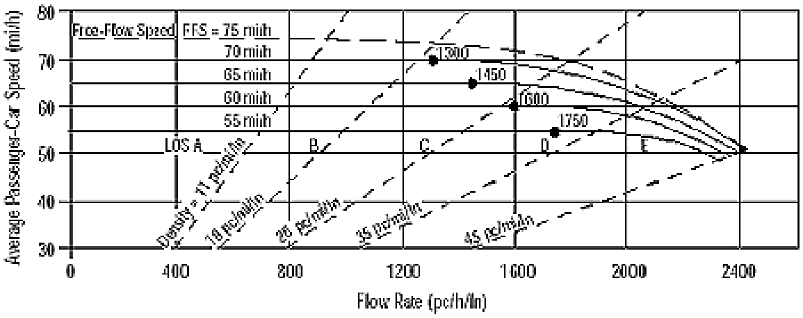

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Central Av to Box Springs Rd*
Jurisdiction	*Caltrans*
Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4476*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1022*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*14.6*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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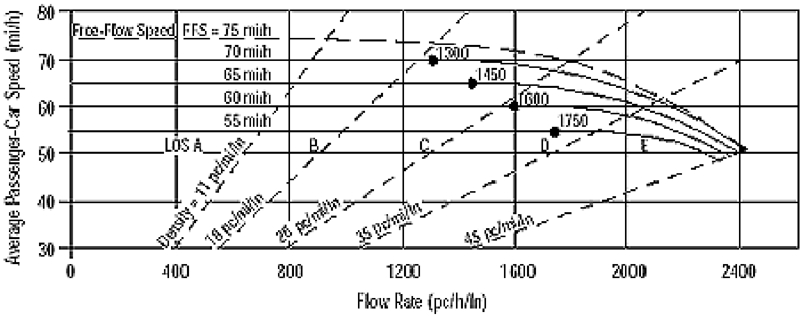

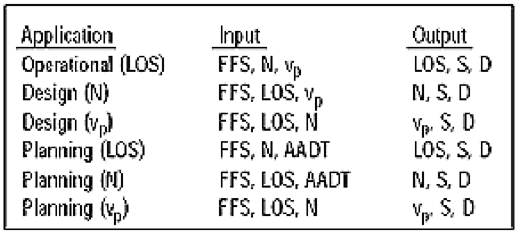

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Box Springs Rd to SR60/I215*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5230*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1499*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*69.8*	mi/h	S		mi/h
D = v_p / S	*21.5*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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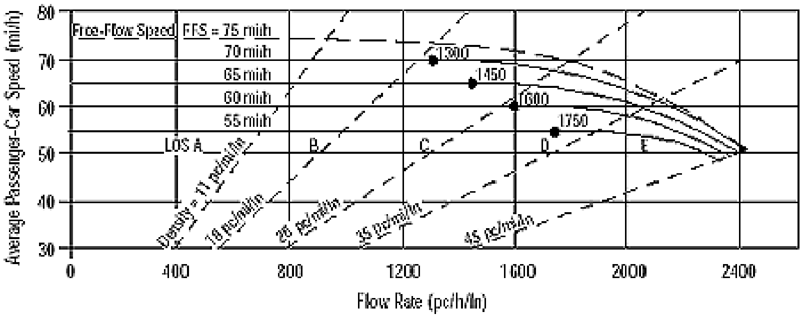

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR60/I215 to Eucalyptus Av.*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2017 With Project*

Site Information

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6022*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*16*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.5*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.926*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1414*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*20.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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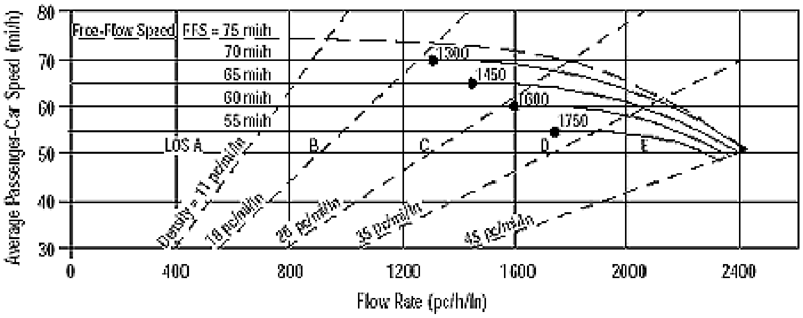

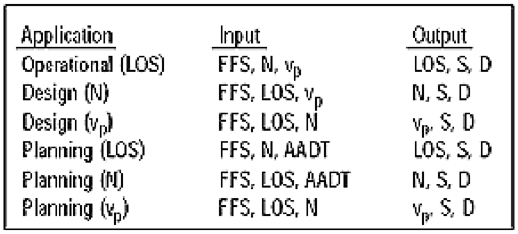

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3772*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1435*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*69.9*	mi/h	S		mi/h
D = v_p / S	*20.5*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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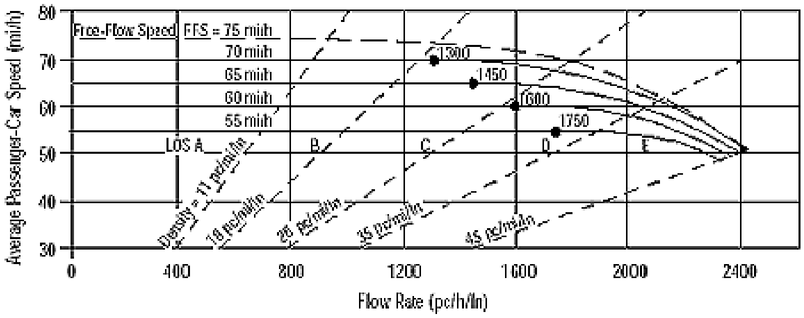

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information		Site Information	
Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Alessandro Bl. to Cactus Av.*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3772*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1071*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*70.0*	mi/h	S	mi/h
D = v_p / S	*15.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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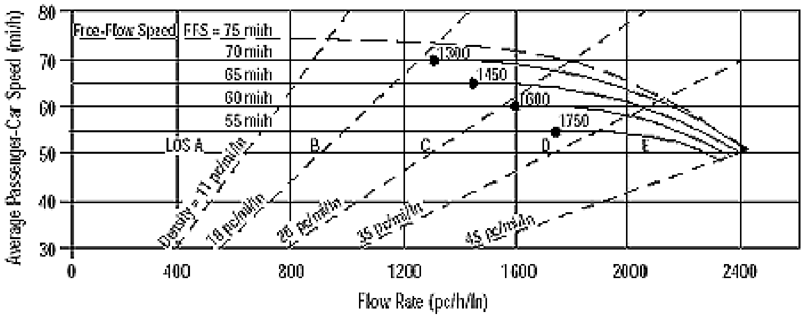

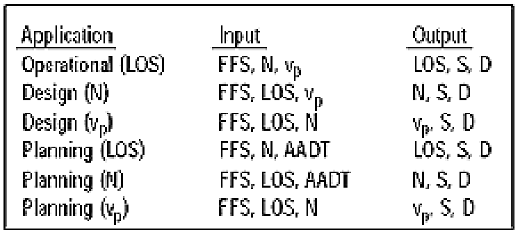

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Cactus Av. to Van Buren Bl.*
Jurisdiction	*Caltrans*
Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3236*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*928*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*13.3*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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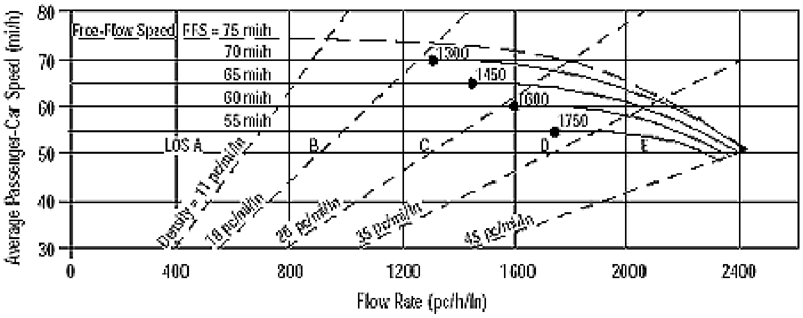

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Van Buren Bl. to Harley Knox B*
Jurisdiction	*Caltrans*
Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4246*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*21*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.905*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1700*	pc/h/ln
S	*68.8*	mi/h
D = v_p / S	*24.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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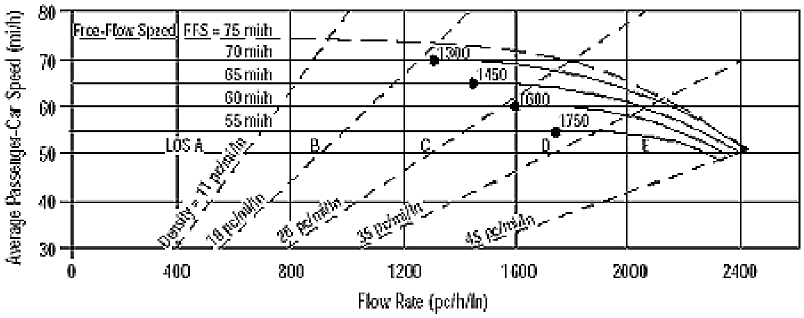

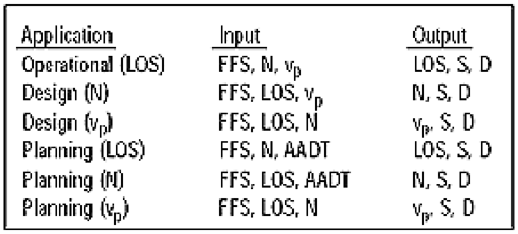

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR-60 to Blaine St*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5764*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*5*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1322*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*18.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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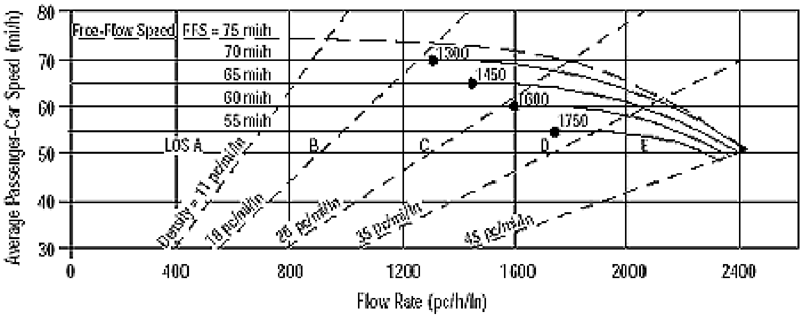

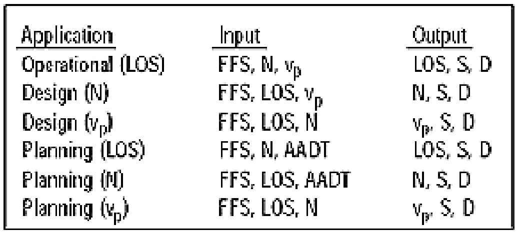

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Blaine St to University Av*
Jurisdiction	*Caltrans*
Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6835*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1575*	pc/h/ln
S	*69.5*	mi/h
D = v_p / S	*22.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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Item No. E.1

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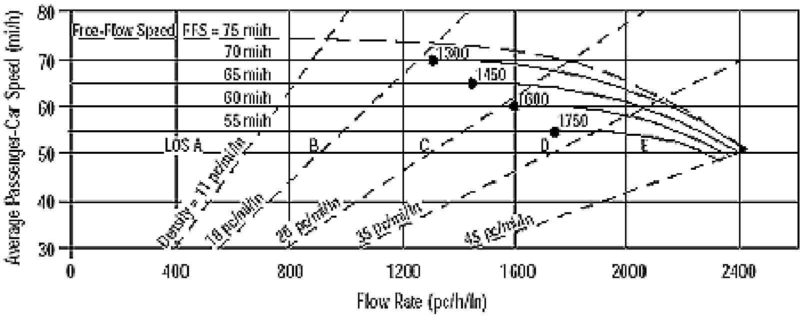

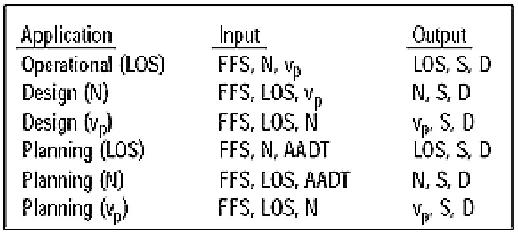

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*University Av to MLK Bl*
Jurisdiction	*Caltrans*
Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6077*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1742*	pc/h/ln
S	*68.4*	mi/h
D = v_p / S	*25.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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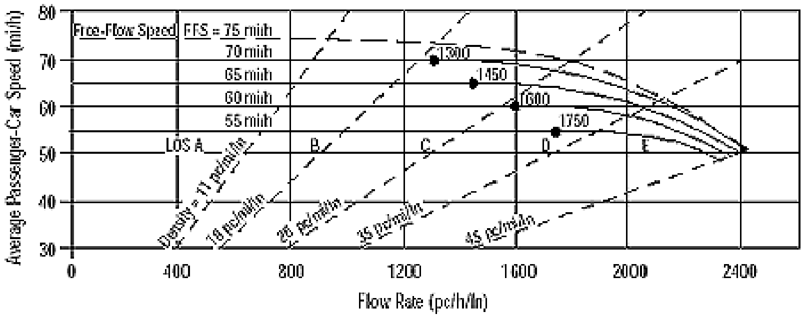

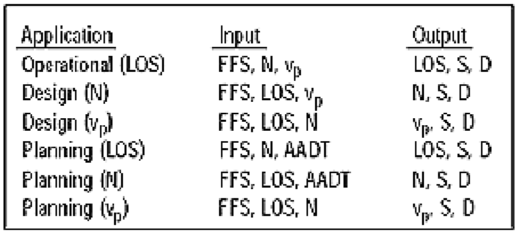

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*MLK Bl to Central Av*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6221*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1783*	pc/h/ln
S	*68.0*	mi/h
D = v_p / S	*26.2*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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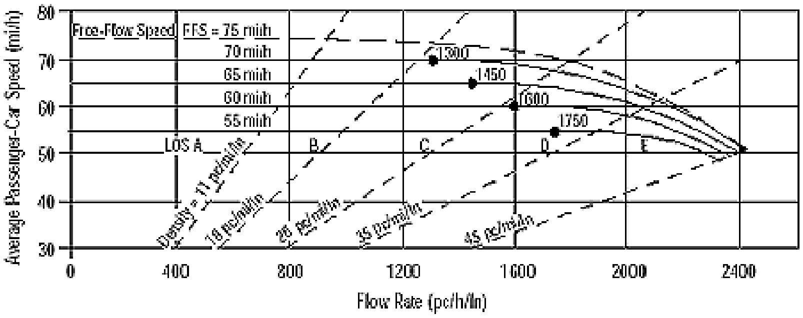
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / *Site Information*

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6125*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*5*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1405*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*70.0*	mi/h	S		mi/h
D = v_p / S	*20.1*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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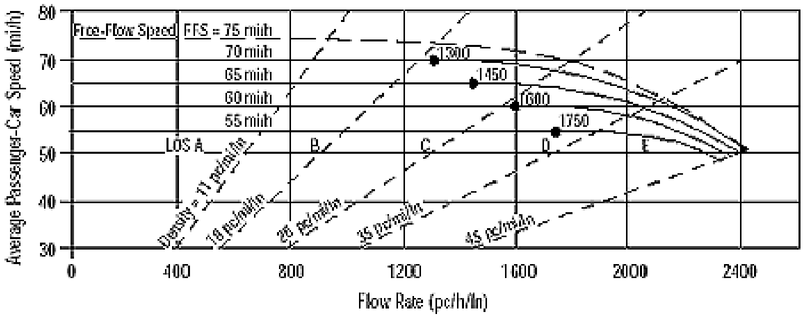

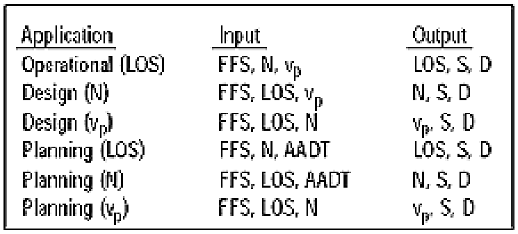

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Box Springs Rd to SR60/I215*
Jurisdiction	*Caltrans*
Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6635*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1902*	pc/h/ln
S	*66.5*	mi/h
D = v_p / S	*28.6*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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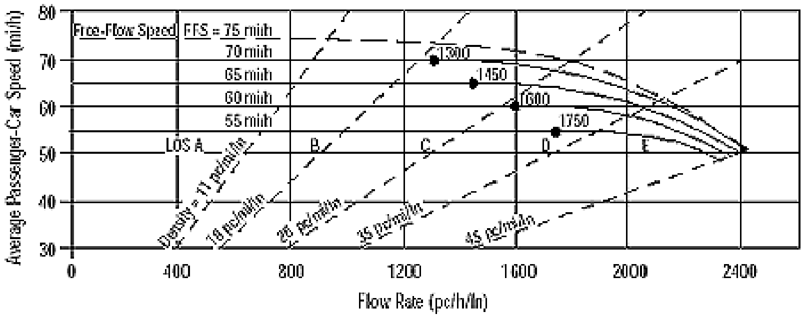

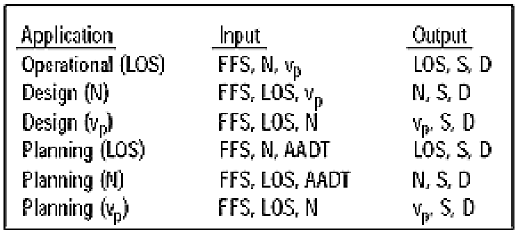

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR60/I215 to Eucalyptus Av.*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3937*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*15*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.930*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1533*	pc/h/ln
S	*69.7*	mi/h
D = v_p / S	*22.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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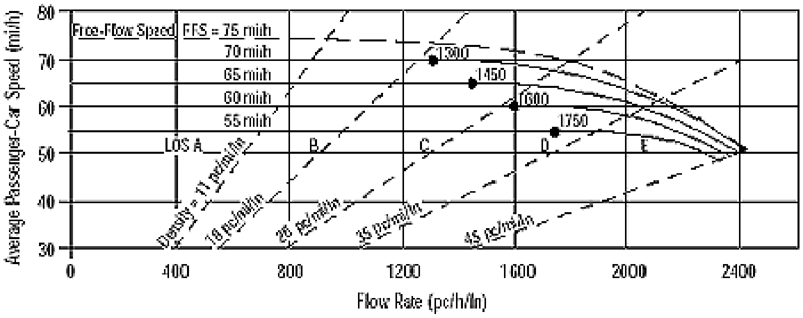

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3713*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1406*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*20.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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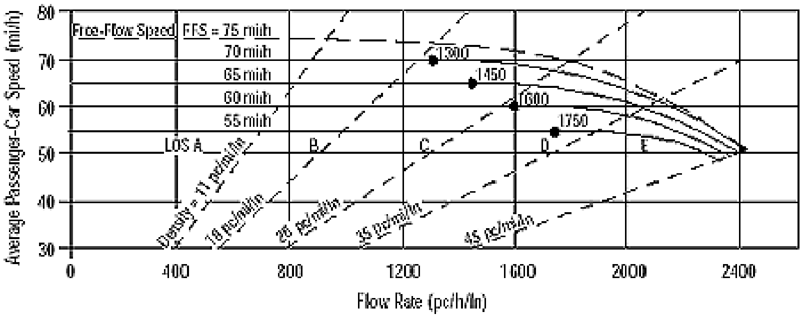

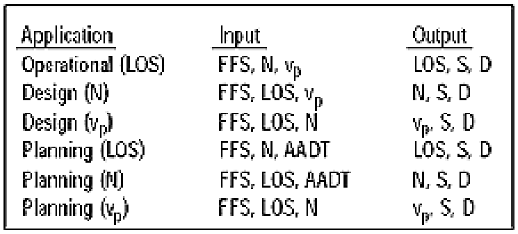

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Alessandro Bl. to Cactus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4340*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*986*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*14.1*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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Item No. E.1

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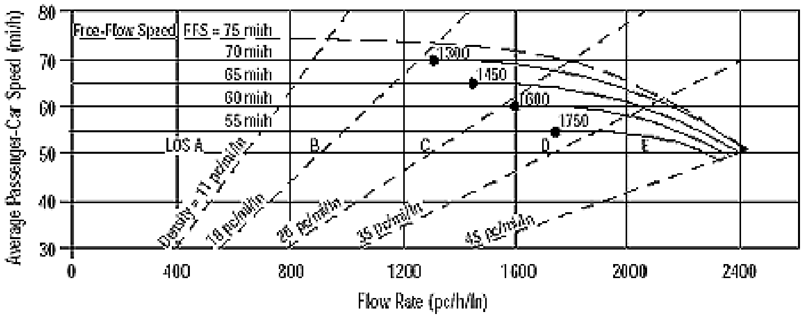

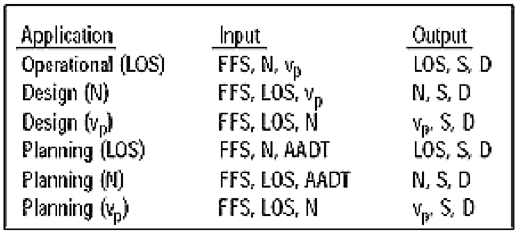

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Cactus Av. to Van Buren Bl.*
Jurisdiction	*Caltrans*
Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4458*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1272*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*18.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10

E_T - Exhibits 23-8, 23-10, 23-11

f_p - Page 23-12

LOS, S, FFS, v_p - Exhibits 23-2, 23-3

f_{LW} - Exhibit 23-4

f_{LC} - Exhibit 23-5

f_N - Exhibit 23-6

f_{ID} - Exhibit 23-7

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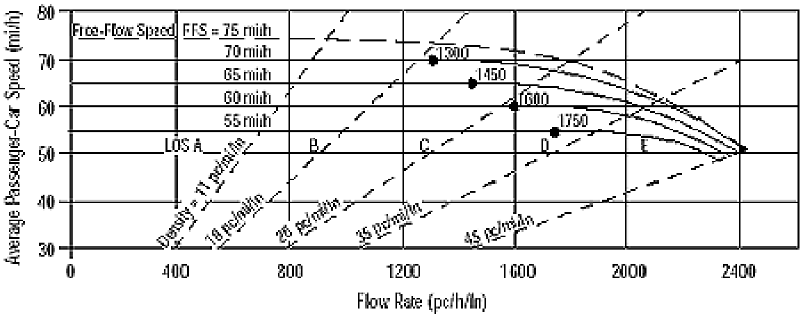

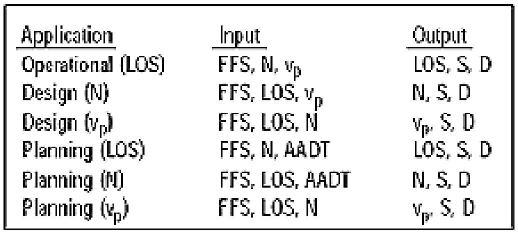

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / *Site Information*

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5751*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2177*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*60.8*	mi/h	S		mi/h
D = v_p / S	*35.8*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*E*		Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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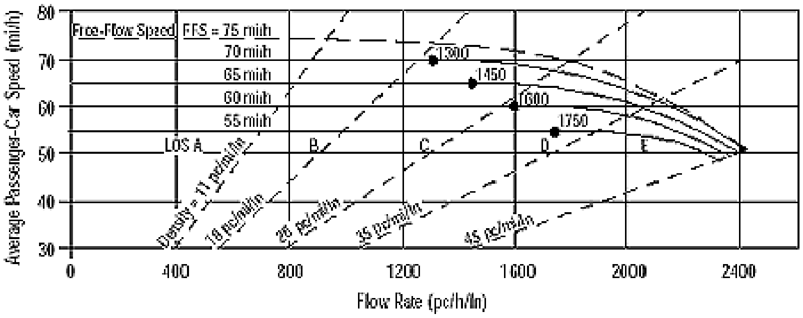

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR-60 to Blaine St*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2017 With Project*

(Site Information section heading: see right column above.)

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5206*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1194*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*17.1*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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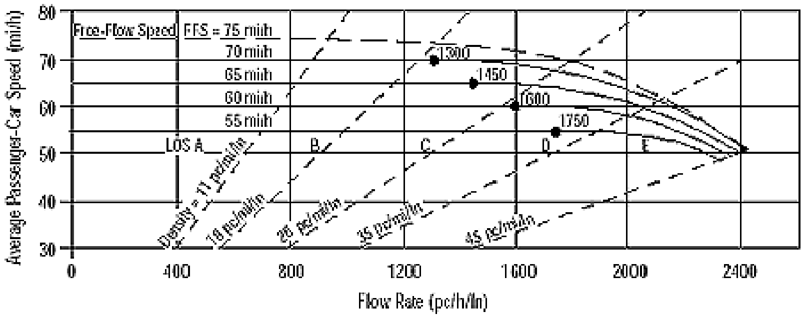

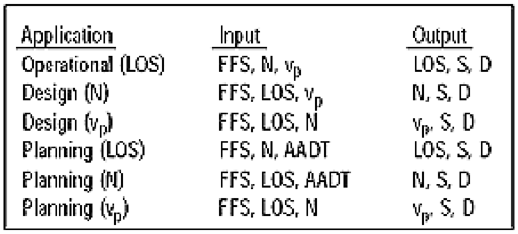

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Blaine St to University Av*
Jurisdiction	*Caltrans*
Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5656*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1621*	pc/h/ln
S	*69.3*	mi/h
D = v_p / S	*23.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	mi/h
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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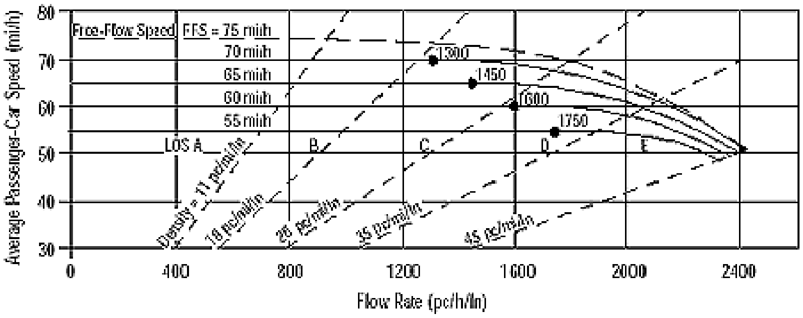

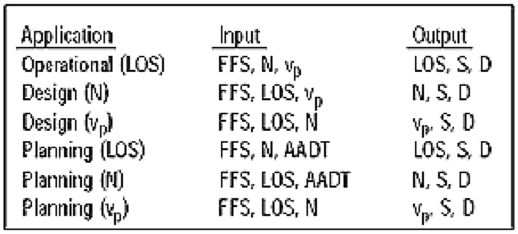

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*University Av to MLK Bl*
Jurisdiction	*Caltrans*
Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6596*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1891*	pc/h/ln
S	*66.7*	mi/h
D = v_p / S	*28.4*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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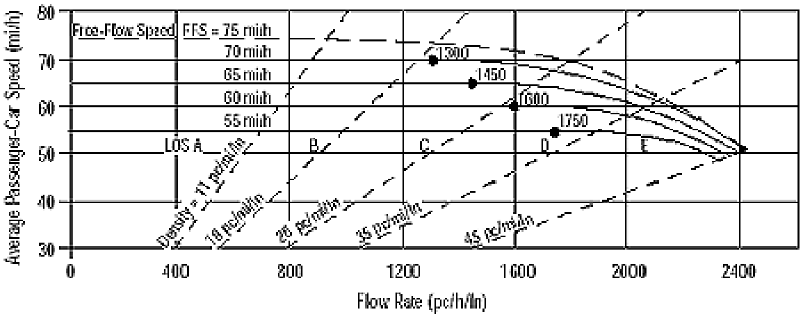

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*MLK Bl to Central Av*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2017 With Project*

Site Information

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7592*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1741*	pc/h/ln
S	*68.5*	mi/h
D = v_p / S	*25.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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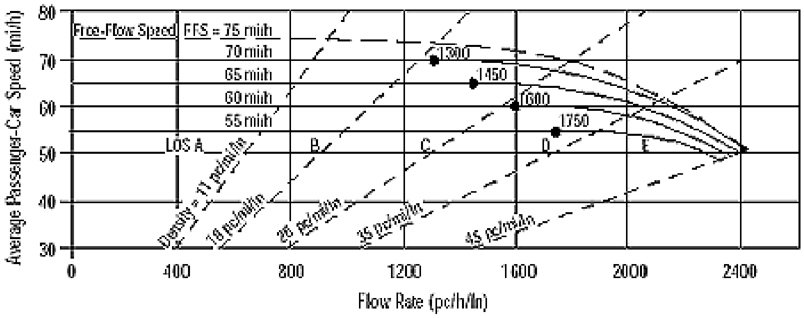

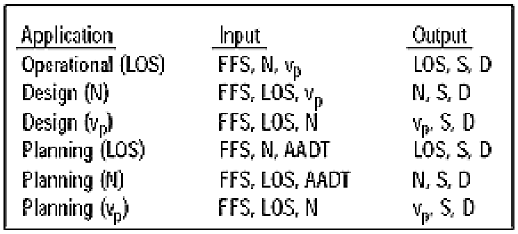

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6625*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1512*	pc/h/ln
S	*69.8*	mi/h
D = v_p / S	*21.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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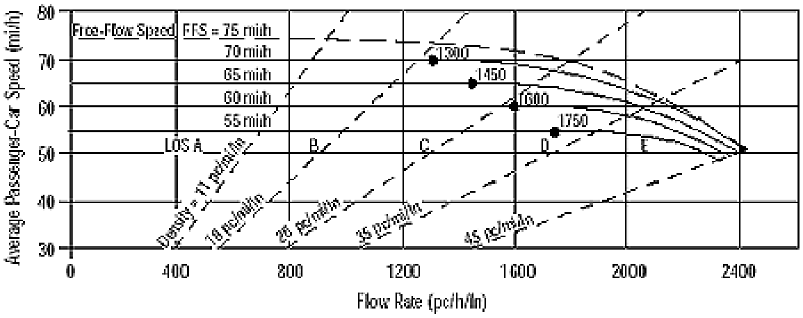

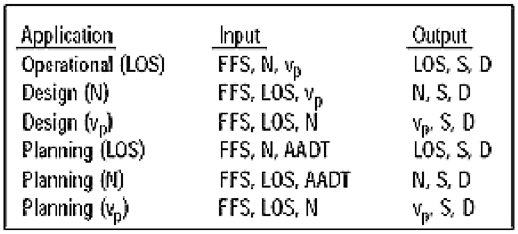

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Box Springs Rd to SR60/I215*
Jurisdiction	*Caltrans*
Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7284*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2098*	pc/h/ln
S	*62.8*	mi/h
D = v_p / S	*33.4*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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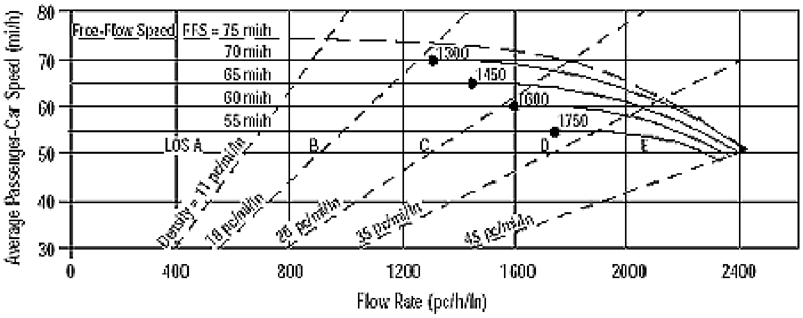

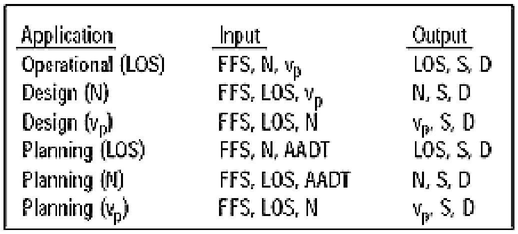

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR60/I215 to Eucalyptus Av.*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2017 With Project*

Site Information

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6164*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*16*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.926*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1447*	pc/h/ln
S	*69.9*	mi/h
D = v_p / S	*20.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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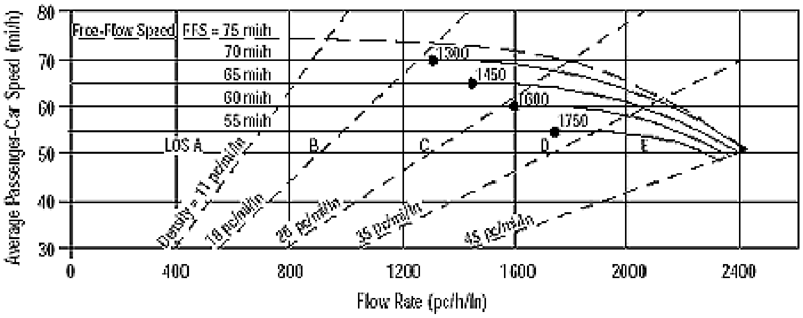

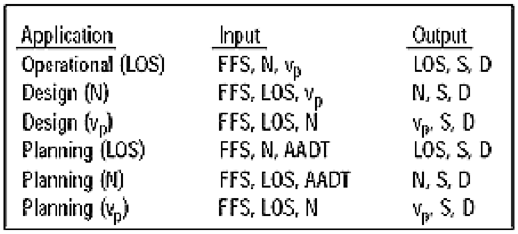

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information		***Site Information***	
Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5153*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1951*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*65.7*	mi/h	S	mi/h
D = v_p / S	*29.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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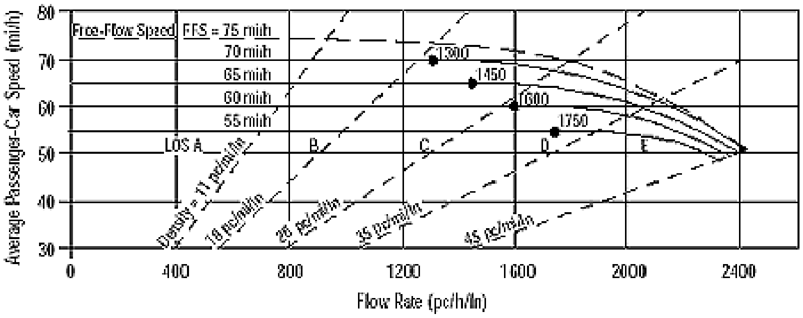

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Alessandro Bl. to Cactus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5349*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1519*	pc/h/ln
S	*69.7*	mi/h
D = v_p / S	*21.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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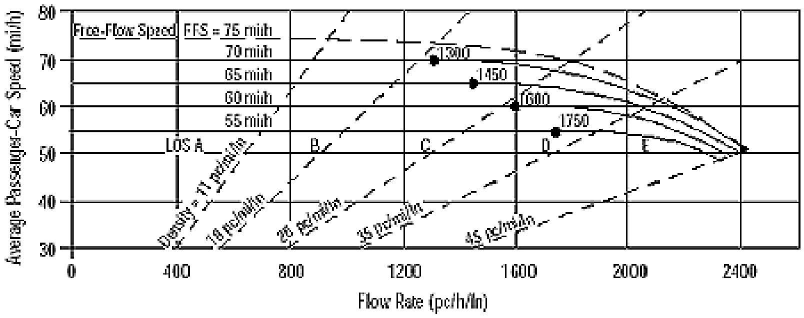

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Cactus Av. to Van Buren Bl.*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2017 With Project*

(Site Information: right-hand columns above.)

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4517*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1289*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*18.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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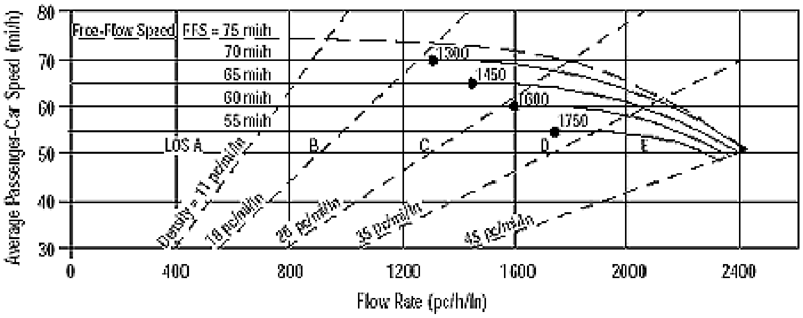

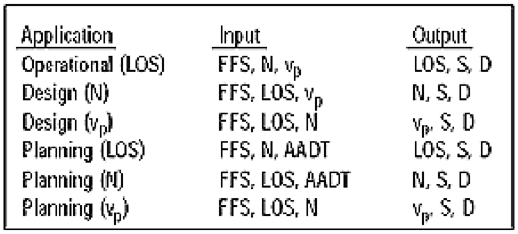

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2017 Without Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5708*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2182*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*60.6*	mi/h	S		mi/h
D = v_p / S	*36.0*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*E*		Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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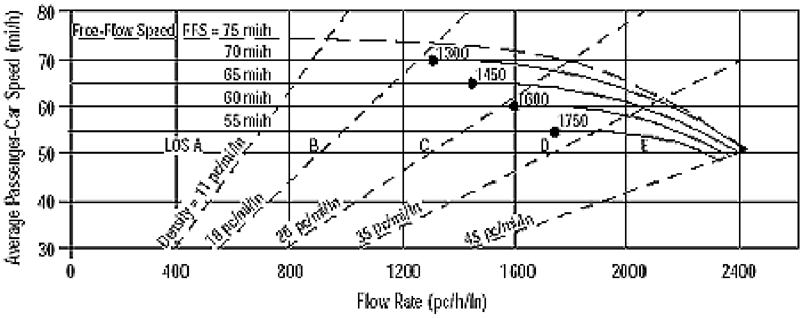

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*SR-60 to Blaine St*
Jurisdiction	*Caltrans*
Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5361*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1230*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*17.6*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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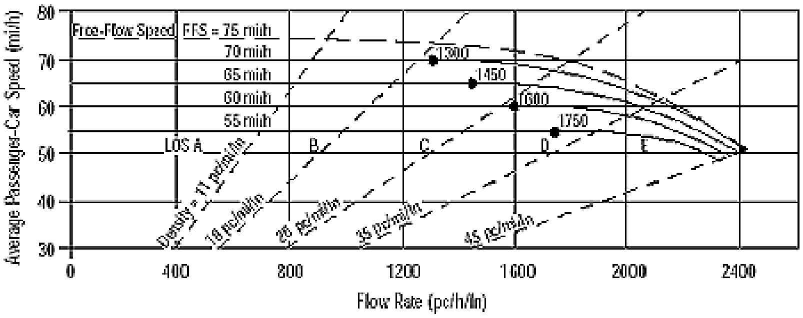
Item No. E.1

BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Blaine St to University Av*
Jurisdiction	*Caltrans*
Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6086*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1396*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*20.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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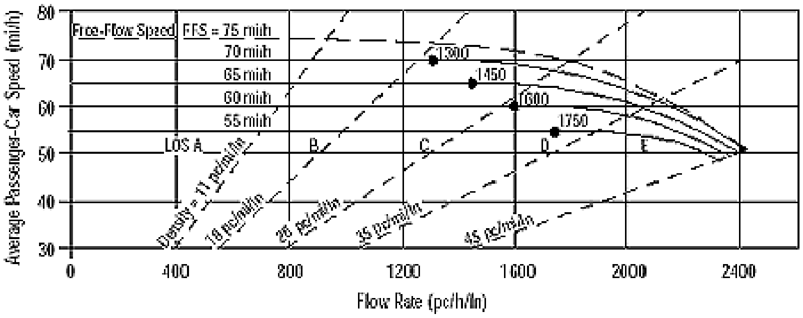
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University Av to MLK Bl*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5942*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1703*	pc/h/ln
S	*68.8*	mi/h
D = v_p / S	*24.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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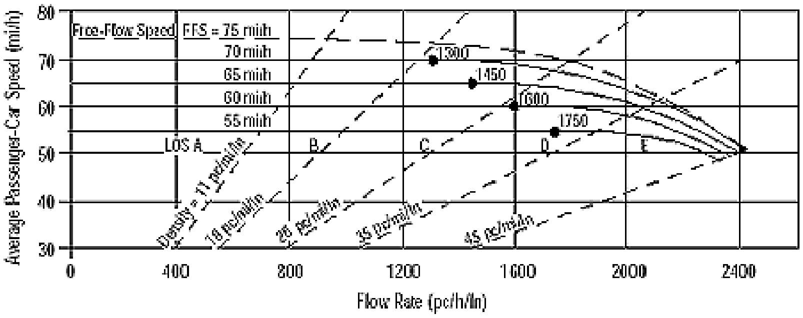

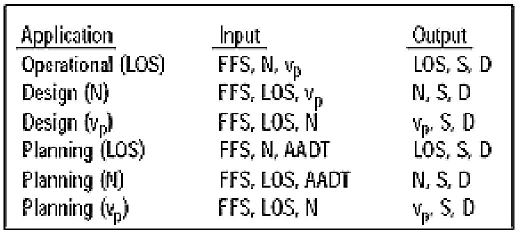

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*MLK Bl to Central Av*
Jurisdiction	*Caltrans*
Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6277*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1800*	pc/h/ln
S	*67.9*	mi/h
D = v_p / S	*26.5*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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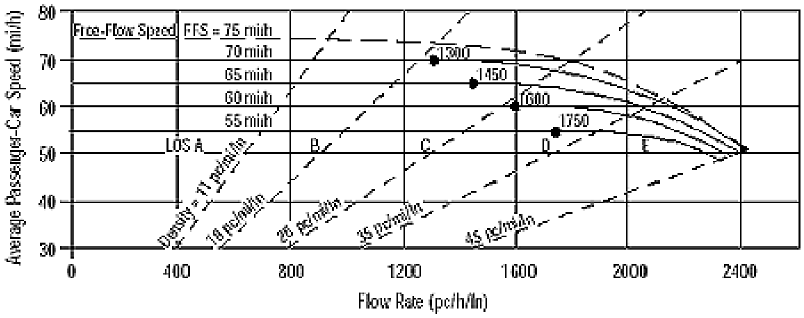

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5349*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1227*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*17.5*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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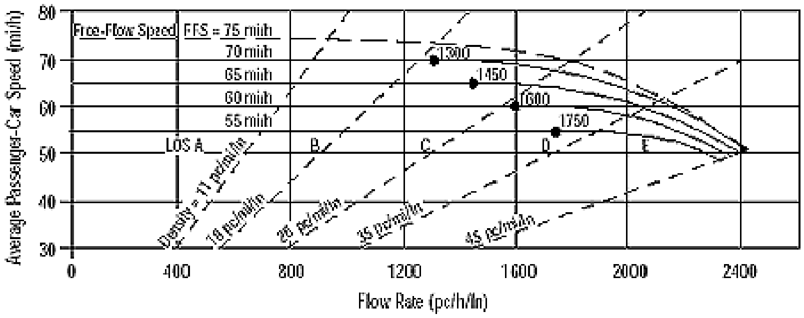

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Box Springs Rd to SR60/I215*
Jurisdiction	*Caltrans*
Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6569*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1883*	pc/h/ln
S	*66.8*	mi/h
D = v_p / S	*28.2*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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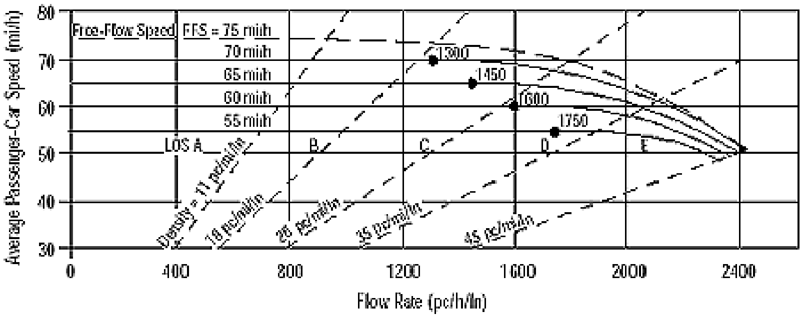

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR60/I215 to Eucalyptus Av.*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4391*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*15*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.930*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1710*	pc/h/ln
S	*68.7*	mi/h
D = v_p / S	*24.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	mi/h
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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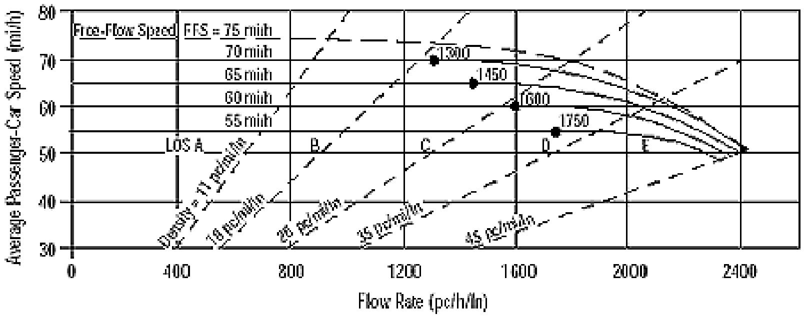

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*CS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*2/24/2014*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Eucalyptus Av. to Alessandro B*
Jurisdiction	*Caltrans*
Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3854*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1459*	pc/h/ln
S	*69.9*	mi/h
D = v_p / S	*20.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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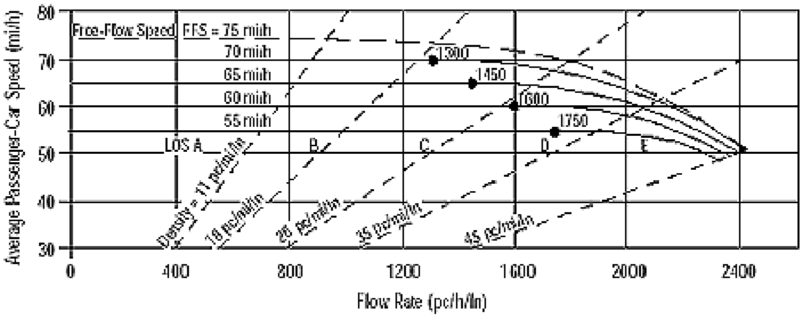

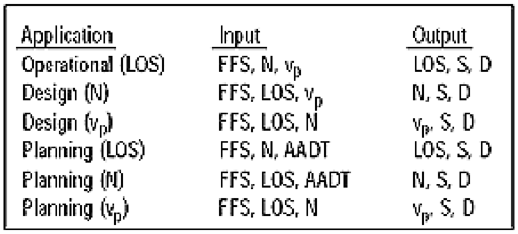

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Alessandro Bl. to Cactus Av.*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4501*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*5*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1023*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*14.6*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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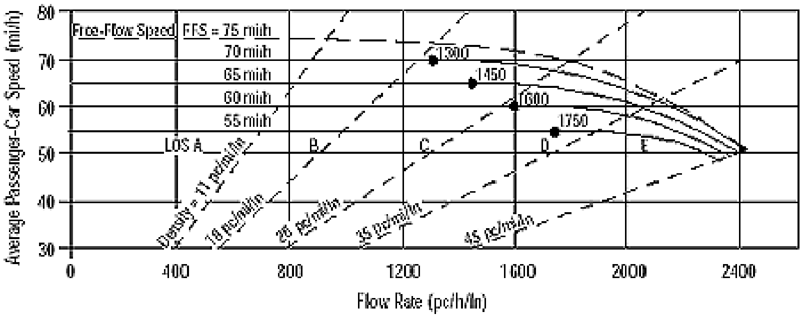

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Cactus Av. to Van Buren Bl.*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3464*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*988*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*70.0*	mi/h	S	mi/h
D = v_p / S	*14.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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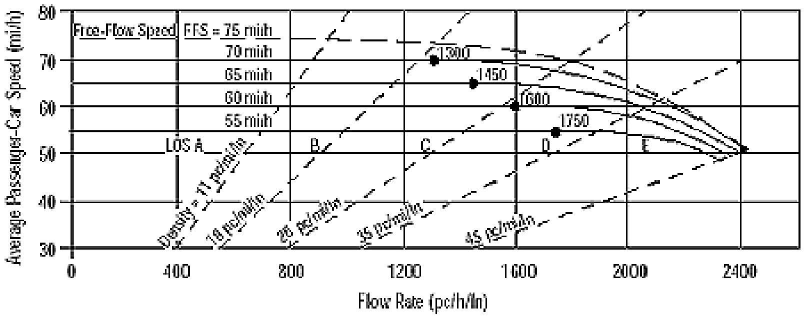

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*CS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*2/24/2014*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2017 With Project*

Project Description First Inland Logistics II TIA (JN 08179)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4686*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*19*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.913*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1859*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*67.1*	mi/h	S		mi/h
D = v_p / S	*27.7*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*D*		Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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Item No. E.1

Attachment D

City of Perris, Stafford Ranch Response to SCAQMD White Paper

CRAIN
&
ASSOCIATES

VIA EMAIL

December 1, 2011

Mr. Robert Evans
Executive Director
NAIOP Inland Empire
25241 Paseo de Alicia, Suite 120
Laguna Hills, CA 92653

RE: Response to the South Coast Air Quality Management District White Paper

Dear Mr. Evans,

As requested, Crain & Associates has reviewed the South Coast Air Quality Management District (SCAQMD) white paper entitled *Large Warehouse and Distribution Center Trip Rates*. In the paper, large warehouse and distribution centers are defined as having floor areas greater than 100,000 square feet. The main thrust of the white paper is to question the use of industry-standard Institute of Transportation Engineers (ITE) Trip Generation (8th Edition, 2008) trip rates for large centers via Land Use Code (LUC) 152, High-Cube Warehouse, and present alternative trip rates based on a meta-analysis of seven trip generation studies of centers in California and Florida. As summarized below, it is our professional opinion that the SCAQMD's white paper contains technical flaws. The ITE Trip Generation manual is based on a more rigorous set of data and program of analysis. Accordingly, we recommend that in performing California Environmental Quality Act (CEQA) analyses for high cube warehouse uses, including traffic, air quality, noise, and greenhouse gas analyses, the ITE Trip Generation manual should continued to be used by lead agencies rather than the SCAQMD's rates.

ITE TRIP GENERATION MANUAL

The Institute of Transportation Engineers is a professional body which has collected studies for a large variety of land uses and calculated average trip generation results in the summary report entitled Trip Generation, 8th edition, 2008 (ITE), also known as the ITE manual. The report is based on the results of generation counts which were collected at representative sites located

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throughout the country. Accordingly, the ITE manual is the accepted source for trip generation rates relied upon by jurisdictions across the country. As described in the ITE manual, Land Use Code (LUC) 152, High-cube Warehouses have a typical ceiling height of 24 to 30 feet and are often characterized by "a small employment count due to high level of mechanization, truck activities frequently occurring outside the peak hour of the adjacent street system and good freeway access." All of the studies used to develop the ITE trip rates for LUC 152 surveyed high-cube warehouses had building areas greater than 100,000 gross square feet.

SCAQMD WHITE PAPER METHODOLOGY

The SCAQMD white paper challenges the accuracy of the ITE manual analysis. This paper reviews the validity of the concerns expressed in the SCAQMD white paper. Our conclusion is that the white paper is deficient as follows:

(i) Fails to understand the difference between High-Cube and traditional warehouses or that total trip generation and percentage trucks are inter-related and should be based on the same data base;

(ii) Provides no explanation how the 7 studies utilized were chosen or why the particular subset of sites is more representative of High Cube Warehouses than those in the ITE manual under LUC 152;

(iii) Advocates the use of 95th percentile trip rates for all environmental studies even though it overstates the expected trip generation, VMT and impacts for most analyses in the environmental studies;

(iv) By using post-facto (2010) aerial photographs of the 2005 study sites rather than timely data in order to question the occupancy of a study buildings, the white paper relies on speculation rather than scientific methods.

(v) Recommends the use of 40% truck trips based on a weighted average of only two studies selected from a set, some of which have very different results;

(vi) Dismisses the use of "average" trip generation. The emphasis should be on a cumulative analysis of a large number of sites over the long period of time. Projecting activity of a single site on a single day is not applicable to the type of analyses SCAQMD is recommending their rates be used for; and

(vii) Does not properly review the adequacy of the data to be subdivided into with and without rail service categories or if alternative subdivisions may be more appropriate.

The concerns expressed in the white paper, our conclusions, and the basis for those conclusions is detailed on the following pages.

VACANCIES

One factor cited in the SCAQMD white paper as leading to a lower-than-expected ITE trip generation rate relates to partial or full vacancies of centers surveyed for the LUC 152 trip rate studies. The SCAQMD white paper claims to have reviewed aerial photography of the sites included in six studies used in developing the ITE LUC 152 rates and the sites included in the *City of Fontana Truck Trip Generation Study* (August 2003). Across the seven total studies, 68 different warehouse and distribution centers in California and Florida were surveyed. Many of the problems associated with using an aerial photography method for determining vacancies are described within the white paper. The photographs provide only "circumstantial evidence," the vacancies are "difficult to verify," and the correlation between recent photographs and vacancy levels when the trip studies were conducted in previous years is "difficult to validate."

As an example of the inaccurate nature of this vacancy analysis, center occupancy levels were confirmed by our firm immediately prior to the counts at all 13 sites where counts were performed for the November and December 2006 for the *Western Riverside County Warehouse/Distribution Center Trip Generation Study* (Crain and Associates, September 2008). However, the SCAQMD concluded that at least one of these 13 sites may have been partially or fully vacant, based on the 2010 Google image included as Figure 2 of the white paper. This circumstantial screening of data performed ex post facto is inaccurate and can skew the results of a trip generation study. Attachment 1 contains supporting documentation that the "vacant" center depicted in the paper's Figure 2, (located at 11600 Iberia Street in Mira Loma, CA) was fully occupied at the time of trip counts on November 28 and 29, 2006.

Not all large warehouses and distribution centers will have the same trip generation rate. Instead centers will have a range of trip rates centered on an average rate. For centers on the lower end of this trip-rate range, lower trip activity would likely result in fewer passenger vehicles and heavy trucks appearing on-site at a given time. Centers on the lower end of the trip rate range may include warehouses that operate with materials/goods that require a longer storage time. The elimination of sites with assumed partial or full vacancies could, in fact, be the elimination of sites with lower trip rates, thereby leading to the estimation of an artificially inflated average trip rate.

Further one should consider that the degree of vacancy of each facility will likely vary over time. While care was taken in our counts (as it was for most if not all ITE counts) to ensure full occupancy, actual average generation of each facility will be lower than the ITE rates during these periods of full or partial vacancy. To be conservative, these periods of low trip generation are not accounted for in most current environmental analyses.

CHOICE OF STATISTIC

Another area of concern with the assumptions in the white paper is the recommended trip rates calculations. Table 1 of the white paper provides a summary of weekday daily trip rates for warehouse and distribution centers, based on the independent variables of "rail service? (yes, no, or some)" and "potential vacancy? (yes, no, or some)." Although average trip rates are calculated for different combinations of these independent variables, the white paper recommends the use of 95th percentile trip rates for use in project-specific California Environmental Quality Act (CEQA) air quality and corresponding environmental analyses. In line with comments provided by Fehr & Peers in their August 23, 2010 memorandum reviewing the white paper, the use of 95th percentile trip rates may be "overly conservative." It should be noted that these trip rates are used for a range of environmental analyses under CEQA, including traffic and noise impact analyses, and consistency in the use of trip rates between these analyses is recommended. The used rates should not vary between sections of an EIR.

Based on the 95th percentile assumption, the white paper recommends weekday daily rates of 2.59 and 1.63 trips per 1,000 square feet of gross floor area for centers without and with rail service, respectively. It should be noted that the average weekday daily trip rate for warehouse sites with no rail service (and some circumstantial "potential vacancy") was 1.79 trips per 1,000 square feet of gross floor area, which is much closer to the ITE LUC 152, High-Cube Warehouse, average trip rate of 1.44 trips per 1,000 square feet of gross floor area than the 2.59 rate SCAQMD purposes. Further, the ITE rates is based on a much larger and more representative sample. Rather the choice of statistic is crucial to the usefulness of the estimate.

From a traffic analysis perspective, average trip generation levels for land uses are typically used for both project and cumulative off-site impact analyses. Absent empirical data or preferred, locally developed rates, the ITE Trip Generation manual is heavily relied upon. In the manual, the ITE has developed average trip rates (and, in some cases, fitted curve equations) for each land use and time period. The ITE uses a weighted average in order to limit the effect of sites with trip rates that have a large variance from the mean. The use of 95th percentile trip rates for a specific land-use project and, by extension, the cumulative projects in an off-site traffic impact analysis would present an unrealistic traffic condition from which to determine project impacts.

It should also be noted that traffic analyses already account for variations in generation by focusing on project impacts during the peak hours (not average hours) of traffic within a study area. The results of traffic impact analyses during the peak hours of traffic, using the 95th percentile trip rates applied to both the project and cumulative development, would be overly conservative. Consequently, the traffic and/or other CEQA environmental analyses could be dismissed by decision makers for not reflecting conditions reliably.

The project traffic generation forecasts are direct inputs for a project's air quality analysis. It is worth noting that the white paper found that the ITE average weekday trip rate was considered acceptable for multiple (10+) centers, based on the assumption that across several centers some would operate at varying levels of vacancy. However, no such variation is assumed for individual centers and 95th percentile rates are recommended for them instead. The use of these rates for individual centers would, in the vast majority of cases, overstate the center's air quality impacts on an area-wide basis -- including, greenhouse gas emissions. Using the ITE average rate would, therefore, be more appropriate for area-wide impacts and should be included so that decision makers do not rely solely on speculative estimates that are more likely to be dismissed. However, a factor for variations between time periods may be applied, if appropriate, for certain localized environmental analyses. For example, the level of parking demand on an individual site is only influenced by a single use. Daily variations of all users are taken into account. However, there is no reason to expect all warehouses in the United States will generate at the 95th percentile level over extended periods, as the White Paper implies.

FLEET MIX

The fleet mix calculations provided in the white paper are also a cause for concern. In the analysis preceding the Fleet Mix section of the white paper, the SCAQMD argues that the use of the ITE trip rates may underestimate large warehouse and distribution center vehicle trips. However, it is not clear from the white paper if the alleged underestimation of trips is due to more passenger vehicle trips or more heavy truck trips. As cited above, the ITE Trip Generation manual description of high-cube warehouses (LUC 152) makes clear, (based on ITE's analysis of the empirical data) that this land-use type has a particular trip generation profile due, in large part, to lower employment numbers than are expected with smaller buildings. In the Fleet Mix section, the white paper uses truck trip percentage data from studies it found fault with in preceding sections to determine that 40 percent of the weekday daily trip generation of a center would be truck trips. This calculation is based on data culled from two studies: the San Bernardino/Riverside County Warehouse/Distribution Center Vehicle Trip Generation Study (Crain and Associates, January 2005) and the City of Fontana Truck Trip Generation Study

(August 2003). Based on the 95th percentile trip rates, the white paper recommends weekday daily truck trip rates of 1.04 and 0.65 trips per 1,000 square feet of gross floor area for centers without and with rail service, respectively. In contrast, the weekday daily truck trip rates from the two abovementioned studies were 0.53 and 0.72 trips per 1,000 square feet of gross floor area, irrespective of rail service. Applying a similar calculation to these rates as the one utilized in the white paper would yield a weighted truck trip rate of 0.58 trips per 1,000 square feet of gross floor area [((0.53*10)+(0.72*4))/(10+4)]. Additionally, the ITE manual recommends a weekday daily truck trip rate of 0.64 trips per 1,000 square feet of gross floor area based on five sites from three studies, all of which are different from the two used in the white paper analysis. The percentage of trucks and total vehicle generation must come from the same data source. The analysis should not apply the percentage from one set of sites to the total generation from a different set. Accordingly, the SCAQMD white paper overstates the percentage that trucks represent in the fleet mix in the databases used to establish the trip rates.

RAIL SERVICE

The white paper's point regarding the effect that rail service adjacent to the loading dock could have on the number of truck trips generated by such centers is not properly analyzed. In particular, there do not appear to be sufficient sites with data concerning rail availability to make a split. Further, merely the availability of rail service for the transport of materials/goods to and from a center does not necessarily equate active usage of the rail spur. Moreover, if rail is actively used and lower truck trip generation result, the air quality benefits would be offset by the emissions of the locomotive that moves the rail cars into place, as well by the idling vehicles at rail crossings waiting for the locomotive and boxcar(s) to clear the road. Similar traffic and noise off-sets would occur. Therefore, recommending that the High-Cube Warehouse land use be subdivided into categories of High-Cube Warehouse With Rail Service and High-Cube Warehouse Without Rail Service is inappropriate.

SUMMARY

A review of the white paper document raises a myriad of questions about the analysis therein. The white paper is brief. and the analysis lacks any documentation of valid statistical methods (unlike that for other sources such as the ITE manual). It would be useful to obtain clarification regarding the following information:

- The white paper sets forward that SCAQMD staff analyzed the trip rates at 68 warehouse and distribution centers, while the ITE Trip Generation weekday daily rates are based on

35 sites. The white paper does not describe the 33 other sites used to develop the rates that were set forward.

- The white paper does not explain how the active use at the time of the trip counts of the rail spurs running adjacent to the center loading docks was verified.
- The white paper does not justify how the *San Bernardino/Riverside County Warehouse/Distribution Center Vehicle Trip Generation Study* (Crain and Associates, January 2005) and the *City of Fontana Truck Trip Generation Study* (August 2003) were determined to be inappropriate for estimating vehicle trips, yet appropriate for estimating vehicle fleet mix.
- The comments provided by Fehr & Peers in their August 23, 2010 memorandum reviewing the white paper make reference to centers with building sizes as small as 64,000 square feet being included in the meta-analysis. However, this size would fall below the 100,000 square-foot threshold established for "large" warehouse and distribution centers. The fundamental distinction from ITE on the number and type of employees needed should be included in any distinction between warehouse types.
- At the bottom of the first page of the white paper there is mention of an attached spreadsheet, but no such spreadsheet has been circulated. Review of detailed data could point to additional issues.

In conclusion, although project occupancy/vacancy is always an important factor in determining project trip generation, the aerial photo based vacancy analysis included in the white paper is unsubstantiated. Beyond the unsupported vacancy conclusions, the white paper's average weekday trip rate calculated for centers without rail service is similar to the trip rate provided in the ITE Trip Generation manual. The white paper, however, recommends using 95th percentile trip rates for use in air quality and associated CEQA environmental analyses. We caution against the use of 95th percentile rates, given that it will result in overstating the impacts on both a project and cumulative development level. Instead, the application of safety factor for certain analyses when found warranted would be more appropriate. The fleet mix (heavy truck percentage) for high-cube warehouses may be different than standard warehouses, but developing that mix by selectively drawing percentages from studies while ignoring the actual truck trip rates from those sites would be inappropriate. It should also be noted that different truck percentages may be appropriate to use for peak and off-peak hours (ITE identified truck trips as accounting for only 9 to 29 percent of the peak-hour traffic at surveyed sites)., For all of these reasons, we recommend that in performing CEQA analyses, including traffic, air quality, noise, and greenhouse gas, for high cube warehouse uses, the ITE Trip Generation manual should continue to be used by lead agencies rather than the SCAQMD's ad hoc rates based on partial or unsupported data and inappropriate analyses assumptions.

Sincerely,

George Rhyner

George Rhyner
Senior Transportation Engineer

GR:rjk
C20187

Attachment

Attachment 1

TOYO TIRES®
driven to perform®

Toyo Tire Holdings of Americas, Inc.
Logistics Department
2151 S. Vintage Avenue
Ontario, CA 91761

April 19, 2011

Mr. Graham Tingler
Space Center Mira Loma, Inc.
Leasing Office
3401 Etiwanda Avenue
Mira Loma, CA 91752

RE: 11600 Iberia Street, Mira Loma, CA 91752

Mr. Tingler:

Per your request that we independently verify the terns of our lease and occupancy at the above referenced property, I am happy to supply the following factual information:

Toyo Tire subleased this approximately 408,806 SF building from Continental Tire Corporation from March 1, 2004 through February 11, 2011. As you know, the building lease required that this sublease was approved by the Landlord, your firm, which we did obtain. Toyo Tire is an importer and distributer of automobile, SUV, light truck and racing tires to the United States market and used this facility as a Distribution Center.

In 2009, Toyo Tire began consolidating its business to a single facility in Southern California. Toyo Tires commence downsizing their operations at the above referenced property in October 2009 and completely vacated the property in May 2010, which was prior to the end of the lease term.

During November 2006, the period when we understand that a traffic study analyzing the trip and traffic impacts, this Toyo Tire facility was operating at full capacity and occupied the entire 408,806 SF building.

I trust this information answers any questions about our occupancy at this property.

Sincerely,

Steve Morgan

Steve Morgan
Logistics Operations Manager
Holdings of Americas Inc.

Large Warehouse and Distribution Center Trip Rates

Introduction

New large warehouse projects and distribution centers (>100,000 square feet) have become a more common project type in the past several years, especially in the western Riverside County and San Bernardino County area. As an example, at least 8 new EIRs for warehouse projects totaling 17.75 million square feet have been reviewed by SCAQMD staff since late 2008 just in the vicinity of the city of Perris in Riverside County. These warehouse projects are commonly associated with substantial diesel emissions due to the high volume of heavy duty trucks that serve them. Diesel Particulate Matter (DPM) from internal combustion engines has been classified as a carcinogen by the California Air Resources Board (CARB). This white paper has been prepared because the number of truck trips associated with warehousing projects is a key component in determining the potential impact of DPM emissions on surrounding communities. Due to concern about these emissions, the CARB in its *Air Quality and Land Use Handbook* recommended providing a 1,000 foot setback from any distribution center serving more than 100 trucks per day.

For CEQA purposes, the volume of truck traffic predicted to serve a new large warehouse project is typically derived using the Institute of Transportation Engineers Trip Generation manual. This is the same source of traffic data used in the URBEMIS air quality model. The trip rate value used in URBEMIS is 4.96 trips per 1,000 square feet (TSF) for warehouse projects (land use type 150). This value is from the 7th Edition of the Trip Generation manual, published in 2003. Several developers of high-cube warehouses in recent years have questioned the validity of this value for modern warehousing operations and have commissioned local studies to investigate these trip rates. As a result, in the most recent version of the Trip Generation manual (8th Edition, 2008), additional data has been included to provide a new high-cube warehouse (land use 152) trip rate of 1.44 trips/TSF.

SCAQMD staff and other interested parties have questioned lead agencies about this lower rate because of concern that industrial warehouse project analyses may be underestimating the number of trucks serving them. If this were true, air quality impacts may be underreported in the corresponding CEQA analyses. This memo and attached spreadsheet presents a meta-analysis of available traffic studies that have targeted high-cube warehouses.

Studies

The seven studies included in this meta-analysis are listed below. Studies marked with an (*) are included in the 8th Edition of the ITE Trip Generation manual.

1. **Westside Industrial Park, Warehouse Trip Generation Study– Twenty Five Buildings, Duval County Florida*, December 5, 2008. King Engineering Associates, Inc.
2. **Westside Industrial Park, Warehouse Trip Generation Study–Eight Buildings, Duval County Florida*, December 5, 2008. King Engineering Associates, Inc.
3. **Trip Generation Study. High-Cube Warehouse Buildings, Fresno California*, January 19, 2007. Peters Engineering Group
4. **Trip Generation Study. Existing High-Cube Warehouse Buildings, Visalia California*, October 1, 2008. Peters Engineering Group
5. **Western Riverside County Warehouse/Distribution Center Trip Generation Study*, May 2008. Crain and Associates
6. **San Bernardino/Riverside County Warehouse/Distribution Center Vehicle Trip Generation Study (Inland Empire Study)*, January 2005. Crain and Associates
7. *Truck Trip Generation Study, City of Fontana*, August 2003. Transportation Engineering and Planning, Inc.

Together these seven studies include traffic counts for 68 different warehouse buildings. 35 of those warehouses are in California, and 25 are in the South Coast Basin. As a comparison, a total of 35 individual buildings were included in the ITE Trip Generation 8th Edition.

Data Analysis

In the ITE 8th Edition manual the trip rates range from 0.20-2.88 trips/TSF with an average of 1.44 and a standard deviation of 1.39. In order to investigate the high standard deviation and range of rates, all 68 warehouses from the above mentioned studies were investigated using overhead and oblique aerial photography to determine site-specific characteristics. Table 1 and Chart 1 present a statistical summary of trip rates determined from all seven studies. Based on this aerial reconnaissance, two factors were identified that may lower the reported trip rate for individual warehouses including the presence of a rail line serving the facility, and the potential partial vacancy of a facility.

Statistical Measure	Rail Service?	Potential Vacancy?	Number of Buildings	Trips/TSF
Minimum trip rate	No	Yes	68	0.17
Maximum trip rate	No	No	68	5.25
Average of all trip rates	Some	Some	68	1.57
Standard Deviation of all trip rates	Some	Some	68	0.81
95th Percentile of all trip rates	Some	Some	68	2.57
Average for CA warehouses	Some	Some	35	1.44
Average for SCAB warehouses	Some	Some	25	1.57
Average for all warehouses	Yes	Yes	14	0.73
Average for all warehouses	Yes	No	8	0.81
Average for all warehouses	No	Some	58	1.79
Average for all warehouses	No	No	54	1.91
95th Percentile for SCAB warehouses	No	No	13	3.68
95th Percentile for all warehouses	**No**	**No**	**54**	**2.59**
95th Percentile for all warehouses	**Yes**	**No**	**8**	**1.63**
ITE High-Cube warehouses	**Some**	**Some**	**35**	**1.44**

Table 1 Statistical summary of trip rates *CA= California, SCAB=South Coast Air Basin*

Rail lines are expected to lower the truck trip rate by diverting the transportation of goods from trucks to trains that directly service the facility. Rail service must include spurs that are adjacent to loading docks at the facility (Figure 1). Vacancies or partial vacancies in the trip rate studies are difficult to verify, however analysis of aerial photographs provides circumstantial evidence that anomalously low trip rates are associated with facilities with virtually no trucks parked at the loading docks at the time that the photograph was taken (Figure 2). While this accounts for the majority of the anomalously low trip rates, the lack of adequate business histories or historical photographic coverage make this correlation difficult to validate. Trip rates were also investigated in comparison to building size; however no correlation was identified (Chart 2).

In order to avoid underestimating the number of trips associated with large warehouse / distribution center operations without rail service, AQMD staff recommends that lead agencies utilize a rate of 2.59 trips per TSF for large warehouse air quality analyses on a project specific basis. The value of 2.59 from the nationwide dataset is preferable instead of the SCAB rate of 3.68 due to the greater reliability of data based on the larger sample size. For warehouses with rail service, a rate of 1.63 trips per TSF may be used. These values provide reasonable worst case default rates for individual new warehouses in the absence of more project-specific data.

In the case that air quality is evaluated for multiple warehouses (>10), such as in an analysis for a general plan, the average rate of 1.44 trips per TSF from the ITE 8th Edition Trip Generation manual is acceptable. This lower value may be more appropriate as on average, a small portion of warehouses can be expected to operate at varying levels of service, including some warehouses experiencing temporary partial or complete vacancy.

Fleet Mix

The fleet mix used in the URBEMIS model is derived from the regional average distribution of trips obtained from the EMFAC model. While this fleet mix may be appropriate for the majority of land uses, it may not be appropriate for specialized uses such as warehouses. For example, as reported in the ITE 8th Edition Trip Generation manual, truck trips may account for 9 to 29 percent of total trips. Five of the seven studies analyzed here did not report specific truck traffic data, though some generally reported similar rates. The Inland Empire study (#6) found that trucks accounted for 28 to 65 percent of total trips for the ten warehouses in the study, with an average of 48%. The Fontana study (#7) found that trucks make up approximately 20% of total trips for the four warehouses evaluated. This study also broke down the trip distribution among 2, 3, and 4+ axle trucks (3.46%, 4.64%, 12.33%, respectively). In order to avoid underestimating the number of trucks visiting warehouse facilities, AQMD staff recommends that lead agencies conservatively assume that an average of 40% of total trips are truck trips [(0.48*10 + 0.2*4)/(10+4)=0.4)]. Without more project-specific data (such as detailed trip rates based on a known tenant schedule), this average rate of 40% provides a reasonably conservative value based on currently available data.

The fleet mix from the Fontana study as quoted above may be used to determine the distribution of truck type. In order to convert the axle based fleet mix to the vehicle classes utilized by EMFAC, one of two methods may be used.

1. 4+ axles=HHDT, 3 axles=MHDT, 2 axles=LHDT1, all others=LDA
2. Caltrans *Transportation Project-Level Carbon Monoxide Protocol* Appendix B (illustrated below).
   %HDGT = 0.50(%2-axle) + 0.25(%3-axle) + 0.10(%4 axle)
   %HDDT = 0.50(%2-axle) + 0.75(%3-axle) + 0.90(%4-axle) + 1.0(%5-axle)
   All others=LDA

Chart 1 - Total Trips vs. Building Area for All Warehouses

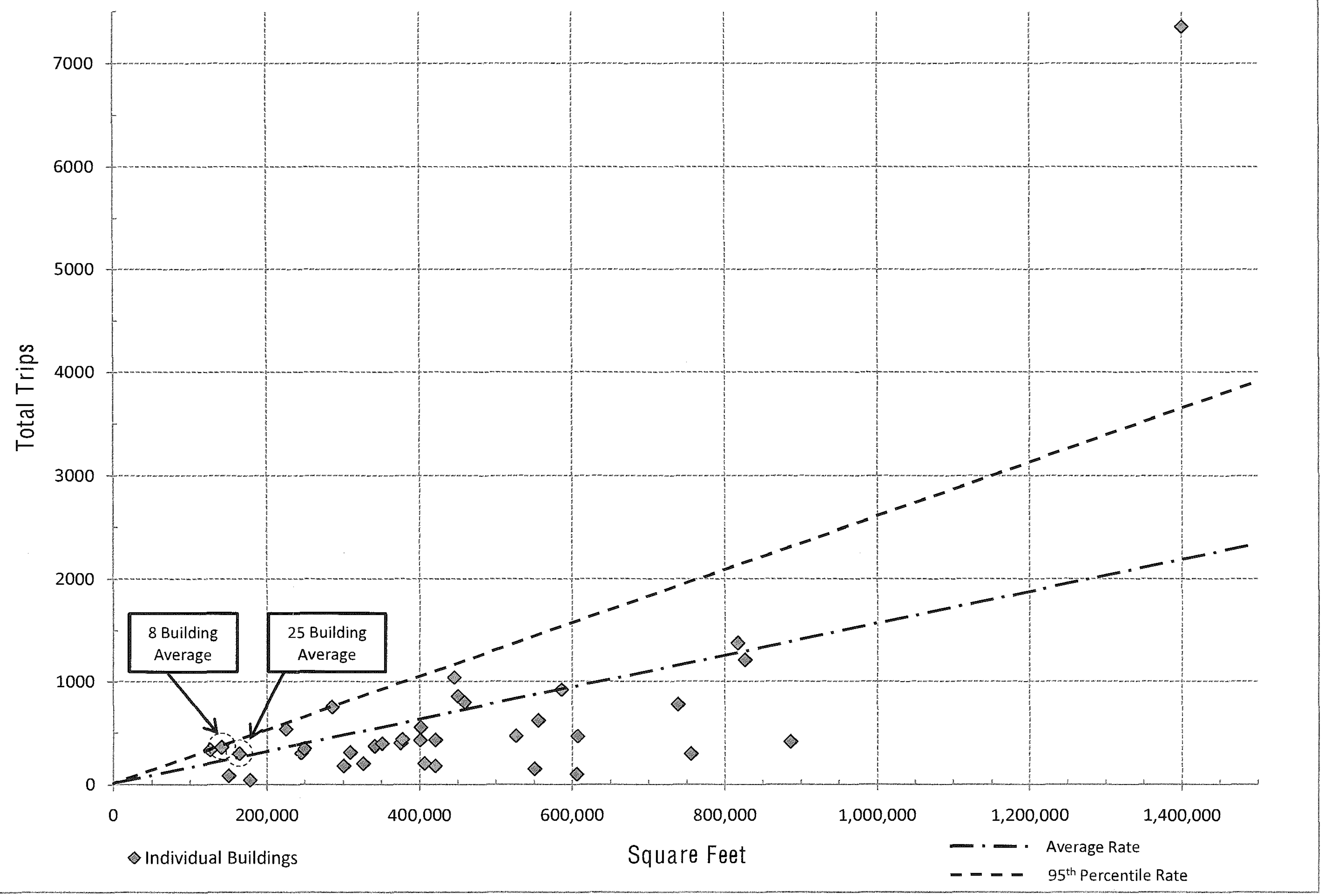
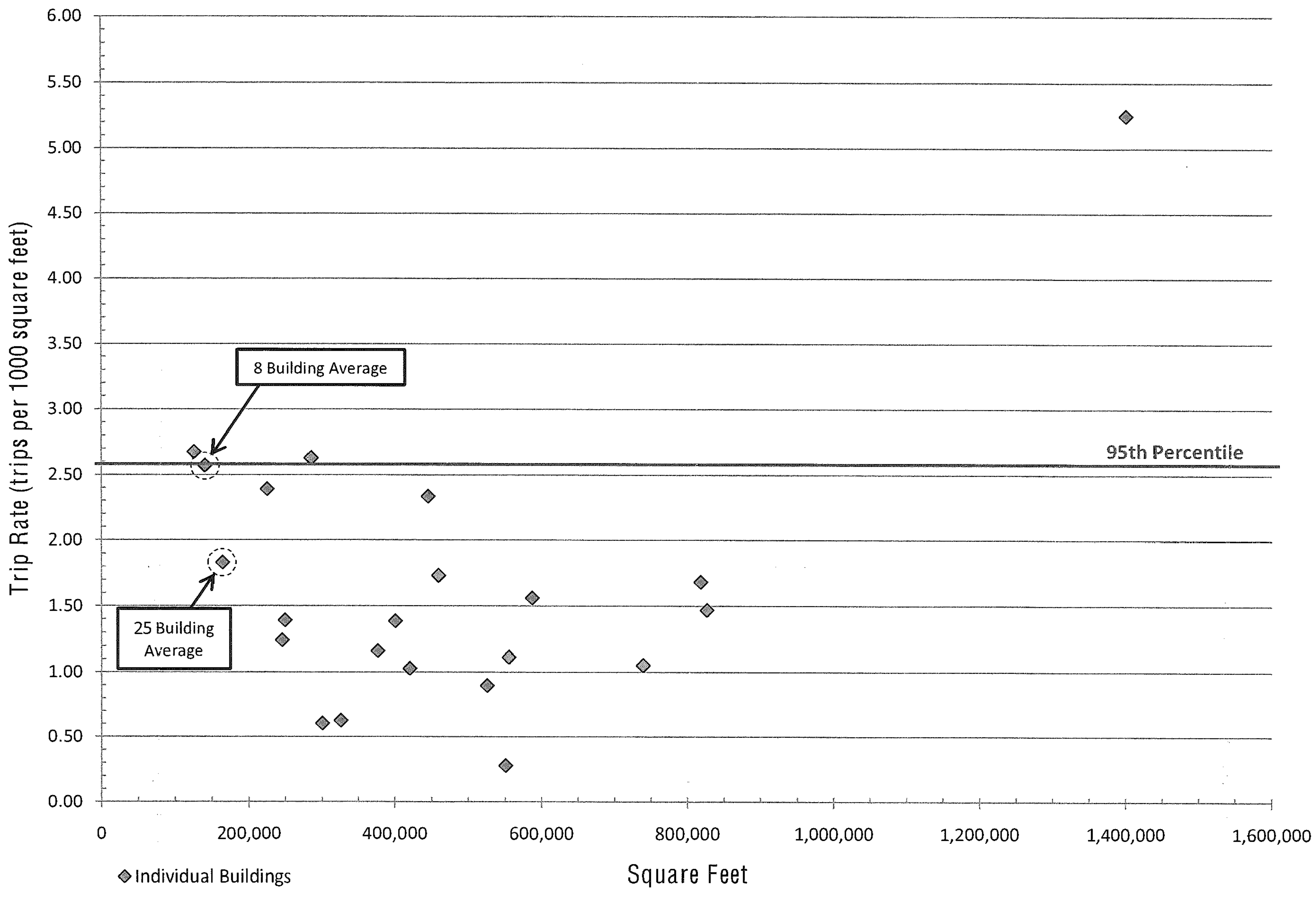


Chart 2 - Trip Rate vs. Building Area (without rail or potential vacancy)



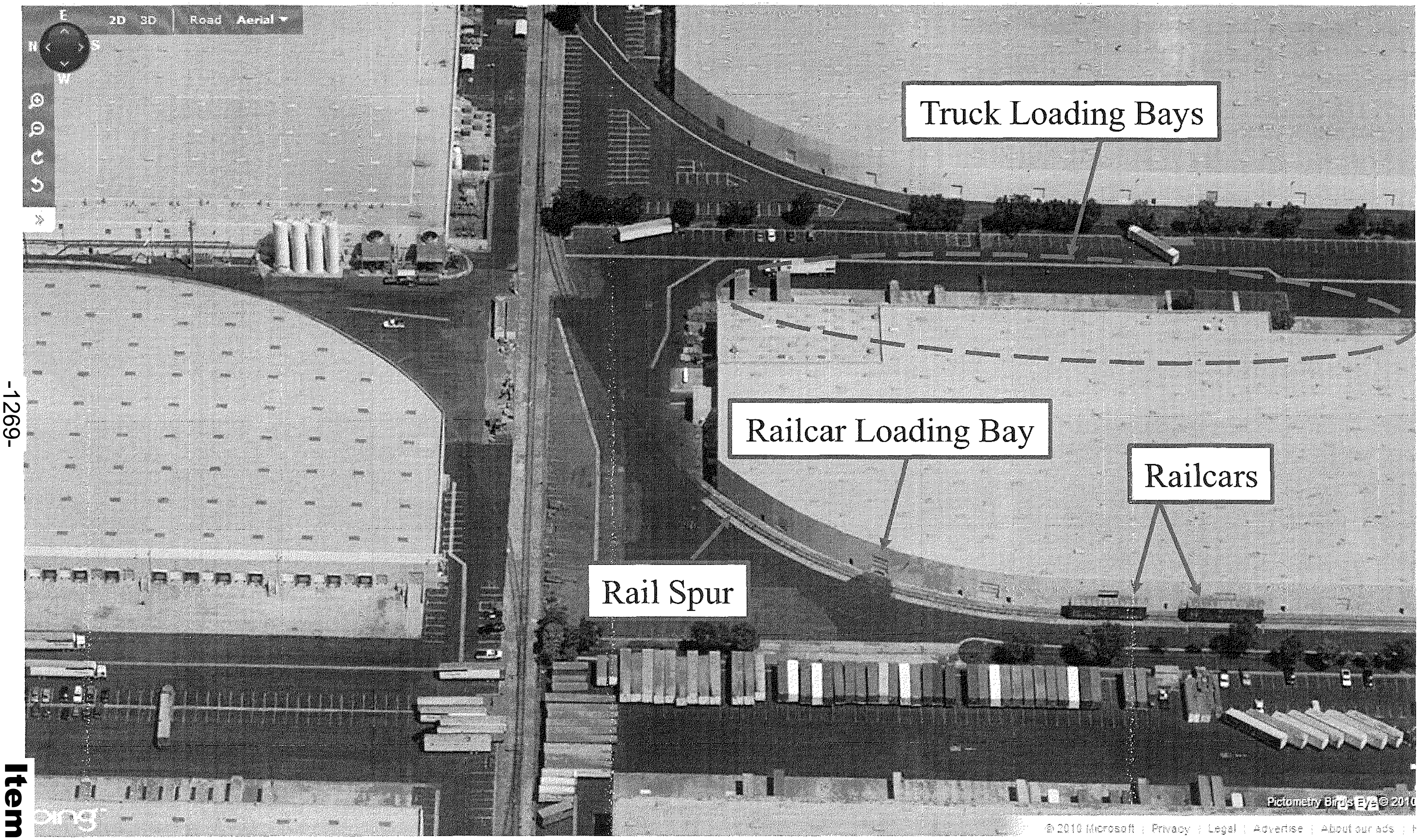


Figure 1 Oblique aerial photograph showing an example of a facility evaluated in the NAIOP San Bernardino County Truck Study. The truck trip rate for this facility was 1.13/TSF

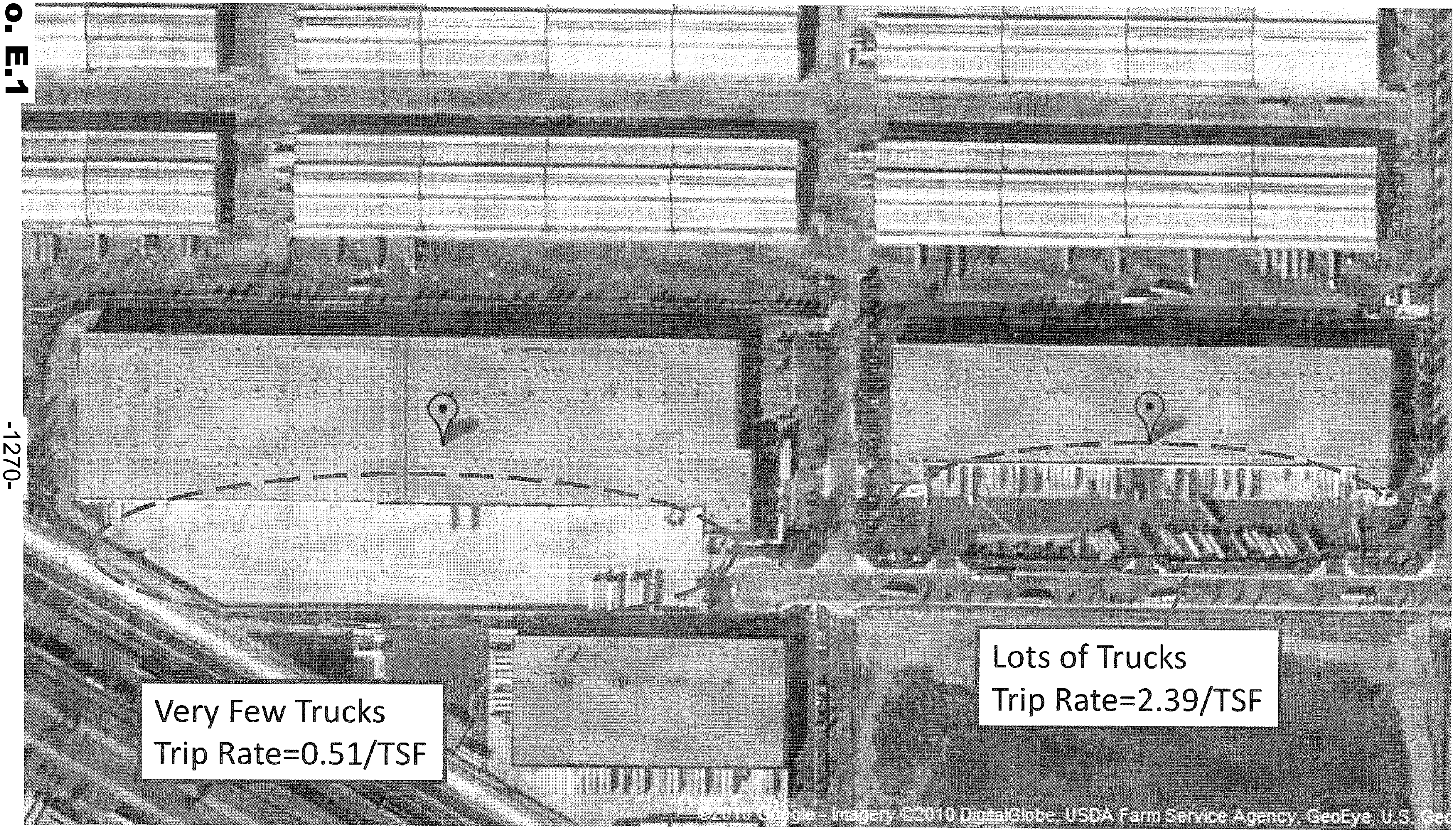


Figure 2 Aerial photograph showing an example of two facilities evaluated in the NAIOP Riverside County Truck Study. The facility on the left is suspected to be at least partially vacant.

FEHR & PEERS
TRANSPORTATION CONSULTANTS

MEMORANDUM

Date:	August 23, 2010
To:	Jennifer Schulte, ENVIRON
From:	David Robinson, Meghan Mitman, Fehr & Peers
Subject:	***Large Warehouse and Distribution Center Trip Rates***

SF10-0495

Fehr & Peers completed its review of the Large Warehouse and Distribution Center Trip Rates white paper prepared by the Southern California Air Quality Management District (SCAQMD). The white paper presents the results of a meta-analysis of seven trip generation studies of warehouse and distribution centers located in California and Florida.

Our review of the white paper focused on the recommended trip generation rates presented in Table 1 (Statistical Summary of Trip Rates) and the statistical analysis provided in file SCAQMD Trip Rate Study_7-21-10.xlsx). We have the following observations based on our review:

- Use of 95 Percentile – The recommended trip generation rates are based on the 95 percentile of trip generation rate observations. The 95 percentile trip generation rate can be defined as the lowest trip generation rate that is greater than 95 percent of the observed trip generation rates. The use of the 95 percentile may be overly conservative. Another approach would be to base the recommended trip generation rate on the 95 percentile confidence interval, which would result in a trip generation rate between the average and 95 percentile rates for all warehouses.

- Observations – Both studies from Florida (i.e., reference 1 and 2 on Page 2) were treated as single observations to calculate the average trip generation rate for all warehouses, but were treated as multiple observations for the standard deviation calculation, which would affect the calculation of the confidence interval (discussed above). These studies and corresponding trip generation rates are based on the combined trip generation and building area of multiple buildings/uses in the same industrial park. One study included 31 buildings and the other included 9 buildings. The building size ranged from about 64,000 to about 440,000 square-feet.

- Outliers – One observation from the Fontana study (i.e., reference 7 on Page 2) is considerably higher than the other observations. Eliminating this observation results in a 20% decrease in the average trip generation rate for all warehouses.

Attachment E
Additional Intersection Analysis, Urban Crossroads

URBAN CROSSROADS

41 Corporate Park | Suite 300 | Irvine, CA 92606 | (949) 660-1994
www.urbanXroads.com

February 11, 2014

Ms. Tracy Zinn
T&B Planning
17542 East 17th Street, Suite 100
Tustin, CA 92780

SUBJECT: FIRST INLAND LOGISTICS II TRAFFIC IMPACT ANALYSIS – SUPPLEMENTAL INTERSECTION ANALYSIS

Dear Ms. Zinn:

This letter serves as a supplement to the *First Inland Logistics II Traffic Impact Analysis* (revised January 3, 2013) (referred to as “2013 Traffic Study”) and assesses the potential cumulative impacts to study area intersections with the addition of traffic from the World Logistics Center (WLC) cumulative project.

SUMMARY OF FINDINGS

Intersection operations for Opening Year Cumulative (2017) traffic conditions with the addition of the proposed WLC project traffic is anticipated to not result in new significant cumulative impacts beyond those previously reported in the 2013 Traffic Study. Furthermore, the improvements previously identified as needed to mitigate Opening Year Cumulative (2017) traffic impacts were also found to be sufficient to accommodate cumulative (2017) traffic conditions with the addition of WLC traffic.

INTRODUCTION

This supplemental analysis has been prepared in response to concerns that the Opening Year Cumulative (2017) With Project traffic condition may potentially understate traffic impacts due to the exclusion of the WLC project. The traffic from the WLC project has been added to the affected study area intersections from the 2013 Traffic study to assess peak hour intersection operations. Traffic from the WLC has been added based on the project trip assignment obtained from the WLC traffic study.

OPENING YEAR CUMULATIVE (2017) WITH PROJECT CONDITIONS

The intersection analysis has been performed consistent with the methodology utilized in the 2013 Traffic Study. This scenario includes Existing (2012) traffic volumes, an ambient growth factor of 10.4%, traffic from pending and approved but not yet constructed known development projects in the area and the addition of Project traffic. The WLC project traffic has also been added as cumulative traffic based on the volumes published in the WLC traffic study. In other words, the WLC project traffic has been added to the Opening Year Cumulative (2017) traffic volumes utilized in the 2013 Traffic Study.

Based on the project volumes published in the WLC traffic study, the following intersections are anticipated to be affected by potential addition of future traffic from the WLC project. LOS calculations were conducted for the following study area intersections to evaluate their operations under Opening Year Cumulative (2017) With Project conditions with existing roadway and intersection geometrics and include traffic from the WLC project. The intersection analysis results are summarized in Table 1 which indicates that the intersection of Indian Street and Harley Knox Boulevard is anticipated to experience unacceptable LOS (i.e., LOS "F") during both peak hours for Opening Year (2017) With Project traffic conditions. As shown on Table 1, this finding is consistent with the 2013 Traffic Study.

TABLE 1: INTERSECTION ANALYSIS FOR OPENING YEAR CUMULATIVE (2017) CONDITIONS, WITH WLC TRAFFIC

#	Intersection	Jurisdiction	Traffic Control[3]	EAPC (2017) 2013 Traffic Study				EAPC (2017) With WLC			
				Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service	
				AM	PM	AM	PM	AM	PM	AM	PM
6	Indian St. / Harley Knox Bl.	Perris	TS	***>80.0***	***>80.0***	***F***	***F***	***>80.0***	***>80.0***	***F***	***F***
12	Perris Bl. / San Michele Rd.	MV	TS	33.8	38.9	C	D	33.8	39.1	C	D
13	Perris Bl. / Nandina Av.	MV	TS	24.8	33.2	C	C	30.4	33.2	C	C

[1] Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] MV = City of Moreno Valley

[3] TS = Traffic Signal

The intersection operations analysis worksheets for Opening Year Cumulative (2017) with Project conditions, with WLC traffic, are included in Attachment "A" of this letter.

Improvement strategies have been recommended at the intersection of Indian Street and Harley Knox Boulevard to reduce the location's peak hour delay and improve the associated LOS grade to LOS "D" or better. The effectiveness of the recommended improvement strategies discussed below to address Opening Year Cumulative (2017) cumulative traffic impacts are presented in Table 2. As shown in Table 2, the recommended improvements from the 2013 Traffic Study are anticipated to be sufficient to accommodate the additional future traffic associated with the WLC project.

TABLE 2: RECOMMENDED IMPROVEMENTS FOR OPENING YEAR CUMULATIVE (2017) CONDITIONS, WITH WLC TRAFFIC

			Intersection Approach Lanes[1]												Delay[2] (secs.)		LOS	
		Traffic	NB			SB			EB			WB						
#	Intersection	Control[3]	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
6	Indian St. / Harley Knox Bl.																	
	- Without Improvements	TS	2	2	1	1	2	0>	1	1	1	2	2	0	**>80.0**	**>80.0**	**F**	**F**
	- Improvements, 2013 TS	TS	2	2	1	1	2	2>	2	2	1	2	2	0	34.2	27.7	C	C
	- Improvements, w/ WLC	TS	2	2	1	1	2	2>	2	2	1	2	2	0	34.7	28.3	C	C

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes. NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; 1 = Improvement

[2] Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] TS = Traffic Signal

If you have any questions, please contact me directly at (949) 660-1994 x204.

Respectfully submitted,

URBAN CROSSROADS, INC.

Charlene So

Aric Evatt, PTP
Principal

Charlene So, PE
Senior Transportation Engineer

ATTACHMENT "A"
OPENING YEAR CUMULATIVE (2017) WITH PROJECT CONDITIONS, WITH WLC
HCM ANALYSIS WORKSHEETS

```
--------------------------------------------------------------------------------
                   First Inland Logistics II TIA (JN 08179)
         Opening Year Cumulative (2017) With Project Conditions (EAPC)
                                 AM Peak Hour
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #206 Indian Street / Harley Knox Boulevard
********************************************************************************
Cycle (sec):         120                Critical Vol./Cap.(X):         0.970
Loss Time (sec):      16                Average Delay (sec/veh):       297.7
Optimal Cycle: OPTIMIZED                Level Of Service:                  F
********************************************************************************
Approach:      North Bound      South Bound       East Bound        West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected        Protected        Protected
Rights:           Include           Ovl             Include          Include
Min. Green:    10   31    31    10   31    31    10   30    30    10   30    30
Y+R:          4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0
Lanes:        2  0  2  0  1    1  0  1  1  0    1  0  1  0  1    2  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       3   57     5     6   43   199   286  245     5     4  183     8
Growth Adj:  1.10 1.10  1.10  1.10 1.10  1.10  1.10 1.10  1.10  1.10 1.10  1.10
Initial Bse:    3   63     6     7   47   220   316  271     6     4  202     9
Added Vol:     58   60     0     2   15   255   837  169   129     0  134     8
WLC:            0    0    18     0    0     0     0   26     0     9   14     0
Initial Fut:   61  123    24     9   62   475  1153  466   135    13  350    17
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95
PHF Volume:    65  129    25     9   66   500  1213  490   142    14  368    18
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   65  129    25     9   66   500  1213  490   142    14  368    18
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   65  129    25     9   66   500  1213  490   142    14  368    18
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.92 0.95  0.85  0.95 0.82  0.82  0.95 1.00  0.85  0.92 0.94  0.94
Lanes:       2.00 2.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  2.00 1.91  0.09
Final Sat.:  3502 3610  1615  1805 1565  1565  1805 1900  1615  3502 3420   164
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.04  0.02  0.01 0.04  0.32  0.67 0.26  0.09  0.00 0.11  0.11
Crit Moves:  ****                    ****        ****                    ****
Green/Cycle: 0.08 0.26  0.26  0.08 0.26  0.53  0.28 0.40  0.40  0.13 0.25  0.25
Volume/Cap:  0.22 0.14  0.06  0.06 0.16  0.60  2.44 0.65  0.22  0.03 0.43  0.43
Delay/Veh:   51.7 34.3  33.6  50.8 34.5  20.3 699.7 31.4  24.1  45.8 38.2  38.2
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  51.7 34.3  33.6  50.8 34.5  20.3 699.7 31.4  24.1  45.8 38.2  38.2
LOS by Move:    D    C     C     D    C     C     F    C     C     D    D     D
HCM2kAvgQ:      1    2     1     0    2    13   132   15     3     0    6     6
********************************************************************************
Note: Queue reported is the number of cars per lane.

  Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to URBAN CROSSROADS, IRVINE
```

```
--------------------------------------------------------------------------------
                     First Inland Logistics II TIA (JN 08179)
          Opening Year Cumulative (2017) With Project Conditions (EAPC)
                                  AM Peak Hour
--------------------------------------------------------------------------------
                        Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #212 Perris Boulevard / San Michele Road
********************************************************************************
Cycle (sec):         120                 Critical Vol./Cap.(X):         0.436
Loss Time (sec):      16                 Average Delay (sec/veh):        33.6
Optimal Cycle: OPTIMIZED                 Level Of Service:                  C
********************************************************************************
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:         Protected        Protected        Protected        Protected
Rights:            Include          Include          Include          Include
Min. Green:    10   25    25    10   25    25    10   28    28    10   28    28
Y+R:          4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0
Lanes:         1  0  2  1  0    1  0  2  1  0    1  0  1  0  1    1  0  1  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      32  825     0     3  666    87   129    0    12     3    0     1
Growth Adj:  1.10 1.10  1.10  1.10 1.10  1.10  1.10 1.10  1.10  1.10 1.10  1.10
Initial Bse:   35  911     0     3  735    96   142    0    13     3    0     1
Added Vol:     27  354     0     0  303    95    24    0     6     0    0     0
WLC:            0  106     0     0   80     0     0    0     0     0    0     0
Initial Fut:   62 1371     0     3 1118   191   166    0    19     3    0     1
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95
PHF Volume:    66 1443     0     3 1177   201   175    0    20     3    0     1
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   66 1443     0     3 1177   201   175    0    20     3    0     1
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   66 1443     0     3 1177   201   175    0    20     3    0     1
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.95 0.91  0.91  0.95 0.89  0.89  0.95 1.00  0.85  0.95 1.00  0.85
Lanes:       1.00 3.00  0.00  1.00 2.56  0.44  1.00 1.00  1.00  1.00 1.00  1.00
Final Sat.:  1805 5187     0  1805 4333   740  1805 1900  1615  1805 1900  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.28  0.00  0.00 0.27  0.27  0.10 0.00  0.01  0.00 0.00  0.00
Crit Moves:       ****        ****             ****                         ****
Green/Cycle: 0.12 0.41  0.00  0.08 0.38  0.38  0.14 0.00  0.14  0.33 0.00  0.23
Volume/Cap:  0.32 0.68  0.00  0.02 0.72  0.72  0.68 0.00  0.09  0.01 0.00  0.00
Delay/Veh:   49.6 30.1   0.0  50.6 33.5  33.5  56.2  0.0  44.9  27.3  0.0  35.3
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  49.6 30.1   0.0  50.6 33.5  33.5  56.2  0.0  44.9  27.3  0.0  35.3
LOS by Move:    D    C     A     D    C     C     E    A     D     C    A     D
HCM2kAvgQ:      2   15     0     0   17    17     7    0     1     0    0     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
```

Note: The delay in Table 1 is shown as 33.8 seconds, no change from EAPC (2017) 2013 Traffic Study, because the analysis for EAPC (2017) w/ WLC shows a reduced delay with the addition of WLC traffic. This is due to the way average delay is computed for signalized intersections per the 2000 Highway Capacity Manual.

```
--------------------------------------------------------------------------------
                   First Inland Logistics II TIA (JN 08179)
         Opening Year Cumulative (2017) With Project Conditions (EAPC)
                                AM Peak Hour
--------------------------------------------------------------------------------

                      Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #213 Perris Boulevard / Nandina Avenue
********************************************************************************
Cycle (sec):         120              Critical Vol./Cap.(X):        0.390
Loss Time (sec):      16              Average Delay (sec/veh):       30.4
Optimal Cycle: OPTIMIZED              Level Of Service:                 C
********************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Protected        Protected        Protected        Protected
Rights:          Include           Ovl             Include          Include
Min. Green:    10   23    23    10   23    23    10   33    33    10   33    33
Y+R:          4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0
Lanes:        1  0  2  1  0    1  0  3  0  1    1  0  1  1  0    1  0  1  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      23  827    15    27  634    33     9   14    10     7    7    10
Growth Adj:  1.10 1.10  1.10  1.10 1.10  1.10  1.10 1.10  1.10  1.10 1.10  1.10
Initial Bse:   25  913    17    30  700    36    10   15    11     8    8    11
Added Vol:     49  329     0     0  207   102    51    0    10     0    0     0
WLC:            0  106     0     0   80     0     0    0     0     0    0     0
Initial Fut:   74 1348    17    30  987   138    61   15    21     8    8    11
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95
PHF Volume:    78 1419    17    31 1039   146    64   16    22     8    8    12
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   78 1419    17    31 1039   146    64   16    22     8    8    12
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   78 1419    17    31 1039   146    64   16    22     8    8    12
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.95 0.91  0.91  0.95 0.91  0.85  0.95 0.87  0.87  0.95 1.00  0.85
Lanes:       1.00 2.96  0.04  1.00 3.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Final Sat.:  1805 5114    63  1805 5187  1615  1805 1650  1650  1805 1900  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.28  0.28  0.02 0.20  0.09  0.04 0.01  0.01  0.00 0.00  0.01
Crit Moves:       ****        ****             ****                         ****
Green/Cycle: 0.15 0.43  0.43  0.08 0.36  0.44  0.08 0.28  0.28  0.08 0.28  0.28
Volume/Cap:  0.29 0.65  0.65  0.21 0.56  0.20  0.43 0.04  0.05  0.05 0.02  0.03
Delay/Veh:   46.0 28.2  28.2  52.0 31.2  20.7  54.2 31.9  32.0  50.8 31.7  31.8
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  46.0 28.2  28.2  52.0 31.2  20.7  54.2 31.9  32.0  50.8 31.7  31.8
LOS by Move:    D    C     C     D    C     C     D    C     C     D    C     C
HCM2kAvgQ:      3   16    16     1   11     3     3    0     1     0    0     0
********************************************************************************
Note: Queue reported is the number of cars per lane.

  Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to URBAN CROSSROADS, IRVINE
```

```
--------------------------------------------------------------------------------
                   First Inland Logistics II TIA (JN 08179)
         Opening Year Cumulative (2017) With Project Conditions (EAPC)
                                 PM Peak Hour
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #206 Indian Street / Harley Knox Boulevard
********************************************************************************
Cycle (sec):         120                Critical Vol./Cap.(X):         1.130
Loss Time (sec):      16                Average Delay (sec/veh):       175.1
Optimal Cycle: OPTIMIZED                Level Of Service:                  F
********************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected        Protected        Protected
Rights:           Include           Ovl             Include          Include
Min. Green:    10   31    31    10   31    31    10   30    30    10   30    30
Y+R:          4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0
Lanes:        2  0  2  0  1    1  0  1  1  0    1  0  1  0  1    2  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       7   54     6    35   27   275   233  284    18     7  149     7
Growth Adj:  1.10 1.10  1.10  1.10 1.10  1.10  1.10 1.10  1.10  1.10 1.10  1.10
Initial Bse:    8   60     7    39   30   304   257  314    20     8  165     8
Added Vol:    142   27     0     8   71   905   306  144    62     0  201     2
WLC:            0    0    15     0    0     0     0   23     0    16   24     0
Initial Fut:  150   87    22    47  101  1209   563  481    82    24  390    10
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95
PHF Volume:   158   91    23    49  106  1272   593  506    86    25  410    10
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  158   91    23    49  106  1272   593  506    86    25  410    10
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  158   91    23    49  106  1272   593  506    86    25  410    10
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.92 0.95  0.85  0.95 0.82  0.82  0.95 1.00  0.85  0.92 0.95  0.95
Lanes:       2.00 2.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  2.00 1.95  0.05
Final Sat.:  3502 3610  1615  1805 1556  1556  1805 1900  1615  3502 3508    88
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.05 0.03  0.01  0.03 0.07  0.82  0.33 0.27  0.05  0.01 0.12  0.12
Crit Moves:  ****                        ****  ****                   ****
Green/Cycle: 0.08 0.30  0.30  0.10 0.32  0.53  0.21 0.35  0.35  0.11 0.25  0.25
Volume/Cap:  0.54 0.08  0.05  0.28 0.21  1.53  1.53 0.75  0.15  0.06 0.47  0.47
Delay/Veh:   54.8 29.8  29.5  51.0 29.9 273.5 299.8 39.0  26.6  47.9 38.6  38.6
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  54.8 29.8  29.5  51.0 29.9 273.5 299.8 39.0  26.6  47.9 38.6  38.6
LOS by Move:    D    C     C     D    C     F     F    D     C     D    D     D
HCM2kAvgQ:      4    1     1     2    3   106    48   18     2     0    7     7
********************************************************************************
Note: Queue reported is the number of cars per lane.

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```

```
--------------------------------------------------------------------------------
                   First Inland Logistics II TIA (JN 08179)
         Opening Year Cumulative (2017) With Project Conditions (EAPC)
                                 PM Peak Hour
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #212 Perris Boulevard / San Michele Road
********************************************************************************
Cycle (sec):         120                Critical Vol./Cap.(X):         0.512
Loss Time (sec):      16                Average Delay (sec/veh):        39.1
Optimal Cycle: OPTIMIZED                Level Of Service:                  D
********************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected        Protected        Protected
Rights:           Include          Include          Include          Include
Min. Green:    10   25    25    10   25    25    10   28    28    10   28    28
Y+R:          4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0
Lanes:        1  0  2  1  0    1  0  2  1  0    1  0  1  0  1    1  0  1  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      24  712     0     1  641    75   151    2    34     0    1     0
Growth Adj:  1.10 1.10  1.10  1.10 1.10  1.10  1.10 1.10  1.10  1.10 1.10  1.10
Initial Bse:   26  786     0     1  708    83   167    2    38     0    1     0
Added Vol:     10  352     0     0  404    31   100    0    29     0    0     0
WLC:            0   72     0     0   68     0     0    0     0     0    0     0
Initial Fut:   36 1210     0     1 1180   114   267    2    67     0    1     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95
PHF Volume:    38 1274     0     1 1242   120   281    2    70     0    1     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   38 1274     0     1 1242   120   281    2    70     0    1     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   38 1274     0     1 1242   120   281    2    70     0    1     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.95 0.91  0.91  0.95 0.90  0.90  0.95 1.00  0.85  1.00 1.00  1.00
Lanes:       1.00 3.00  0.00  1.00 2.74  0.26  1.00 1.00  1.00  1.00 1.00  1.00
Final Sat.:  1805 5187     0  1805 4669   450  1805 1900  1615  1900 1900  1900
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.25  0.00  0.00 0.27  0.27  0.16 0.00  0.04  0.00 0.00  0.00
Crit Moves:  ****                  ****        ****                  ****
Green/Cycle: 0.08 0.32  0.00  0.11 0.35  0.35  0.20 0.44  0.44  0.00 0.23  0.00
Volume/Cap:  0.26 0.76  0.00  0.01 0.77  0.77  0.77 0.00  0.10  0.00 0.00  0.00
Delay/Veh:   52.4 38.8   0.0  47.7 36.9  36.9  54.5 19.1  20.0   0.0 35.3   0.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  52.4 38.8   0.0  47.7 36.9  36.9  54.5 19.1  20.0   0.0 35.3   0.0
LOS by Move:    D    D     A     D    D     D     D    B     B     A    D     A
HCM2kAvgQ:      1   15     0     0   18    18    11    0     1     0    0     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
```

```
--------------------------------------------------------------------------------
                   First Inland Logistics II TIA (JN 08179)
         Opening Year Cumulative (2017) With Project Conditions (EAPC)
                                 PM Peak Hour
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
               2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #213 Perris Boulevard / Nandina Avenue
********************************************************************************
Cycle (sec):          120               Critical Vol./Cap.(X):        0.412
Loss Time (sec):       16               Average Delay (sec/veh):       33.1
Optimal Cycle: OPTIMIZED                Level Of Service:                 C
********************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Protected        Protected        Protected        Protected
Rights:          Include           Ovl            Include          Include
Min. Green:    10   23    23    10   23    23    10   33    33    10   33    33
Y+R:          4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0
Lanes:        1  0  2  1  0    1  0  3  0  1    1  0  1  1  0    1  0  1  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      12  826    11     7  758    19    14    4    27    29   13    17
Growth Adj:  1.10 1.10  1.10  1.10 1.10  1.10  1.10 1.10  1.10  1.10 1.10  1.10
Initial Bse:   13  912    12     8  837    21    15    4    30    32   14    19
Added Vol:     17  254     0     0  375    58   108    0    53     0    0     0
WLC:            0   72     0     0   68     0     0    0     0     0    0     0
Initial Fut:   30 1238    12     8 1280    79   123    4    83    32   14    19
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95
PHF Volume:    32 1303    13     8 1347    83   130    5    87    34   15    20
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   32 1303    13     8 1347    83   130    5    87    34   15    20
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   32 1303    13     8 1347    83   130    5    87    34   15    20
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.95 0.91  0.91  0.95 0.91  0.85  0.95 0.82  0.82  0.95 1.00  0.85
Lanes:       1.00 2.97  0.03  1.00 3.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Final Sat.:  1805 5131    50  1805 5187  1615  1805 1549  1549  1805 1900  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.25  0.25  0.00 0.26  0.05  0.07 0.00  0.06  0.02 0.01  0.01
Crit Moves:  ****                  ****        ****                  ****
Green/Cycle: 0.08 0.36  0.36  0.12 0.40  0.51  0.11 0.30  0.30  0.09 0.28  0.28
Volume/Cap:  0.21 0.70  0.70  0.04 0.65  0.10  0.65 0.01  0.19  0.21 0.03  0.04
Delay/Veh:   52.0 33.9  33.9  46.9 30.1  15.3  58.7 29.9  31.7  51.3 31.8  32.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  52.0 33.9  33.9  46.9 30.1  15.3  58.7 29.9  31.7  51.3 31.8  32.0
LOS by Move:    D    C     C     D    C     B     E    C     C     D    C     C
HCM2kAvgQ:      1   16    16     0   14     1     6    0     3     1    0     1
********************************************************************************
Note: Queue reported is the number of cars per lane.

  Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to URBAN CROSSROADS, IRVINE
```

Note: The delay in Table 1 is shown as 33.2 seconds, no change from EAPC (2017) 2013 Traffic Study, because the analysis for EAPC (2017) w/ WLC shows a reduced delay with the addition of WLC traffic. This is due to the way average delay is computed for signalized intersections per the 2000 Highway Capacity Manual.

ATTACHMENT "B"
OPENING YEAR CUMULATIVE (2017) WITH PROJECT CONDITIONS, WITH WLC HCM ANALYSIS WORKSHEETS, WITH IMPROVEMENTS

```
--------------------------------------------------------------------------------
                   First Inland Logistics II TIA (JN 08179)
         Opening Year Cumulative (2017) With Project Conditions (EAPC)
                      AM Peak Hour * With Improvements *
--------------------------------------------------------------------------------

                      Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #206 Indian Street / Harley Knox Boulevard
********************************************************************************
Cycle (sec):         120                Critical Vol./Cap.(X):        0.571
Loss Time (sec):      16                Average Delay (sec/veh):       34.7
Optimal Cycle: OPTIMIZED                Level Of Service:                 C
********************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected         Protected        Protected
Rights:           Include           Ovl              Include          Include
Min. Green:    10   31    31   10   31    31   10   30    30   10   10    10
Y+R:          4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0
Lanes:        2  0  2  0  1   1  0  2  0  2   2  0  2  0  1   2  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       3   57     5    6   43   199  286  245     5    4  183     8
Growth Adj:  1.10 1.10  1.10 1.10 1.10  1.10 1.10 1.10  1.10 1.10 1.10  1.10
Initial Bse:    3   63     6    7   47   220  316  271     6    4  202     9
Added Vol:     58   60     0    2   15   255  837  169   129    0  134     8
WLC:            0    0    18    0    0     0    0   26     0    9   14     0
Initial Fut:   61  123    24    9   62   475 1153  466   135   13  350    17
User Adj:    1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
PHF Adj:     0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95
PHF Volume:    65  129    25    9   66   500 1213  490   142   14  368    18
Reduct Vol:     0    0     0    0    0     0    0    0     0    0    0     0
Reduced Vol:   65  129    25    9   66   500 1213  490   142   14  368    18
PCE Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
FinalVolume:   65  129    25    9   66   500 1213  490   142   14  368    18
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900
Adjustment:  0.92 0.95  0.85 0.95 0.95  0.75 0.92 0.95  0.85 0.92 0.94  0.94
Lanes:       2.00 2.00  1.00 1.00 2.00  2.00 2.00 2.00  1.00 2.00 1.91  0.09
Final Sat.:  3502 3610  1615 1805 3610  2842 3502 3610  1615 3502 3420   164
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.04  0.02 0.01 0.02  0.18 0.35 0.14  0.09 0.00 0.11  0.11
Crit Moves:       ****       ****             ****                  ****
Green/Cycle: 0.08 0.26  0.26 0.08 0.26  0.66 0.40 0.39  0.39 0.13 0.12  0.12
Volume/Cap:  0.22 0.14  0.06 0.06 0.07  0.27 0.87 0.34  0.22 0.03 0.87  0.87
Delay/Veh:   51.7 34.3  33.6 50.8 33.6   8.6 38.9 25.7  24.3 45.5 67.6  67.6
User DelAdj: 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
AdjDel/Veh:  51.7 34.3  33.6 50.8 33.6   8.6 38.9 25.7  24.3 45.5 67.6  67.6
LOS by Move:    D    C     C    D    C     A    D    C     C    D    E     E
HCM2kAvgQ:      1    2     1    0    1     4   24    7     3    0   10    10
********************************************************************************
Note: Queue reported is the number of cars per lane.

  Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to URBAN CROSSROADS, IRVINE
```

```
--------------------------------------------------------------------------------
                   First Inland Logistics II TIA (JN 08179)
         Opening Year Cumulative (2017) With Project Conditions (EAPC)
                      PM Peak Hour * With Improvements *
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #206 Indian Street / Harley Knox Boulevard
********************************************************************************
Cycle (sec):          95                Critical Vol./Cap.(X):         0.265
Loss Time (sec):      16                Average Delay (sec/veh):        28.3
Optimal Cycle: OPTIMIZED                Level Of Service:                  C
********************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected        Protected        Protected
Rights:           Include           Ovl             Include          Include
Min. Green:    10   31    31    10   31    31    10   30    30    10   10    10
Y+R:          4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0
Lanes:        2  0  2  0  1    1  0  2  0  2    2  0  2  0  1    2  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       7   54     6    35   27   275   233  284    18     7  149     7
Growth Adj:  1.10 1.10  1.10  1.10 1.10  1.10  1.10 1.10  1.10  1.10 1.10  1.10
Initial Bse:    8   60     7    39   30   304   257  314    20     8  165     8
Added Vol:    142   27     0     8   71   905   306  144    62     0  201     2
WLC:            0    0    15     0    0     0     0   23     0    16   24     0
Initial Fut:  150   87    22    47  101  1209   563  481    82    24  390    10
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95
PHF Volume:   158   91    23    49  106  1272   593  506    86    25  410    10
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  158   91    23    49  106  1272   593  506    86    25  410    10
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  158   91    23    49  106  1272   593  506    86    25  410    10
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.92 0.95  0.85  0.95 0.95  0.75  0.92 0.95  0.85  0.92 0.95  0.95
Lanes:       2.00 2.00  1.00  1.00 2.00  2.00  2.00 2.00  1.00  2.00 1.95  0.05
Final Sat.:  3502 3610  1615  1805 3610  2842  3502 3610  1615  3502 3508    88
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.05 0.03  0.01  0.03 0.03  0.45  0.17 0.14  0.05  0.01 0.12  0.12
Crit Moves:  ****                  ****              ****        ****
Green/Cycle: 0.10 0.32  0.32  0.10 0.32  0.56  0.24 0.31  0.31  0.10 0.17  0.17
Volume/Cap:  0.44 0.08  0.04  0.26 0.09  0.79  0.69 0.45  0.17  0.07 0.69  0.69
Delay/Veh:   41.7 23.1  22.8  40.9 23.2  19.6  35.9 27.2  24.6  39.4 41.5  41.5
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  41.7 23.1  22.8  40.9 23.2  19.6  35.9 27.2  24.6  39.4 41.5  41.5
LOS by Move:    D    C     C     D    C     B     D    C     C     D    D     D
HCM2kAvgQ:      3    1     0     2    1    19    10    7     2     0    8     8
********************************************************************************
Note: Queue reported is the number of cars per lane.

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Attachment F
WRCOG's 2012 TUMF Annual Report

2012

Annual Report

Transportation Uniform Mitigation Fee Program

Western Riverside Council of Governments

Item No. E.1

Dear Friend,

Rewind. Play. Forward. Pause. Those four words provide the basic choices on your remote control for accessing your entire audio and visual entertainment universe. In a sense, those choices also provide a method for reflecting on WRCOG's Transportation Uniform Mitigation Fee Program, now entering its tenth year of operation in Western Riverside County. Grab the "remote," "clicker", "turner" or whatever you call it and give it a try…

Rewind. More than a decade ago Western Riverside County's leaders knew that the subregion was poised for significant growth. They also knew that, if unmitigated, such growth would bring a heavy impact on the region's roads. In 2000 the WRCOG Executive Committee directed that a consolidated uniform mitigation fee program be developed, with the stated goal of creating a single regional effort that would counter the cumulative impacts of new growth on the arterial highway system. The then-proposed program generated its share of support (from those who believed that transportation improvements would be key to fueling future economic expansion and improving quality of life) and opposition (from those who feared that the additional fee would deter future development). The supporters ultimately prevailed, and by mid-2003 each of WRCOG's member jurisdictions and the March JPA had adopted a uniform transportation mitigation fee. The TUMF Program commenced, unleashing a regional effort fueled by the power that comes when jurisdictions work together to address an issue of common concern.

Play. With nine years of operation in place, the TUMF Program is viewed as a major transportation funding staple in the subregion. $554 million has been collected from new development. 54 projects have already been completed throughout Western Riverside County, and dozens more are in the works. Hundreds of economy-boosting private sector jobs are being created to plan, design and construct TUMF facilities. The region remains one of the fastest growing areas in the nation. The thousands who are locating here are seeing – firsthand – the fruition of a collective commitment to improve the region's road infrastructure.

Forward. Completing 54 projects in just nine years is a major accomplishment, but it's just a start. TUMF will ultimately construct 1,229 new lane miles of arterials, improve 58 interchanges, construct or widen 56 bridges, construct 17 railroad grade separations, provide more than $61 million for regional transit improvements and nearly $60 million for the acquisition of sensitive habitat. (Makes you want to hit the fast-forward button now, doesn't it?)

Pause. Pause for a moment and think about how things might be different if the TUMF Program did not exist. Development would still have occurred, but most of the 54 now-completed projects would not have been built. Traffic congestion – and poorer air quality that comes from congested conditions – would be worse. The more than 2,000 jobs that TUMF has created? They would not be here.

As the administrator of the TUMF program, WRCOG is pleased to present this 2012 TUMF Annual Report to you. The Report provides detailed information about the history and status of the Program, including revenues collected, projects completed and programmed, and the latest updates on which projects are in line for construction. Our goal is to provide you with information that will be helpful in understanding the direction and accomplishments of the TUMF Program. We hope you find it useful.

Rick Bishop

Rick Bishop
Executive Director, Western Riverside Council of Governments

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Item No. E.1

Introduction

SR-79 Winchester Road Widening Project. (Photo courtesy County of TLMA)

Introduction

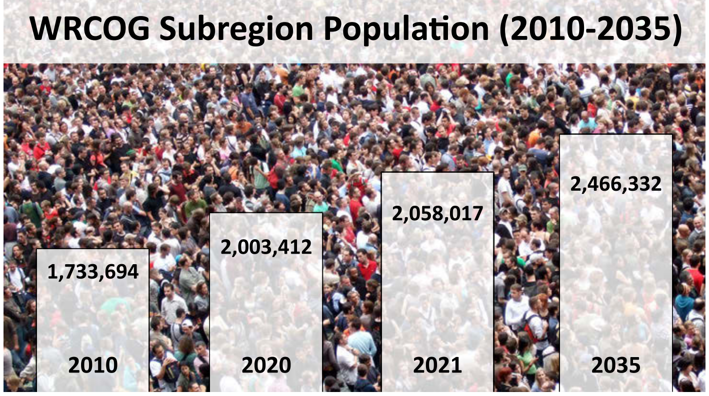
Railroad Canyon Road, City of Canyon Lake. (WRCOG photo)

Riverside County is the eleventh most populated County in the United States. Western Riverside County includes seventeen incorporated Cities and the unincorporated County, covering an area of approximately 2,100 square miles. The subregion's population is over 1.7 million people and will grow by more than 700,000 between now and 2035, reaching 2.46 million residents (in 1990, Western Riverside County had approximately 870,000 people). To accommodate future population growth during this period, 275,000 new housing units will be needed. Between 2010 and 2011, Riverside County had the highest growth rate (1.59 percent) in the state, adding more than 34,000 new residents during the year.

Impacts of Future Growth

Along with the tremendous opportunities that growth brings comes consequences and challenges, including a heavy impact on transportation infrastructure.

Projected growth in Western Riverside County can be expected to significantly increase congestion and degrade mobility unless substantial investments are made in the subregion's transportation infrastructure. This challenge is especially critical for arterial highways and roadways that carry a significant number of trips between the jurisdictions within



Source: Riverside County Center for Demographic Research the subregion. As more jobs come to the subregion, thousands of additional vehicle trips will burden the subregion's existing arterials.

Traditional funding sources for transportation improvements (such as the gasoline tax) will not be sufficient to pay for the transportation improvements needed to serve this new growth. Conditions of Approval placed on new projects, and local development exactions when applied, do not usually provide for regional improvements necessary to accommodate new growth, as improvements are usually confined to the area immediately adjacent to the respective development. Broad-based county-level funding sources, such as Riverside County's half-cent sales tax known as Measure A, focus most expenditures for freeways, designating lesser revenue allocations for arterial roadway improvements.

As a result of growth in Western Riverside County, additional pressure will be placed on the subregion's transportation infrastructure, particularly the arterial roadways, with Vehicle Miles Traveled (VMT) estimated to increase by 55 percent, or 1.6 percent compounded annually. By 2035, 36 percent of the total VMT on the regional arterial highway system is forecast to operate on facilities at Level Of Service (LOS) E or worse. (LOS is a qualitative measure used to describe traffic flow conditions, ranging from free flow conditions at LOS A to congested conditions at LOS F.)


WRCOG Subregion Housing Units (2010-2035)

Source: Riverside County Center for Demographic Research

In 2007, the total Vehicle Hours of Delay (VHD) experienced by area motorists on arterial highways was 82,301 hours. Without improvements to the arterial highway system, VHD will increase by more than 5.4 percent per year to 344,713 VHD by 2035. The need to improve these roadways and relieve future congestion is, therefore, directly linked to the future development that generates the travel demand. Additionally, a substantial number of future trips will be served by bus transit services within Western Riverside County, which is also a result of future development.

Development of TUMF Program

In August 2000, the WRCOG Executive Committee directed that the development of a consolidated transportation uniform mitigation fee program (TUMF Program) for all of Western Riverside County be undertaken. This action was based on the desire to establish a single uniform fee program to mitigate the cumulative regional impacts of new development on the subregion's arterial highway system, rather than having multiple and potentially uncoordinated fee programs with varying policies, fee amounts and improvement projects. A regional transportation program was viewed as the most effective way to address the cumulative impacts of new development in the WRCOG subregion.

The subregion's public works directors identified a network of roads, bridges, interchanges and railroad grade separations that should be included in this program. The network, now known as the Regional System of Highways and Arterials (RSHA), represents the subregion's cumulative and seamless identification of transportation improvements needed to accommodate future growth in the subregion through 2035. The RSHA (see page 9 of this Report) serves as the cornerstone of the TUMF Program, and provides the basis for the Nexus Study prepared to demonstrate the impact of future development on the subregion's RSHA, identify improvements needed to accommodate projected growth, establish improvement costs and - ultimately - to determine the fee structure for the TUMF Program.

In order to ensure the TUMF Program's Nexus Study remains current, a new Nexus Study was prepared by WRCOG during the 2009 / 2010 Fiscal Year to update the TUMF Program. The updated Nexus Study continues to demonstrate the relationship between the fee collected and the proposed improvements due to new growth.

Factors that reflect this relationship include the following:

- Western Riverside County is expected to continue to experience significant long-term growth.
- Continuing new growth will result in increasing congestion on arterial roadways.
- Future arterial roadway congestion is directly attributable to the cumulative regional transportation impacts of future development in Western Riverside County.
- Capacity improvements to the transportation system will be needed to mitigate the cumulative impacts of new development.
- Roads on the RSHA are the facilities that merit improvement through this TUMF Program.
- Continuing new growth will require improvements to the public transportation system and will provide adequate mobility for the transit-dependent travelers.

Recent Nexus Study Update

On October 5, 2009, the WRCOG Executive Committee approved the findings of the 2009 Nexus Study update and adopted the revised fee structure.

Between now and 2035, the TUMF Program is estimated to provide $4.2 billion in arterial road, bridge, intersection, and interchange improvements in Western Riverside County. Once fees are collected from new development by each of WRCOG's participating jurisdictions, TUMF dollars are programmed by WRCOG's partner agencies (the jurisdictions, the Riverside Transit Agency (RTA), the March Joint Powers Authority, and the Riverside County Transportation Commission (RCTC)) to implement the Program. These jurisdictions and agencies are responsible for prioritizing which TUMF projects will be constructed, and for overseeing all aspects of project development. This implementation approach allows agencies to move quickly in developing priorities and constructing projects.

As part of the 2009 Nexus Study update, the RSHA was revised to reflect the most current transportation needs and costs for Western Riverside County. The revised RSHA reflected several changes due to completed projects, and additional recommendations from the WRCOG Public Works Committee (PWC) to better represent the transportation needs of Western Riverside County.

The updated RSHA revised the number of lane miles, interchanges, intersections, and grade separations from the previous network. In addition, it eliminated the following improvements: Category 4 interchange improvements (generally ramp improvements) and Category 5 interchange improvements (TUMF-to-TUMF grade separations); all costs associated with

15 Phase I Interchange and Overcrossing. (P esy City of Temecula)

TUMF facilities as part of Communities Facilities District 93-1 in the City of Beaumont; TUMF-to-TUMF intersection improvements; and the Mid County Parkway segment from I-215 to I-15.

The updated Network also reflects all completed TUMF projects, and no new projects were added, resulting in an overall reduction in RSHA cost.

A summary of improvements to the RSHA that will be provided by the TUMF Program is as follows:
- Construct 1,229 new lane miles of arterials.
- Improve 58 interchanges.
- Construct or widen 56 bridges.
- Provide more than $61 million for regional transit improvements.
- Provide nearly $60 million for acquisition of sensitive habitat.
- Construct 17 railroad grade separations.

This Annual Report provides a summary of revenues collected and expended during Fiscal Year 2011 / 2012 and since program inception. It summarizes projects that have been constructed, programmed, or are underway in accordance with adopted Transportation Improvement Programs (TIPs) for each of the Program's five zones, RCTC and RTA.

Completing Projects

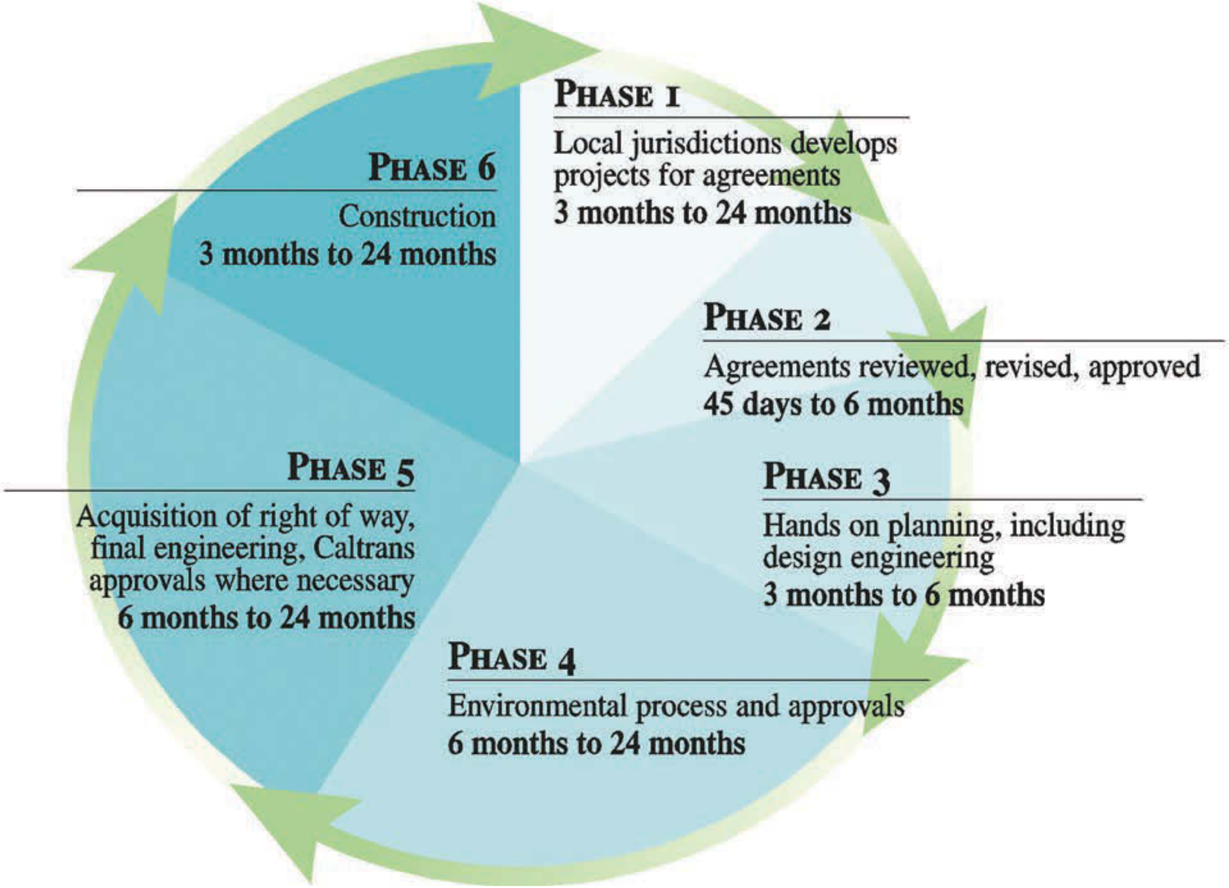
Visible evidence of Program implementation already exists, as 54 TUMF-funded projects are completed. The list of completed projects can be found in the "Projects" section (p. 48) of this Report.

When the TUMF Program was initiated in 2003, there were virtually no "shelf-ready" projects ready to be built. Development of the TUMF Network (the RSHA) by the Public Works Directors in the subregion's then 15 jurisdictions was a significant accomplishment in itself, as it meant that for the first time the subregion had a comprehensive and cohesive arterial system that recognized the region's — and not just an individual jurisdiction's — projected growth. By not having "shelf-ready" projects (projects that had already completed necessary planning and engineering studies, had right-of-way acquired, and had secured all required permits and funding), many projects proposed by the TUMF Program had to be developed from the ground up. During the initial stages of preparing projects for the jurisdictions in each Zone, WRCOG assisted with revenue projections and individual zone-level TIP development. Now that the Zone programs are up and running, the task of building projects takes center stage.

But how long does it take to deliver a project? As jurisdictions bring forward new projects, when can these projects expect to become a reality? There are a number of steps that need to occur for a typical transportation project to be built, and it is important to understand general timelines so that expectations can be realistic regarding the pace of TUMF project implementation. The "Life Cycle of a TUMF Project" diagram on the following page provides, in general terms, the various steps and associated timeframes for a typical TUMF project. Depending on a project's complexity, it could take as many as nine years to complete an improvement.

French Valley Parkway, City of Temecula. (WRCOG photo)

Life Cycle of a TUMF Zone Project



PHASE 1
Local jurisdictions develops projects for agreements
3 months to 24 months

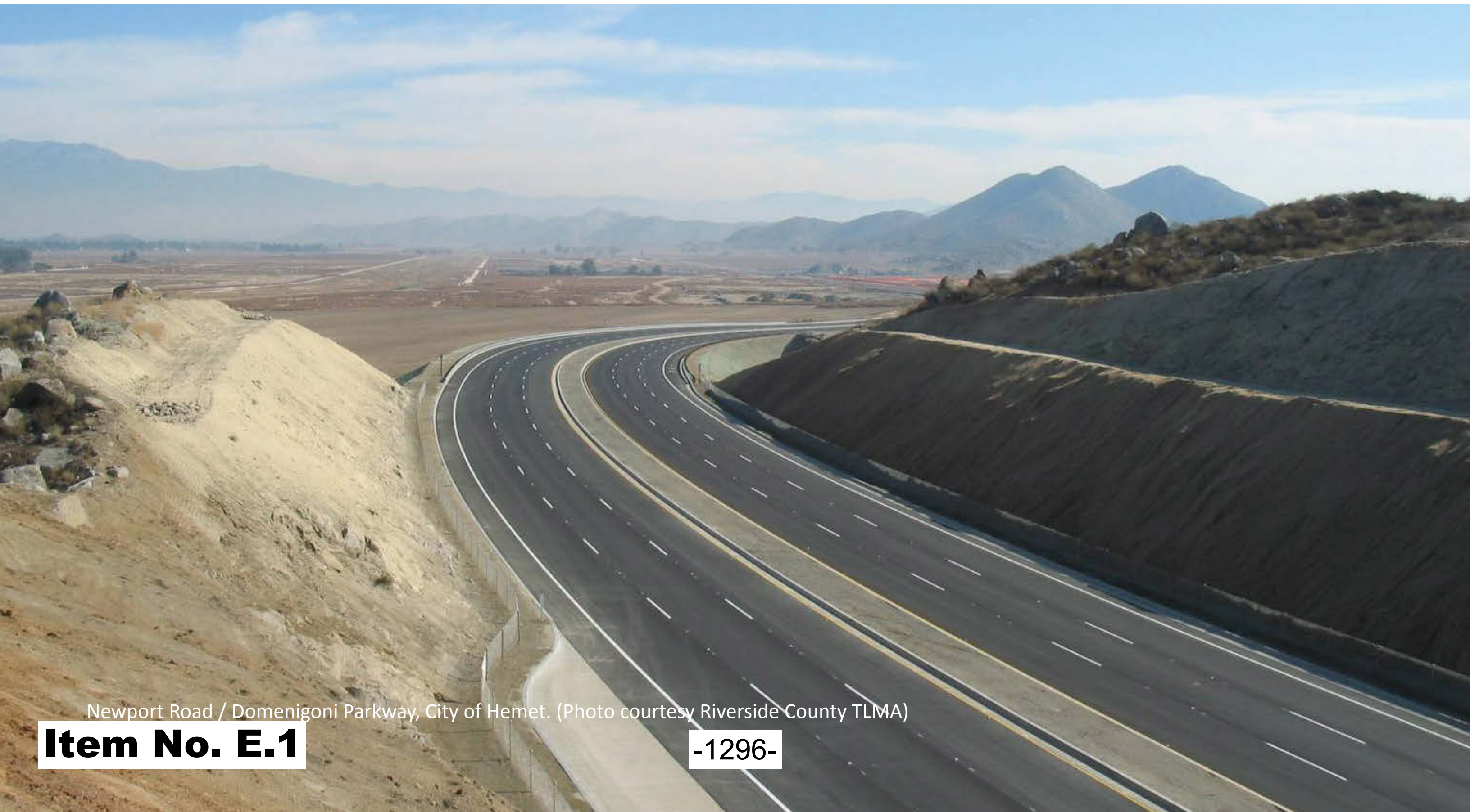
PHASE 2
Agreements reviewed, revised, approved
45 days to 6 months

PHASE 3
Hands on planning, including design engineering
3 months to 6 months

PHASE 4
Environmental process and approvals
6 months to 24 months

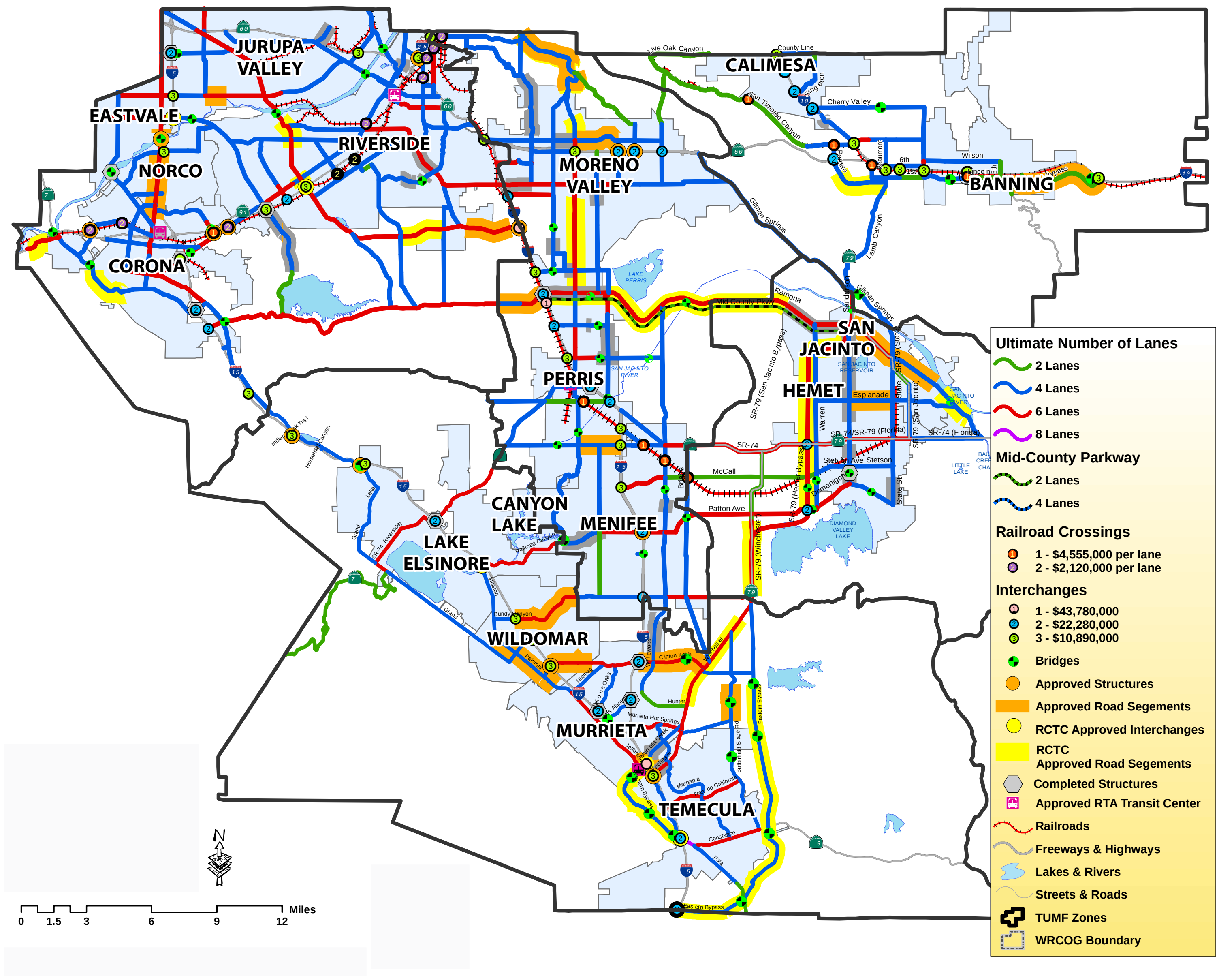
PHASE 5
Acquisition of right of way, final engineering, Caltrans approvals where necessary
6 months to 24 months

PHASE 6
Construction
3 months to 24 months



Newport Road / Domenigoni Parkway, City of Hemet. (Photo courtesy Riverside County TLMA)

TUMF Regional System of Highways and Arterials (RSHA)
2012



Item No. E.1

Item No. E.1

Revenue

Heritage Lakes Development contiguous to Menifee Road , from Simpson Road to McCall Road, City of Menifee. (Photo courtesy of Skyview Imaging)

Revenue


Audi Murphy Ranch, City of Menifee. (WRCOG photo)

Nexus Study

AB 1600, the California Mitigation Fee Act, requires that a reasonable relationship exist between a development impact fee collected and the proposed improvements for which a fee is used. WRCOG's TUMF Program Nexus Study satisfies the requirements of AB 1600, and has two primary objectives: 1) to demonstrate the relationship between the transportation improvements needed due to new growth and the estimated cost to construct improvements; and 2) to establish the "fair share" component of the improvements for each land use category (the TUMF Program cost to be applied to different land uses based on the trip-generating characteristics that are typically associated with such uses). The TUMF Program distinguishes between transportation improvements and trip-productions in five geographic zones (Northwest, Southwest, Hemet/San Jacinto, Central, and the Pass), regional transportation improvements, and regional transit improvements. This distinction provides maximum flexibility for programming projects. The Nexus Study identifies the percentage of collected revenues that can be allocated for zone-level improvements, regional improvements, and for transit improvements.

Fee Allocation

After administrative costs and Multiple Species Habitat Conservation Plan (MSHCP) mitigation allocations are extracted from the revenues collected, WRCOG allocates revenues as follows:

- 46.39 percent is allocated for regional improvements. These revenues are programmed by the RCTC pursuant to an agreement with WRCOG.
- 46.39 percent is allocated to the geographic zone from which the fees are collected. Project prioritization and programming are undertaken by the jurisdictions in each of the five zones.
- 1.64 percent is allocated for regional transit projects. WRCOG administers the funds on behalf of the RTA which prioritizes and programs capital transit projects.

Revenue

Fee Collection

The TUMF Program collects fees from new residential and non-residential land uses. As of June 30, 2012, WRCOG has received $554.4 million in revenues from the time the Program commenced in February 2003. For Fiscal Year 2011/2012, $14.4 million in Program revenue was collected.

Residential uses include two categories; single-family residential and multi-family residential. A residential development with densities lower than eight units per acre is considered single-family residential for the purposes of calculating the fee. Developments with densities greater than eight units per acre are considered multi-family residential.

Non-residential uses include four categories; industrial, retail, service commercial, and a subset of service commercial, Class A and B office. The non-residential fee is based on the total square footage of the building or structure identified on the building permit and further specified and determined in WRCOG's TUMF Administrative Plan and the 2012 TUMF Fee Calculation Handbook. The applicable non-residential land use category is determined based on the predominate use of the building or structure associated with the new development and as further prescribed in the TUMF ordinances.

Temporary Fee Reductions

In October 2009, WRCOG member agencies approved an updated TUMF Program Nexus Study (2009 Nexus Study).

The Study projected a slower, more moderate forecast than previous studies. Coupled with lower construction costs and a revised Network, fees were reduced. For example, the fee for a single-family home decreased from $9,812 to $8,873. Fees for other residential and non-residential uses were also revised pursuant to the 2009 Nexus Study. All participating agencies adopted the 2009 Nexus Study and fee structure.

In 2009, the WRCOG Executive Committee authorized jurisdictions to temporarily reduce TUMF by 50 percent so long as they made up any revenue gaps through alternative funding, cost saving and in-kind matches. Some WRCOG jurisdictions opted to reduce the fees temporarily, others opted not to. These fee reductions are scheduled to sunset on March 31, 2013, or possibly sooner.

Fees effective July 1, 2011 through June 30, 2012

Single-Family Residential	$8,873 per unit
Multi-Family Residential	$6,231 per unit
Industrial	$ 1.73 per Sq. Ft.
Retail	$10.49 per Sq. Ft.
Service	$ 4.19 per Sq. Ft.
Class A & B Office	$ 2.19 per Sq. Ft.

50 percent reduced fee

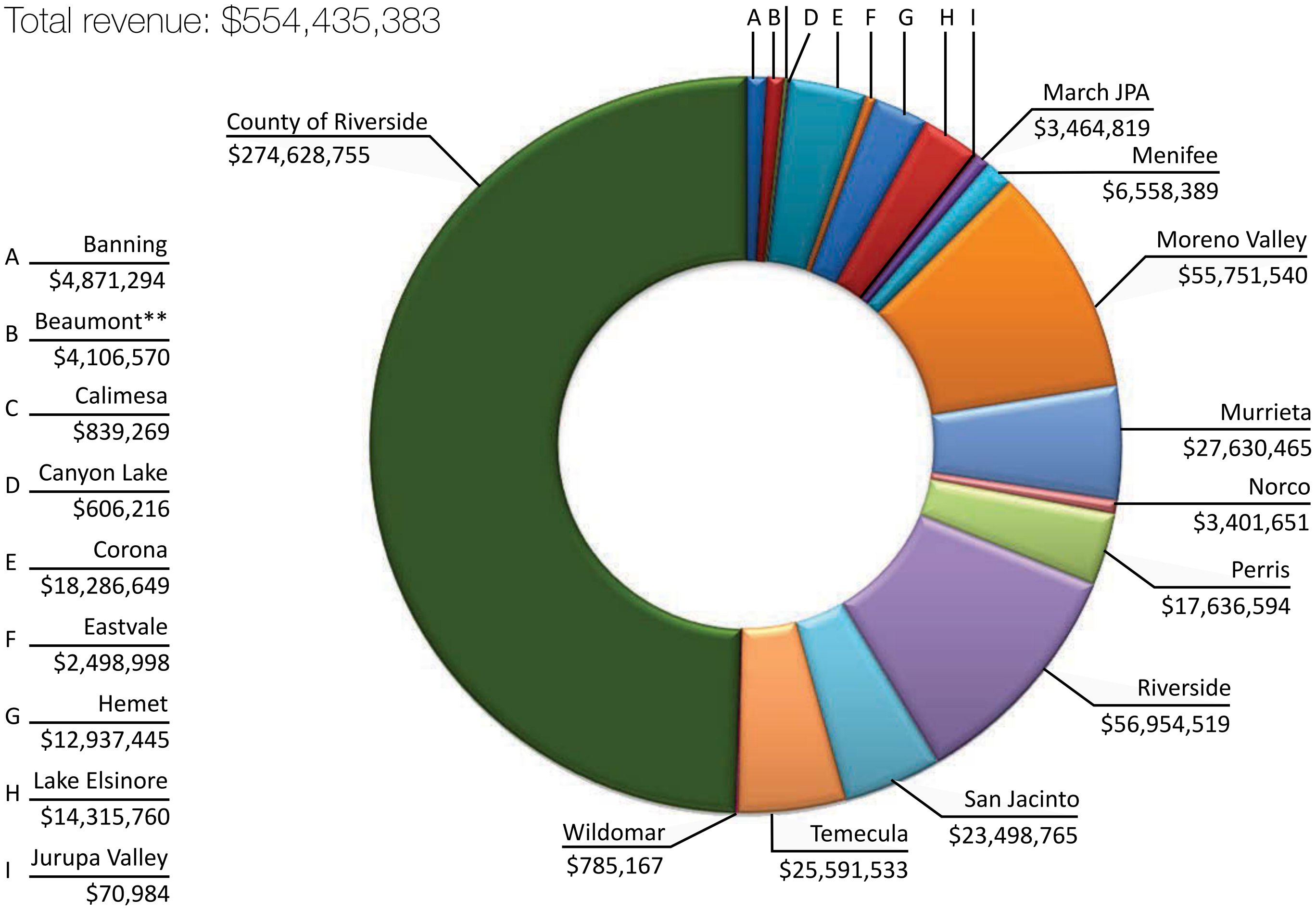
Single-Family Residential	$4,437 per unit
Multi-Family Residential	$3,115 per unit
Industrial	$ 0.86 per Sq. Ft.
Retail	$ 5.24 per Sq. Ft.
Service	$ 2.10 per Sq. Ft.
Class A & B Office	$ 1.10 per Sq. Ft.

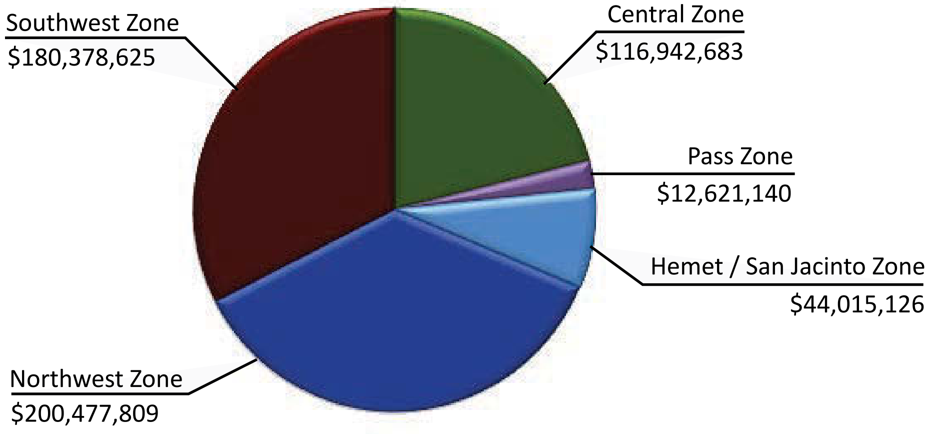
Industrial warehouse construction, City of Moreno Valley. (Photo courtesy of Skyview Imaging)

Revenue

TUMF revenue by jurisdiction and zone February 2003 through June 2012

Total revenue: $554,435,383





TUMF revenues are collected by each of the jurisdictions in the WRCOG subregion (17 cities and the County of Riverside unincorporated area within WRCOG's boundaries). TUMF revenues are also collected by the March Joint Powers Authority. From the Program inception (February 2003) through the end of Fiscal Year 2011/2012 (June 30, 2012), a total of $554.4 million in TUMF Program revenue fees was collected.

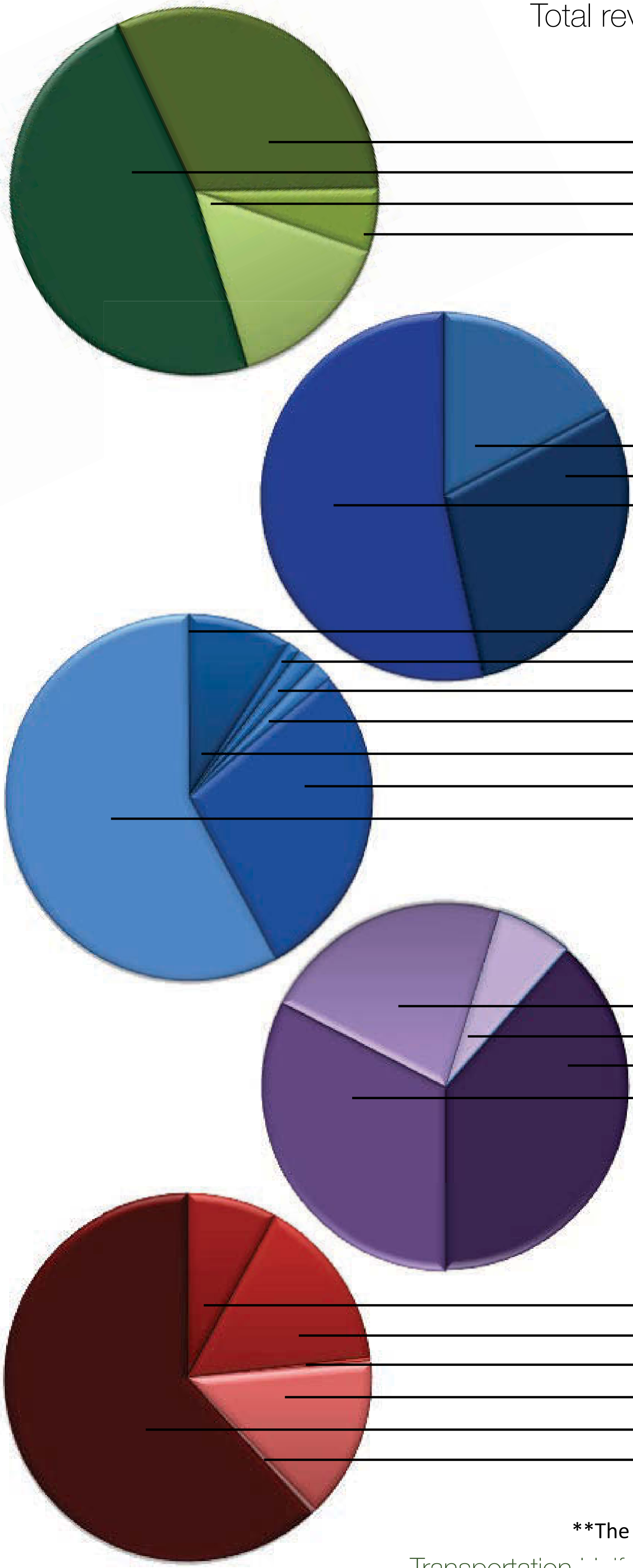
*Actual revenues may vary slightly due to rounding.

**The City of Beaumont is no longer participating in the TUMF Program.

Revenue

TUMF revenue by jurisdiction and zone (2003-2012)

Total revenue: $554,435,383



Central Zone - $116,942,683

County of Riverside	$	36,996,159
Moreno Valley	$	55,751,540
Perris	$	17,636,594
Menifee	$	6,558,389

Hemet / San Jacinto Zone - $44,015,126

County of Riverside	$	7,578,916
Hemet	$	12,937,445
San Jacinto	$	23,498,765

Northwest Zone - $200,477,809

Jurupa Valley	$	70,984
Eastvale	$	2,498,998
March JPA	$	3,464,819
Norco	$	3,401,651
Corona	$	18,286,649
Riverside	$	56,954,519
County of Riverside	$	115,800,189

Pass Zone - $12,621,140

County of Riverside	$	2,804,008
Calimesa	$	839,269
Banning	$	4,871,294
Beaumont**	$	4,106,570

Southwest Zone - $180,378,625

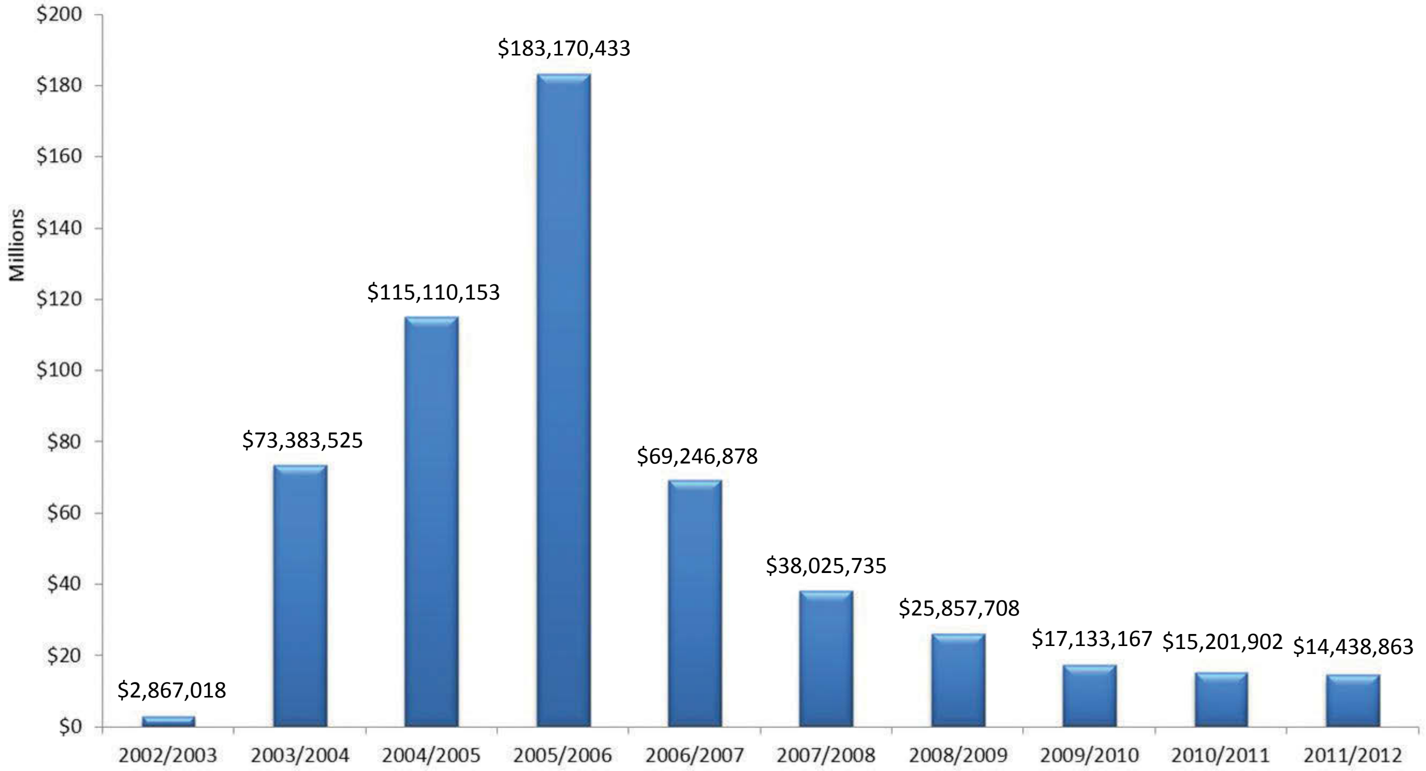
Lake Elsinore	$	14,315,760
Murrieta	$	27,630,465
Canyon Lake	$	606,216
Temecula	$	25,591,533
County of Riverside	$	111,449,483
Wildomar	$	185,167

*Actual jurisdiction revenues may vary slightly due to rounding.

**The City of Beaumont is no longer participating in the TUMF Program.

Revenue

Revenues collected by Fiscal Year

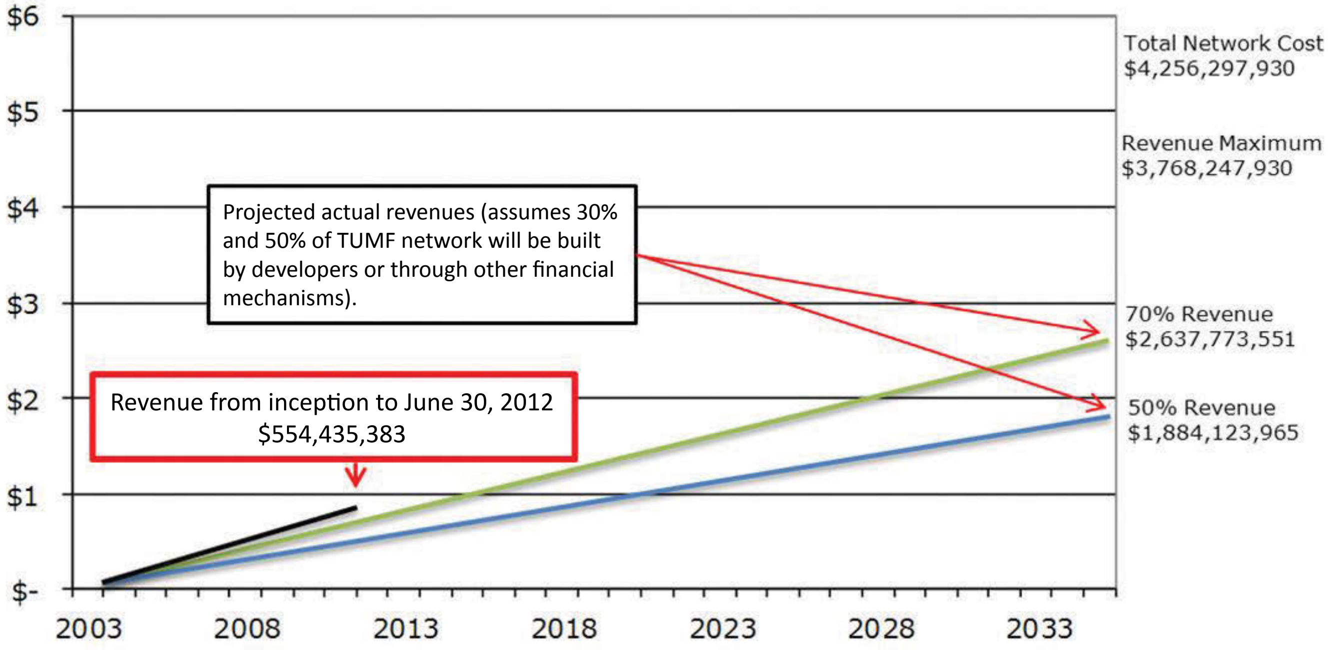


Note: In FY 2002/2003, revenues were not collected until February 2003

Total TUMF revenue collection (cumulative)
February 2003 through June 2012

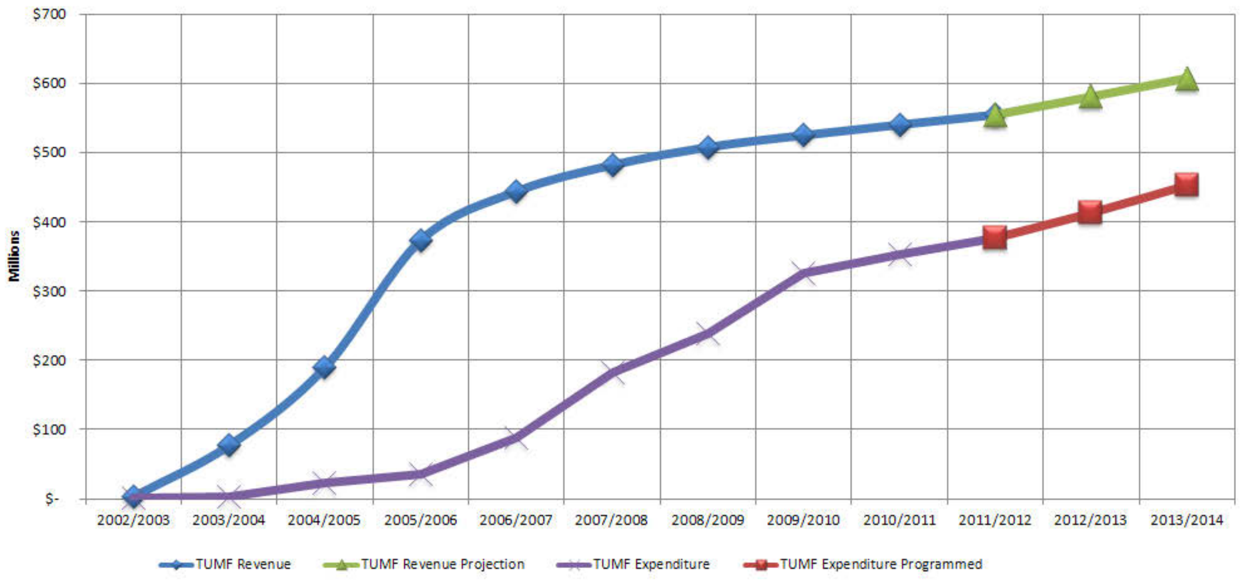
Item No. E.1

TUMF system cost compared to revenue stream



The total network cost of the RSHA improvements is $4.256 billion. Numerous elements affect the total potential revenue collected by the TUMF Program such as exemptions from TUMF due to vesting maps, development agreements, phasing of fees, and policy actions. As such, the maximum amount of fees that can be collected by the TUMF Program is approximately $3.768 billion. It is estimated that between 30% and 50% of the RSHA will be built by developers, or through alternative funding mechanisms such as Community Facilities Districts and Road and Bridge Benefit Districts. Actual fees to be collected, therefore, are estimated at $1.884 billion (assuming 50% of the Network is constructed by developers or through financing mechanisms in which case fees are not collected) or $2.637 billion (assuming 30% of the Network is constructed without fees collected.)

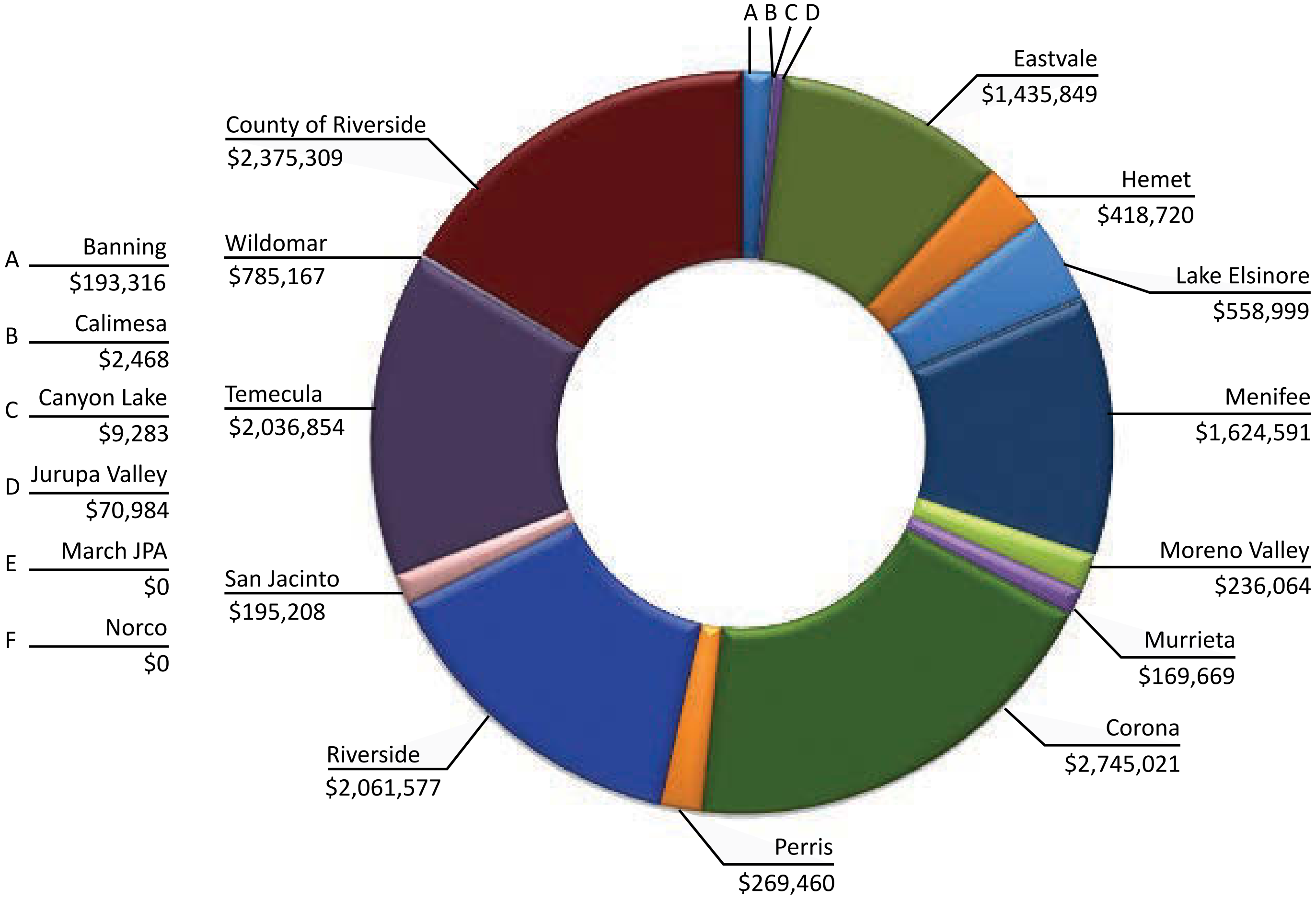
WRCOG TUMF revenue vs. expenditure (cumulative)
February 2003 through June 2012

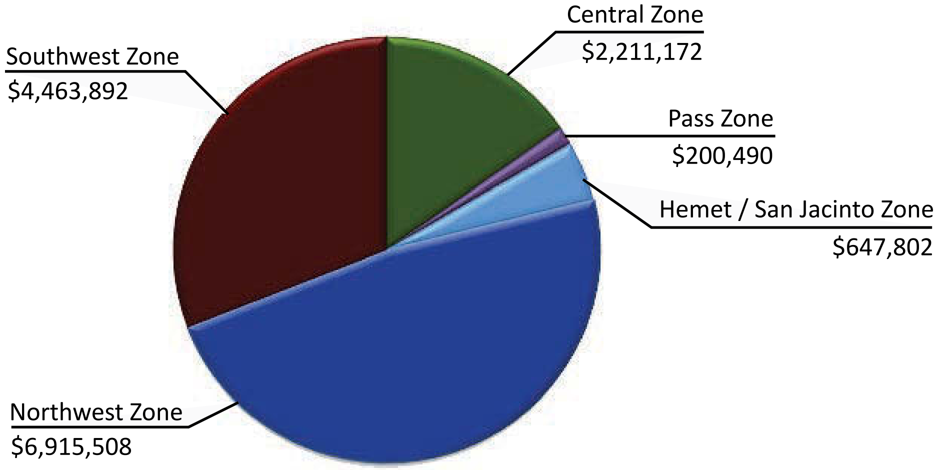


Revenue

TUMF revenue by jurisdiction and zone
Fiscal Year 2011 / 2012 (July 1, 2011 to June 30, 2012)

Total revenue: $14,438,863

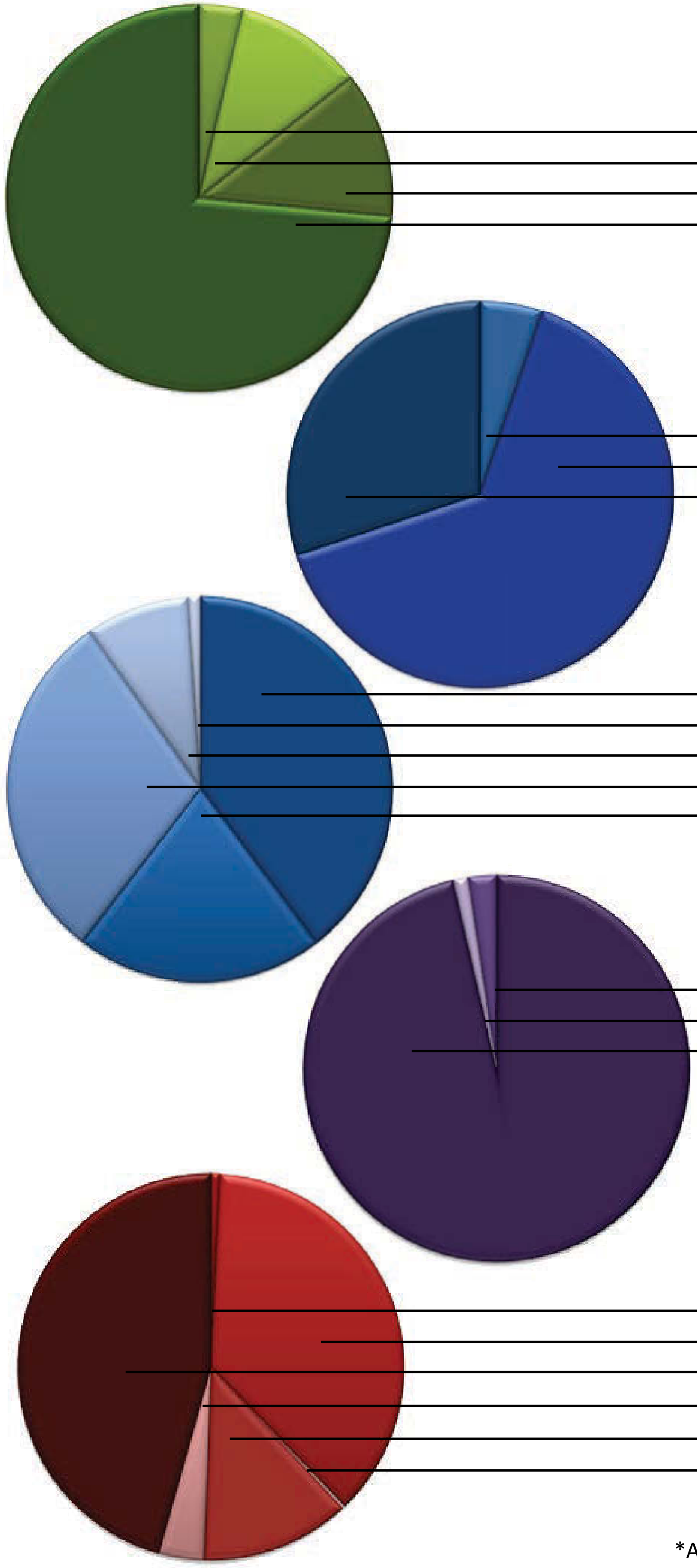




*Actual jurisdiction revenues may vary slightly due to rounding.

Revenue

TUMF revenue by jurisdiction and zone (FY 2011 / 2012)



Central Zone - $2,211,172

County of Riverside	$	81,057
Moreno Valley	$	236,064
Perris	$	269,460
Menifee	$	1,624,591

Hemet / San Jacinto Zone - $647,802

County of Riverside	$	33,874
Hemet	$	418,720
San Jacinto	$	195,208

Northwest Zone - $6,915,508

Corona	$	2,745,021
Jurupa Valley	$	70,984
County of Riverside	$	602,077
Riverside	$	2,061,577
Eastvale	$	1,435,849
March JPA	$	$0
Norco	$	$0

Pass Zone - $200,490

County of Riverside	$	4,706
Calimesa	$	2,468
Banning	$	193,316

Southwest Zone - $4,463,892

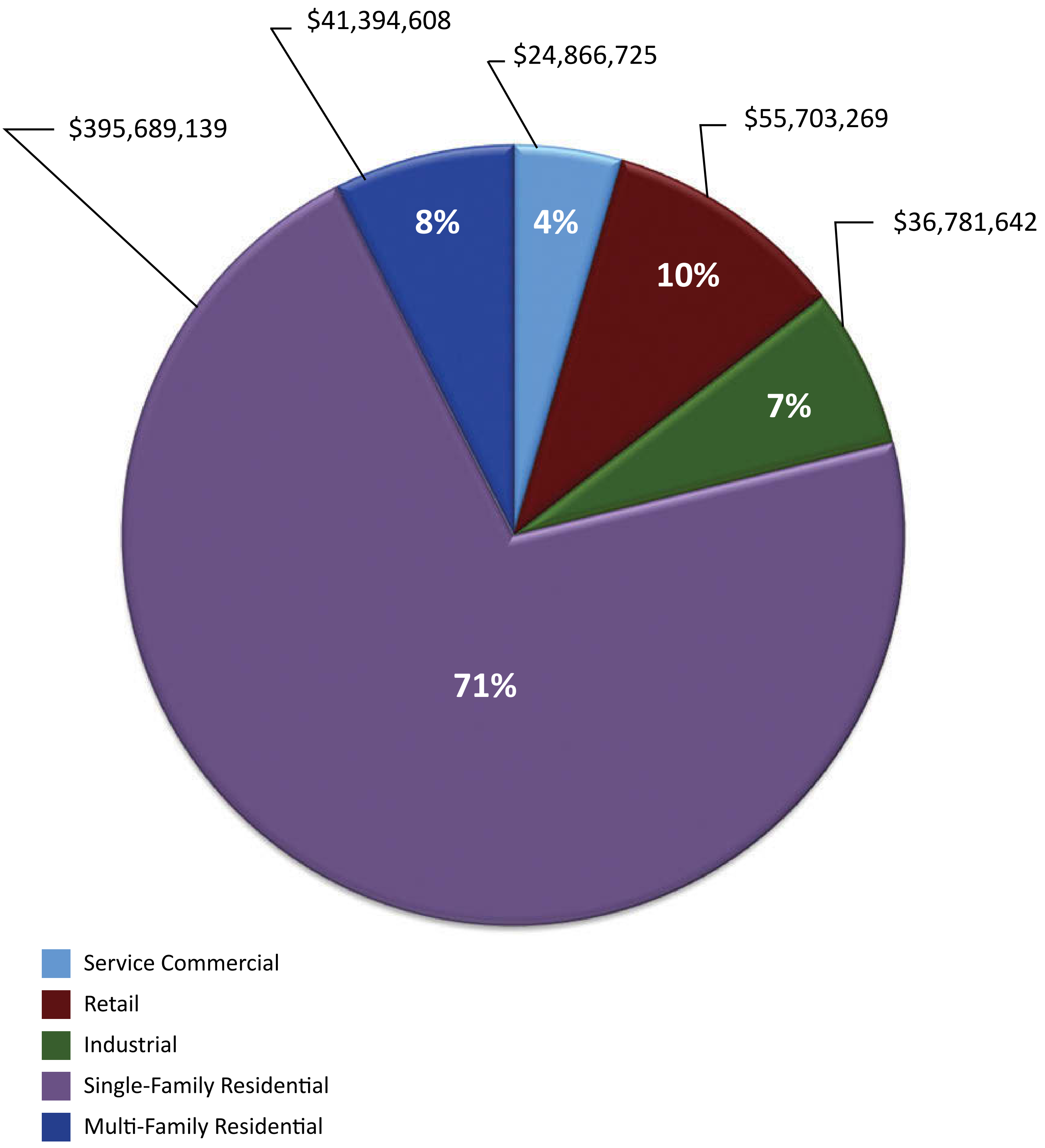
Wildomar	$	35,492
County of Riverside	$	1,653,595
Temecula	$	2,036,854
Murrieta	$	169,669
Lake Elsinore	$	558,999
Canyon Lake	$	9,283

*Actual jurisdiction revenues may vary slightly due to rounding.

Revenue

TUMF revenue by land use (2003 / 2012)

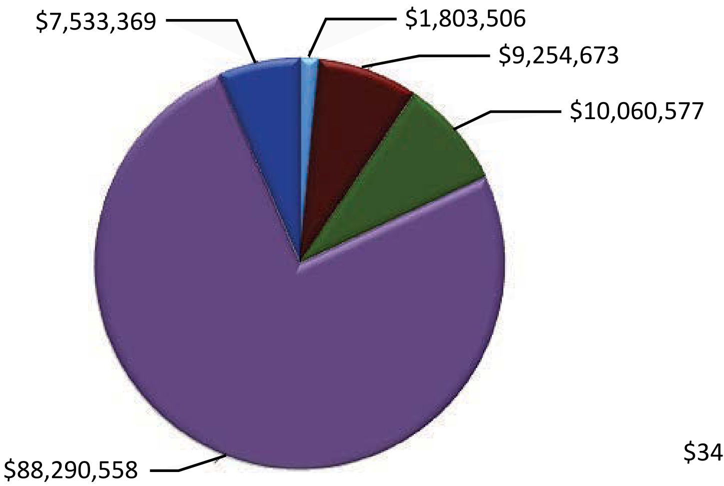
Total revenue: $554,435,383



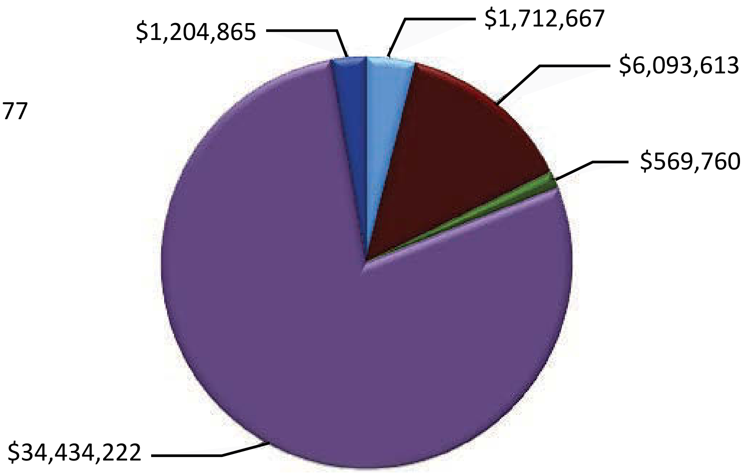
*Actual land use revenues may vary slightly due to rounding.

TUMF revenue by land use (2003 / 2012)

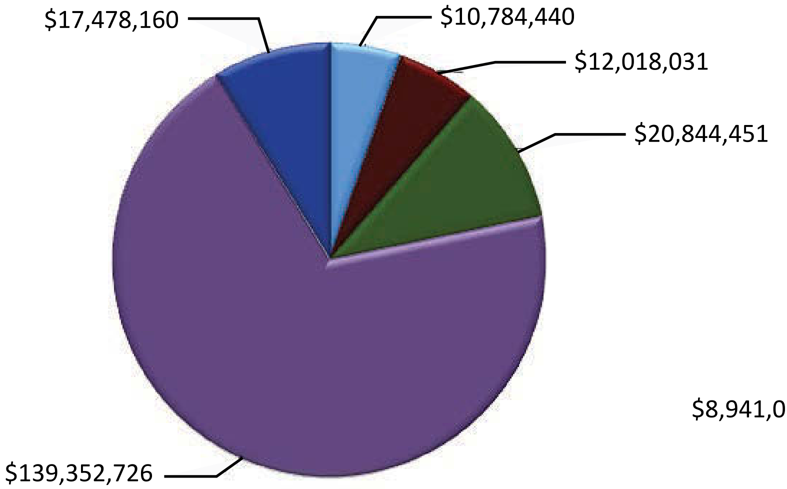
Central Zone - $116,942,683



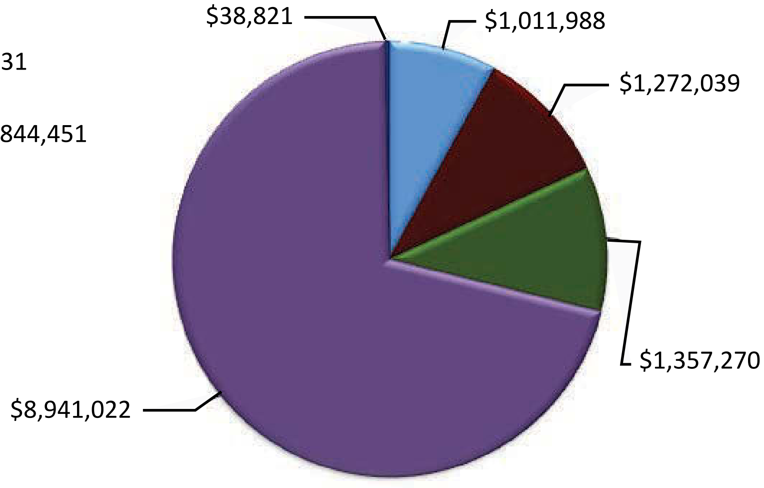
Hemet / San Jacinto Zone - $44,015,126



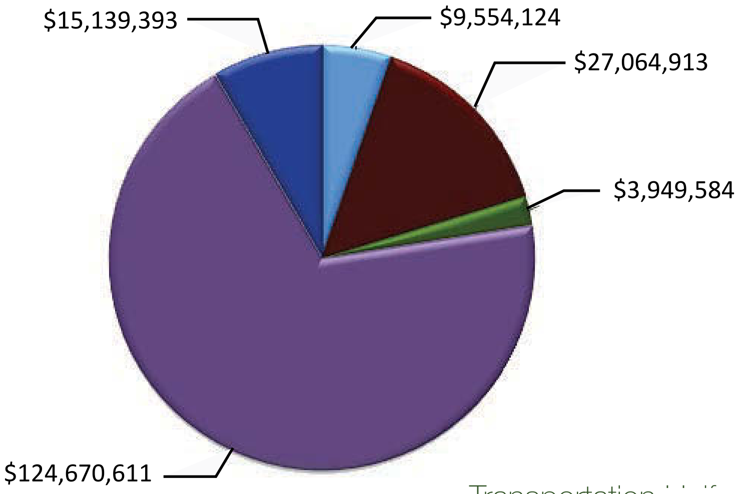
Northwest Zone - $200,477,809



Pass Zone - $12,621,140



Southwest Zone - $180,378,625



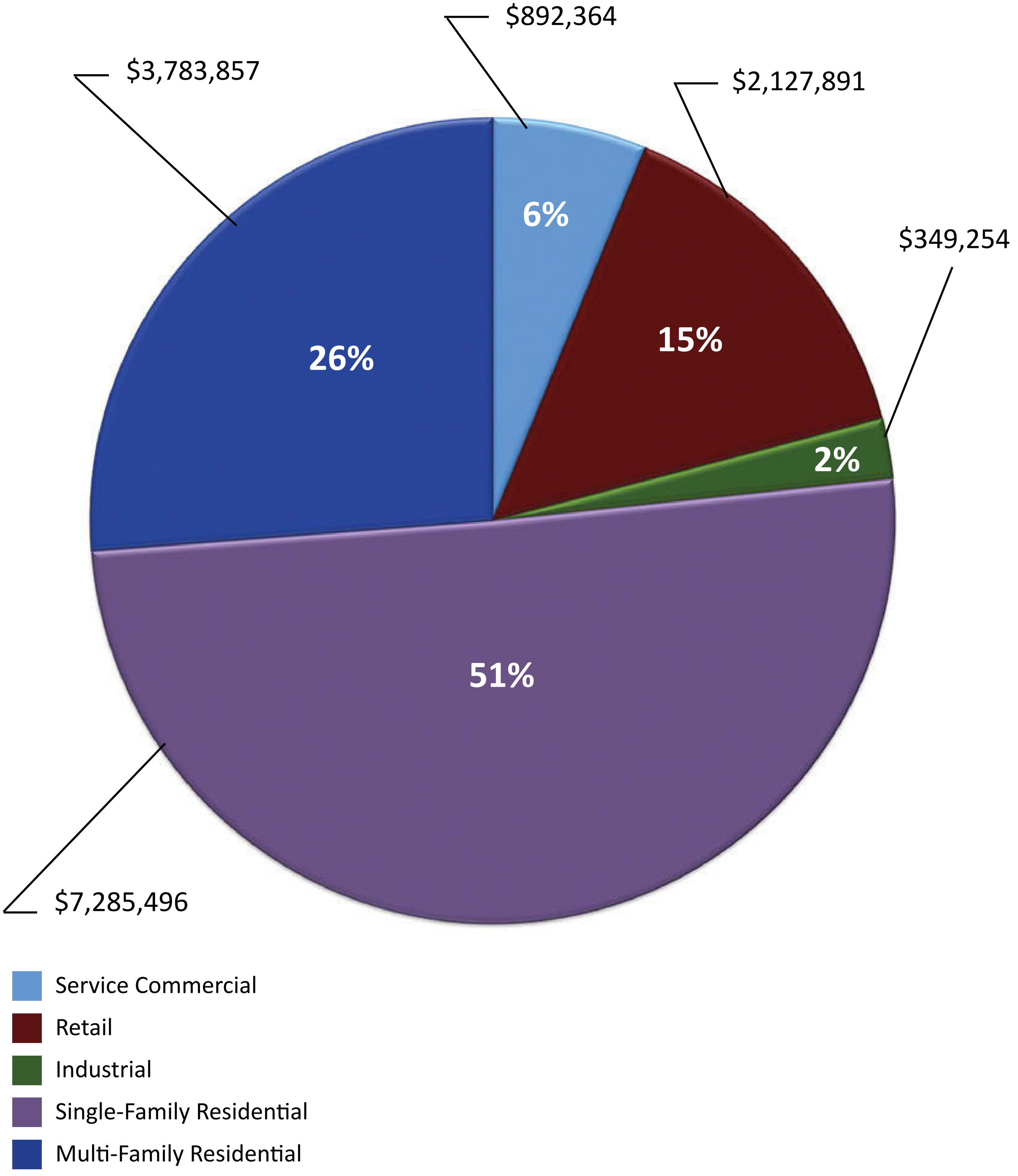
- 🟦 Service Commercial
- 🟥 Retail
- 🟩 Industrial
- 🟪 Single-Family Residential
- 🟦 Multi-Family Residential

*Actual land use revenues may vary slightly due to rounding.

Revenue

TUMF revenue by land use
Fiscal Year 2011 / 2012 (July 1, 2011 to June 30, 2012)

Total revenue: $14,438,863

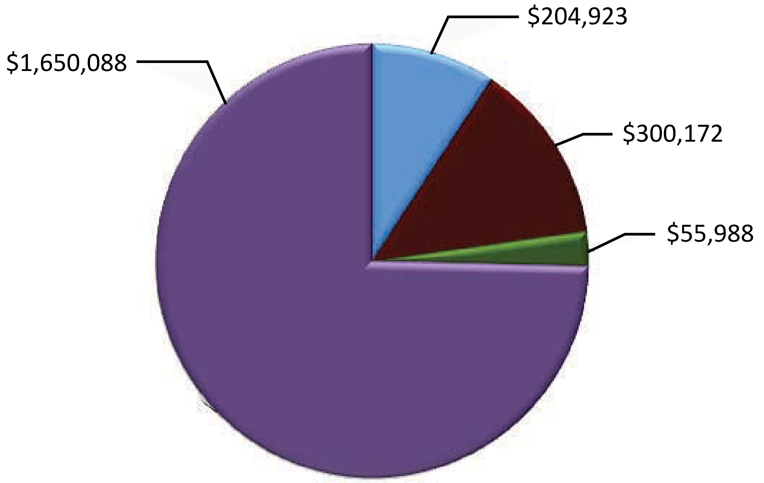


*Actual land use revenues may vary slightly due to rounding.

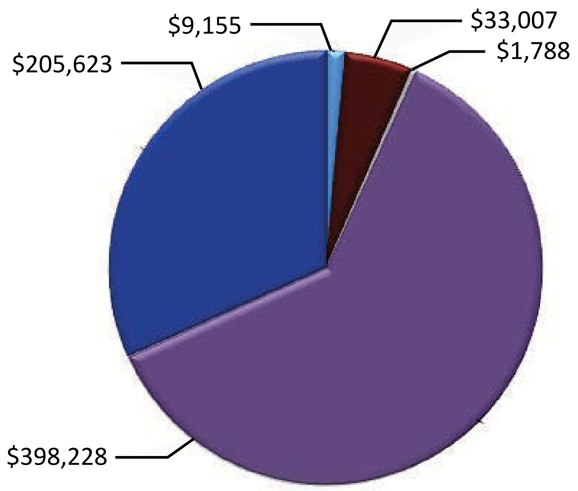
Revenue

TUMF revenue by land use Fiscal Year 2011 / 2012

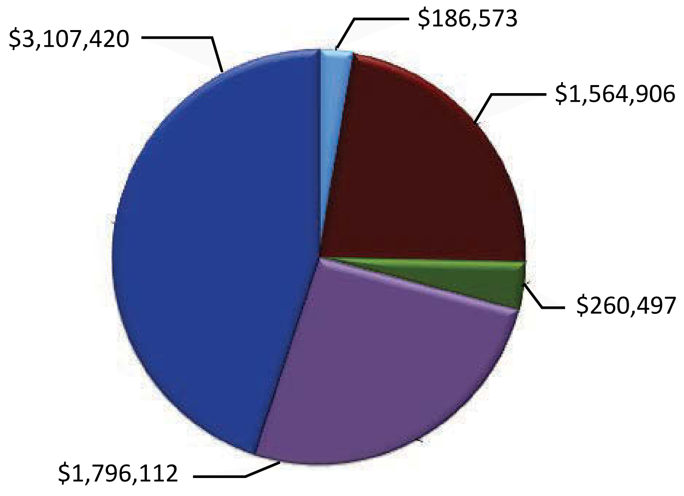
Central Zone - $2,211,172



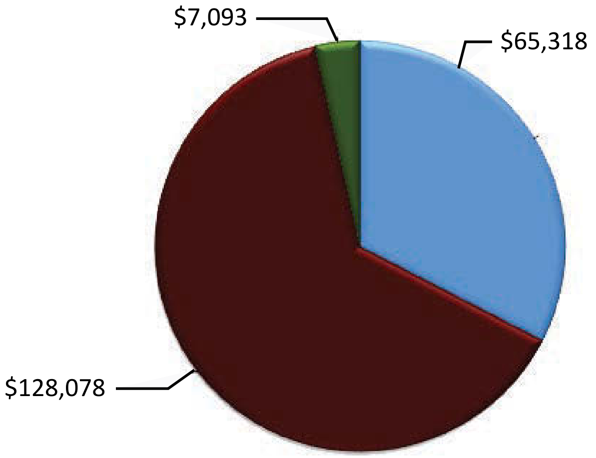
Hemet / San Jacinto Zone - $647,802



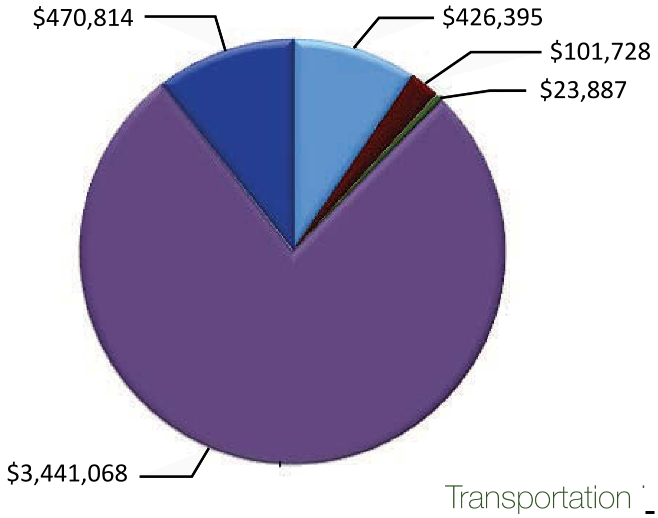
Northwest Zone - $6,915,508



Pass Zone - $200,490



Southwest Zone - $4,463,892

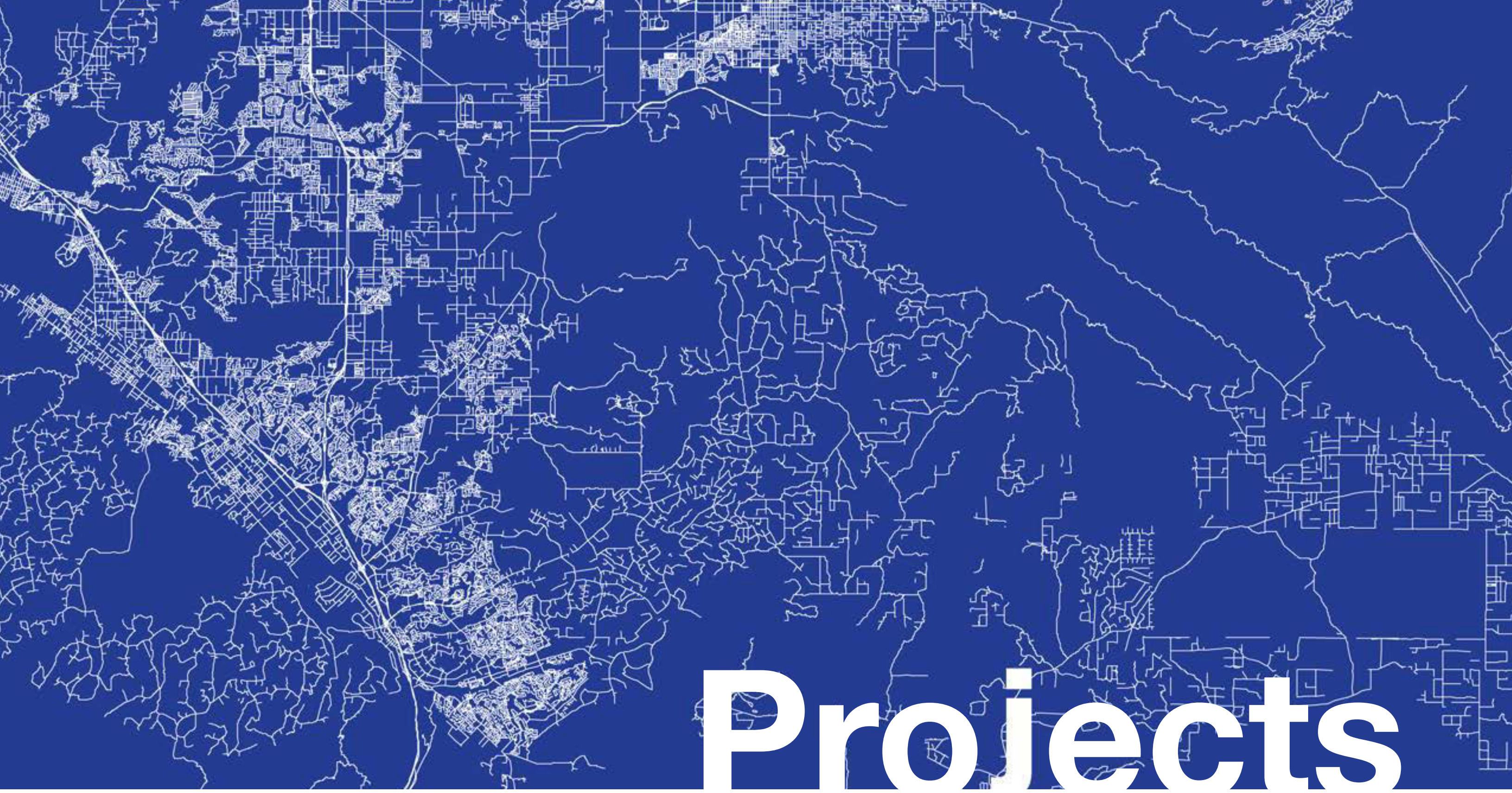


🟦 Service Commercial
🟥 Retail
🟩 Industrial
🟪 Single-Family Residential
🟦 Multi-Family Residential

*Actual land use revenues may vary slightly due to rounding.

Perris Transit Center Bus Bays, City of Perris. (WRCOG photo)

Item No. E.1



Projects

Item No. E.1

Projects

Heacock Street, Perris Valley Storm Drain to San Michelle Road Widening Project, March Joint Powers Authority and City of Moreno Valley. (Photo courtesy City of Moreno Valley)

TUMF Program Priorities

WRCOG's TUMF Program is about building infrastructure – not collecting a fee. Constructing TUMF improvements as quickly as possible is the Program's paramount objective.

WRCOG's partners in the TUMF Program, including 17 member jurisdictions, RCTC, RTA, March JPA, and the development community have all made the TUMF Program a top priority. The results of our partners' commitment to the Program is evidenced on a number of fronts. All of the agencies and jurisdictions have developed and updated TUMF project expenditure plans called Transportation Improvement Programs (TIPs) that estimate revenues from TUMF and prioritize which project improvements will be made during a five-year period. Within six months of the initiation of the Program, TIPs were being approved and work was underway to implement the multi-jurisdictional fee program.

TUMF projects do not result just from the TIPs. Community Facilities Districts (CFDs) and Road and Bridge Benefit Districts (R&BBDs) are also used to construct TUMF improvements, and developers sometimes build TUMF facilities in lieu of paying TUMF fees. By being creative, WRCOG and its partners are working to find the fastest, most cost-effective ways to build the TUMF Network.

Progress to Date

Western Riverside County residents are seeing TUMF Program dollars at work at many locations throughout the subregion. As of the end of Fiscal Year 2011 / 2012, 54 TUMF projects have been completed, 19 projects are under construction, 23 projects are in engineering or right-of-way (ROW) acquisition, and another 15 projects are in planning and environmental stages. Of the currently programmed Zone-level TIP projects, over the next 5 years of this TIP cycle, 15 programmed projects are slated for construction.

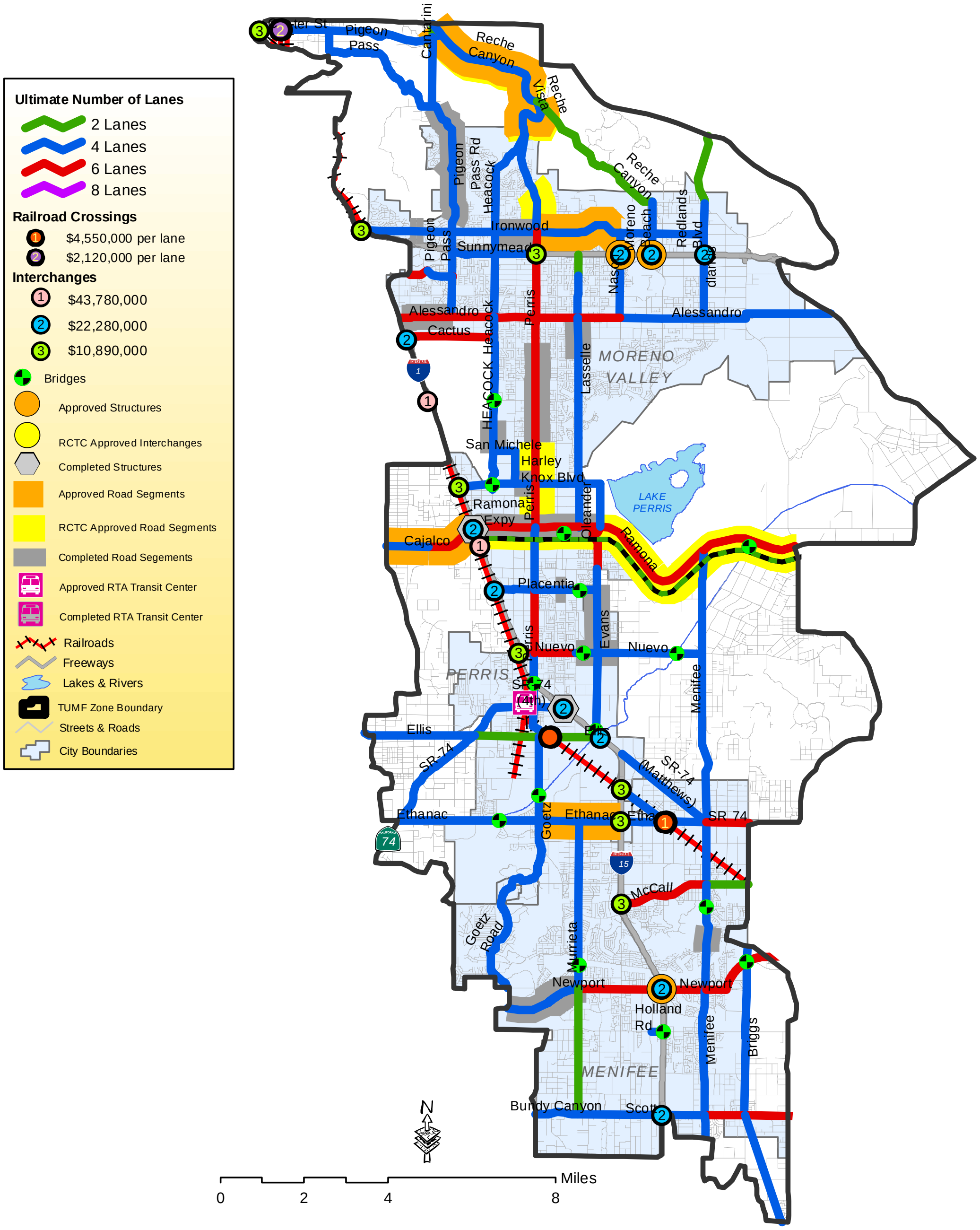
The following pages highlight TUMF activities in each of the five zones, and for RTA and RCTC.

Perris Station, City of Perris. (WRCOG photo)

Item No. E.1

Central Zone

Menifee, Moreno Valley, Perris, and County of Riverside



The Central Zone is comprised of the unincorporated County and the Cities of Menifee, Moreno Valley and Perris. The Zone covers an estimated 222.2 square miles and has a population of approximately 382,068. The Central Zone has 17 projects on the adopted TIP, of which 4 projects are in the planning stage, 3 projects are in engineering, 2 projects are in the right-of-way phase, and 5 projects are under construction. Three (3) projects have been completed and are not shown on the following page on the Central Zone 5-Year TIP table. They are listed under the Completed Projects list on Page 48.

Following are examples of projects that WRCOG has participated in with local jurisdictions in the Central Zone that were underway and/or completed during the fiscal year. These projects represent $64.2 million in TUMF investment.

Central Zone 5-Year Transportation Improvement Program

Planning	Engineering	Right-of-Way	Construction		
▨	▨			County of Riverside	•Cajalco Road (Alexander to I-215) - widen 2 to 4 lanes
▨					•Pigeon Pass Road (Hidden Springs Drive to Center Street) - widen 0 to 4 lanes
▨	▨	▨			•Reche Vista/Reche Canyon (Heacock to S.B.C.) - widen 2 to 4 lanes
▨	▨				•Newport Road / I-215 Interchange
▨	▨			Menifee	•Murrieta Road (Ethanac Road to McCall Boulevard) - widen 2 to 4 lanes
▨	▨	▨		Moreno Valley	•Ironwood Avenue (Segment A), Heacock Street to Perris Boulevard - widen 2 to 4 lanes
▨					•Ironwood Avenue (Segment B), Perris Boulevard to Nason Street - widen 2 to 4 lanes
▨	▨	▨	▨		•Moreno Beach / SR-60 Interchange
▨	▨	▨	▨		•Nason / SR-60 Interchange w/ Bridge
▨	▨	▨	▨	Perris	•Evans Road (Placentia to Nuevo) - widen new to 4 lanes
▨					•Nuevo Road (Murrieta Road to Dunlap Drive)
▨				Perris/Menifee	•Ethanac Road (Goetz Road to I-215 Interchange)
▨	▨	▨	▨	RCTC/Perris	•SR-74 (4th) / I-215 Interchange
▨	▨	▨	▨	Perris/County of Riverside	•Ramona Expressway / I-215 Interchange

3 projects currently on the TIP are completed and are listed under the Completed Projects list on Page 48.

Moreno Beach Drive / SR-60 Interchange (City of Moreno Valley)

This interchange realignment project is being built in two phases; Phase I includes adding east and westbound auxiliary lanes at the off and on-ramps in a diamond configuration, and Phase II will construct an overpass bridge. Total project cost is $43 million, of which TUMF programmed $12.3 million.

Moreno Beach Drive / SR-60 Interchange Project, City of Moreno Valley. (Photo courtesy City of Moreno Valley)

Nason Street / SR-60 Interchange (City of Moreno Valley)

This interchange realignment project is being built in two phases; Phase I reconstructed off and on ramps in a diamond configuration and was funded with state funds. Phase I was completed in 2012. Phase II will construct the bridge overpass. Phase II will complete the Nason Street / SR-60 interchange by realigning and constructing a six-lane overcrossing structure, including utility relocation, and will be funded with more than $13.2 million TUMF Zone funds.

Moreno Beach Drive / SR-60 Interchange Project, City of Moreno Valley. (Photo courtesy City of Moreno Valley)

Heacock Street Widening - Completed (March Joint Powers Authority and City of Moreno Valley)

This project widened a one-mile segment of Heacock Street, from the Perris Valley Storm Drain to San Michele from 2 to 4 lanes. Improvements included a bridge over the storm drain, 1,150 feet of transition road, and turn lanes to accommodate the traffic in and around the March Air Reserve Base. The total project cost was $2.9 million, of which TUMF reimbursed $340,000.

Heacock Street, Perris Valley Storm Drain to San Michele Road Widening Project, March Joint Powers Authority and City of Moreno Valley. (Photo courtesy City of Moreno Valley)

Ramona Expressway / I-215 Interchange (County of Riverside TLMA and City of Perris)

This regional interchange project will widen the existing bridge structure on each side to accommodate four lanes of traffic, and improve the existing diamond interchange northbound and southbound off-ramps. The Ramona Expressway provides the primary access to the Cities of Hemet and San Jacinto and is an important entrance to the City of Perris; improvements to the interchange provide significant congestion relief due to the growth experienced in these three jurisdictions. Total project cost is $8.5 million, of which TUMF furnished $6.5 million. It is anticipated that the interchange will be completed in early 2013.

Ramona Expressway / I-215 Interchange Project, County of Riverside TLMA and City of Perris. (Photo courtesy County of Riverside TLMA)

Ramona Expressway Pedestrian Bridge - Completed (City of Perris)

This 125-foot pedestrian bridge over the Perris Valley Storm Drain was constructed by the City of Perris as part of the one and one-half mile, Ramona Expressway Widening Project currently under construction. The bridge improvements separated pedestrians from fast moving high volume traffic. The pedestrian bridge is part of the total project cost funded with more than $2.3 million TUMF Zone funds.

Ramona Expressway Pedestrian Bridge Project, City of Perris. (Photo courtesy Tri Lake Consultants)

Heacock Street, Perris Valley Storm Drain to San Michele Road Widening Project, March Joint Powers Authority and City of Moreno Valley. (Photo courtesy City of Moreno Valley)

Goetz Road / Newport Road Widening - Completed (City of Menifee)

This project widened Goetz Road, from Railroad Canyon Road to Normandy Road (old Newport Road) from two to four lanes, including the 400-foot Goetz Road Bridge over the Salt Creek Channel. It completed the gap closure on the realigned Newport Road segment, between Murrieta Road and the Railroad Canyon Road/Goetz Road intersection. This project is part of a major east/west corridor through the WRCOG subregion. It improves the regional traffic flow from Hemet and San Jacinto to the east, and Menifee and Canyon Lake to the west by providing easier access to the local communities from I-215 to I-15. The County, acting as lead agency, completed the 2.3 miles in two phases in approximately twenty-four months which started in 2010. The Phase I completed the realignment of Newport Road and the Phase II widened Goetz Road north to Normandy Road, including a 400-foot bridge. The total project cost was $12.8 million of which TUMF furnished $4 million.

Goetz Road, Newport Road to Murrieta Road Widening. (Photo courtesy of the County of Riverside TLMA)

SR-74 (4th) Street / I-215 Interchange - Completed (City of Perris and RCTC)

This project widened the two-lane overpass to eight lanes with two through lanes and two left turn lanes in each direction. RCTC, as the lead agency, worked with the City of Perris to construct this project including widening 4th Street to four lanes. Total project cost was $29 million, of which TUMF contributed $12.6 million. The interchange was completed in early 2012.

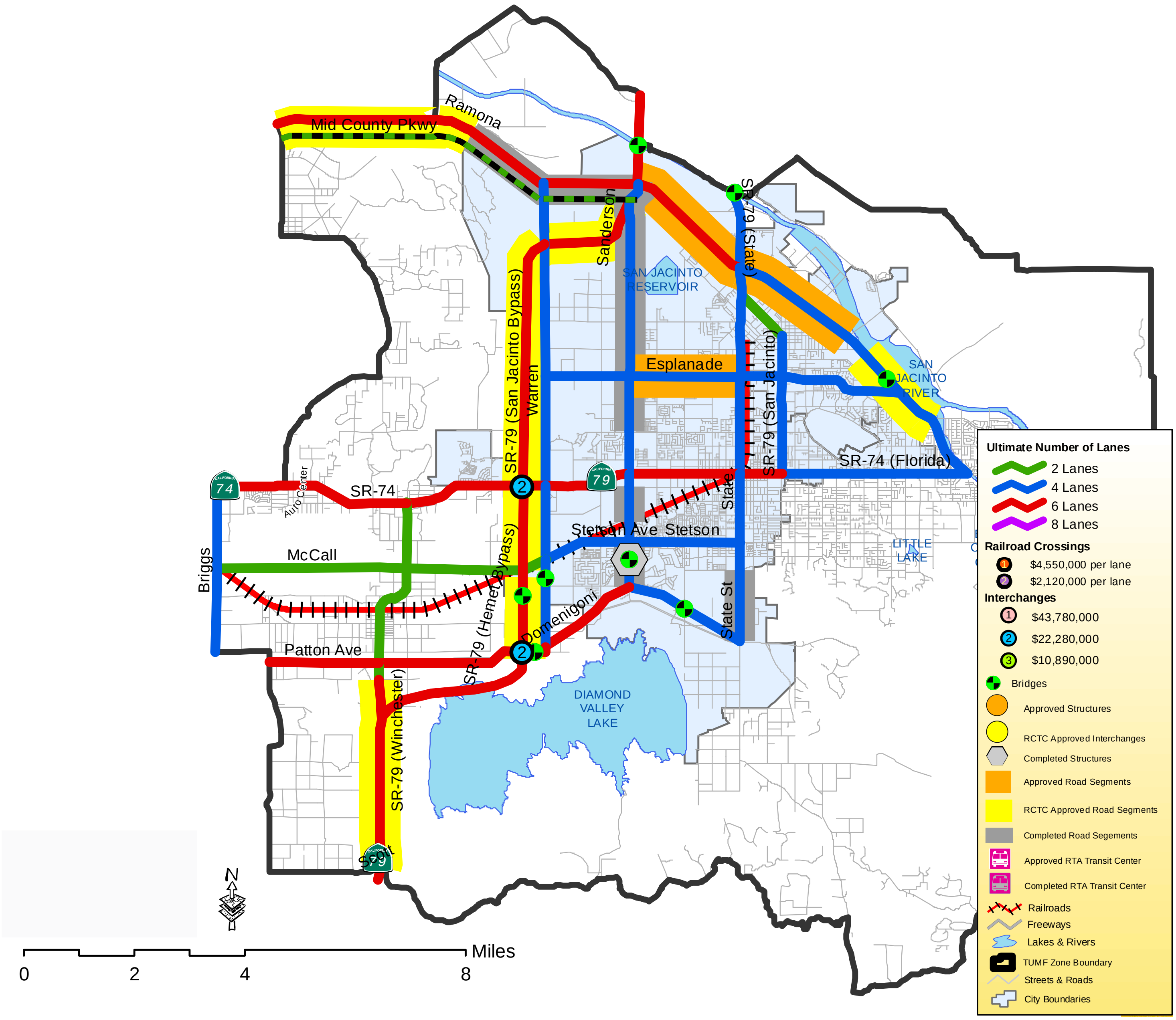
SR-74 / 4th Street / I-215 Interchange, City of Perris and RCTC. (Photo courtesy Skyview Imaging)

Indian Avenue and Nandina Street - Completed (City of Moreno Valley)

This project widened Indian Avenue and Nandina Street in the City of Moreno Valley as part of a credit and reimbursement agreement to construct a 770,000 square foot warehouse and is an example of industrial development construction during 2012. The developer had a $582,382 TUMF credit to apply toward its TUMF obligation (See page 13 for photo).

Hemet / San Jacinto Zone

Hemet, San Jacinto, and County of Riverside



The Hemet / San Jacinto Zone is comprised of the unincorporated County and the Cities of Hemet and San Jacinto. The Zone covers an estimated 209.9 square miles and has a population of approximately 173,097. The Hemet / San Jacinto Zone has 5 projects on the adopted TIP, of which 1 project is in planning, and 1 project is in engineering. Three (3) projects have been completed and are not shown on the following page on the Hemet / San Jacinto Zone 5-Year TIP table. They are listed under the Completed Projects list on Page 48.

Following are examples of projects that WRCOG has participated in with local jurisdictions in the Hemet / San Jacinto Zone that were underway and/or completed during the fiscal year. These projects represent $17.2 million in TUMF investment.

Hemet / San Jacinto Zone 5-Year Transportation Improvement Program

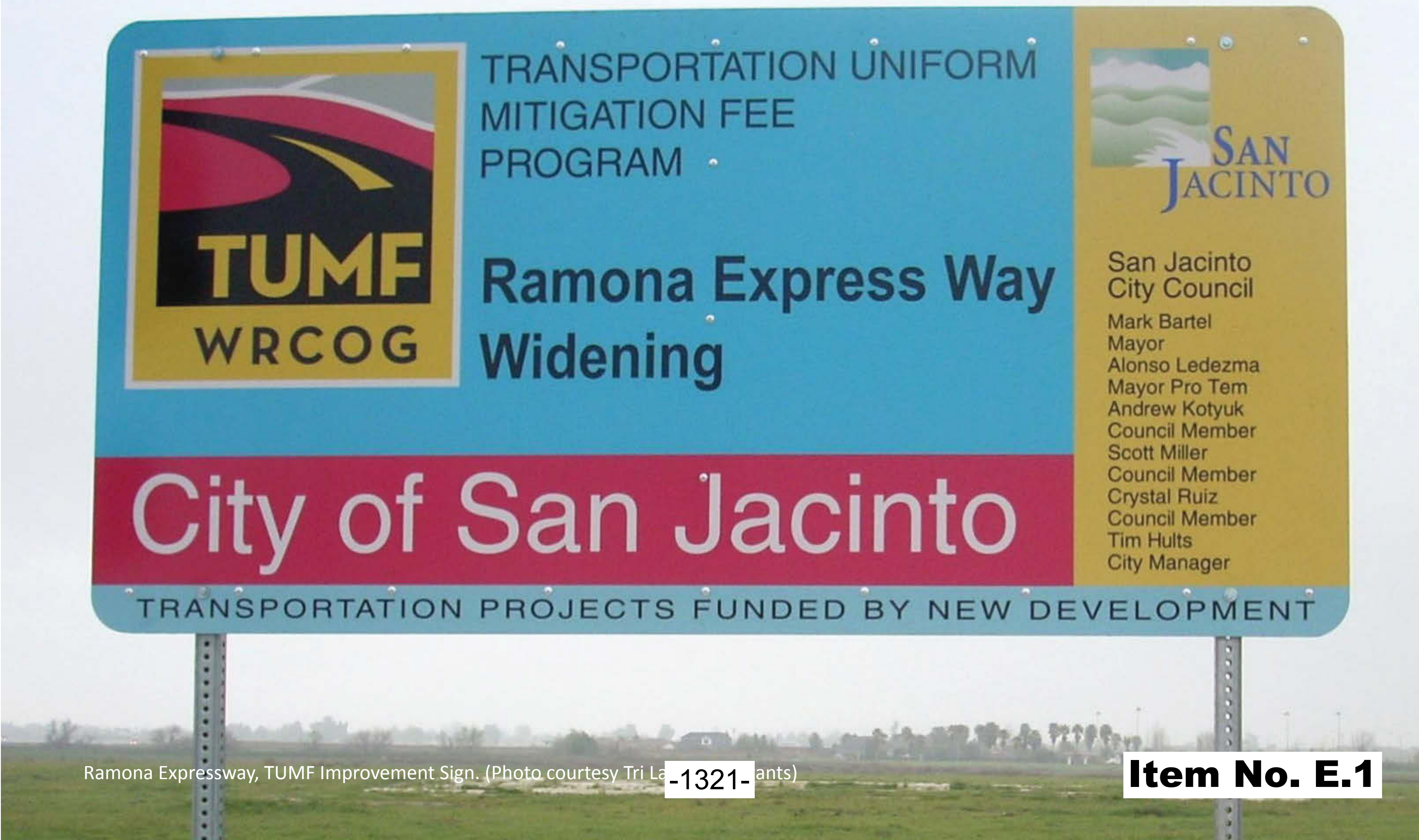
Planning	Engineering	Right-of-Way	Construction		
▨				San Jacinto/Hemet	•Esplanade Avenue (State to Sanderson) - widen 2 to 4 lanes
▨	▨			San Jacinto	•Ramona Expressway (Sanderson to Main) - widen 2 to 4 lanes

3 projects currently on the TIP are completed and are listed under the Completed Projects list on Page 48.

Ramona Expressway Phase I Widening (City of San Jacinto)

The Ramona Expressway is a major east/west corridor connecting Hemet, San Jacinto, and Perris to the I-215. This project is being built in two phases; Phase I will widen Ramona Expressway, from Sanderson Avenue to Eagle Road from two to six lanes with a median. Phase II will widen Ramona Expressway, from Eagle Road to Main Street from two to four lanes with a center turn-lane. Phase I total cost is $10 million, of which TUMF has programmed $5 million. Phase I is currently in the engineering phase, with construction estimated to begin in 2013.

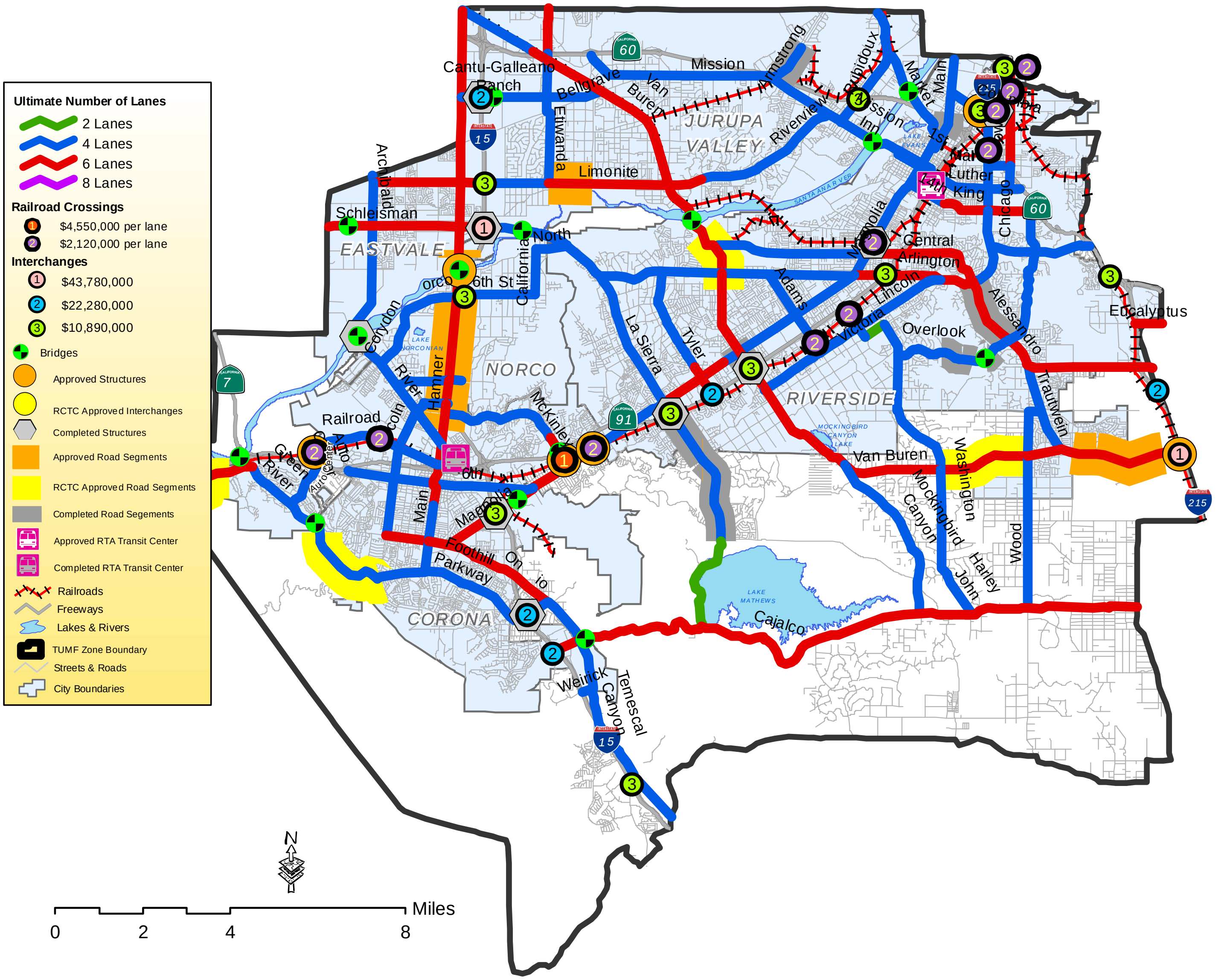
Ramona Expressway, from Sanderson Avenue to Main Street Project, City of San Jacinto. (Photo courtesy Tri Lake Consultants)



Ramona Expressway, TUMF Improvement Sign. (Photo courtesy Tri La ants)

Northwest Zone

Corona, Eastvale, Jurupa Valley, Riverside, March JPA, and County of Riverside



The Northwest Zone is comprised of the unincorporated County and the Cities of Corona, Eastvale, Jurupa Valley, Norco, and Riverside. The Zone covers an estimated 332.8 square miles and has a population of approximately 722,301. The Northwest Zone has 10 projects on the adopted TIP, of which 3 projects are in the planning stages, 1 project is in engineering, 2 projects are in the right of way phase, and 2 projects are under construction. Two (2) projects have been completed and are not shown on the following page on the Northwest Zone 5-Year TIP table. They are listed under the Completed Projects list on Page 48.

Following are examples of projects that WRCOG has participated in with local jurisdictions in the Northwest Zone that were underway and/or completed during the fiscal year. These projects represent $44.2 million in TUMF investment.

Northwest Zone 5-Year Transportation Improvement Program

Planning	Engineering	Right-of-Way	Construction		
▨	▨	▨		County of Riverside	•Magnolia Grade Separation (Lincoln Street to Buchanan Street)
▨	▨	▨		Corona	•Auto Center Drive Grade Seperation
▨					•McKinley Grade Separation and Bridge - widen 4 to 6 lanes
▨	▨			County of Riverside/March JPA	•Van Buren / I-215 Interchange
▨				Eastvale/Norco	•Hamner Ave Bridge (1200' over Santa Ana River) - widen 2 to 6 lanes
▨				Jurupa Valley/County of Riverside	•Limonite Avenue (Etiwanda to Van Buren) - widen 2 to 4 lanes
▨	▨	▨	▨	Norco	•Hamner Avenue (1500' N/o and 1500' S/o Citrus) - widen 2 to 6 lanes
▨	▨	▨	▨		•Hamner Avenue (Santa Ana River to Parkridge Avenue) - widen 4 to 6 lanes

2 projects currently on the TIP are completed and are listed under the Completed Projects list on Page 48.

Hamner Avenue Widening (Cities of Eastvale and Norco)

This north / south arterial widening project parallels I-15 and is bordered by the Cities of Eastvale and Norco. The project will widen Hamner Avenue, north and south of Citrus Avenue from two to four lanes and is part of the larger Hamner Avenue Corridor widening project that includes the Hamner Avenue Bridge to the north. Total project cost is $5 million, of which TUMF programmed $1.9 million. Construction is expected to be completed early 2013.

Hamner Avenue Widening Project, Cities of Norco and Eastvale. (Photo courtesy City of Norco)

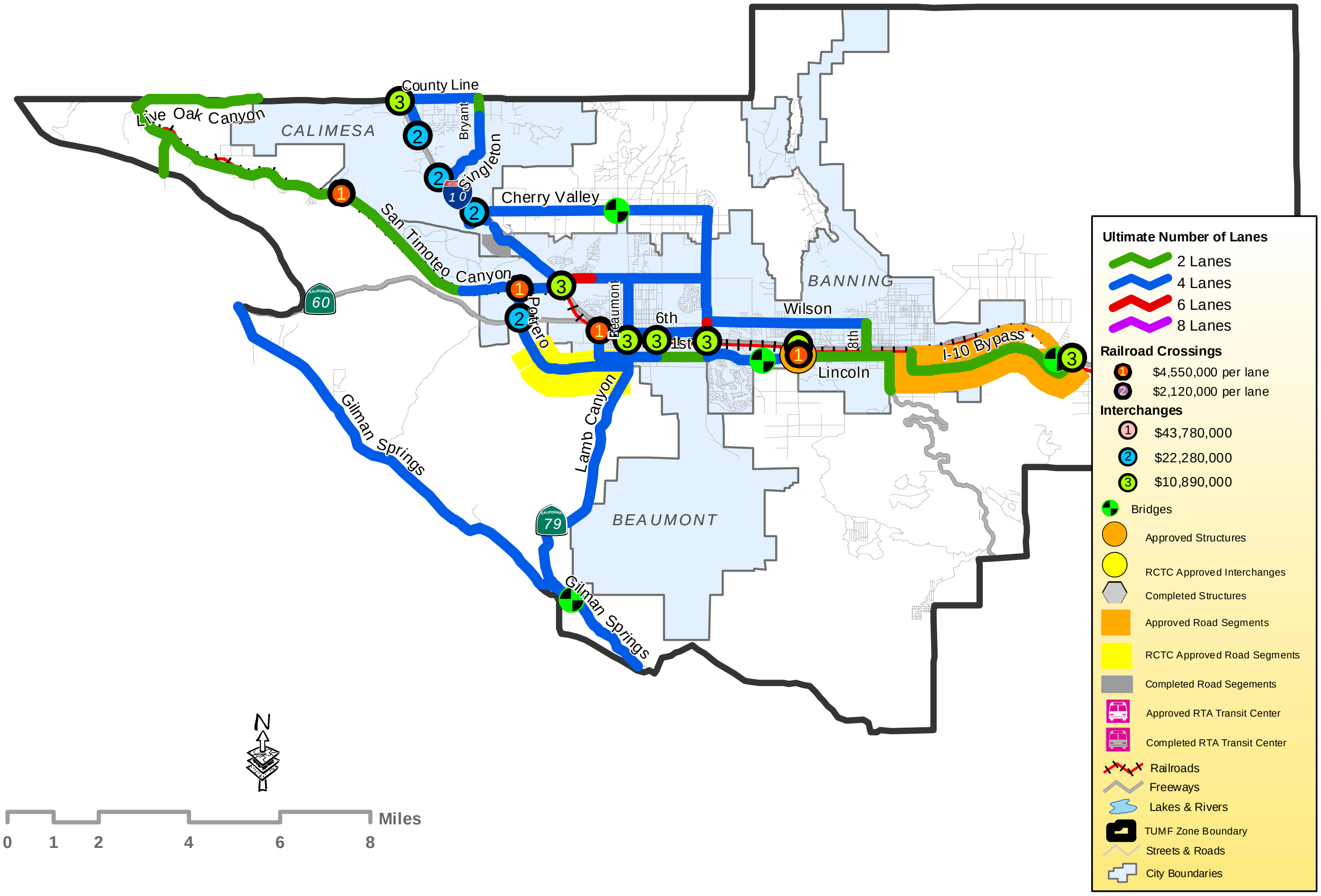
Van Buren Boulevard / I-215 Interchange (March JPA)

This interchange project will re-configure the existing diamond interchange; add a new entrance ramp realign and widen Van Buren Boulevard; replace the bridge structures over the railroad and freeway; and add auxiliary lanes along I-215 between Van Buren Boulevard and Cactus Avenue. The County of Riverside TMLA is heading up the construction for the project. The total project cost is estimated to be over $30.3 million, of which the TUMF Program is currently contributing $3.7 million. The estimated completion date is December 2013.

Van Buren / I-215 Interchange, March JPA. (WRCOG photo)

Pass Zone

Banning, Calimesa and County of Riverside



The Pass Zone is comprised of the unincorporated County and the Cities of Banning and Calimesa. The Zone covers an estimated 260.9 square miles and has a population of approximately 50,610. The Pass Zone has 4 projects on the adopted TIP, of which 1 project is in planning stages, 1 project is in engineering and 1 project is in construction. One (1) project has been completed and is not shown on the following page on the Pass Zone 5-Year TIP table. It is listed under the Completed Projects list on Page 48.

Following are examples of projects that WRCOG has participated in with local jurisdictions in the Pass Zone that were underway and/or completed during the fiscal year. These projects represent $6.5 million in TUMF investment.

Sunset Avenue Grade Separation Project sign, City of Banning. (WRCOG image)

Pass Zone 5-Year Transportation Improvement Program

Planning	Engineering	Right-of-Way	Construction		
■	■			County of Riverside/Banning	•Sunset Avenue Grade Separation
■					•I-10 Bypass (Hargrave St. to Apache Trail) - widen 0 to 2 lanes
■	■	■	■	Banning	•Highland Springs/I-10 Interchange Improvements & Widening

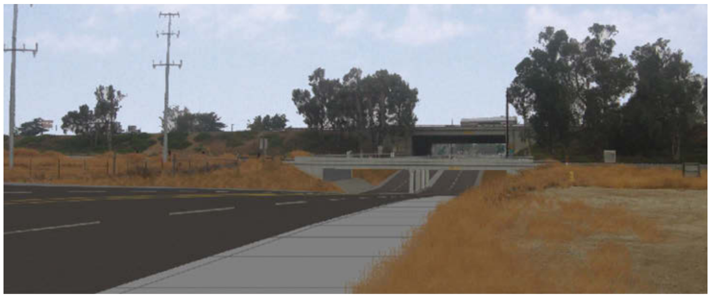
1 project currently on the TIP is completed and is listed under the Completed Projects list on Page 48.

Sunset Avenue Grade Separation (County of Riverside and City of Banning)

This project will construct a railroad grade separation at the existing Union Pacific Railroad and Sunset Avenue at-grade crossing in the City of Banning. The proposed grade separation will improve traffic circulation and provide emergency access north and south of I-10 and the railroad tracks. A new railroad bridge structure will be constructed and Sunset Avenue will be lowered and reconstructed to maintain two existing through lanes in each direction under the railroad tracks. The existing on and off ramps at the I-10 / Sunset Avenue interchange will be reconstructed to accommodate the change in elevation. Total project cost is estimated to be $41 million, of which TUMF has currently programmed $3.2 million. Construction is expected to begin in late 2013 and be completed in late 2015.

I-10 Bypass South (City of Banning and County of Riverside TLMA)

This project will construct a new two-lane roadway and a 300-foot bridge over the San Gorgonio River between the City of Banning and the unincorporated area of Cabazon to support a future four-lane roadway and serve as an alternate route to the I-10. The estimated total project cost is more than $30 million, of which TUMF has currently programmed $1.7 million on the Pass Zone 5-Year TIP. Currently in the engineering phase, construction is estimated to begin in 2015.



Rendering of Sunset Avenue Grade Separation at the I-10 Freeway, City of Banning and County of Riverside TLMA. (Courtesy County of Riverside TLMA)

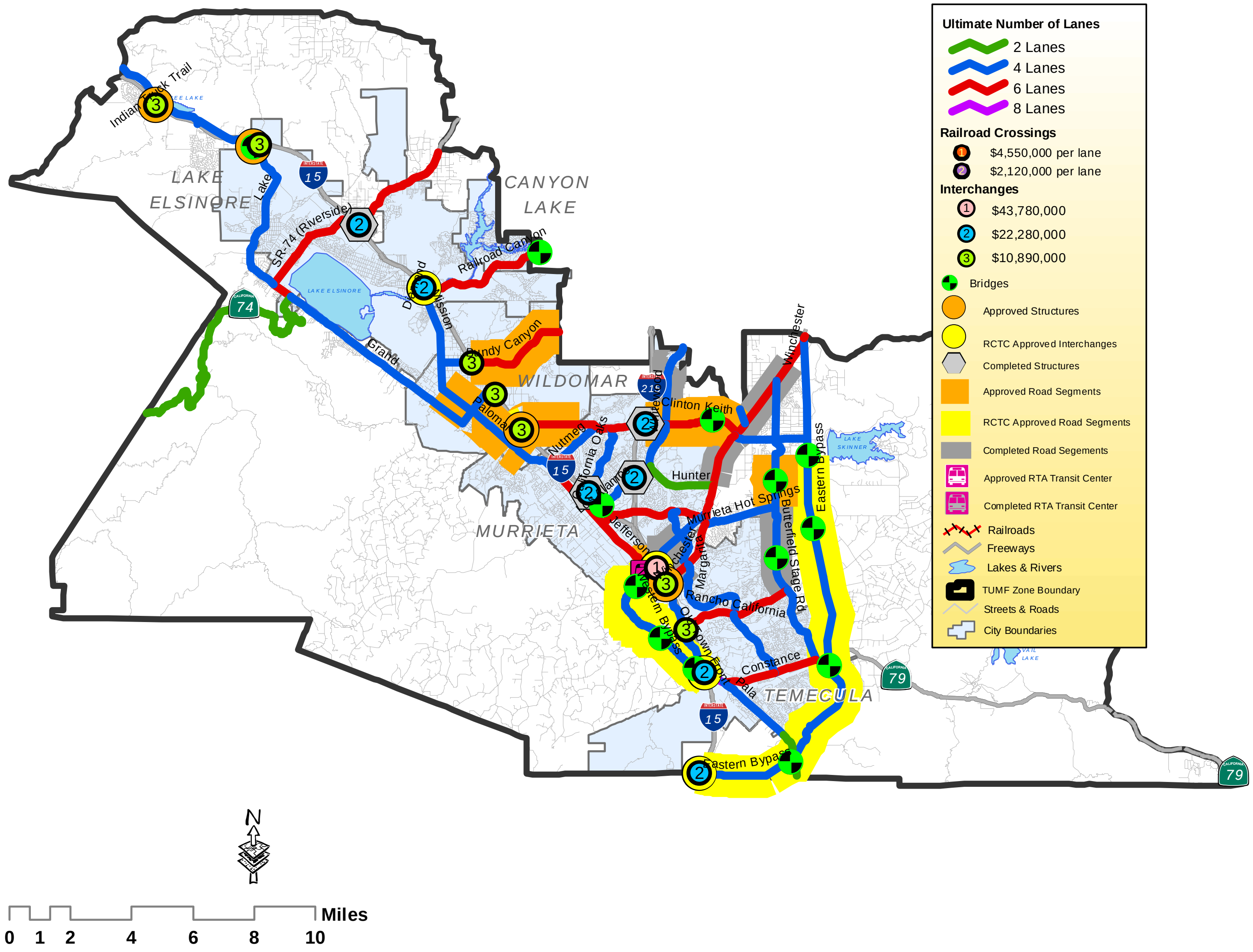
Singleton Road (City of Calimesa)

This project will construct four new lanes on Singleton Road north of Condit Avenue as part of the boundary street improvements for MasterCraft Development. The improvements will be through a TUMF Credit Agreement between the City and the developer. The improvement costs are expected to be approximately $3 million, with construction to start late 2012.

New home construction along Singleton Road in the City of Calimesa. (Photo courtesy Skyview Imaging)

Southwest Zone

Canyon Lake, Lake Elsinore, Murrieta, Temecula, Wildomar, and County of Riverside



The Southwest Zone is comprised of the unincorporated County and the Cities of Canyon Lake, Lake Elsinore, Murrieta, Temecula, and Wildomar. The Zone covers an estimated 536.1 square miles and has a population of approximately 391,147. The Southwest Zone has 16 projects on the adopted TIP, of which 3 projects are in the planning stages, 3 projects are in engineering, 4 projects are in the right-of-way phase, and 5 projects are under construction. One (1) project has been completed and is not shown on the following page on the Southwest Zone 5-Year TIP table. It is listed under the Completed Projects list on Page 48.

Following are examples of projects that WRCOG has participated in with local jurisdictions in the Southwest Zone that were underway and/or completed during the fiscal year. These projects represent $84.8 million in TUMF investment.

Southwest Zone 5-Year Transportation Improvement Program

Planning	Engineering	Right-of-Way	Construction		
■				County of Riverside	•Butterfield Stage Road (Auld to Murrieta Hot Springs) - widen 0 to 4 lanes
■	■	■	■		•Clinton Keith Road (SR-79 to I-215) - widen 4 to 6 lanes
■	■	■	■		•Indian Truck Trial / I-15 Interchange Improvements
■	■	■	■	Canyon Lake	•Railroad Canyon Road (Goetz Road to City Limits) - widen 4 to 6 lanes
■	■	■	■	Murrieta	•Meadowlark Lane (Clinton Keith Road to Keller Road) - widen 2 to 4 lanes
■	■	■			•California Oaks Road / I-215 Interchange Madison Avenue to Shop Center Drive - widen 10 to 12 lanes
■	■	■		Temecula	•SR-79 Western Bypass Bridge (French Valley Pkwy-Murrieta Creek)
■	■				•SR-79 Winchester / I-15 Interchange
■	■	■			•French Valley Parkway / I-15 Overcrossing & Interchange
■				Lake Elsinore/County of Riverside	•Temescal Canyon Road (City Limits to Lake Street with Bridge) - widen 2 to 4 lanes
■	■	■		Lake Elsinore	•SR-74 / I-15 Interchange
■	■			Wildomar	•Clinton Keith Road (I-15 to Copper Craft) - widen 2 to 4 lanes
■					•Bundy Canyon / Scott Widening (I-15 to Sunset) - widen 2 to 4 lanes
■	■				•Palomar Street (Mission Trail to Jefferson) - widen 2 to 4 lanes
■	■	■	■	Wildomar/County of Riverside	•Clinton Keith / SR-15 Interchange

1 project currently on the TIP is completed and is listed under the Completed Projects list on Page 48.

Clinton Keith Road / I-215 Interchange - Completed (City of Murrieta)

This project constructed a new partial cloverleaf design interchange with six through lanes in each direction and two turn lanes for each on-ramp, a new bridge, HOV, and AUX lanes. The Clinton Keith Road / I-215 interchange improvements are an important part of the larger Clinton Keith Road extension widening project, currently being improved by the County of Riverside. Total project cost was $21 million, of which TUMF contributed $7 million. The interchange was completed in 2012.

Clinton Keith Road Extension (County of Riverside TMLA)

This project will widen 3.2 miles of Clinton Keith Road, from 2 to 4 lanes, from Antelope Road in the City of Murrieta to Winchester (Highway 79) in the unincorporated south county area. Clinton Keith Road is a regionally significant east/west corridor and is being widened to accommodate the additional increase in forecasted traffic from the east. The estimated total project cost is $59 million, of which TUMF is programmed to pay $17 million. The project is currently in Phase I construction, which is expected to be completed in 2013. Phase II is expected to be completed in late 2014.

Clinton Keith / I-215 Interchange, City of Murrieta. (WRCOG photo)

Clinton Keith Road / I-15 Interchange (City of Wildomar and County of Riverside TLMA)

This project will widen the bridge to accommodate six through lanes (three in each direction) and dual median left-turn-lanes in each direction. The freeway ramps will be reconstructed to connect with the widened cross-section of Clinton Keith Road. Estimated total project cost is $23 million, of which TUMF is programmed to pay $9.3 million. The County of Riverside TLMA is heading the construction phase, which is expected to be completed by mid-2013.

Clinton Keith Road / I-15 Interchange Project, City of Wildomar and County of Riverside TLMA. (Photo courtesy County of Riverside TLMA)

French Valley Parkway / I-15 Interchange and Overcrossing (City of Temecula)

This project will be constructed in two phases; Phase I will add a new southbound off-ramp at Cherry Street north of Winchester Road and will widen the existing Winchester southbound off-ramp. The project is estimated to take approximately eighteen months to complete. Phase I is expected to cost $29 million of which the TUMF Program is contributing $19 million in Zone and Regional dollars.

Caltrans will be the construction lead for Phase II, which will construct the overcrossing at French Valley Parkway spanning I-15 to connect Cherry Street on the west and Date Street to the east. There will also be a collector-distributor system that removes the merging on and off-ramp traffic from the through lanes. New bridges will provide for separate access to I-15 and I-215. Phase II is estimated to cost more than $172 million, of which more than $12.4 million is currently programmed with TUMF Zone and Regional dollars. Phase II is currently in the engineering and right-of-way acquisition phases; the project will be ready to solicit bids and start construction in mid to late 2015.

French Valley Parkway / I-15 Interchange, City of Temecula. (WRCOG photo)

French Valley Parkway / I-15 Interchange, City of Temecula. (Photo courtesy City of Temecula)

Railroad Canyon Road (City of Canyon Lake)

This project improves Railroad Canyon Road, between Canyon Lake city limits and Goetz Road by widening the 1.9 mile stretch from two to six lanes and connects to Newport Road; making this a major east / west corridor for the Southwest, Central, and Hemet / San Jacinto Zones.

The City of Canyon Lake will construct the project in approximately twelve months, while accommodating heavy traffic in and out of the City. The total project cost is $8.9 million, of which the TUMF Program is contributing $7.5 million. Construction started early 2012 and will be completed early 2013.

Railroad Canyon Road Widening Project. (Photo courtesy City of Canyon Lakes and Tri Lake Consultants)

Jefferson Avenue at Kalmia Street - Completed (City of Murrieta)

The project constructed a right turn lane on Jefferson Avenue and an additional travel lane on Kalmia Street as boundary street improvements for Olive Wood. The improvements were accomplished through a TUMF credit agreement with the City of Murrieta. The developer had $274,795 in TUMF credit to apply towards its TUMF obligation.

Olive Wood Mall, at Jefferson Avenue and Kalmia Street in the City of Murrieta. (WRCOG photo)

Kalmia Street improvements, City of Murrieta. (WRCOG photo)

Butterfield Stage Road - Completed (City of Temecula)

This project constructed 2.9 miles of Butterfield Stage Road, from Rancho California Road to Murrieta Hot Springs Road to provide four new lanes and bridge improvements as part of the Roripaugh Ranch Development. The developer built the project through a TUMF credit agreement with the City of Temecula. The total cost to improve the project was $21.4 million. The project has $13.2 million TUMF credit that will be applied towards its TUMF obligation as the project is developed in the future.

Indian Truck Trail Widening and I-15 Interchange Improvements (County of Riverside)

The project will widen Indian Truck Trail one-third of a mile from Temescal Canyon Road to the I-15, and two additional lanes with dedicated left and right turn lanes. Improvements to the project will add walls under the I-15 bridges, ramp meters, and three traffic signals at the north/southbound ramp intersections, as well as at Indian Truck Trail and Temescal Canyon Road. These improvements are through a developer TUMF credit reimbursement agreement with the County of Riverside TLMA. Total project cost is $9.5 million. The project will have $1.7 TUMF credit to apply towards its TUMF obligation. The developer began construction in February 2012.

Indian Truck Trail/I-15 Improvements, County of Riverside TLMA. (Photo courtesy of County of Riverside TLMA)

Butterfield Stage Road, from Rancho California Road to Murrieta Hot Springs Road, City of Temecula. (Photo courtesy City of Temecula)

Olive Wood Mall, Jefferson Avenue and Kalmia Street, City of Murrieta. (WRCOG photo)

Railroad Canyon Road Widening Project. (Photo courtesy City of Canyon Lake and Tri Lake Consultants)

Clinton Keith Road / I-15 Interchange Project, City of Wildomar. (WRCOG photo)

Riverside County Transportation Commission

RCTC 5-Year Transportation Improvement Program

Planning	Engineering	Right-of-Way	Construction	Zone	Project
■				Central Zone	•Reche Vista/Reche Canyon (Heacock to S.B.C) - widen 2 to 4 lanes
■					•Perris Boulevard (Perris Valley Storm Drain to Cactus Avenue) - widen 2 to 4 lanes
■	■	■			•Perris Boulevard (Manzanita to Ironwood) - widen 2 to 4 lanes
■	■				•Perris Boulevard (Perris Valley Storm Drain to Ramona) - widen 2 to 4 lanes
■	■	■		Hemet/San Jacinto Zone	•Ramona (7th to Cedar) - widen 0 to 4 lanes
■					•SR-79 San Jacinto Bypass (Domengioni to Gilman Springs) - widen 0 to 6 lanes
■	■	■	■	Northwest Zone	•Van Buren Bridge, Clay to over Santa Ana River
■	■				•Van Buren Boulevard (Washington to Wood) - widen 4 to 6 lanes
■	■	■	■		•Green River Road (Dominguez Ranch to SR-91 to Palisades) - widen 2 to 6 lanes
■	■	■			•Foothill Parkway (Paseo Grande to Lincoln) - widen new to 4 lanes
■	■	■	■	Southwest Zone	•SR-79 Winchester (Thompson to Domengioni) - widen to 4 lanes
■	■				•Bundy Canyon / Scott Road, I-15 to I-215 - widen 2 to 4 lanes

7 projects currently on the TIP are completed and are listed under the Completed Projects list on Page 48.

RCTC receives 46.39 percent of the TUMF collected and uses these revenues for regional TUMF projects. During Fiscal Year 2011 / 2012, WRCOG transmitted $6.2 million to RCTC, and has transmitted $259 million to RCTC since the Program began. RCTC has 19 projects on the TIP of which 3 projects are in the planning stages, 3 projects are in engineering, 3 projects are in right-of-way and 3 projects are under construction. Seven (7) projects have been completed and are not shown on the above RCTC 5-Year TIP table. They are listed under the Completed Projects list on Page 48. Following are examples of projects that RCTC has participated in with local jurisdictions.

SR-79 Winchester Road Widening Project (Photo courtesy County of Riverside TLMA)

Item No. E.1

Van Buren Boulevard Bridges over the Santa Ana River (County of Riverside TLMA and RCTC)

This project will construct two new bridges on Van Buren Boulevard over the Santa Ana River. The bridges are approximately 1,005 feet in length and wide enough to accommodate three traffic lanes in each direction with an eight-foot outside shoulder and a five foot-wide sidewalk. The sidewalks will be separated from vehicular traffic with concrete barriers and the outside shoulders will be wide enough for delineation as a Class II Bike Lane in the future. The County of Riverside TLMA headed the bridge construction, which is expected to be completed in early 2013. The project will cost more than $33 million, of which $5.2 million will be provided from TUMF.

Van Buren Bridges over the Santa Ana River, County of Riverside TLMA. (Photo courtesy County of Riverside TLMA)

SR-79 Winchester Road (County of Riverside and RCTC)

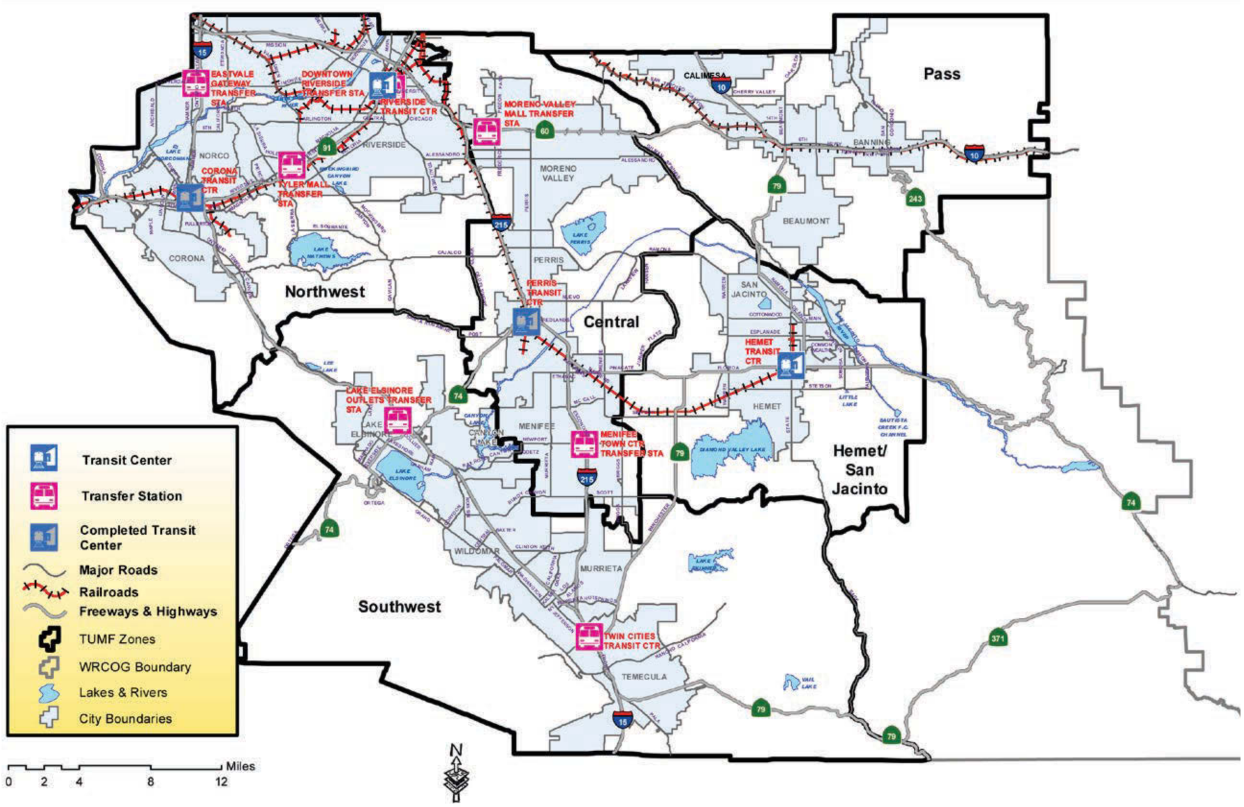
The project will widen 7.4 miles of SR-79 Winchester Road, between Thompson Road and Domenigoni Parkway, from two to four lanes.

RCTC is heading up the construction which will occur in two phases: Phase I will be from Scott Road to Domenigoni Parkway. Phase II will be from Abelia Street to Scott Road. The project is estimated to cost over $33 million, of which $9.3 million will be provided from TUMF. Construction started in February 2012 and is expected to last twelve months.

Van Buren Bridges over the Santa Ana River, County of Riverside TLMA. (Photo courtesy County of Riverside TLMA)

SR-79 Winchester Road Widening Project. (Photo courtesy County of Riverside TLMA)

Riverside Transit Agency



Riverside Transit Agency 5-Year Transportation Improvement Program

Planning	Engineering	Right of Way	Construction	Enhancements	
▨	▨	▨	▨		•Hemet Transit Center
▨	▨	▨	▨		•Riverside Transit Center
▨	▨	▨	▨		•Twin Cities (Temecula/Murrieta) Transit Center Center
▨	▨	▨	▨	▨	•Enhancements
▨	▨	▨	▨	▨	•Lake Elsinore Outlet Center Transfer Station
▨	▨	▨	▨	▨	•Limonite and Hamner (Eastvale Gateway)
▨	▨	▨	▨	▨	•Menifee Town Center Transfer Statiion
▨	▨	▨	▨	▨	•Moreno Valley Mall Transfer Station
▨	▨	▨	▨	▨	•Long Range Planning Study
▨	▨	▨	▨	▨	•Perris Transfer Nodes
▨	▨	▨	▨	▨	•Riverside Metrolink Station
▨	▨	▨	▨	▨	•Tyler Mall Transfer Station

1 project currently on the TIP is completed and is listed under the Completed Projects list on Page 48.

The Riverside Transit Agency (RTA) receives 1.64 percent of the TUMF collected for capital transit improvements. RTA has 13 projects on the adopted TIP, of which 3 projects are in construction and 9 are enhancement projects, such as new transfer stations, additional bus shelters with the latest technology, and long term transit planning to meet future demand because of new growth. One (1) project has been completed and is not shown on the above RTA 5-Year TIP table. It is listed under the Completed Projects on Page 48.

Following are projects below provide examples of projects that WRCOG has participated in with RTA that were underway and/or completed during the fiscal year. These projects represent 21.1 million in TUMF investment.

Transit Service Enhancements

RTA plans, designs and builds bus transfer stations with TUMF Program funds throughout the WRCOG subregion. Bus stop and station enhancements include transit technology that will provide real-time customer information and amenities built into and around each stop for customer convenience, comfort, and safety such as the latest bus shelters, kiosks, and benches. These transfer stations are scheduled to be constructed in 2013 and 2014 with $3.77 million in TUMF.

Perris Transit Station, City of Perris. (WRCOG photo)

Corona Transit Center, bus pads, City of Corona. (Photo courtesy City of Corona)

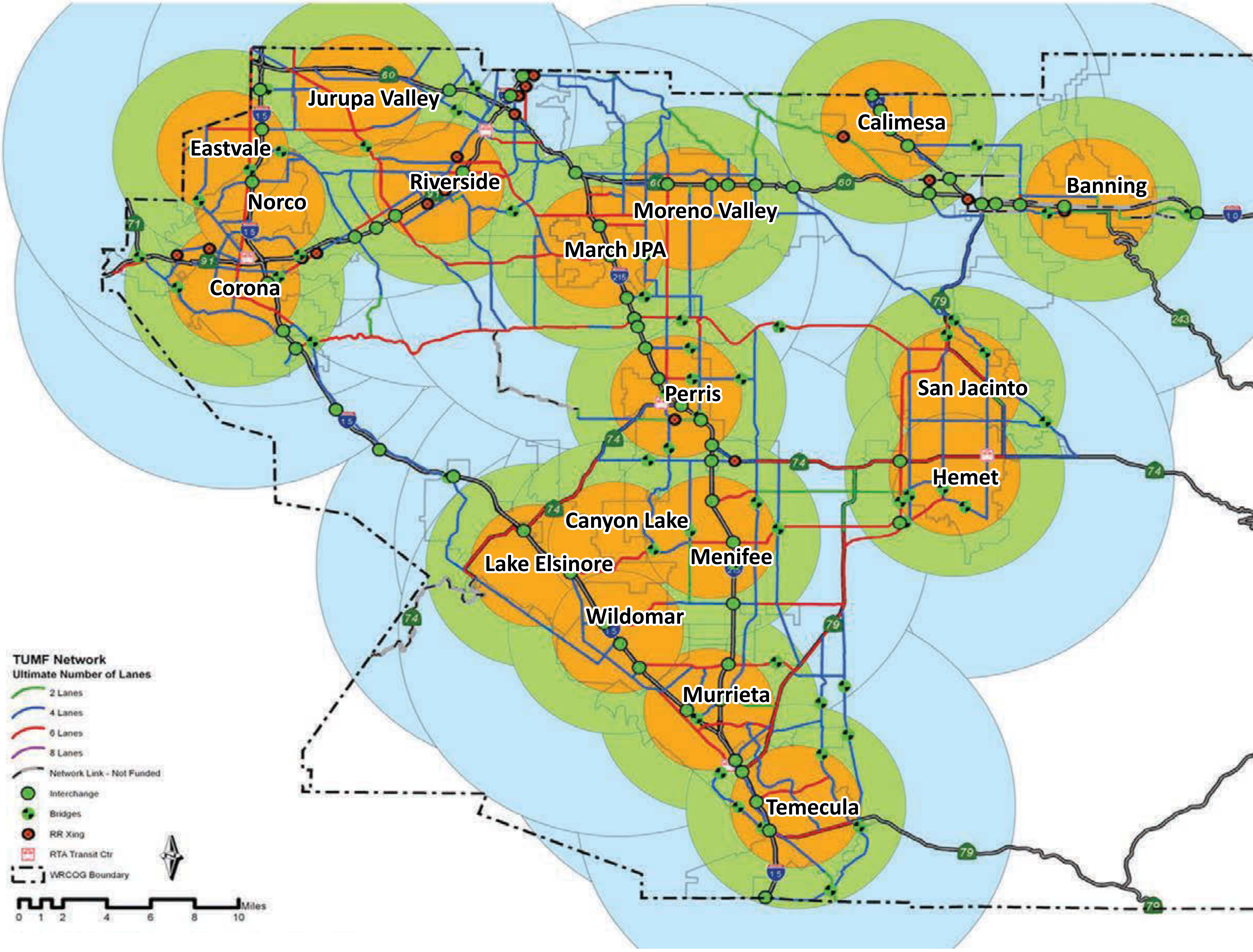
54 Completed Projects Since 2003

Central Zone	
Menifee/County of Riverside	•Newport Road (Goetz Road to Murrieta Road) - widen 0 to 4 lanes
Moreno Valley	•Ironwood / Moreno Beach Intersection
	•Ironwood / Nason Intersection
	•Pigeon Pass Road (Climbing Rose Drive to Hidden Springs Road) - widen 2 to 4 lanes
	•Lasselle Street (John F Kennedy Drive to Alessandro Boulevard) - widen an additional northbound lane
Perris	•Oleander Avenue (Perris Boulevard to Indian Street) - widen new to 2 lanes
	•Placentia Avenue (Redlands Avenue to Wilson Avenue) - construct 2 new lanes
	•Ramona Expressway (I-215 to Evans Road) - widen 4 to 6 lanes
	•Ramona Expressway (I-215 to Perris Boulevard) (Phase 1) - widen 4 to 6 lanes
	•Ethanac Road (I-15 to Green Valley Parkway) - widen 2 to 4 lanes
March JPA/Moreno Valley	•Heacock Avenue (Perris Valley Storm Drain to San Michele Road) - widen 2 to 4 lanes
Hemet/San Jacinto Zone	
County of Riverside	•Newport Road (Domenigoni Parkway), Leon Road to SR-79 - widen 0 to 6 lanes
Hemet	•Sanderson Avenue (Stetson Avenue to Domenigoni Parkway), Salt Creek Bridge - widen 2 to 4 lanes
	•Sanderson Avenue (Acacia Avenue to BNSF Railroad Tracks) - widen 2 to 4 lanes
	•Sanderson Avenue (Menlo Avenue to Esplanade Avenue) - widen 2 to 4 lanes
	•State Street (Chambers Street to Domenigoni Parkway) - widen 2 to 4 with center turn-lane
San Jacinto	•Sanderson Avenue (Esplanade Avenue to Ramona Expressway) - widen 2 to 4 lanes
	•Sanderson Avenue (Sanderson Avenue 579' south to Cottonwood)
San Jacinto/County of Riverside	•Sanderson Avenue / Ramona Expressway Intersection Improvements
Northwest Zone	
County of Riverside	•Cantu Galleano Ranch Road / I-15 Interchange
	•Washington Street Improvements
	•La Sierra Avenue (Cleveland Avenue to El Sobrante Road) - widen 2 to 4 lanes
	•Valley Way (Sierra Avenue to Mission Boulevard) - widen 2 to 4 lanes
	•Bellegrave Avenue (Dodd Street to 1,058' East) & Cantu Galleano Ranch (East of Marlatt to 1,177' east)
	•Archibald Avenue (Branding Iron Drive to 65th Street) - widen 1 additional lane
	•Schliesman Road (765' west of Cucamonga Creek Bridge to 1690' East) - widen 2 to 6 lanes
Corona	•Lincoln Avenue / SR-91 Interchange Improvements
	•Ontario Avenue (Compton Avenue to Rimpau Avenue) - widen 5 to 6 lanes
	•Railroad Street (Buena Vista Avenue to Grand Boulevard) - widen 2 to 4 lanes
	•Magnolia Avenue (I-15 to Sherborn Street) - widen 4 to 6 lanes
	•Magnolia Avenue / I-15 Interchange
Riverside	•La Sierra Avenue (Cleveland Avenue to Indiana Avenue) - widen 2 to 4 lanes
	•La Sierra Avenue / SR-91 Interchange
	•SR-60 / Market Street Ramps - widen ramps and install traffic signal
	•Wood Road / Van Buren Boulevard Intersection Improvements
	•Overlook Parkway except bridge (Chateau Ridge to Sandtrack) - widen 2 to 4 lanes
	•Alessandro Boulevard (Arlington Avenue to Trautwein Road) - widen 4 to 6 lanes
	•Magnolia Avenue / U.P. Grade Separation (Beatty Drive to Elizabeth Street)
	•Columbia Avenue Grade Separation Overpass - widen to 4 lanes
Pass Zone	
Calimesa	•Desert Lawn Drive (Palmer Avenue to Cherry Valley Boulevard) - widen 2 to 4 lanes
Southwest Zone	
County of Riverside	Anza Road, Eastern Bypass (El Chismisal Road to 1325') - widen 0 to 4 lanes
Lake Elsinore	•SR-74 Ortega / SR-74 Grand Intersection
Murrieta	•Los Alamos Road / I-215 Interchange
	•Clinton Keith Road / I-215 Interchange
Temecula	•Butterfield Stage Road (Rancho California Road to Murrieta Hot Springs Road)
Riverside County Transportation Commission	
Hemet/San Jacinto Zone	•Ramona Expressway (SR-79 / Sanderson to West City Limits) - widen 2 to 4 lanes
Northwest Zone	•Foothill Parkway (El Cerrito Road) / I-15 Interchange
	•Van Buren Boulevard / SR-91 Interchange
	•Van Buren Boulevard (Andrew Street to Garfield Street) - widen 4 to 6 lanes
	•Van Buren Boulevard (Santa Ana River to Jackson) - widen 4 to 6 lanes
	•Green River Road / SR-91 Interchange - widen 2 to 6 lanes
Southwest Zone	•SR-79 Western Bypass, I-15 / French Valley to I-15 / SR-79 / Front - widen 0 to 4 lanes
Riverside Transit Agency	
	•Corona Multi-Modal Transit Center
	•Perris Transit Center

Item No. E.1

French Valley Parkway / I-15 Overcrossing & Interchange Project, City of Temecula. (WRCOG photo)

3, 5,10-Mile Value of TUMF Improvements from City Centers



This map and accompanying table on the next page identify the value of TUMF improvements within a 3, 5, and 10-mile radius from each participating city's center. The purpose of this map is to graphically depict the benefits of TUMF Program improvements that residents in cities and the unincorporated County benefit from, even when the improvements are not located specifically within that jurisdiction. This map demonstrates the regional aspect of the TUMF Program and how the WRCOG TUMF participants are knitted together with TUMF improvements over the next 25 years. Maps for individual WRCOG jurisdictions can be found at the WRCOG website at http://www.wrcog.cog.ca.us/content/tumf_jurisdictional_map.asp.

March JPA	
Value of Improvements (0-3 miles)	$141,805,928
Value of Improvements (0-5 miles)	$404,070,764
Value of Improvements (0-10 miles)	$1,103,663,461

City of Banning	
Value of Improvements (0-3 miles)	$68,821,000
Value of Improvements (0-5 miles)	$113,646,000
Value of Improvements (0-10 miles)	$272,586,559

City of Calimesa	
Value of Improvements (0-3 miles)	$114,548,559
Value of Improvements (0-5 miles)	$123,614,559
Value of Improvements (0-10 miles)	$357,029,559

City of Canyon Lake	
Value of Improvements (0-3 miles)	$49,516,946
Value of Improvements (0-5 miles)	$207,274,946
Value of Improvements (0-10 miles)	$905,792,424

City of Corona	
Value of Improvements (0-3 miles)	$96,150,470
Value of Improvements (0-5 miles)	$208,611,150
Value of Improvements (0-10 miles)	$601,132,225

City of Eastvale	
Value of Improvements (0-3 miles)	$208,957,415
Value of Improvements (0-5 miles)	$269,358,435
Value of Improvements (0-10 miles)	$500,705,225

City of Hemet	
Value of Improvements (0-3 miles)	$97,353,118
Value of Improvements (0-5 miles)	$217,264,118
Value of Improvements (0-10 miles)	$429,623,521

City of Jurupa Valley	
Value of Improvements (0-3 miles)	$44,001,067
Value of Improvements (0-5 miles)	$138,231,067
Value of Improvements (0-10 miles)	$656,693,779

City of Lake Elsinore	
Value of Improvements (0-3 miles)	$107,568,000
Value of Improvements (0-5 miles)	$157,096,946
Value of Improvements (0-10 miles)	$405,199,946

City of Menifee	
Value of Improvements (0-3 miles)	$103,708,488
Value of Improvements (0-5 miles)	$314,839,434
Value of Improvements (0-10 miles)	$1,021,100,912

City of Moreno Valley	
Value of Improvements (0-3 miles)	$124,310,324
Value of Improvements (0-5 miles)	$337,550,553
Value of Improvements (0-10 miles)	$796,833,390

City of Murrieta	
Value of Improvements (0-3 miles)	$131,406,848
Value of Improvements (0-5 miles)	$250,472,848
Value of Improvements (0-10 miles)	$690,575,794

City of Norco	
Value of Improvements (0-3 miles)	$186,561,435
Value of Improvements (0-5 miles)	$315,739,225
Value of Improvements (0-10 miles)	$585,024,779

City of Perris	
Value of Improvements (0-3 miles)	$192,282,750
Value of Improvements (0-5 miles)	$423,342,686
Value of Improvements (0-10 miles)	$930,843,956

City of Riverside	
Value of Improvements (0-3 miles)	$83,444,000
Value of Improvements (0-5 miles)	$219,746,065
Value of Improvements (0-10 miles)	$839,928,055

City of San Jacinto	
Value of Improvements (0-3 miles)	$153,093,634
Value of Improvements (0-5 miles)	$213,235,799
Value of Improvements (0-10 miles)	$412,111,378

City of Temecula	
Value of Improvements (0-3 miles)	$91,219,000
Value of Improvements (0-5 miles)	$246,357,848
Value of Improvements (0-10 miles)	$453,898,848

City of Wildomar	
Value of Improvements (0-3 miles)	$141,790,000
Value of Improvements (0-5 miles)	$192,235,946
Value of Improvements (0-10 miles)	$770,627,794

Riverside County District 1	
Value of Improvements (County Incorporated Area)	$459,762,048
Value of Improvements (County unincorporated Area)	$360,541,000
Total Value of Improvements	$820,303,048

Riverside County District 2	
Value of Improvements (County Incorporated Area)	$438,678,178
Value of Improvements (County unincorporated Area)	$52,556,000
Total Value of Improvements	$491,234,178

Riverside County District 3	
Value of Improvements (County Incorporated Area)	$368,539,966
Value of Improvements (County unincorporated Area)	$495,814,000
Total Value of Improvements	$864,353,966

Riverside County District 5	
Value of Improvements (County Incorporated Area)	$1,087,368,245
Value of Improvements (County unincorporated Area)	$276,424,000
Total Value of Improvements	$1,363,792,245

TUMF Jurisdictions

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WRCOG
WESTERN RIVERSIDE
COUNCIL OF GOVERNMENTS

Item No. E.1

Executive Committee

Western Riverside Council of Governments

Robin Hastings, Chair
Councilmember
City of Moreno Valley

Kelly Bennett, Vice-Chair
Councilmember
City of Murrieta

Jim Hyatt, Second Vice-Chair
Councilmember
City of Calimesa

John Machisic
Councilmember
City of Banning

Jordan Ehrenkranz
Councilmember
City of Canyon Lake

Stan Skipworth
Councilmember
City of Corona

Jeff DeGrandpre
Councilmember
City of Eastvale

Robert Youssef
Mayor
City of Hemet

Micheal Goodland
Councilmember
City of Jurupa Valley

Brian Tisdale
Councilmember
City of Lake Elsinore

John Denver
Councilmember
City of Menifee

Kathy Azevedo
Mayor
City of Norco

Rita Rogers
Councilmember
City of Perris

Ron Loveridge
Mayor
City of Riverside

Scott Miller
Vice Mayor
City of San Jacinto

Chuck Washington
Councilmember
City of Temecula

Ben Benoit
Councilmember
City of Wildomar

Bob Buster
Supervisor, District 1
County of Riverside

John Tavaglione
Supervisor, District 2
County of Riverside

Jeff Stone
Supervisor, District 3
County of Riverside

Marion Ashley
Supervisor, District 5
County of Riverside

Phil Paule
Board Vice-President
Eastern Municipal Water District

S.R. Al Lopez
Board Vice-President
Western Municipal Water District

Kenneth M. Young
Superintendent
Riverside County Superintendent of Schools

WRCOG
WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS

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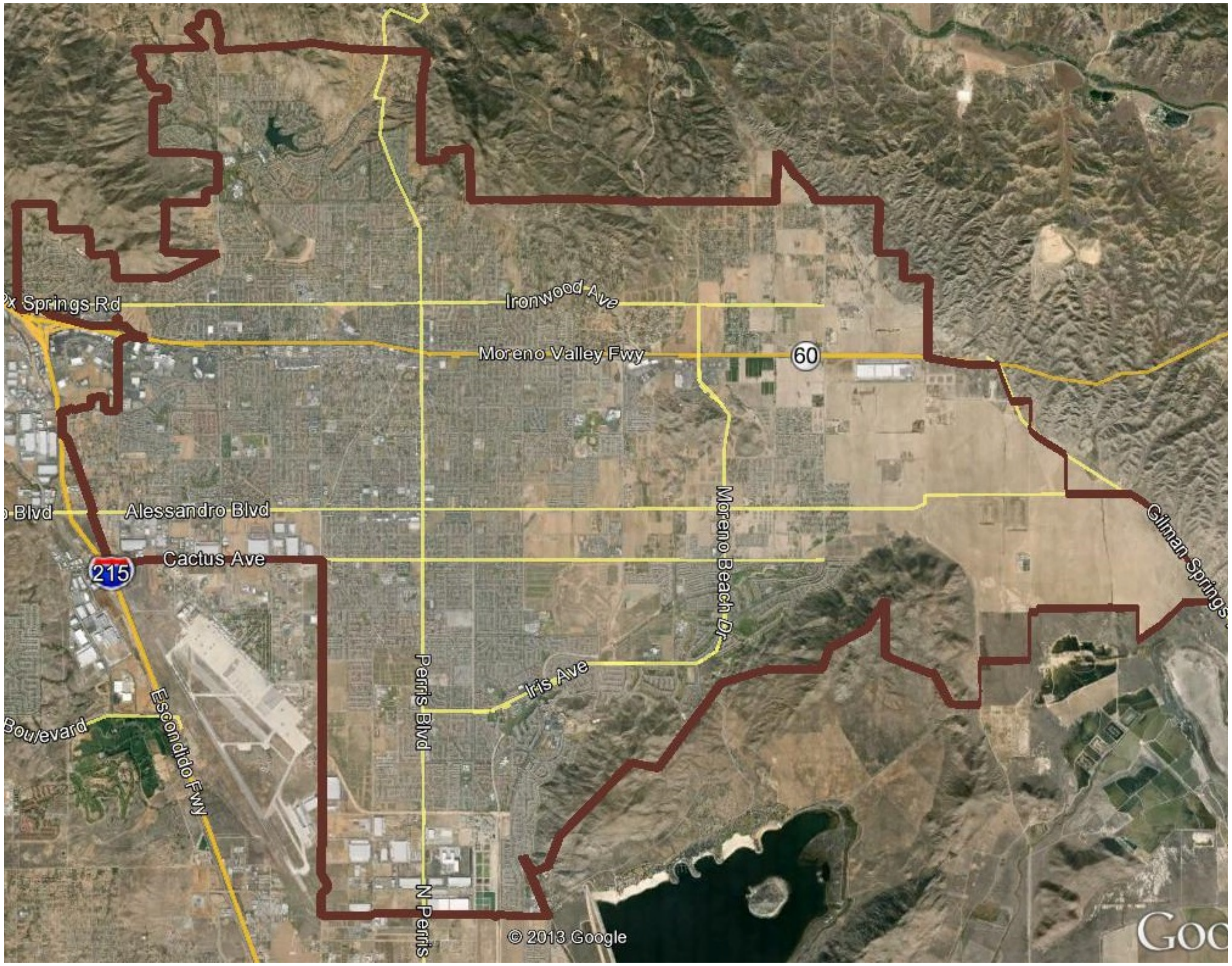
"Respect Local Control...Provide Regional Perspective"

NDC
National Demographics Corporation



Moreno Valley

Demographics and Council Districts

3/11/2014

Justin Levitt, Vice President

National Demographics Corporation (NDC)

National Demographics Corporation

2 Demographics

3/11/2014

District General Demographics

2008 – 2012 American Community Survey Data

Age	age0-19	36%
	age20-60	54%
	age60plus	10%
Immigration	immigrants	25%
Housing Stats	vacant	8%
	occupied	92%
	rented	37%
	owned	63%
	singlefamily	84%
	multifamily	16%
Language spoken at home	english	52%
	spanish	42%
	asian-lang	4%
Children at Home	child-under18	46%
Work (percent of pop age 16+)	employed	54%
	Commute on Public Transit	1%
Household Income	hhincome0-25k	20%
	hhincome25-50k	25%
	hhincome50-75k	21%
	hhincome75-200k	33%
	hhincome200k-plus	2%
Education (among those age 25+)	< hs degree	24%
	hs-grad	61%
	bachelor	11%
	graduatedegree	5%

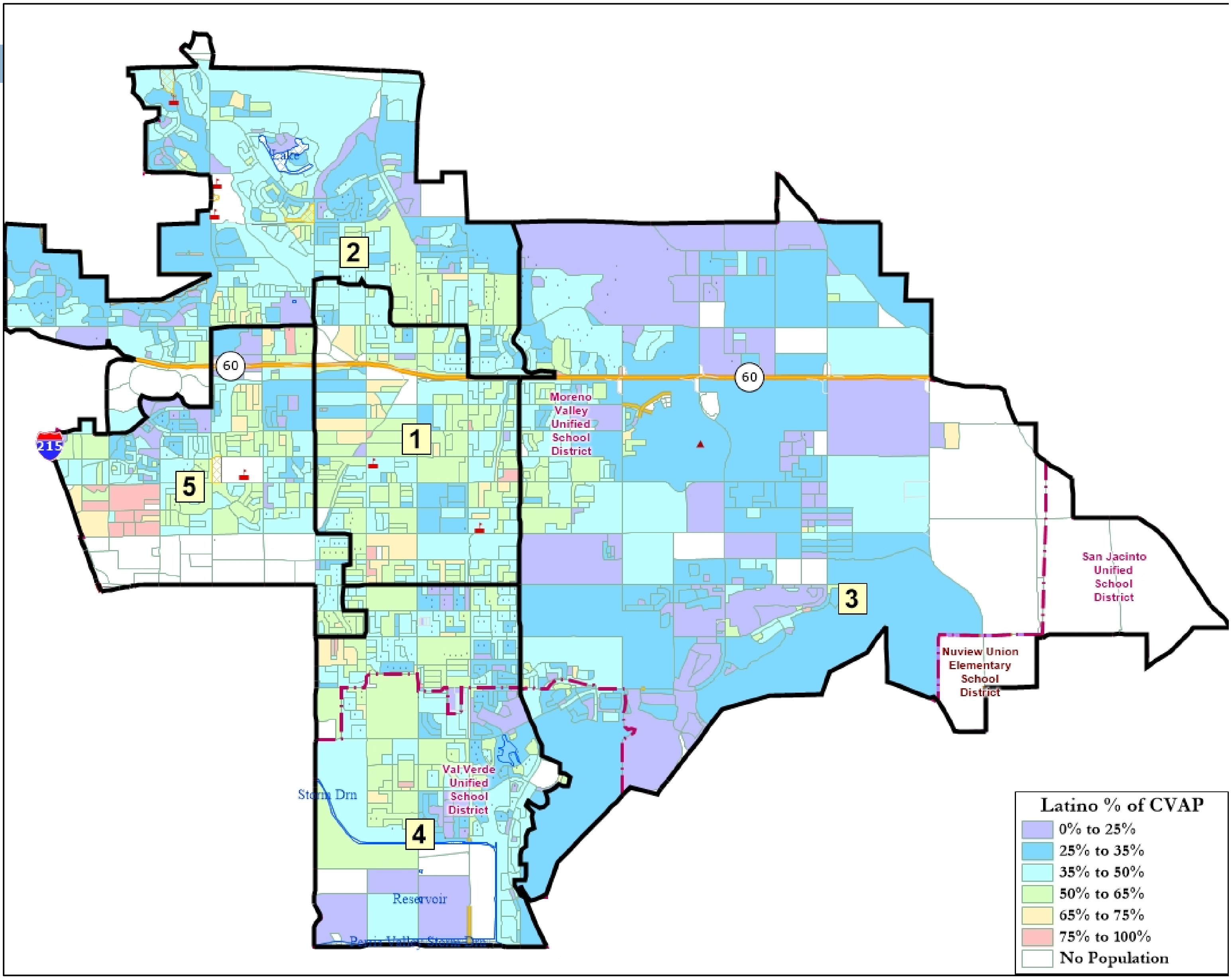
NDC
National Demographics Corporation

Moreno Valley Racial & Ethnic Demographics

- Total Population:
  - 54% Latino
  - 19% Non-Hispanic White
  - 18% African American
  - 7% Asian American
  - 2% Other
- Citizen Voting Age Population:
  - 41% Latino
  - 29% Non-Hispanic White
  - 21% African American
  - 6% Asian American
  - 3% Other
- Registered Voters (2012 Nov):
  - Latino: 40%
  - Asian-American: 1%
  - Filipino: 1%
- Voter Turnout (2012 Nov):
  - Latino: 36%
  - Asian-American: 1%
  - Filipino: 1%

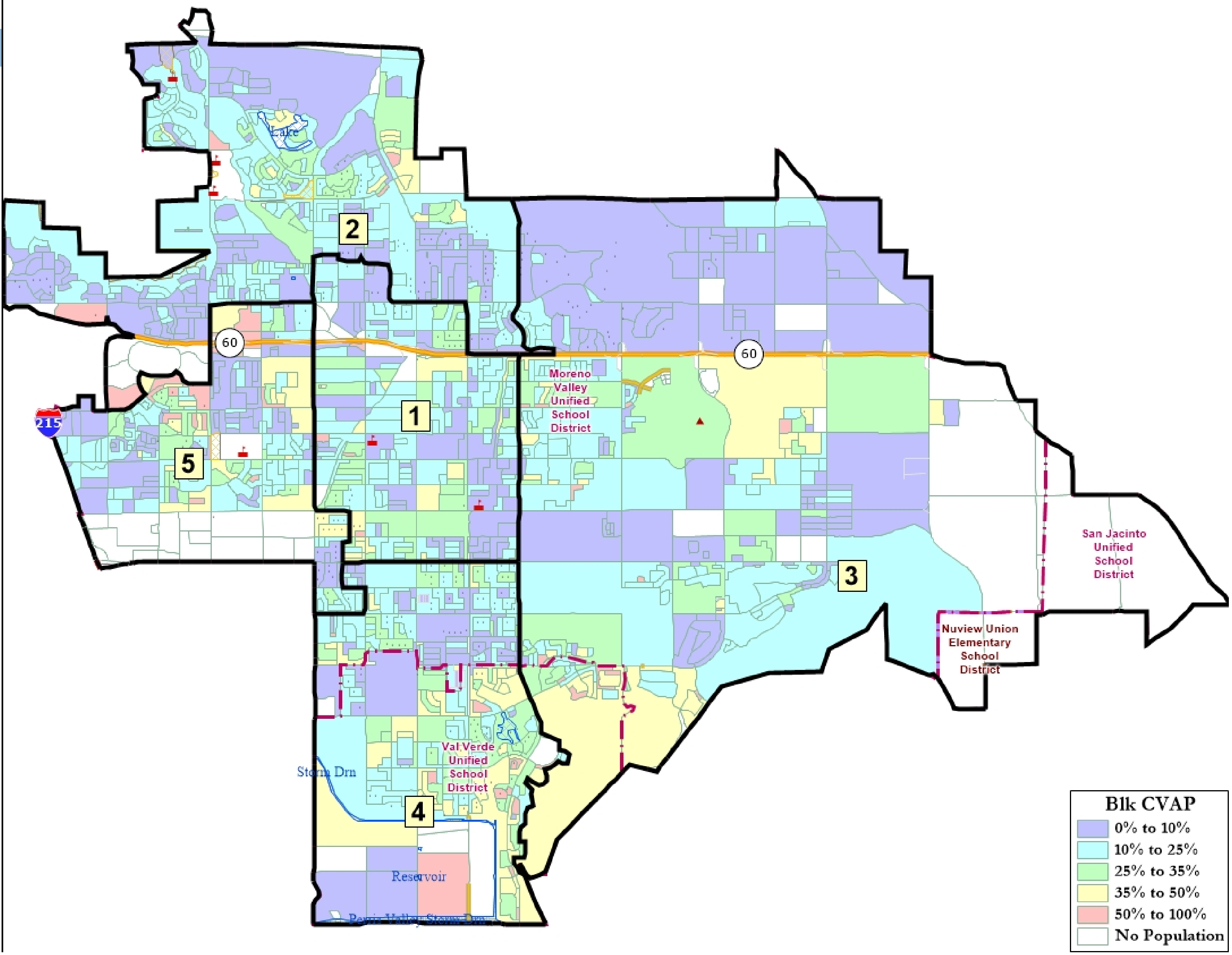
National Demographics Corporation

Latino % of CVAP



NDC
National Demographics Corporation

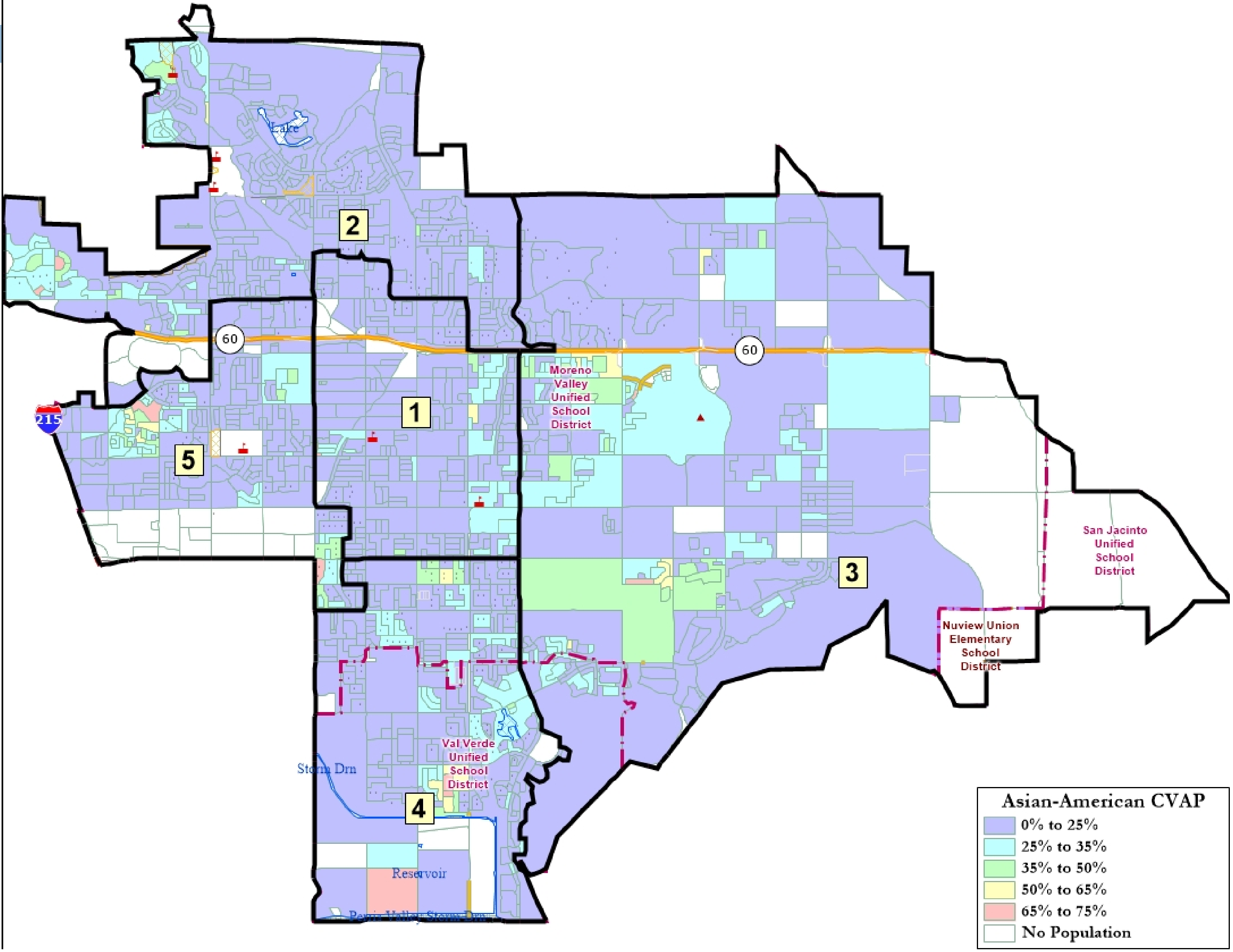
African-American % of CVAP



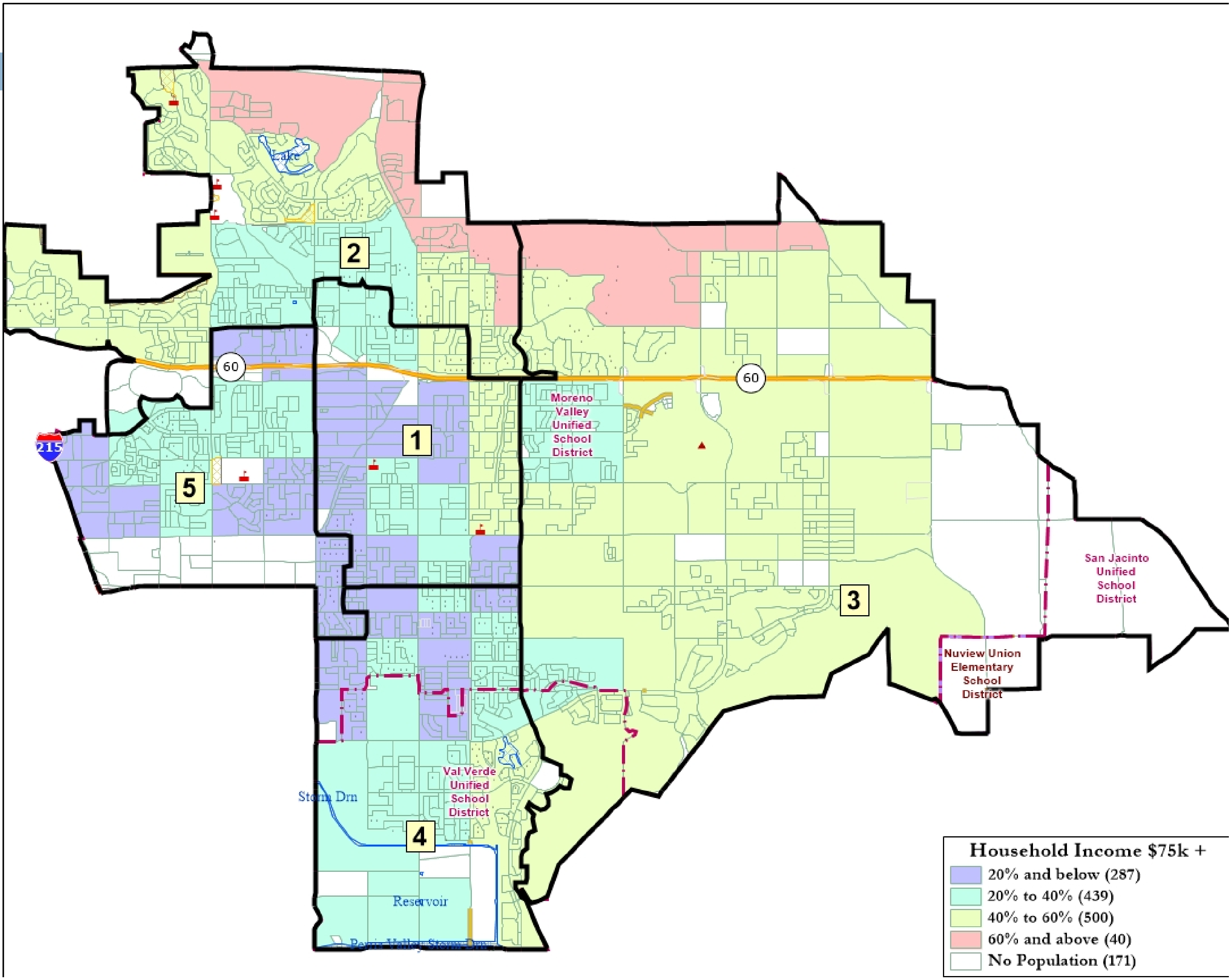
3/11/2014

National Demographics Corporation

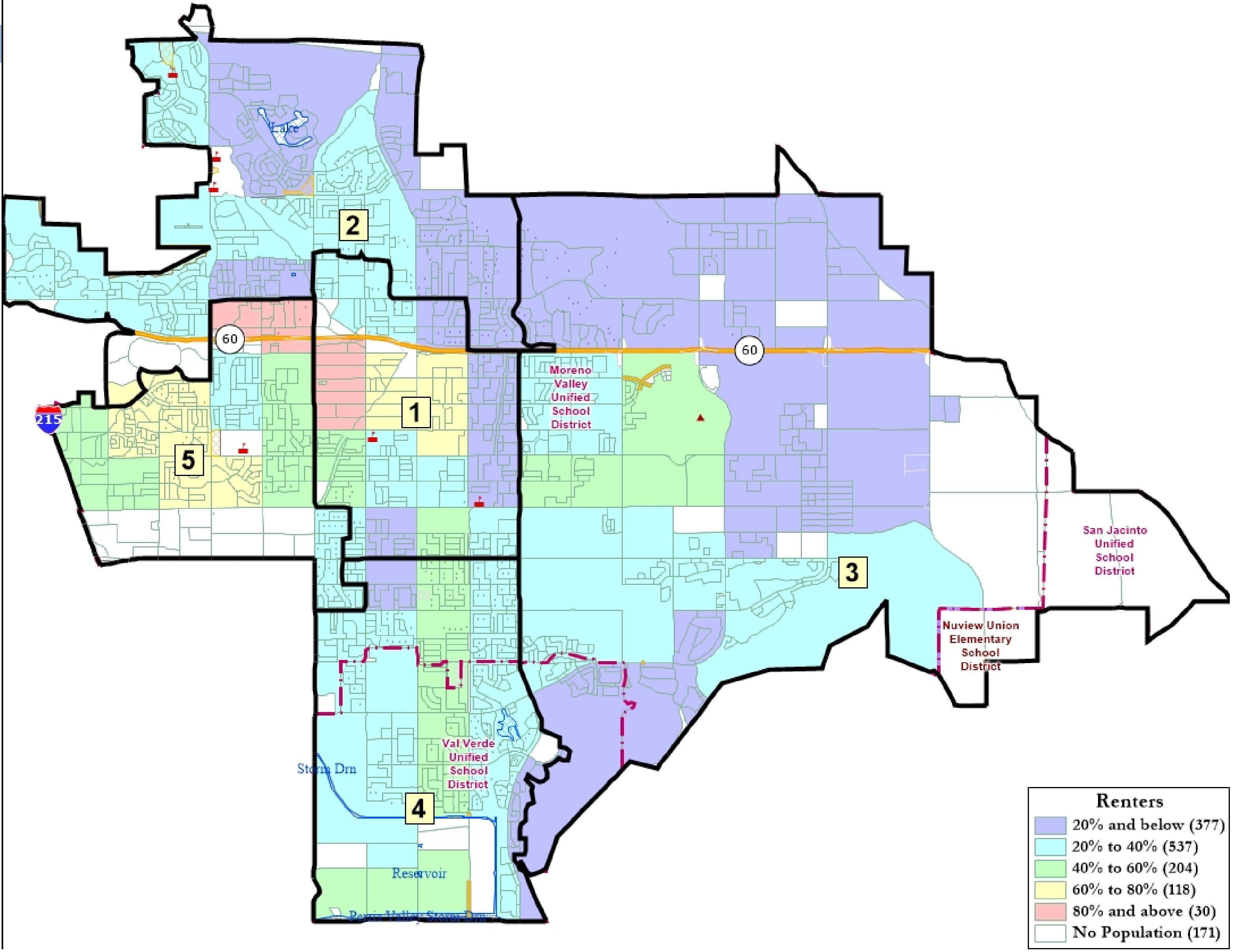
Asian-American % of CVAP



Household Income



Owners and Renters



National Demographics Corporation

10 Criteria

3/11/2014

Federal Laws

- **Equal Population** among districts
  - Total population: <u>not</u> voting age population, citizens, or voters
  - All deviations from perfect equality must be explained using other acceptable criteria.

- **Federal Voting Rights Act**
  - Section 2 – Ensure equal power to elect candidates of choice
    - "Protected Class" populations must have an "equal opportunity to elect the candidates of their choice"
    - No "packing" or "cracking"
  - No racial gerrymandering
    - Race may not be the "predominate" factor
    - Focus on communities and neighborhoods, not race/ethnicity

National Demographics Corporation

Traditional Criteria

- **Communities of interest**
  - Neighborhoods, especially school attendance areas, are common communities of interest in districting.
  - Should a given community of interest be kept united, or have a part in multiple districts?
- **Visible (Natural & man-made) boundaries**
  - Make it easy for residents of a district to understand its borders (and to engage their neighbors in precinct walking or other election activities)
- **Compactness & contiguity**
  - Also makes it easier for voters to understand their district's borders.
- **Continuity in office**
  - Redistricting, an administrative process, should not tell the voters they can no longer elect a candidate they have previously elected (which is what happens when two or more incumbents are "paired.")
- **Population growth**
  - Growth is much less certain in 2011 than it was in 2001, so this is harder to justify than it was in 2001.
- **Preserve Core of existing districts**
  - Don't move voters around unless needed to achieve one of the other goals.

National Demographics Corporation

Recommended Actions

- No action on demographic report
- Review, amend as desired, and adopt criteria
  - A one-page summary of the criteria has been provided for reference in making any amendments or for adoption.

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Proposed Criteria to Guide the Establishment of City Council Districts

Legal Requirements:

1. The boundaries of the districts shall be established so that the districts are at least as nearly equal in population as required by law.
2. The boundaries of the districts shall not be gerrymandered in violation of the principles established by the United States Supreme Court in *Shaw v. Reno*, 509 U.S. 630 (1993), and its progeny.
3. The boundaries of the districts shall be established so that the districts do not result in a denial or abridgement of the right of any citizen to vote on account of race or color as provided in Section 2 of the federal Voting Rights Act.

Traditional Redistricting Criteria:
(numbering is for ease of reference and does not indicate priority)

4. The boundaries of the districts shall observe communities of interest, such as school- and park-connected neighborhoods, rural or urban populations, city planning areas, social interests, agricultural, industrial or service industry interests, and the like, insofar as practicable.
5. The boundaries of the districts may take into account visible features, such as topography and geography, including mountains, flat land, forest lands, man-made geographical features such as highways and canals, etc., insofar as practicable.
6. The boundaries of the districts shall be compact, insofar as practicable.
7. The boundaries of the districts shall be created to contain contiguous territory, insofar as practicable.
8. The boundaries of the districts may consider avoiding pairing two or more incumbents in a single district, insofar as this does not conflict with the constitution and laws of the State of California and the United States.
9. To maintain a longer-term population balance, districts known to be areas of higher-than-average population growth in the two to five years following redistricting may be under populated within the population deviation amounts allowed by law.
10. Each new district may aim to preserve the corresponding existing district's population and territory as much as possible;
11. The boundaries of the districts shall comply with such other factors which become known during the redistricting process and are formally adopted by the City Council.

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APPROVALS	
BUDGET OFFICER	me
CITY ATTORNEY	SMB
CITY MANAGER	

Report to City Council

TO: Mayor and City Council

FROM: Michelle Dawson, City Manager
Richard Teichert, Chief Financial Officer

AGENDA DATE: March 11, 2014

TITLE: MID-YEAR BUDGET REVIEW AND APPROVAL OF THE REVISED OPERATING BUDGET FOR FISCAL YEARS 2013/14 and 2014/15

RECOMMENDED ACTION

Recommendations: That the City Council:

1. Receive and file the mid-year budget summary.

2. Adopt Resolution No. 2014-22. A Resolution approving the Revised Operating Budget for the City of Moreno Valley for FYs 2013/14 and 2014/15, pursuant to the revenue and expenditure changes presented in Exhibits A and B to the Resolution.

3. Approve the Position Control Roster. Specific positions are discussed within this staff report and listed on Attachment 4 to this staff report.

4. Direct the Chief Financial Officer to adjust the designations of certain fund balances as requested within this staff report.

Recommendations: That the CSD:

1. Acting in its capacity as the President and Board of Directors of the Moreno Valley Community Services District, adopt Resolution No. CSD 2014-01. A Resolution approving the Revised Operating Budget for the Moreno Valley Community Services District for FYs 2013/14 and 2014/15, pursuant to the revenue and expenditure changes presented in Exhibits A and B to the Resolution.

BACKGROUND

On June 11, 2013, the City Council adopted the Two-Year Operating Budget for Fiscal Years (FY) 2013/14 – 2014/15. The budget included all component units of the City, including the General Fund, Community Services District and Successor Agency. During the two-year budget period, the City Council will be apprised of the City's financial condition through the process of First Quarter and Mid-Year Budget Reviews. This ongoing process ensures a forum to look at expenditure and revenue deviations from the estimates made in the budget document. Additionally, any significant variances in projected revenue or unanticipated expenditures will be shared with the City Council should they occur.

In December, staff presented a first quarter review that provided final results for FY 2012/13, as well as results for the first three months of FY 2013/14. This report will provide a FY 2013/14 Mid-Year Review for the first six months of FY 2013/14, July through December. The Mid-Year budget review will focus primarily on the City's General Fund. The General Fund represents the greatest impacts as well as most budget adjustments that are necessary for the remainder of the year. This review will also present six-month operational results from other key funds that are trending negatively or that require subsidy from the General Fund or other funds to meet operational requirements. This mid-year report, and the recommended actions, represents those changes currently identified to complete FYs 2013/14 and 2014/15.

The goal and direction regarding the fiscal status of City operations remain unchanged, "Maintain a Balanced General Fund Budget" based on the City Council's direction. Changes were considered where necessary to adjust for expenditure needs that could not be absorbed within current approved appropriations and to correct some one-time and technical requirements in some funds. This report identifies the budget adjustments as recommended by the City Manager.

DISCUSSION

This Mid-Year report updates the Mayor and Council regarding current year financial trends and provides the opportunity for the City Council to review the recommended actions as they relate to revenues and expenditures. Based on economic activity and revenue collections through December 2013, staff is not anticipating that total revenues will produce any significant increases over the amounts originally budgeted. Although there are some increases noted by revised estimates, there are offsetting adjustments that negate these impacts. The only General Fund revenue adjustments recommended for approval are intended to increase revenues based on current development activities. The net impact is to increase General Fund revenues by $885,130 to $78,827,770 as presented on Exhibit A. Although current estimates have indicated that the final totals may exceed the budgeted revenues, the economy and certain revenue sources may continue to be volatile and therefore any additional increase is not recommended for action at this time.

The FY 2013/14 expenditures budget, as currently amended, totals approximately $178.9 million with the General Fund comprising $77.9 million. The recommended mid-year budget changes increase expenditures by $566,000 to $78.5 million. The fund continues to be balanced, without the use of fund balance. The majority of the recommended expenditure increases are represented by increased costs estimated for Public Works and Community & Economic Development for development related activities. The specific budget adjustments for the General Fund are summarized in Exhibit A attached to the City Council Resolution recommended for approval.

The mid-year adjustments also contain position control changes that are requested to better align workloads and managerial efficiencies. The cost impact of these changes is neutral. As part of these adjustments, one new title is also recommended. A Management Analyst position will be defunded and new Sustainability and Intergovernmental Program Manager position will be created to assist with sustainability programs and legislative affairs. The current Fire Marshal position will also be defunded and the City will seek to complete these activities through an amendment to the Fire Service contract. Attachment 4 provides a summary of the current position changes along with a copy of the comprehensive position control roster.

General Fund Revenue Update

Revenue receipts do not follow an even schedule. Although 50% of the fiscal year has elapsed, based on historic trends revenues are estimated to be at approximately 27.5% of the budgeted amount. Actual revenues received are currently 28.5% of budget. Revenue amounts continue to be, for the most part, stable. Although there will be variances in some of the amounts budgeted, the total is expected to remain within 1% of the amended budget for the year. Total General Fund revenue is estimated to be $78.8 million. It should be noted that this lag in timing of revenue receipts is one reason an operating cash reserve is necessary.

General Fund Expenditure Update

Although not all expenditures follow a straight-line spending pattern, operating expenditures should track close to within 50% of budget for the year at the end of the first six months. As of December 31, 2013 total General Fund expenditures were at 50%. This pace is within expectations for most activities in the General Fund.

Fund Balance Designation

The City Council has the authority to commit fund balance to make available certain funds for future activities. With the adoption of the Mid-Year budget adjustments, the designations of certain fund balances are being requested.

- On December 11, 2012, the City Council approved the designation of $101,000 of General Fund fund balance as designated for Outside Legal Services. These funds were committed to provide a contingency in years when outside legal services were needed beyond the anticipated budget. With the requested budget adjustments for increased City Attorney's expenditures, at this time it is requested that these funds be uncommitted and made available to fund the additional legal costs.

- CSD Zone E previously received $129,722 from property owners to be committed for the future maintenance of the pedestrian bridge spanning over the Line F channel between Hastings Dr. and Gladstone Ave. As part of the Mid-Year budget request, it is being requested that these funds be transferred to the General Fund and be committed for the future maintenance of the pedestrian bridge.

- CSD Zone A currently has a committed fund balance of $17,332. Since these funds can be used for recreation activities, which are typically funded through current Zone A activities, it is being requested at this time that these funds be uncommitted.

Position Control Actions

The Position Control Roster approved by the City Council on June 11, 2013 serves as an important internal control tool for City Council to establish authorized positions for the City while enabling staff to manage within the authorized and funded approved positions. Position Control addresses career authorized positions and does not include temporary positions. As a result of operational changes some positions are being requested to be adjusted based on current and projected demands for those positions.

The Community and Economic Development Department is seeking to add one Associate Planner to meet current demands. This position will be funded through planning fees and available grant revenues.

Following the prior transition of the Human Resources Department into the Administrative Services Department, the Sr. Administrative Asst. is requested to be converted to an Executive Asst. to meet the new demands of supporting new Divisions within the Department.

A vacant Management Analyst position tasked with administering the solid waste franchise agreement and recycling program is proposed to be upgraded to Sustainability and Intergovernmental Programs Manager with increased responsibilities for the City's legislative advocacy program and serving as a City liaison with other government agencies and our regional partners.

In addition, staff is requesting the current Fire Marshal position be defunded and the City will seek to complete these activities through an amendment to the Fire Service contract.

The following table provides a summary of all position changes, and shows that the total number of positions approved in the Adopted Budget remains unchanged:

Department / Position Title	FY 2013/14 Position Adjustment	FY 2014/15 Position Adjustment
Community & Economic Development		
Associate Planner	1	
Fire		
Fire Marshal		(1)
Administrative Services		
Sr Administrative Asst	(1)	
Executive Assistant	1	
Parks & Community Services		
Administrative Asst	1	
Sr Office Asst	(1)	
Public works		
Permit Technician	(1)	
Management Assistant	1	
Management Analyst	(1)	
City Manager		
Sustainability and Intergovernmental Prog. Mgr.	1	
Total	**1**	**(1)**

Pilot Program Related to Addressing Compensated Absences Unfunded Liability

Last year a number of study session presentations were made on the City's long term fiscal challenges. Included among these was the unfunded liability for compensated absences, which is currently at approximately $6.3 million citywide. Staff is proposing a one-year pilot program to begin addressing this by offering a limited, one-year leave sell back incentive.

When an employee schedules to take at least 40 hours of annual leave, he/she may "sell back" an additional 40 hours of accrued annual leave at the same time. This will encourage employees to use leave to maintain an appropriate life/work balance while assisting the City in addressing this unfunded liability by taking 80 hours of accrued leave off the books for each employee who uses the incentive. This pilot program will also include safeguards to ensure that participating employees will retain sufficient leave hours to accommodate illness or other unplanned absences.

SUMMARIES OF OTHER MAJOR FUNDS

Gas Tax (Fund 2000)

The Gas Tax Fund is on track for both revenues and expenditures. There is a budget adjustment recommended for the mid-year that increases revenue sources by $1,134,211 based on the completed bond issuance. The revenues will reimburse the fund for prior year expenditures.

Storm Water Management (Fund 2008)

To consolidate plan check activities, certain revenues and expenditures are being allocated to the General Fund's Land Development Division. In addition, the current transfer from the General Fund to the Storm Water Management Fund will be eliminated as these activities will now be monitored within the General Fund due to the potential city-wide impacts of future legislative and environmental requirements.

Successor Agency Admin Fund (Fund 4800)

In connection with the FY 2013/14 Recognized Obligation Payment Schedules, the Department of Finance approved the payment of the Affordable Housing Agreement between the former Redevelopment Agency of the City of Moreno Valley and MV Hemlock Limited Partnership. Funds in the amount of $1,000,000 have been received from the County and paid out per the terms of the Agreement. The requested budget amendment will adjust the budget to match these activities. No new funding is being requested.

Community Services District (CSD) Zone A – Parks & Community Services (Fund 5011)

The largest revenue sources are property tax and parcel fees, which are collected and remitted twice annually. Expenses are expected to be within expectations. As previously presented at the study session in November 2013, the budget will continue to be reviewed throughout the year to identify potential savings and will bring back to City Council any possible budget adjustments.

Electric Utility (Fund 6010)

Staff is recommending an increase in expenditures for the costs of purchased power in the amount of $606,023. This amount is offset by existing revenues along with new revenues based on the recently approved rate increase. An adjustment to the solar rebate program expenditures is also requesting an increase of $437,811 based on the increased number of eligible rebates for MVU customers. These expenditures will be funded by Public Purpose revenues received.

Facilities Maintenance (Fund 7310)

Multiple projects to replace aging capital building components and equipment are being proposed based on the capital asset replacement schedule. The amount budgeted is $390,000 and will be paid from replacement funds.

SUMMARY

This Mid-Year report updates the Mayor and Council regarding current year financial trends and provides the opportunity for the City Council to review the recommended actions as they relate to revenues and expenditures. Based on economic activity and revenue collections through December 2013, staff is not anticipating that total revenues will produce any significant increases over the amounts originally budgeted. Although there are some increases noted by revised estimates, there are offsetting adjustments that negate these impacts.

The goal and direction regarding the fiscal status of City operations remain unchanged, “Maintain a Balanced General Fund Budget” based on the City Council’s direction. Changes were considered where necessary to adjust for expenditure needs that could not be absorbed within current approved appropriations and to correct some one-time and technical requirements in some funds. This report identifies the budget adjustments as recommended by the City Manager. With these proposed amendments, the General Fund shall remain structurally balanced.

ALTERNATIVES

1. Approve proposed resolution approving the Revised Operating Budget for the City of Moreno Valley for FYs 2013/14 and 2014/15, pursuant to the revenue and expenditure changes presented in Exhibits A and B to the Resolution; and

2. Approve the Position Control Roster. Specific positions are discussed within this staff report and listed on Attachment 4 to this staff report; and

3. Direct the Chief Financial Officer to make modifications to the designation of certain fund commitments as discussed within this staff report; and

4. Approve proposed resolution approving the Revised Operating Budget for the Moreno Valley Community Services District for FYs 2013/14 and 2014/15, pursuant to the revenue and expenditure changes presented in Exhibits A and B to the Resolution.

5. Not Approve Alternatives 1-4 to amend the FYs 2013/14 and 2014/15 Operating Budget. This action may restrict the ability for the City to meet certain service and financial obligations.

FISCAL IMPACT

The fiscal impacts are identified within the proposed Resolutions.

CITY COUNCIL GOALS

Revenue Diversification and Preservation. Develop a variety of City revenue sources and policies to create a stable revenue base and fiscal policies to support essential City services, regardless of economic climate.

COMMITTEES

The proposed Mid-Year budget amendments were presented to the Finance Sub-Committee on February 28, 2014 and recommended for approval by the City Council.

NOTIFICATION

Publication of the agenda.

ATTACHMENTS

Attachment 1:	FY 2013/14 Mid-Year Budget Summary
Attachment 2:	Proposed Resolution – City Council
Attachment 3:	Proposed Resolution – CSD
Attachment 4:	Position Control Changes
Attachment 5:	Sustainability and Intergovernmental Program Manger Job Description
Exhibit A:	FYs 2013/14 and 2014/15 Recommended General Fund Budget Changes
Exhibit B:	FYs 2013/14 and 2014/15 Recommended Non General Fund Budget Changes

Prepared By:
Marshall Eyerman
Financial Resources Division Manager

Department Head Approval:
Richard Teichert
Chief Financial Officer

Approved by:
Michelle Dawson
City Manager

Attachment 1

DECEMBER 3, 1984

City of Moreno Valley
Fiscal Year 2013/14 Operating Budget
Mid-Year Financial Summary

TO:	Mayor and City Council
FROM:	Richard Teichert, Chief Financial Officer
DATE:	March 11, 2014

INTRODUCTION

On June 11, 2013, the City Council adopted the Two-Year Operating Budget for Fiscal Years (FY) 2013/14 – 2014/15. During the two-year budget period the City Council will be apprised of the City's financial condition through the process of First Quarter and Mid-Year Budget Reviews. This ongoing process ensures a forum to look at expenditure and revenue deviations from the estimates made in the budget document. Additionally, any significant variances in projected revenue or unanticipated expenditures will be shared with the City Council should they occur.

This report provides a review of the unaudited financial results for FY 2013/14 through the first six months of the fiscal year. (July 2013 – December 2013, 50% of the fiscal year).

CITYWIDE OPERATING EXPENDITURE SUMMARY

The following table contains a summary of the adopted budget, amended budget and the Mid-Year expenditures. The totals represent each major fund type and component unit of the City.

Table 1. Citywide Expenditures

	FY 2013/14 Adopted Budget	FY 2013/14 Amended Budget	Actuals as of 12/31/2013 (unaudited)	% of Amended Budget
Fund/Component Unit				
General Fund	$ 76,868,536	$ 77,919,931	$ 39,145,693	50.2%
Community Services District (CSD)	18,663,690	19,517,917	8,657,340	44.4%
Successor Agency	6,017,569	5,909,652	3,872,652	65.5%
Housing Fund	-	-	246	-
Special Revenue Funds	28,994,941	35,510,892	13,628,078	38.4%
Capital Projects Funds	1,736,726	1,682,826	1,947,821	115.7%
Electric Utility Funds	18,470,974	18,552,034	8,053,941	43.4%
Internal Service Funds	14,741,628	15,110,660	6,148,821	40.7%
Debt Service Funds	5,411,100	5,443,738	5,496,307	101.0%
Total	**$ 170,905,164**	**$ 179,647,650**	**$ 86,950,900**	**48.4%**

Actions taken by the City Council subsequent to the June 11, 2013 adoption of the two-year budget have resulted in some important service level enhancements. After five years of being closed every Friday, City Hall is now open two Fridays per month to accommodate the needs of our development community. Additionally, our facilities are now open one additional half hour Monday through Thursday to better serve all of the community and our customers. Contracting Library Services will more than triple the books and materials budget to over $190,000; provide 25% additional weekly service hours, including Sunday service. The Moreno Valley Animal Shelter is also providing more customer-friendly hours of operation as it is now open Fridays, Saturdays, and Sundays to reunite families with lost pets, assist our residents in finding just the right addition to their families, and better care for our community's needy animals.

The significant amendments approved and included in the Amended Budget are:

- On June 25, 2013, the City Council approved the Employee Memorandum of Understanding. The impact city wide was $1,706,870.
- On June 25, 2013, the City Council approved the outsourcing of library services to LSSI. In future years this contract will result in an estimated $250,000 savings annually. For FY 2013/14, due to the timing of implementation of the contract and employee leave payouts, there is an increased expense of $266,284 from the Library Fund along with the increased transfer amount from the General Fund of $258,127.
- On September 24, 2013, the City Council approved carryovers from FY 2012/13 in the amount of $5,044,263. Although these expenditures had been approved as part of the prior year's budget, it has been City practice to present these carryovers for approval, prior to carryover.
- There were also multiple grants accepted in the amount of $92,285, with offsetting revenues.
- An adjustment of ($800,000) was input for the CDBG Fund, the costs which are now included in Capital Improvement Plan.

The majority of this mid-year update will focus on the General Fund, as it supports all basic services provided to City residents. Highlights for other key component funds will be discussed at a summary level as well.

GENERAL FUND OPERATING

Table 2. General Fund Operations

	FY 2013/14 Adopted Budget	FY 2013/14 Amended Budget	Actuals as of 12/31/2013 (unaudited)	% of Amended Budget	
Revenues:					
Taxes:					
Property Tax	$ 9,647,100	$ 9,647,100	$ 3,453,662	14.8%	
Property Tax in-lieu	13,640,000	13,640,000	-		
Utility Users Tax	16,114,000	16,114,000	6,525,579	40.5%	
Sales Tax	15,570,000	15,570,000	2,595,963	16.7%	
Other Taxes	7,965,000	7,965,000	1,924,794	24.2%	
Licenses & Permits	1,514,000	1,514,000	1,047,567	69.2%	
Intergovernmental	265,000	265,000	207,049	78.1%	
Charges for Services	8,869,395	8,919,299	4,778,861	53.6%	
Use of Money & Property	2,688,000	2,688,000	646,935	24.1%	
Fines & Forfeitures	601,500	601,500	195,765	32.5%	
Miscellaneous	51,400	51,400	37,011	72.0%	
Total Revenues	**$ 76,925,395**	**$ 76,975,299**	**$ 21,413,188**	**27.8%**	(1)
Expenditures:					
Personnel Services	13,382,123	14,109,436	6,789,536	48.1%	
Contractual Services	53,132,865	53,231,939	26,633,571	50.0%	
Material & Supplies	1,152,571	1,121,171	474,526	42.3%	
General Government	-	-	-	-	
Debt Service	-	-	-	-	
Fixed Charges	6,791,974	6,800,255	3,976,990	58.5%	
Fixed Assets	125,000	115,000	-	0.0%	
Total Expenditures	**$ 74,584,533**	**$ 75,377,801**	**$ 37,874,623**	**50.2%**	(2)
Excess (Deficiency) of Revenues Over (Under) Expenditures	2,340,862	1,597,498	(16,461,436)		
Transfers:					
Transfers In	967,341	967,341	827,547	85.5%	
Transfers Out	2,284,003	2,542,130	1,271,070	50.0%	
Net Transfers	**$ (1,316,662)**	**$ (1,574,789)**	**$ (443,523)**		
Total Revenues & Transfers In	77,892,736	77,942,640	22,240,735	28.5%	
Total Expenditures & Transfers Out	76,868,536	77,919,931	39,145,693	50.2%	
Net Change of Fund Balance	**$ 1,024,200**	**$ 22,709**	**$ (16,904,959)**		(3)

(1) Based on historical averages, Total Revenues & Transfers In are anticipated to be 27.5% through December.

(2) With six months recorded for the Fiscal Year, Total Expenditures are anticipated to be 50% through December.

(3) Significant amendments approved and included in the General Fund Amended Budget include

- On June 25, 2013, the City Council approved the Employee Memorandum of Understanding. The portion of this impact to the General Fund was $732,084.
- On June 25, 2013, the City Council approved the outsourcing of library services to LSSI. In future years this contract will result in an estimated $250,000 savings annually. For FY 2013/14, due to the timing of implementation of the contract and employee leave payouts, there is an increased transfer amount from the General Fund of $258,127.

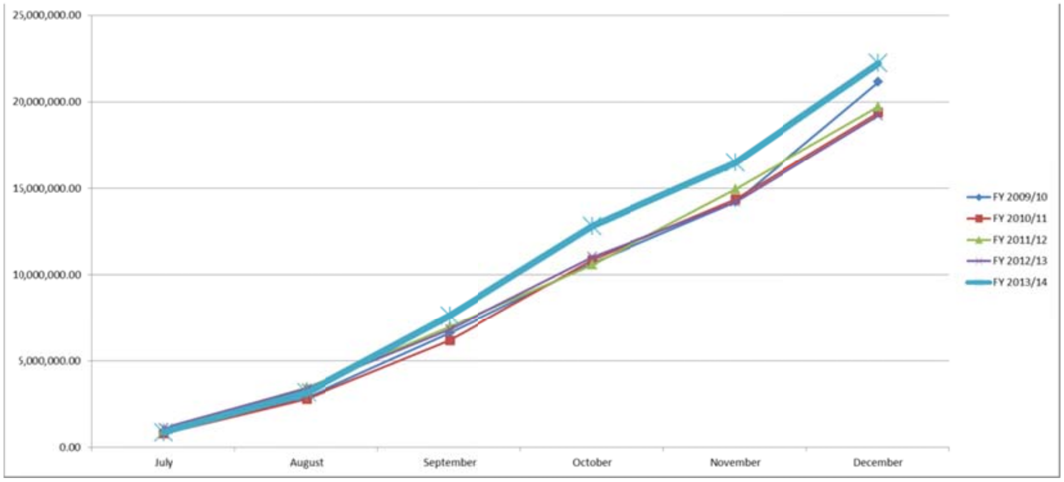
General Fund Operating Revenues

The General Fund is comprised of several revenue types. However, the main sources include property tax, utility users tax, and sales tax. Each of these are affected by different economic activity cycles and pressures.

Table 3. General Fund Revenues

	FY 2013/14 Adopted Budget	FY 2013/14 Amended Budget	Actuals as of 12/31/2013 (unaudited)	% of Amended Budget
Revenues:				
Taxes:				
Property Tax	$ 9,647,100	$ 9,647,100	$ 3,453,662	35.8%
Property Tax in-lieu	13,640,000	13,640,000	-	0.0%
Utility Users Tax	16,114,000	16,114,000	6,525,579	40.5%
Sales Tax	15,570,000	15,570,000	2,595,963	16.7%
Other Taxes	7,965,000	7,965,000	1,924,794	24.2%
Licenses & Permits	1,514,000	1,514,000	1,047,567	69.2%
Intergovernmental	265,000	265,000	207,049	78.1%
Charges for Services	8,869,395	8,919,299	4,778,861	53.6%
Use of Money & Property	2,688,000	2,688,000	646,935	24.1%
Fines & Forfeitures	601,500	601,500	195,765	32.5%
Miscellaneous	51,400	51,400	37,011	72.0%
Total Revenues	**$ 76,925,395**	**$ 76,975,299**	**$ 21,413,188**	**27.8%**

Chart 1. General Fund Revenue Trends
(5 Year Trend Through December)



Property Taxes/Property Taxes In-Lieu

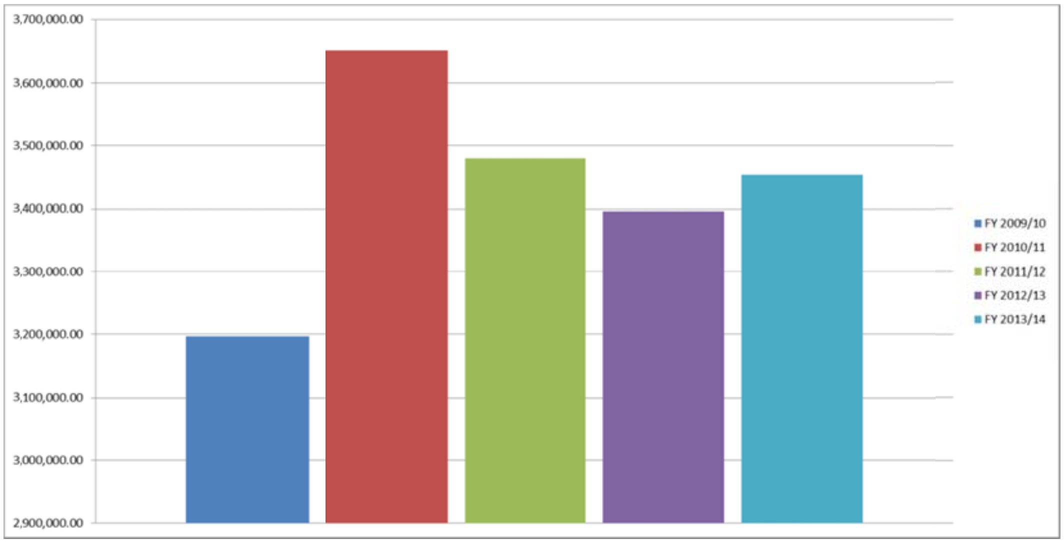
Property taxes were budgeted to increase by 0.38% from the FY 2012/13 Amended Budget. The annual schedule of property tax payments from the County of Riverside will provide payments to the City based on the following estimated schedule:

Secured Property Tax Payment Dates

Settlement 1	January 20-24, 2014
Settlement 2	May 19-23, 2014
Settlement 3	August 4-8, 2014
Teeter Settlement	October 20-24, 2014

Based on historical averages of actual receipts, the City is estimated to receive 15% of the budgeted property tax revenue through mid-year. The City has currently received 15% through mid-year. Property taxes will continue to be monitored as property valuations may adjust through the year based on property sales and assessment appeals filed with the County.

Chart 2. General Fund Revenue Trend – Property Taxes/Property Taxes In-Lieu (5 Year Trend Through December)

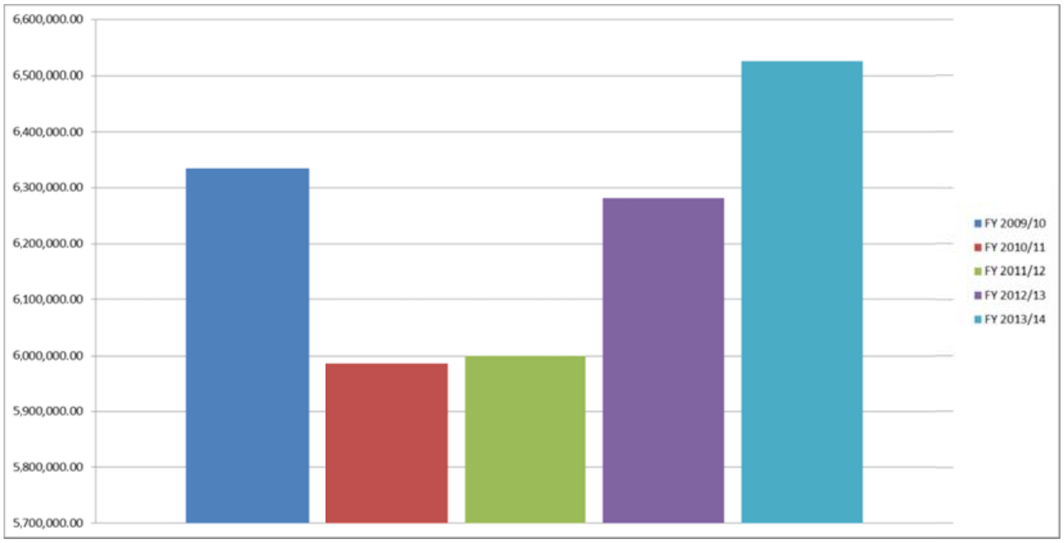


Utility Users Tax

Utility Users taxes were budgeted to increase 0.34% from the FY 2012/13 Amended Budget. This projection of growth is primarily due to competitive forces within the communications markets. Both the wireless and wired markets experienced downturns year over year. Based on our discussions with utility tax experts, there are a couple of causes for this trend. First is competition and bundling practices within the market as more small players continue to join the market. Second is the migration of customers from contract plans to prepaid plans. Currently there is no method within the State to capture UUT related to prepaid wireless plans. There is currently legislation in Sacramento trying to address this and close that gap.

Based on historical averages of actual receipts, the City is estimated to receive 40% of the budgeted utility users tax revenue through mid-year. The City has currently received 40% through mid-year.

Chart 3. General Fund Revenue Trend – Utility Users Taxes (5 Year Trend Through December)

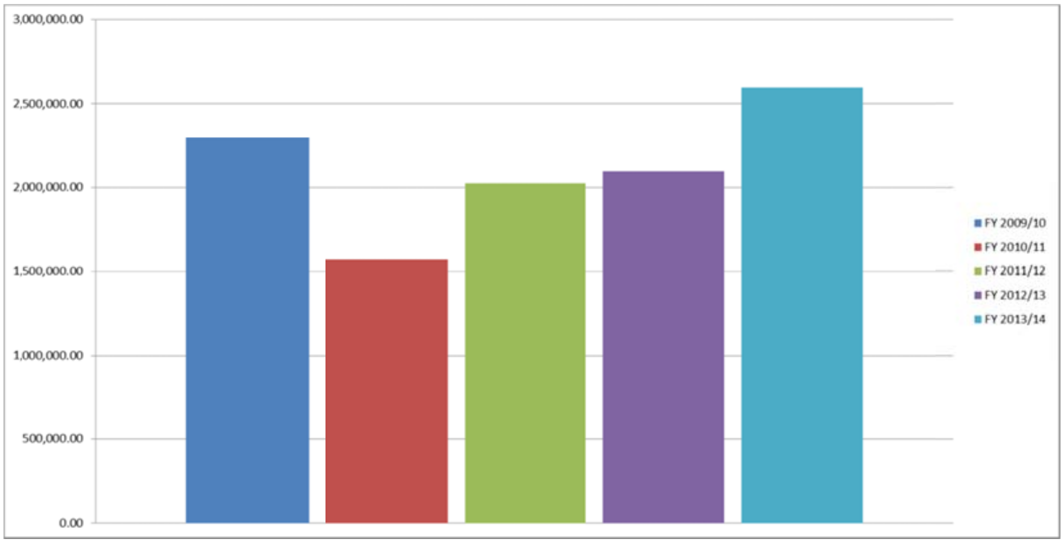


Sales Taxes

Based on the recovering economy and new businesses that began operating in the City, the FY 2013/14 sales tax budget was increased by 12.8%. Sales tax receipts will need to be continually monitored through the year to determine if current trends begin to plateau or begin to decrease.

Based on historical averages of actual receipts, the City is estimated to receive 18.7% of the budgeted sales tax revenue through mid-year. The City has currently received 16.7% through mid-year.

Chart 4. General Fund Revenue Trend – Sales Taxes (5 Year Trend Through December)

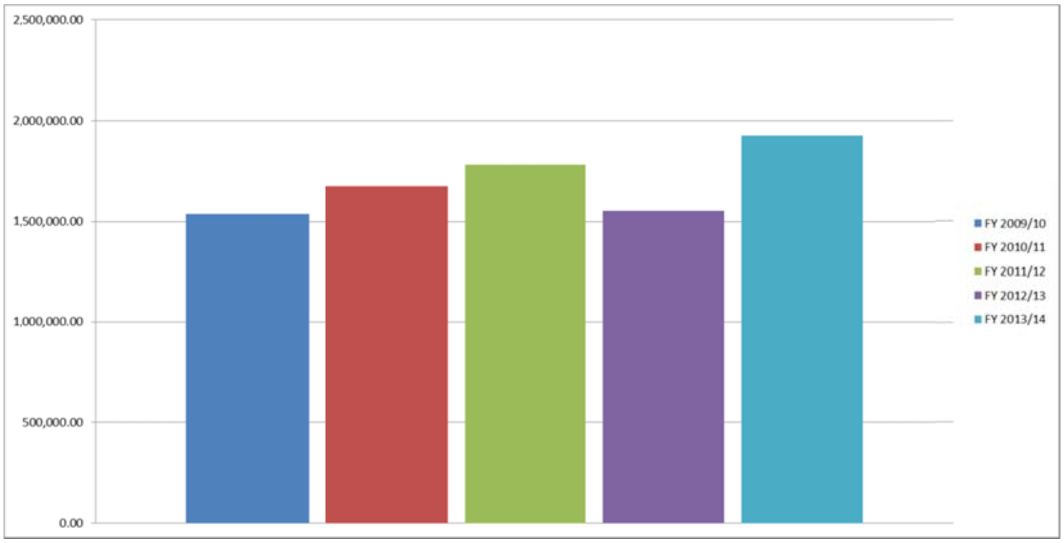


Other Taxes

Other taxes are primarily composed of Business Gross Receipts, Transient Occupancy Tax, Documentary Transfer Tax, and Franchise Fees. Collectively, other taxes were budgeted to increase 2.9% from the FY 2012/13 Amended Budget.

Based on historical averages of actual receipts, the City is estimated to receive 23% of the budgeted Other Taxes revenue through mid-year. The City has currently received 24% through mid-year.

Chart 5. General Fund Revenue Trend – Other Taxes
(5 Year Trend Through December)

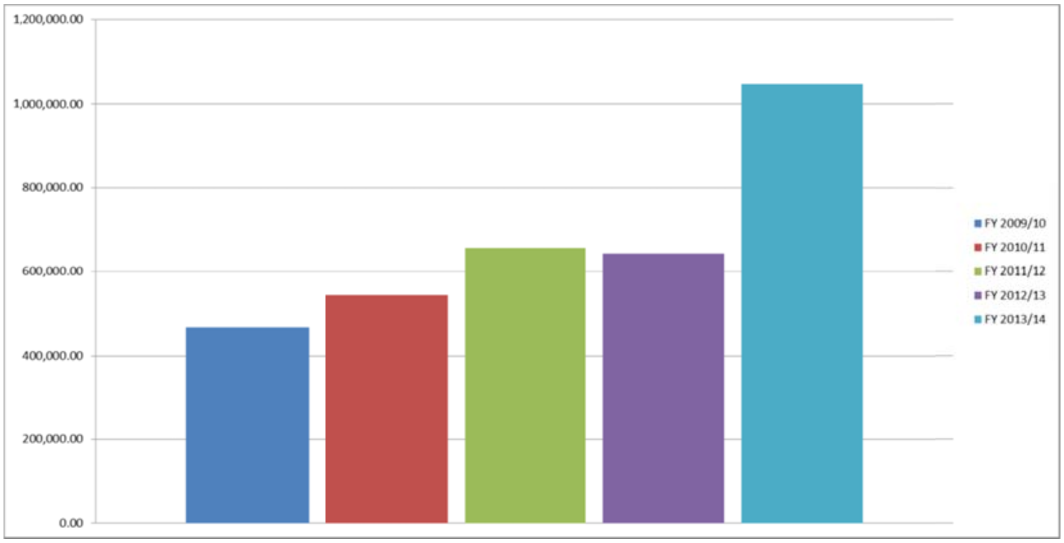


Licenses & Permits

Licenses & Permits are primarily composed of Business and Animal Licenses, along with Building, Electrical, Mechanical, Plumbing and other permits. Collectively, Licenses & Permits were budgeted to decrease 1% from the FY 2012/13 Amended Budget.

Based on historical averages of actual receipts, the City is estimated to receive 51% of the budgeted Licenses & Permits revenue through mid-year. The City has currently received 69% through mid-year.

Chart 6. General Fund Revenue Trend – Licenses & Permits (5 Year Trend Through December)



Intergovernmental

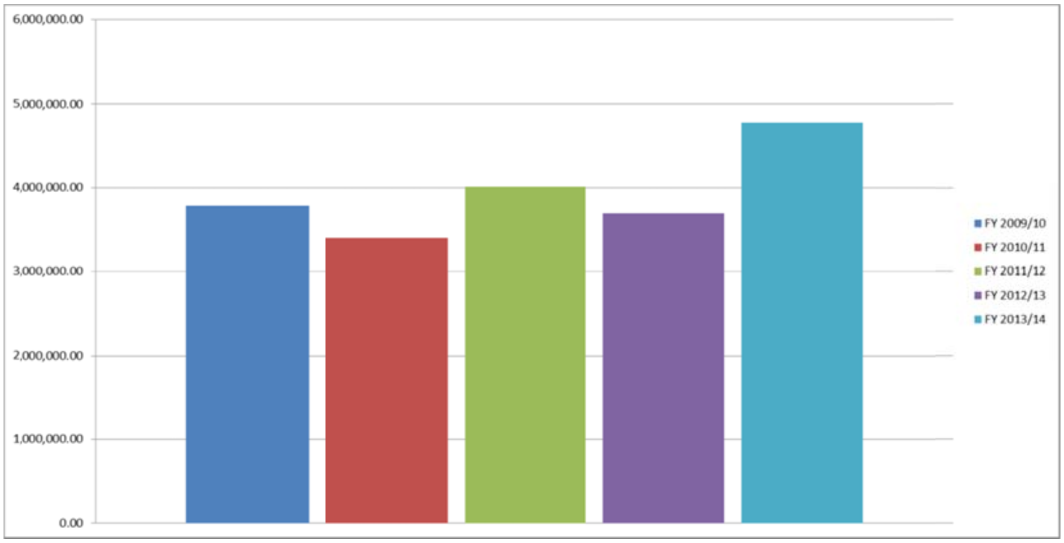
Intergovernmental revenues through mid-year reflect a one-time revenue of $86,800 for the Police Department as a result of asset forfeitures.

Charges for Services

Charges for Services are primarily composed of Plan Check Fees, Inspection Fees, Administrative Charges to other funds, and Parking Control Fines. Collectively, Charges for Services were budgeted to increase 21% from the FY 2012/13 Amended Budget. This projected increase is due to revenues exceeding the FY 2012/13 budget by almost $1 million.

Based on historical averages of actual receipts, the City is estimated to receive 43% of the budgeted Charges for Services revenue through mid-year. The City has currently received 53.6% through mid-year.

Chart 7. General Fund Revenue Trend – Charges for Services (5 Year Trend Through December)



Use of Money and Property

Investment income continues to remain low due to extremely low rates of return for fixed income investments. Currently, the Two-year Treasury Note is yielding only 0.38%. Through a professional money management firm, the City's portfolio is achieving a yield of about 1.31% with a duration of just over 2.47 years. This is a very low rate of return compared to historical experience, but is indicative of how investment income is performing everywhere. Chandler Asset Management was able to supplement the investment income by employing a Total Return strategy which utilizes active trading to sell securities at advantageous points to achieve gains on the sale. As the market begins to move upward, there will be less opportunity for these trading gains.

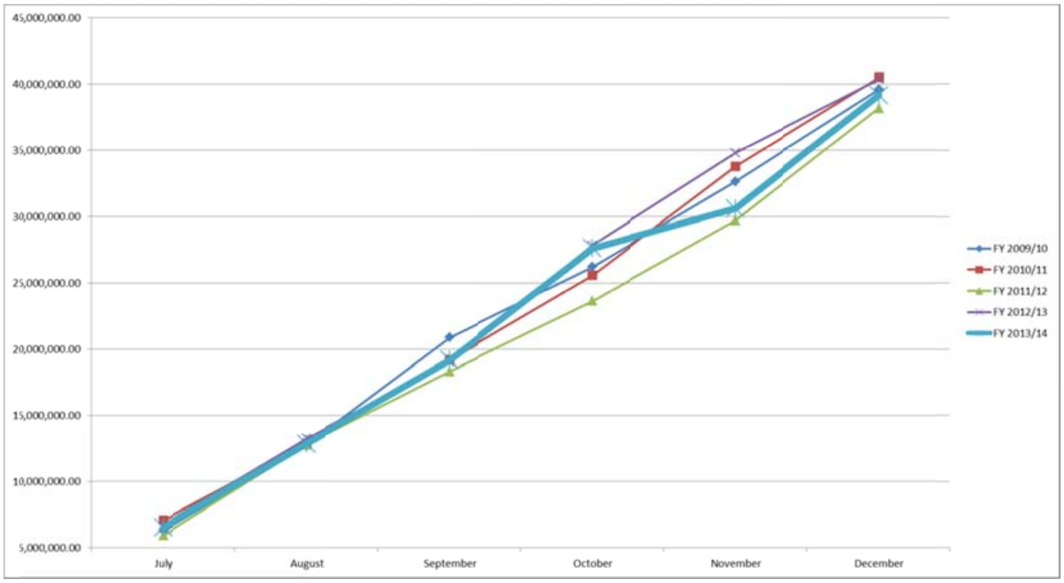
General Fund Expenditures

Expenditures are being spent in-line with prior year expenditures: although the following table does identify an overall reduction due to the expense reductions adopted as part of the FY 2013/14 budget.

Table 4. General Fund Expenditures

	FY 2013/14 Adopted Budget	FY 2013/14 Amended Budget	Actuals as of 12/31/2013 (unaudited)	% of Amended Budget
Department				
City Council	$ 616,632	$ 630,013	$ 302,027	47.9%
City Clerk	448,351	464,852	245,884	52.9%
City Manager	1,318,957	1,367,047	1,025,492	75.0%
City Attorney	483,533	499,545	401,398	80.4%
Community & Economic Development	6,731,597	5,297,377	2,328,376	44.0%
Financial & Management Services	2,980,392	3,099,378	1,395,463	45.0%
Administrative Services	3,657,689	3,776,024	1,680,463	44.5%
Public Works	2,136,995	3,940,814	1,968,818	50.0%
Non-Departmental	3,096,503	3,352,911	2,226,200	66.4%
Non-Public Safety Subtotal	21,470,649	22,427,961	11,574,122	51.6%
Public Safety				
Police	37,939,734	37,959,758	19,169,182	50.5%
Fire	17,458,153	17,532,212	8,402,389	47.9%
Public Safety Subtotal	55,397,887	55,491,970	27,571,572	49.7%
Total	**$ 76,868,536**	**$ 77,919,931**	**$ 39,145,693**	

Chart 8. General Fund Expense Trends (5 Year Trend Through December)



CONTINUED CHALLENGES AND ITEMS OF NOTE

Preserving a balanced City budget over the next several years will require the same level of vigilance and strategic planning which produced the budget. While focusing significant energy to attract and retain local businesses, the City will also contend with fiscal pressures associated with:

- A General Fund subsidy for street lights of approximately $1 million annually;
- Continued cost increases levied by the County for contract law enforcement services;
- Projected cost increases for contract Fire protection;
- Anticipated pension cost increases, exacerbated by revisions to CalPERS rate methodology which had previously smoothed rate increases over longer periods;
- With the dissolution of the prior Redevelopment Agency, there are continued risks that the payment of certain agreements may not be approved by the California Department of Finance, which will impact the General Fund.
- The General Fund's obligation to guarantee debt service payments on the police facility;
- Annual contributions to the trust for Other Post-Employment Benefits (OPEB), which have been suspended for FY 2013/14 budgets. For FY 2014/15 the amount for the General Fund is $450,000/yr. The annual payments will need to be resumed and unpaid amounts for prior years will be considered when the next actuarial valuation is completed;
- The restoration of funding for deferred infrastructure maintenance during the fiscal downturn.

The City Council's resolve as demonstrated during the budget cycle, along with engaged managers throughout the City organization and a collaborative relationship with our employees should continue to serve us well to successfully address these challenges ahead.

OTHER KEY FUNDS

The following summaries describe other major funds in the City.

Moreno Valley Community Services District

The Moreno Valley Community Services District (CSD) was formed by the voters in 1984 to collect fees and certain taxes to provide an array of services including parks, recreation and community services, streetlights, landscaping and ongoing maintenance. The CSD provides these services through separate "zones" that define the services that are provided.

For certain zones, the primary revenue source used to provide services to properties is parcel fees or taxes levied on properties via their annual tax bill. Proposition 218, passed by California voters in November 1996, has posed a serious challenge to managing the future operation of the CSD zones. Prop. 218 requires any revenue increase to be addressed through a voting process by affected property owners. For a period following the initial implementation of Prop. 218, the CSD was successful in receiving approval for some new or increased revenues. There were also revenue increases due to the growth of developed parcels within the zones. However, due to cost increases that exceed any offsetting increases in the revenues over the past years, and the recent economic downturn slowing new parcel growth, property owners have been resistant to efforts to fully fund service levels.

Table 5. CSD Operations

	FY 2013/14 Adopted Budget	FY 2013/14 Amended Budget	Actuals as of 12/31/2013 (unaudited)	% of Amended Budget
Revenues:				
Taxes:				
Property Tax	$ 3,188,300	$ 3,188,300	$ 1,201,559	37.7%
Other Taxes	6,322,000	6,322,000	96,361	1.5%
Charges for Services	6,115,031	6,115,031	641,727	10.5%
Use of Money & Property	614,221	614,221	278,383	45.3%
Fines & Forfeitures	50,000	50,000	19,005	38.0%
Miscellaneous	20,100	20,580	11,643	56.6%
Transfers In	1,943,244	2,459,771	1,300,768	52.9%
Total Revenues	18,252,896	18,769,903	3,549,445	18.9%
Expenditures:				
Library Services Fund (5010)	$ 1,812,217	$ 2,145,013	$ 1,038,727	48.4%
Zone A Parks Fund (5011)	9,148,506	9,343,871	4,135,623	44.3%
Zone B Residential Street Lighting Fund (5012)	1,677,100	1,683,805	720,612	42.8%
Zone C Arterial Street Lighting Fund (5110)	927,800	1,188,385	629,948	53.0%
Zone D Standard Landscaping Fund (5111)	1,086,200	1,096,642	450,279	41.1%
Zone E Extensive Landscaping Fund (5013)	2,481,783	2,498,363	1,033,146	41.4%
Zone M Median Fund (5112)	281,844	285,224	126,521	44.4%
CFD No. 1 (5113)	1,182,223	1,210,286	499,416	41.3%
Zone S (5114)	66,017	66,328	23,068	34.8%
Total Expenditures	18,663,690	19,517,917	8,657,340	44.4%
Net Change or Adopted Use of Fund Balance	**$ (410,794)**	**$ (748,014)**	**$ (5,107,895)**	

The significant amendments approved and included in the CSD Amended Budget are:

- On June 25, 2013, the City Council approved the Employee Memorandum of Understanding. The portion of this impact to the CSD was $316,063.
- On June 25, 2013, the City Council approved the outsourcing of library services to LSSI. In future years this contract will result in an estimated $250,000 savings annually. For FY 2013/14, due to the timing of implementation of the contract and employee leave payouts, there is an increased transfer amount from the CSD of $266,284.
- On September 24, 2013, the City Council approved carryovers from FY 2012/13 in the amount of $5,044,263. Of this amount, $13,000 was allocated within the CSD. Although these expenditures had been approved as part of the prior year’s budget, it has been City practice to present these carryovers for approval, prior to carryover.

Community Services District Zone A – Parks & Community Services

The largest Zone within the CSD is Zone A. It accounts for the administration and maintenance of the Parks & Community Services facilities and programs. Funding sources for these services come from a combination of property taxes, fees for service and smaller amounts from other City funds.

Table 6. CSD Zone A Operations

	FY 2013/14 Adopted Budget	FY 2013/14 Amended Budget	Actuals as of 12/31/2013 (unaudited)	% of Amended Budget
Revenues:				
Taxes:				
Property Tax	$ 1,709,000	$ 1,709,000	$ 627,136	36.7%
Other Taxes	4,900,000	4,900,000	88,375	1.8%
Charges for Services	1,067,122	1,067,122	487,715	45.7%
Use of Money & Property	583,900	583,900	268,200	45.9%
Miscellaneous	18,100	18,100	7,650	42.3%
Transfers In	424,136	424,136	153,750	36.3%
Total Revenues	8,702,258	8,702,258	1,632,825	18.8%
Expenditures:				
35010 Parks & Comm Svcs - Admin	$ 576,620	$ 591,679	$ 218,518	36.9%
35210 Park Maintenance - General	3,160,181	3,237,870	1,375,949	42.5%
35211 Contract Park Maintenance	461,603	464,403	169,986	36.6%
35212 Park Ranger Program	370,423	384,056	177,371	46.2%
35213 Golf Course Program	263,492	264,804	137,441	51.9%
35214 Parks Projects	173,625	180,534	85,444	47.3%
35215 CSD Public Facilities	-	-	-	
35216 CFD#1	-	-	182	
35310 Senior Program	609,009	620,371	265,634	42.8%
35311 Community Services	193,446	198,218	77,517	39.1%
35312 Community Events	81,327	95,881	59,456	62.0%
35313 Conf & Rec Cntr	629,075	632,947	295,777	46.7%
35314 Conf & Rec Cntr - Banquet	324,635	331,004	144,179	43.6%
35315 Recreation Programs	1,752,265	1,787,911	893,301	50.0%
35316 ASA Tournament	-	-	-	
35317 July 4th Celebration	142,505	143,893	29,115	20.2%
95011 Non-Dept Zone A Parks	410,300	410,300	205,755	50.1%
Total Expenditures	9,148,506	9,343,871	4,135,623	44.3%
Net Change or Adopted Use of Fund Balance	**$ (446,248)**	**$ (641,613)**	**$ (2,502,798)**	

Electric Utility

The Moreno Valley Utility (MVU) manages the operation, maintenance and business planning of the City's electric utility. MVU's basic purpose is to purchase and distribute electricity to customers in newly developed areas of the City. The City began serving new customers in February 2004, and now serves more than 5,600 customers. As it reaches fiscal and operational maturity, MVU will continue to be a key component of the City's economic development strategy. The City Council has established special tiered rates for electric utility customers based upon factors such as the number of jobs created.

The main revenue source for this fund is derived from charges for services. The customer base includes residential, commercial and industrial customers. The growth in customer base will continue to provide for the ability to create rate stabilization and replacement reserve funding.

Table 7. MVU Operations

	FY 2013/14 Adopted Budget	FY 2013/14 Amended Budget	Actuals as of 12/31/2013 (unaudited)	% of Amended Budget
Revenues:				
Charges for Services	$ 18,915,548	$ 18,915,548	$ 10,984,846	58.1%
Use of Money & Property	80,500	80,500	32,478	40.3%
Miscellaneous	123,488	123,488	24,951	20.2%
Transfers In	-	150,000	150,000	100.0%
Total Revenues	19,119,536	19,269,536	11,192,275	58.1%
Expenditures:				
45510 Electric Utility - General	$ 15,591,767	$ 15,632,827	$ 7,014,079	44.9%
45511 Public Purpose Program	721,300	761,300	292,761	38.5%
45520 2007 Taxable Lease Rev Bonds	1,835,144	1,835,144	678,322	37.0%
45530 2005 Lease Revenue Bonds	322,763	322,763	68,779	21.3%
96030 Non-Dept 2005 Lease Revenue Bonds	-	-	-	
Total Expenditures	18,470,974	18,552,034	8,053,941	43.4%
Net Change or Adopted Use of Fund Balance	**$ 648,562**	**$ 717,502**	**$ 3,138,334**	

MVU’s revenues were budgeted to increase 11% from the FY 2012/13 Amended Budget, while expenses were only budgeted to increase by 7%. MVU’s revenues and expenses will fluctuate annually based on energy demands.

Chart 9. MVU Revenue Trends
(5 Year Trend Through December)

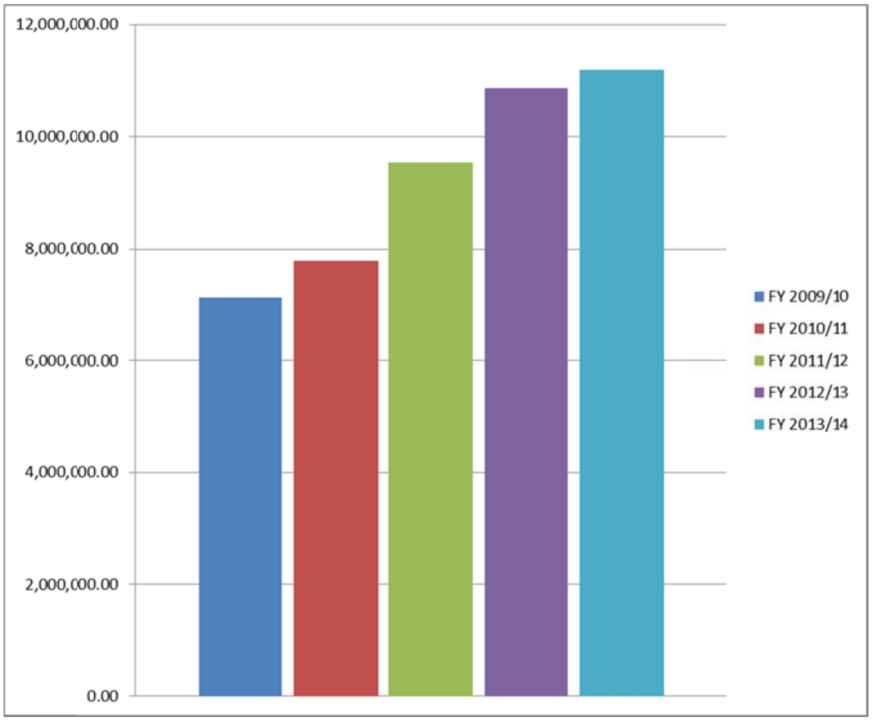
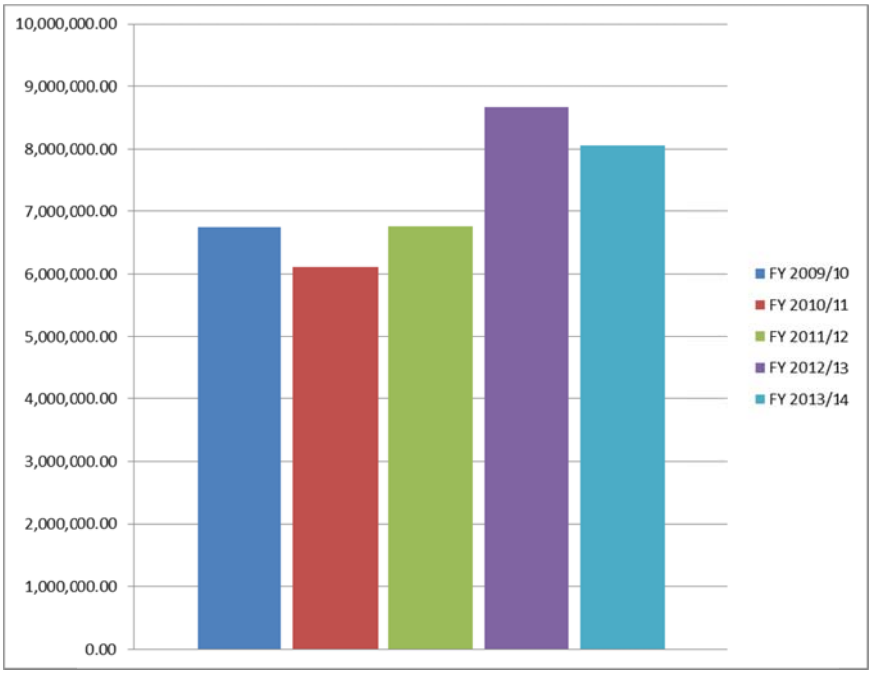


Chart 10. MVU Expense Trends
(5 Year Trend Through December)



SUMMARY

The City of Moreno Valley is on the path toward recovery following the Great Recession; unlike most other cities in this region, our FY 2013/14 Adopted Budget was fully balanced without the use of reserves.

Although activities through mid-year have provided positive results in some areas, the City should remain cautiously optimistic as we proceed though the fiscal year.

As positive fund balances begin to grow, we will bring back to the City Council for discussion options to address the other challenges and unfunded liabilities, as well as examining the reserve fund balances held by the City.

Attachment 2

RESOLUTION NO. 2014-22

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MORENO VALLEY, CALIFORNIA, ADOPTING THE REVISED OPERATING BUDGETS FOR FISCAL YEARS 2013/14 and 2014/15

WHEREAS, the City Council approved the Operating Budget for the City for Fiscal Years 2013/14 and 2014/15, a copy of which, as may have been amended by the City Council, is on file in the Office of the City Clerk and is available for public inspection; and

WHEREAS, the City Manager has heretofore submitted to the City Council proposed amendments to the Operating Budgets for the City for Fiscal Years 2013/14 and 2014/15, a copy of which, as may have been amended by the City Council, is on file in the Office of the City Clerk and is available for public inspection; and

WHEREAS, the said proposed amendments to the Operating Budgets contain estimates of the services, activities and projects comprising the budget, and contain expenditure requirements and the resources available to the City; and

WHEREAS, the said proposed amendments to the Operating Budgets contain the estimates of uses of fund balance, if required, to stabilize the delivery of City services during periods of operational deficits; and

WHEREAS, the amended Operating Budgets, as herein approved, will enable the City Council to make adequate financial plans and will ensure that City officers can administer their respective functions in accordance with such plans.

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

1. The Proposed Amendments to the Operating Budgets, as shown on Exhibits A and B to this Resolution and as on file in the Office of the City Clerk, and as may have been amended by the City Council, is hereby approved and adopted as part of the Annual Operating Budgets of the City of Moreno Valley for the Fiscal Years 2013/14 and 2014/15.

2. The Proposed Amendments to Position Control included within the staff report and contained in the Position Control Roster attached as Attachment 4 and on file in the Office of the City Clerk, and as may have been amended by the City Council, is hereby adopted as part of the Approved Position Control of the City of Moreno Valley for the Fiscal Years 2013/14 and 2014/15.

3. The amounts of proposed expenditures, which may include the uses of fund balance specified in the approved budget, are hereby appropriated for the various budget programs and units for said fiscal years.
4. Within fifteen (15) days after the adoption of this Resolution, the City Clerk shall certify to the adoption hereof and, as so certified, cause a copy to be posted in at least three (3) public places within the City.

BE IT FURTHER RESOLVED that this Resolution shall take effect immediately upon its adoption.

APPROVED AND ADOPTED this 11th day of March, 2014.

____
Mayor

ATTEST:

____
City Clerk

APPROVED AS TO FORM:

____
City Attorney

RESOLUTION JURAT

STATE OF CALIFORNIA)

COUNTY OF RIVERSIDE) ss.

CITY OF MORENO VALLEY)

I, Jane Halstead, City Clerk of the City of Moreno Valley, California, do hereby certify that Resolution No. 2014-22 was duly and regularly adopted by the City Council of the City of Moreno Valley at a regular meeting thereof held on the 11th day of March, 2014, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

(Council Members, Mayor Pro Tem and Mayor)

____

CITY CLERK

(SEAL)

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Exhibit A

Exhibit A
FY 2013/14 Recommended General Fund Budget Changes

REVENUES

	FY 2013/14 Amended Budget Amount	Proposed Adjustments	Explanation	FY 2013/14 Revised Budget Amount
	$ 77,942,640			
		30,000	Fire Plan Check and Inspection Fees (one-time)	
		200,000	Property Tax in Lieu-VLF	
		129,722	Transfer from CSD Zone E - Committed for Pedestrian Bridge (one-time)	
		343,808	CEDD Permit and planning fees	
		181,600	Land Development plan check fees	
Total Revenues	**$ 77,942,640**	**$ 885,130**		**$ 78,827,770**

EXPENDITURES

Department	FY 2013/14 Amended Budget Amount	Proposed Adjustments	Explanation	FY 2013/14 Revised Budget Amount
City Council	$ 630,013	$ 24,100	Dues, subscriptions, supplies, and discretionary	$ 654,113
City Clerk	464,852	16,350	Election activities (one-time)	481,202
City Manager	1,367,047	100,738	Operations and personnel adjustments	1,789,970
		162,763	Residual prior CM payout (one-time)	
		159,422	CM discretionary - offset with non-dept	
City Attorney	499,545	100,000	Increased legal cost to support City activities	776,045
		176,500	Subpoenas and public records requests (one-time)	
Community & Economic Development	5,297,377	34,070	SR 60 corridor study (one-time)	5,714,662
		250,000	Contractual services	
		133,215	Operations and personnel adjustments	
Finance & Management Services	3,099,378	31,887	Operations and personnel adjustments	3,131,265
Administrative Services	3,776,024	3,650	Operations and personnel adjustments	3,779,674
Public Works	3,940,814	524,187	Moving NPDES permits and plan checks. Offset with non-dept. Increased fee revenues	4,465,001
Non-Departmental	3,352,911	(600,000)	Operations and personnel adjustments	2,552,048
		15,772	CM Contingency, Leave payout	
		50,360	2005 Lease Revenue Bonds debt service payment	
		(266,995)	Eliminate GF transfer to NPDES	
Non-Public Safety Subtotal	**$ 22,427,961**	**$ 916,019**		**$ 23,343,980**
Public Safety				
Police	37,959,758	(325,323)	SLESF grant	37,634,435
Fire	17,532,212	(25,000)	Staffing salary/benefit savings	17,507,212
Public Safety Sub-Total	**$ 55,491,970**	**$ (350,323)**		**$ 55,141,647**
Total Expenditures	**$ 77,919,931**	**$ 565,696**		**$ 78,485,627**

Exhibit A
FY 2014/15 Recommended General Fund Budget Changes

REVENUES

	FY 2014/15 Amended Budget Amount	Proposed Adjustments	Explanation	FY 2014/15 Revised Budget Amount
	$ 78,832,363			
		375,000	Property Tax in Lieu-VLF	
		100,000	Structural Fire Tax	
		225,000	Property Tax - Secured	
		81,100	Business Gross Receipts	
		165,100	CEDD Permit and planning fees	
		181,600	Land Development plan check fees	
	$ 78,832,363	**$ 1,127,800**		**$ 79,960,163**

EXPENDITURES

Department	FY 2014/15 Amended Budget Amount	Proposed Adjustments	Explanation	FY 2014/15 Revised Budget Amount
City Council	$ 631,860	$ 24,100	Dues, subscriptions, supplies, and discretionary	$ 655,960
City Clerk	588,812	-	N/A	588,812
City Manager	1,373,655	130,982	Operations and personnel adjustments	1,584,637
		80,000	Contractual services	
City Attorney	505,521	100,000	Increased legal cost to supplement staff	605,521
Community & Economic Development	5,309,213	268,704	Operations and personnel adjustments - portion offset with fees	5,577,917
Finance & Management Services	3,126,692	32,141	Operations and personnel adjustments	3,158,833
Administrative Services	3,790,179	3,650	Operations and personnel adjustments	3,793,829
Public Works	3,905,352	573,862	Moving NPDES permits and plan checks. Offset with non-dept	4,479,214
Non-Departmental	3,485,609	(266,995)	Reduce transfer to NPDES	3,218,614
Non-Public Safety Subtotal	**$ 22,716,893**	**$ 946,444**		**$ 23,663,337**
Public Safety				
Police	38,928,069	(325,000)	SLESF grant	38,603,069
Fire	17,766,433	(75,000)	Staffing salary savings and transfer of position to County	17,691,433
Public Safety Sub-Total	**$ 56,694,502**	**$ (400,000)**		**$ 56,294,502**
TOTAL	**$ 79,411,395**	**$ 546,444**		**$ 79,957,839**

Exhibit B

Exhibit B
FY 2013/14 Recommended Non General Fund Budget Changes

Fund/Name	FY 2013/14 Amended Budget	Proposed Adjustment	Description	FY 2013/14 Revised Budget
2000 GAS TAX				
Revenues	$ 5,224,755	$ 1,134,211	Transfer for payment of Requisition No. 1 from TRIP bond proceeds	$ 6,358,966
Expenditures	5,589,929	100,000	Decrease reimbursed costs	5,760,352
		20,423	Adjust salaries based on time allocation	
		50,000	Increased transfer to street sweeping	
2001 MEASURE A				
Revenues	4,903,702	73,000	Insurance reimbursement for damaged vehicle	4,976,702
Expenditures	4,785,440	73,000	Replacement of vehicle - reimbursed from insurance	4,808,967
		(63,423)	Reduction to consultant contract costs and salaries	
		13,950	Payment of interest for interfund loans	
2007 STORM WATER MAINTENANCE				
Revenues	414,000	50,000	Increased transfer to street sweeping from Gas Tax	464,000
Expenditures	462,789	-		462,789
2008 STORM WATER MANAGEMENT				
Revenues	1,052,397	653	Transfer from NPDES endowment fund	704,455
		(266,995)	Reduce transfer from General Fund	
		(81,600)	NPDES plan check activities moved to General Fund	
Expenditures	1,154,315	3,000	State Water Board increased fees	700,873
		(266,704)	NPDES regulatory permit activities moved to General Fund	
		(195,858)	NPDES plan check activities moved to General Fund	
		6,120	Professional services increased for contract revenue collections	
2011 PUB/EDUC/GOVT ACCESS PROG FD				
Revenues	550,000	-		550,000
Expenditures	874,998	40,000	MVTV3 edit bays and video server storage	914,998
2200 BEVERAGE CONTAINER RECYCLING				
Revenues	55,000	-		55,000
Expenditures	62,839	(7,839)	Adjust to match grant revenues	55,000
2202 ASES PROGRAM GRANT				
Revenues	6,104,800	173,350	To increase the in-kind contributions that THINK Together will provide, per their contract	6,278,150
Expenditures	6,084,675	173,350	Increase based on the in-kind contributions that THINK Together will provide, per their contract	6,258,025
2207 OIL PAYMENT GRANT				
Revenues	56,630	(9,698)	Oil Payment Grant adjusted to match actual rev received	46,932
Expenditures	57,631	(9,698)	Oil Payment Grant adjusted to match actual rev received	47,933
2506 HOME(FEDERAL)				
Revenues	2,487,202	-		2,487,202
Expenditures	2,489,461	(25,451)	Adjustment to personnel cost allocation to multiple grants	2,464,010

Exhibit B
FY 2013/14 Recommended Non General Fund Budget Changes

Fund/Name	FY 2013/14 Amended Budget	Proposed Adjustment	Description	FY 2013/14 Revised Budget
2507 NEIGHBORHOOD STABILIZATION PROG				
Revenues	3,500,000	-		3,500,000
Expenditures	4,600,557	63,723	Adjustment to personnel cost allocation to multiple grants	4,664,280
2512 COMM DEV BLOCK GRANT (CDBG)				
Revenues	2,843,714	-		2,843,714
Expenditures	1,824,369	(25,451)	Adjustment to personnel cost allocation to multiple grants	1,798,918
2800 SCAG ARTICLE 3 FUND				
Revenues	400,000	70,385	Adjusted to match grant revenue requested	470,385
Expenditures	-	-		-
2908 DIF-LIBRARY				
Revenues	98,700	10,600	Interest received from interfund loan	109,300
Expenditures	-	-		-
2910 DIF-CORPORATE YARD				
Revenues	16,500	3,350	Interest received from interfund loan	19,850
Expenditures	-	-		-
3411 TRIP CAPITAL PROJECTS				
Revenues	-	-		-
Expenditures	-	1,134,211	Transfer for payment of Requisition No. 1 from TRIP bond proceeds to Gas Tax	1,932,610
		798,399	Payment of COI for TRIP financing	
3701 2005 LEASE REV BONDS-DEBT SVC				
Revenues	2,647,973	(544,413)	Net savings from partial refunding of the bonds.	2,103,560
Expenditures	2,642,900	-		2,642,900
3711 TRIP COP 13A DEBT FUND				
Revenues	748,992	-		748,992
Expenditures	-	798,399	Payment of TRIP financing	798,399
3913 NPDES ENDOWMENT FUND				
Revenues	-	-		-
Expenditures	-	653	Transfer to NPDES fund	653
3914 CULTURAL PRESERVATION FUND				
Revenues	-	114,542	Cultural Preservation fund held in trust transferred to new permanent fund	114,542
Expenditures	-	-		-
4800 SUCCESSOR AGENCY ADMIN FUND				
Revenues	9,238,000	-		9,238,000
Expenditures	3,649,652	(594,773)	Eliminate transfer from Suc. Agency to 05 Lease Rev. Bonds	4,054,879
		1,000,000	Request to increase Successor Agency's reimbursement agreement budget by $1,000,000 for an obligation to the Hemlock Apartments Project as approved by the California Department of Finance. Already paid through ROPS 13/14A and 13/14B.	

Exhibit B
FY 2013/14 Recommended Non General Fund Budget Changes

Fund/Name	FY 2013/14 Amended Budget	Proposed Adjustment	Description	FY 2013/14 Revised Budget
5012 ZONE B STREET LIGHTS				
Revenues	1,935,700	(42,200)	Adjusted advanced energy fee receipts based on current developments	1,893,500
Expenditures	1,683,805	-		1,683,805
5013 ZONE E EXTENDED LANDSCAPE				
Revenues	2,471,255	(99,600)	Adjusted based on actual fixed charges applied to tax bills	2,371,655
Expenditures	2,498,363	129,722	Transfer of reserves held for pedestrian bridge to General Fund	2,628,085
5110 ZONE C ARTERIAL ST LIGHTS				
Revenues	928,500	(48,500)	Adjusted advanced energy fee receipts based on current developments	880,000
Expenditures	1,188,385	-		1,188,385
5111 ZONE D STANDARD LANDSCAPE				
Revenues	1,189,115	(25,000)	Adjusted based on actual fixed charges applied to tax bills	1,164,115
Expenditures	1,096,642	-		1,096,642
5112 ZONE M MEDIANS				
Revenues	304,509	(34,200)	Adjusted based on actual fixed charges applied to tax bills	270,309
Expenditures	285,224	-		285,224
5113 CFD#1				
Revenues	1,050,400	-		1,050,400
Expenditures	1,210,286	15,991	Cost related to personnel and annual leave for prior Dept Director	1,226,277
6010 ELECTRIC				
Revenues	19,269,536	424,885	Adjustment to revenues based on a rate increase presented to City Council for approval.	19,694,421
Expenditures	16,394,127	437,811	Adjustment to Solar Rebate Program based on the increase number of eligible rebates to MVU customers. This fund is supported by the Public Purpose revenue as law requires	17,437,961
		606,023	Adjustment to Purchased Power based on the rising energy costs in the market and Amazon coming online. This was not included in the original budget.	
7010 GENERAL LIABILITY INSURANCE				
Revenues	793,152	-		793,152
Expenditures	1,483,004	100,000	Projected legal cost increases	1,583,004
7210 TECHNOLOGY SERVICES				
Revenues	4,622,300	-		4,622,300
Expenditures	5,720,217	450,000	Depreciation adjustment for ERP system and camera system, based on final costs.	6,170,217

Exhibit B
FY 2013/14 Recommended Non General Fund Budget Changes

Fund/Name	FY 2013/14 Amended Budget	Proposed Adjustment	Description	FY 2013/14 Revised Budget
7310 FACILITIES MAINTENANCE				
Revenues	4,481,586	-		4,481,586
Expenditures	4,848,969	50,000	Mpulse Maint Software	5,278,969
		25,000	Truck - 2000 1/2 Ton Ford F250 Reg Cab	
		25,000	HVAC - Golf Course Build.	
		90,000	Moveable Walls (3) at Senior Center	
		50,000	HVAC March Field Park Bldg	
		50,000	Emergency generator - Fire Station 48	
		8,000	Flooring - Fire Station 48	
		30,000	HVAC - Fire Station 48	
		12,000	Roofing - Fire Station 48	
		50,000	Emergency Generator - Fire Station 65	
		10,000	Access control system	
		30,000	Depreciation for City Hall and Annex 1 improvements	
7410 EQUIPMENT MAINTENANCE				
Revenues	798,134	-		798,134
Expenditures	801,027	(30,000)	Depreciation for equipment adjusted to match equipment moves	771,027
7510 EQUIPT REPLACEMENT RESERVE				
Revenues	2,284,402	-		2,284,402
Expenditures	1,551,403	(40,000)	Depreciation reduced for fire vehicles.	1,511,403

Exhibit B
FY 2014/15 Recommended Non General Fund Budget Changes

Fund/Name	FY 2014/15 Amended Budget	Proposed Adjustment	Description	FY 2014/15 Revised Budget
2000 GAS TAX				
Revenues	$ 5,351,074	$ -		$ 5,351,074
Expenditures	5,673,237	100,000	Decrease reimbursed costs	5,999,653
		142,572	Decrease reimbursed salaries	
		50,000	Increased transfer to street sweeping	
		33,844	Adjust salaries based on time allocation	
2001 MEASURE A				
Revenues	5,043,004	-		5,043,004
Expenditures	2,619,572	(76,844)	Reduction to consultant and staff costs	2,553,328
		10,600	Payment of interest for interfund loans	
2007 STORM WATER MAINTENANCE				
Revenues	414,000	50,000	Increased transfer to street sweeping from Gas Tax	464,000
Expenditures	464,395	-		464,395
2008 STORM WATER MANAGEMENT				
Revenues	1,015,035	223	Transfer from NPDES endowment fund	666,663
		(266,995)	Reduce transfer from General Fund	
		(81,600)	NPDES plan check activities moved to General Fund	
Expenditures	1,149,047	11,300	State Water Board increased fees	701,535
		(266,704)	NPDES regulatory permit activities moved to General Fund	
		(195,858)	NPDES plan check activities moved to General Fund	
		3,750	Professional services increased for contract revenue collections	
2202 ASES PROGRAM GRANT				
Revenues	6,104,800	173,350	To increase the in-kind contributions that THINK Together will provide, per their contract	6,278,150
Expenditures	6,085,303	173,350	Increase based on the in-kind contributions that THINK Together will provide, per their contract	6,258,653
2410 SLESF GRANTS				
Revenues	-	325,000	Supplemental Law Enforcement Services Fund (SLESF) grant which provides funds to support frontline law enforcement services. Based on historical allocations budgeted $325,000	325,000
Expenditures	-	325,000		325,000
2908 DIF-LIBRARY				
Revenues	848,700	10,600	Interest received from interfund loan	859,300
Expenditures	-	-		-
3701 2005 LEASE REV BONDS-DEBT SVC				
Revenues	2,730,000	(75,000)	Adjusted to match current debt service	2,655,000
Expenditures	2,650,400	-		2,650,400
3711 TRIP COP 13A DEBT FUND				
Revenues	991,313	-		991,313
Expenditures	-	991,313	Payment of TRIP financing	991,313
3913 NPDES ENDOWMENT FUND				
Revenues	-	-		-
Expenditures	-	223	Transfer to NPDES fund	223
4800 SUCCESSOR AGENCY ADMIN FUND				
Revenues	9,238,000	-		9,238,000
Expenditures	3,740,351	(75,000)	Adjusted transfer out to match current debt service	3,665,351

Exhibit B
FY 2014/15 Recommended Non General Fund Budget Changes

Fund/Name	FY 2014/15 Amended Budget	Proposed Adjustment	Description	FY 2014/15 Revised Budget
5010 LIBRARY SERVICES				
Revenues	1,835,011	-		1,835,011
Expenditures	1,835,011	7,000	Janitorial/maint cost	1,842,011
7210 TECHNOLOGY SERVICES				
Revenues	4,282,300	-		4,282,300
Expenditures	5,461,086	450,000	Depreciation adjustment for ERP system and camera system, based on final costs.	5,911,086
7310 FACILITIES MAINTENANCE				
Revenues	4,481,586	-		4,481,586
Expenditures	4,491,196	30,000	Depreciation for City Hall and Annex 1 improvements	4,521,196
7410 EQUIPMENT MAINTENANCE				
Revenues	786,134	-		786,134
Expenditures	790,676	(30,000)	Depreciation for equipment adjusted to match equipment moves	760,676
7510 EQUIPT REPLACEMENT RESERVE				
Revenues	2,284,402	-		2,284,402
Expenditures	294,880	(80,000)	Depreciation reduced for fire vehicles.	214,880

Attachment 3

RESOLUTION NO. CSD 2014-01

A RESOLUTION OF THE MORENO VALLEY COMMUNITY SERVICES DISTRICT, ADOPTING THE REVISED OPERATING BUDGETS FOR FISCAL YEARS 2013/14 and 2014/15

WHEREAS, the President and Board Members of the Moreno Valley Community Services District approved the Operating Budgets for the District for Fiscal Years 2013/14 and 2014/15, a copy of which, as may have been amended by the District's Board of Directors, is on file in the Office of the City Clerk and is available for public inspection; and

WHEREAS, the City Manager has heretofore submitted to the President and Board Members of the Moreno Valley Community Services District proposed amendments to the Operating Budgets for the District for Fiscal Years 2013/14 and 2014/15, a copy of which, as may have been amended by the District's Board of Directors, is on file in the Office of the City Clerk and is available for public inspection; and

WHEREAS, the said Proposed Revised Operating Budget contains estimates of the services, activities and projects comprising the budget, and contains expenditure requirements and the resources available to the Community Services District; and

WHEREAS, the said Proposed Revised Operating Budget contains the estimates of uses of fund balance as required to stabilize the delivery of City; and

WHEREAS, the President and Board of Directors have made such revisions to the Proposed Revised Operating Budget as so desired; and

WHEREAS, the Proposed Revised Operating Budget, as herein approved, will enable the Community Services District to make adequate financial plans and will ensure that District officers can administer their respective functions in accordance with such plans.

NOW, THEREFORE, THE MORENO VALLEY COMMUNITY SERVICES DISTRICT DOES HEREBY RESOLVE AS FOLLOWS:

1. The Proposed Amendments to the Operating Budgets, as shown on Exhibits A and B to this Resolution and as on file in the Office of the City Clerk, and as may have been amended by the Community Services District's Board of Directors, is hereby approved and adopted as part of the Annual Operating Budgets of the Moreno Valley Community Services District for the Fiscal Years 2013/14 and 2014/15.

2. The Proposed Amendments to Position Control included within the staff report and contained in the Position Control Roster attached as Attachment 4 and on file in the Office of the City Clerk, and as may have been amended by the Community Services District's Board of Directors, is hereby adopted as part of the Approved Position Control of the City of Moreno Valley for the Fiscal Years 2013/14 and 2014/15.

3. The amounts of proposed expenditures, which may include the uses of fund balance specified in the approved budget, are hereby appropriated for the various budget programs and units for said fiscal years.

4. Within fifteen (15) days after the adoption of this Resolution, the City Clerk shall certify to the adoption hereof and, as so certified, cause a copy to be posted in at least three (3) public places within the City.

BE IT FURTHER RESOLVED that this Resolution shall take effect immediately upon its adoption.

APPROVED AND ADOPTED this 11th day of March, 2014.

____
Mayor of the City of Moreno Valley
Acting in the capacity of President
of the Moreno Valley
Community Services District

ATTEST:

____
City Clerk, acting in the capacity
of Secretary of the Moreno Valley
Community Services District

APPROVED AS TO FORM:

____
City Attorney, acting in the capacity
of General Counsel of the Moreno Valley
Community Services District

RESOLUTION JURAT

STATE OF CALIFORNIA)
COUNTY OF RIVERSIDE) ss.
CITY OF MORENO VALLEY)

I, Jane Halstead, Secretary of the Moreno Valley Community Services District, Moreno Valley, California do hereby certify that Resolution No. CSD 2014-01 was duly and regularly adopted by the Board of Directors of the Moreno Valley Community Services District at a regular meeting held on the 11th day of March, 2014, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

(Boardmembers, Vice-President and President)

____
SECRETARY

(SEAL)

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Exhibit A

Exhibit A
FY 2013/14 Recommended General Fund Budget Changes

REVENUES

	FY 2013/14 Amended Budget Amount	Proposed Adjustments	Explanation	FY 2013/14 Revised Budget Amount
	$ 77,942,640			
		30,000	Fire Plan Check and Inspection Fees (one-time)	
		200,000	Property Tax in Lieu-VLF	
		129,722	Transfer from CSD Zone E - Committed for Pedestrian Bridge (one-time)	
		343,808	CEDD Permit and planning fees	
		181,600	Land Development plan check fees	
Total Revenues	**$ 77,942,640**	**$ 885,130**		**$ 78,827,770**

EXPENDITURES

Department	FY 2013/14 Amended Budget Amount	Proposed Adjustments	Explanation	FY 2013/14 Revised Budget Amount
City Council	$ 630,013	$ 24,100	Dues, subscriptions, supplies, and discretionary	$ 654,113
City Clerk	464,852	16,350	Election activities (one-time)	481,202
City Manager	1,367,047	100,738	Operations and personnel adjustments	1,789,970
		162,763	Residual prior CM payout (one-time)	
		159,422	CM discretionary - offset with non-dept	
City Attorney	499,545	100,000	Increased legal cost to support City activities	776,045
		176,500	Subpoenas and public records requests (one-time)	
Community & Economic Development	5,297,377	34,070	SR 60 corridor study (one-time)	5,714,662
		250,000	Contractual services	
		133,215	Operations and personnel adjustments	
Finance & Management Services	3,099,378	31,887	Operations and personnel adjustments	3,131,265
Administrative Services	3,776,024	3,650	Operations and personnel adjustments	3,779,674
Public Works	3,940,814	524,187	Moving NPDES permits and plan checks. Offset with non-dept. Increased fee revenues	4,465,001
Non-Departmental	3,352,911	(600,000)	Operations and personnel adjustments	2,552,048
		15,772	CM Contingency, Leave payout	
		50,360	2005 Lease Revenue Bonds debt service payment	
		(266,995)	Eliminate GF transfer to NPDES	
Non-Public Safety Subtotal	**$ 22,427,961**	**$ 916,019**		**$ 23,343,980**
Public Safety				
Police	37,959,758	(325,323)	SLESF grant	37,634,435
Fire	17,532,212	(25,000)	Staffing salary/benefit savings	17,507,212
Public Safety Sub-Total	**$ 55,491,970**	**$ (350,323)**		**$ 55,141,647**
Total Expenditures	**$ 77,919,931**	**$ 565,696**		**$ 78,485,627**

Resolution No. CSD 2014-____
Date Adopted: March 11, 2014

Exhibit A
FY 2014/15 Recommended General Fund Budget Changes

REVENUES

	FY 2014/15 Amended Budget Amount	Proposed Adjustments	Explanation	FY 2014/15 Revised Budget Amount
	$ 78,832,363			
		375,000	Property Tax in Lieu-VLF	
		100,000	Structural Fire Tax	
		225,000	Property Tax - Secured	
		81,100	Business Gross Receipts	
		165,100	CEDD Permit and planning fees	
		181,600	Land Development plan check fees	
	$ 78,832,363	**$ 1,127,800**		**$ 79,960,163**

EXPENDITURES

Department	FY 2014/15 Amended Budget Amount	Proposed Adjustments	Explanation	FY 2014/15 Revised Budget Amount
City Council	$ 631,860	$ 24,100	Dues, subscriptions, supplies, and discretionary	$ 655,960
City Clerk	588,812	-	N/A	588,812
City Manager	1,373,655	130,982	Operations and personnel adjustments	1,584,637
		80,000	Contractual services	
City Attorney	505,521	100,000	Increased legal cost to supplement staff	605,521
Community & Economic Development	5,309,213	268,704	Operations and personnel adjustments - portion offset with fees	5,577,917
Finance & Management Services	3,126,692	32,141	Operations and personnel adjustments	3,158,833
Administrative Services	3,790,179	3,650	Operations and personnel adjustments	3,793,829
Public Works	3,905,352	573,862	Moving NPDES permits and plan checks. Offset with non-dept	4,479,214
Non-Departmental	3,485,609	(266,995)	Reduce transfer to NPDES	3,218,614
Non-Public Safety Subtotal	**$ 22,716,893**	**$ 946,444**		**$ 23,663,337**
Public Safety				
Police	38,928,069	(325,000)	SLESF grant	38,603,069
Fire	17,766,433	(75,000)	Staffing salary savings and transfer of position to County	17,691,433
Public Safety Sub-Total	**$ 56,694,502**	**$ (400,000)**		**$ 56,294,502**
TOTAL	**$ 79,411,395**	**$ 546,444**		**$ 79,957,839**

Exhibit B

Exhibit B
FY 2013/14 Recommended Non General Fund Budget Changes

Fund/Name	FY 2013/14 Amended Budget	Proposed Adjustment	Description	FY 2013/14 Revised Budget
2000 GAS TAX				
Revenues	$ 5,224,755	$ 1,134,211	Transfer for payment of Requisition No. 1 from TRIP bond proceeds	$ 6,358,966
Expenditures	5,589,929	100,000	Decrease reimbursed costs	5,760,352
		20,423	Adjust salaries based on time allocation	
		50,000	Increased transfer to street sweeping	
2001 MEASURE A				
Revenues	4,903,702	73,000	Insurance reimbursement for damaged vehicle	4,976,702
Expenditures	4,785,440	73,000	Replacement of vehicle - reimbursed from insurance	4,808,967
		(63,423)	Reduction to consultant contract costs and salaries	
		13,950	Payment of interest for interfund loans	
2007 STORM WATER MAINTENANCE				
Revenues	414,000	50,000	Increased transfer to street sweeping from Gas Tax	464,000
Expenditures	462,789	-		462,789
2008 STORM WATER MANAGEMENT				
Revenues	1,052,397	653	Transfer from NPDES endowment fund	704,455
		(266,995)	Reduce transfer from General Fund	
		(81,600)	NPDES plan check activities moved to General Fund	
Expenditures	1,154,315	3,000	State Water Board increased fees	700,873
		(266,704)	NPDES regulatory permit activities moved to General Fund	
		(195,858)	NPDES plan check activities moved to General Fund	
		6,120	Professional services increased for contract revenue collections	
2011 PUB/EDUC/GOVT ACCESS PROG FD				
Revenues	550,000	-		550,000
Expenditures	874,998	40,000	MVTV3 edit bays and video server storage	914,998
2200 BEVERAGE CONTAINER RECYCLING				
Revenues	55,000	-		55,000
Expenditures	62,839	(7,839)	Adjust to match grant revenues	55,000
2202 ASES PROGRAM GRANT				
Revenues	6,104,800	173,350	To increase the in-kind contributions that THINK Together will provide, per their contract	6,278,150
Expenditures	6,084,675	173,350	Increase based on the in-kind contributions that THINK Together will provide, per their contract	6,258,025
2207 OIL PAYMENT GRANT				
Revenues	56,630	(9,698)	Oil Payment Grant adjusted to match actual rev received	46,932
Expenditures	57,631	(9,698)	Oil Payment Grant adjusted to match actual rev received	47,933
2506 HOME(FEDERAL)				
Revenues	2,487,202	-		2,487,202
Expenditures	2,489,461	(25,451)	Adjustment to personnel cost allocation to multiple grants	2,464,010

Exhibit B
FY 2013/14 Recommended Non General Fund Budget Changes

Fund/Name	FY 2013/14 Amended Budget	Proposed Adjustment	Description	FY 2013/14 Revised Budget
2507 NEIGHBORHOOD STABILIZATION PROG				
Revenues	3,500,000	-		3,500,000
Expenditures	4,600,557	63,723	Adjustment to personnel cost allocation to multiple grants	4,664,280
2512 COMM DEV BLOCK GRANT (CDBG)				
Revenues	2,843,714	-		2,843,714
Expenditures	1,824,369	(25,451)	Adjustment to personnel cost allocation to multiple grants	1,798,918
2800 SCAG ARTICLE 3 FUND				
Revenues	400,000	70,385	Adjusted to match grant revenue requested	470,385
Expenditures	-	-		-
2908 DIF-LIBRARY				
Revenues	98,700	10,600	Interest received from interfund loan	109,300
Expenditures	-	-		-
2910 DIF-CORPORATE YARD				
Revenues	16,500	3,350	Interest received from interfund loan	19,850
Expenditures	-	-		-
3411 TRIP CAPITAL PROJECTS				
Revenues	-	-		-
Expenditures	-	1,134,211	Transfer for payment of Requisition No. 1 from TRIP bond proceeds to Gas Tax	1,932,610
		798,399	Payment of COI for TRIP financing	
3701 2005 LEASE REV BONDS-DEBT SVC				
Revenues	2,647,973	(544,413)	Net savings from partial refunding of the bonds.	2,103,560
Expenditures	2,642,900	-		2,642,900
3711 TRIP COP 13A DEBT FUND				
Revenues	748,992	-		748,992
Expenditures	-	798,399	Payment of TRIP financing	798,399
3913 NPDES ENDOWMENT FUND				
Revenues	-	-		-
Expenditures	-	653	Transfer to NPDES fund	653
3914 CULTURAL PRESERVATION FUND				
Revenues	-	114,542	Cultural Preservation fund held in trust transferred to new permanent fund	114,542
Expenditures	-	-		-
4800 SUCCESSOR AGENCY ADMIN FUND				
Revenues	9,238,000	-		9,238,000
Expenditures	3,649,652	(594,773)	Eliminate transfer from Suc. Agency to 05 Lease Rev. Bonds	4,054,879
		1,000,000	Request to increase Successor Agency's reimbursement agreement budget by $1,000,000 for an obligation to the Hemlock Apartments Project as approved by the California Department of Finance. Already paid through ROPS 13/14A and 13/14B.	

Exhibit B

FY 2013/14 Recommended Non General Fund Budget Changes

Fund/Name	FY 2013/14 Amended Budget	Proposed Adjustment	Description	FY 2013/14 Revised Budget
5012 ZONE B STREET LIGHTS				
Revenues	1,935,700	(42,200)	Adjusted advanced energy fee receipts based on current developments	1,893,500
Expenditures	1,683,805	-		1,683,805
5013 ZONE E EXTENDED LANDSCAPE				
Revenues	2,471,255	(99,600)	Adjusted based on actual fixed charges applied to tax bills	2,371,655
Expenditures	2,498,363	129,722	Transfer of reserves held for pedestrian bridge to General Fund	2,628,085
5110 ZONE C ARTERIAL ST LIGHTS				
Revenues	928,500	(48,500)	Adjusted advanced energy fee receipts based on current developments	880,000
Expenditures	1,188,385	-		1,188,385
5111 ZONE D STANDARD LANDSCAPE				
Revenues	1,189,115	(25,000)	Adjusted based on actual fixed charges applied to tax bills	1,164,115
Expenditures	1,096,642	-		1,096,642
5112 ZONE M MEDIANS				
Revenues	304,509	(34,200)	Adjusted based on actual fixed charges applied to tax bills	270,309
Expenditures	285,224	-		285,224
5113 CFD#1				
Revenues	1,050,400	-		1,050,400
Expenditures	1,210,286	15,991	Cost related to personnel and annual leave for prior Dept Director	1,226,277
6010 ELECTRIC				
Revenues	19,269,536	424,885	Adjustment to revenues based on a rate increase presented to City Council for approval.	19,694,421
Expenditures	16,394,127	437,811	Adjustment to Solar Rebate Program based on the increase number of eligible rebates to MVU customers. This fund is supported by the Public Purpose revenue as law requires	17,437,961
		606,023	Adjustment to Purchased Power based on the rising energy costs in the market and Amazon coming online. This was not included in the original budget.	
7010 GENERAL LIABILITY INSURANCE				
Revenues	793,152	-		793,152
Expenditures	1,483,004	100,000	Projected legal cost increases	1,583,004
7210 TECHNOLOGY SERVICES				
Revenues	4,622,300	-		4,622,300
Expenditures	5,720,217	450,000	Depreciation adjustment for ERP system and camera system, based on final costs.	6,170,217

Exhibit B

FY 2013/14 Recommended Non General Fund Budget Changes

Fund/Name	FY 2013/14 Amended Budget	Proposed Adjustment	Description	FY 2013/14 Revised Budget
7310 FACILITIES MAINTENANCE				
Revenues	4,481,586	-		4,481,586
Expenditures	4,848,969	50,000	Mpulse Maint Software	5,278,969
		25,000	Truck - 2000 1/2 Ton Ford F250 Reg Cab	
		25,000	HVAC - Golf Course Build.	
		90,000	Moveable Walls (3) at Senior Center	
		50,000	HVAC March Field Park Bldg	
		50,000	Emergency generator - Fire Station 48	
		8,000	Flooring - Fire Station 48	
		30,000	HVAC - Fire Station 48	
		12,000	Roofing - Fire Station 48	
		50,000	Emergency Generator - Fire Station 65	
		10,000	Access control system	
		30,000	Depreciation for City Hall and Annex 1 improvements	
7410 EQUIPMENT MAINTENANCE				
Revenues	798,134	-		798,134
Expenditures	801,027	(30,000)	Depreciation for equipment adjusted to match equipment moves	771,027
7510 EQUIPT REPLACEMENT RESERVE				
Revenues	2,284,402	-		2,284,402
Expenditures	1,551,403	(40,000)	Depreciation reduced for fire vehicles.	1,511,403

Exhibit B

FY 2014/15 Recommended Non General Fund Budget Changes

Fund/Name	FY 2014/15 Amended Budget	Proposed Adjustment	Description	FY 2014/15 Revised Budget
2000 GAS TAX				
Revenues	$ 5,351,074	$ -		$ 5,351,074
Expenditures	5,673,237	100,000	Decrease reimbursed costs	5,999,653
		142,572	Decrease reimbursed salaries	
		50,000	Increased transfer to street sweeping	
		33,844	Adjust salaries based on time allocation	
2001 MEASURE A				
Revenues	5,043,004	-		5,043,004
Expenditures	2,619,572	(76,844)	Reduction to consultant and staff costs	2,553,328
		10,600	Payment of interest for interfund loans	
2007 STORM WATER MAINTENANCE				
Revenues	414,000	50,000	Increased transfer to street sweeping from Gas Tax	464,000
Expenditures	464,395	-		464,395
2008 STORM WATER MANAGEMENT				
Revenues	1,015,035	223	Transfer from NPDES endowment fund	666,663
		(266,995)	Reduce transfer from General Fund	
		(81,600)	NPDES plan check activities moved to General Fund	
Expenditures	1,149,047	11,300	State Water Board increased fees	701,535
		(266,704)	NPDES regulatory permit activities moved to General Fund	
		(195,858)	NPDES plan check activities moved to General Fund	
		3,750	Professional services increased for contract revenue collections	
2202 ASES PROGRAM GRANT				
Revenues	6,104,800	173,350	To increase the in-kind contributions that THINK Together will provide, per their contract	6,278,150
Expenditures	6,085,303	173,350	Increase based on the in-kind contributions that THINK Together will provide, per their contract	6,258,653
2410 SLESF GRANTS				
Revenues	-	325,000	Supplemental Law Enforcement Services Fund (SLESF) grant which provides funds to support frontline law enforcement services. Based on historical allocations budgeted $325,000	325,000
Expenditures	-	325,000		325,000
2908 DIF-LIBRARY				
Revenues	848,700	10,600	Interest received from interfund loan	859,300
Expenditures	-	-		-
3701 2005 LEASE REV BONDS-DEBT SVC				
Revenues	2,730,000	(75,000)	Adjusted to match current debt service	2,655,000
Expenditures	2,650,400	-		2,650,400
3711 TRIP COP 13A DEBT FUND				
Revenues	991,313	-		991,313
Expenditures	-	991,313	Payment of TRIP financing	991,313
3913 NPDES ENDOWMENT FUND				
Revenues	-	-		-
Expenditures	-	223	Transfer to NPDES fund	223
4800 SUCCESSOR AGENCY ADMIN FUND				
Revenues	9,238,000	-		9,238,000
Expenditures	3,740,351	(75,000)	Adjusted transfer out to match current debt service	3,665,351

Exhibit B
FY 2014/15 Recommended Non General Fund Budget Changes

Fund/Name	FY 2014/15 Amended Budget	Proposed Adjustment	Description	FY 2014/15 Revised Budget
5010 LIBRARY SERVICES				
Revenues	1,835,011	-		1,835,011
Expenditures	1,835,011	7,000	Janitorial/maint cost	1,842,011
7210 TECHNOLOGY SERVICES				
Revenues	4,282,300	-		4,282,300
Expenditures	5,461,086	450,000	Depreciation adjustment for ERP system and camera system, based on final costs.	5,911,086
7310 FACILITIES MAINTENANCE				
Revenues	4,481,586	-		4,481,586
Expenditures	4,491,196	30,000	Depreciation for City Hall and Annex 1 improvements	4,521,196
7410 EQUIPMENT MAINTENANCE				
Revenues	786,134	-		786,134
Expenditures	790,676	(30,000)	Depreciation for equipment adjusted to match equipment moves	760,676
7510 EQUIPT REPLACEMENT RESERVE				
Revenues	2,284,402	-		2,284,402
Expenditures	294,880	(80,000)	Depreciation reduced for fire vehicles.	214,880

Attachment 4

POSITION CONTROL ROSTER
PROPOSED MID-YEAR ADJUSTMENTS

Department / Position Title		FY 2013/14	FY 2014/15
Community & Economic Development			
Associate Planner	FT	1	-
Fire			
Fire Marshal	FT	-	(1)
Administrative Services			
Sr Administrative Asst	FT	(1)	-
Executive Assistant	FT	1	-
Parks & Community Services			
Administrative Asst	FT	1	-
Sr Office Asst	FT	(1)	-
Public Works			
Permit Technician	FT	(1)	-
Management Assistant	FT	1	-
Management Analyst	FT	(1)	-
City Manager			
Sustainability and Intergovernmental Program Manager	FT	1	
Total		**1**	**(1)**

City of Moreno Valley
FY 2013/14 - 2014/15
City Position Summary
Proposed Mid-Year Revisions

Position Title	FY 2011/12 Adj.	FY 2011/12 No.	FY 2012/13 Adj.	FY 2012/13 No.	FY 2013/14 Adj. (Adopted	FY 2013/14 Proposed Mid-Year	FY 2013/14 No.	FY 2014/15 Adj.	FY 2014/15 Proposed Mid-Year	FY 2014/15 No.
Accountant I	-	2	-	2	-	-	2	-	-	2
Accounting Asst	(2)	3	-	3	-	-	3	-	-	3
Accounting Technician	-	4	-	4	(1)	-	3	-	-	3
Accounts Payable Supervisor	-	1	-	1	-	-	1	-	-	1
Administrative Asst	-	5	-	5	2	1	8	-	-	8
Administrative Services Dir	-	1	-	1	-	-	1	-	-	1
After School Prog Coordinator	(4)	-	-	-	-	-	-	-	-	-
After School Prog Specialist	(8)	-	-	-	-	-	-	-	-	-
After School Prog Supervisor	(1)	-	-	-	-	-	-	-	-	-
Animal Care Technician	-	4	-	4	-	-	4	-	-	4
Animal Control Officer	-	7	-	7	-	-	7	-	-	7
Animal Services Asst	-	2	-	2	-	-	2	-	-	2
Animal Svcs Dispatcher	(1)	1	-	1	1	-	2	-	-	2
Animal Svcs Division Manager	-	1	-	1	-	-	1	-	-	1
Animal Svcs Field Supervisor	-	1	-	1	-	-	1	-	-	1
Animal Svcs License Inspector	-	1	-	1	-	-	1	-	-	1
Animal Svcs Office Supervisor	-	1	-	1	-	-	1	-	-	1
Applications & DB Admin	-	1	-	1	-	-	1	-	-	1
Applications Analyst	-	1	-	1	-	-	1	-	-	1
Assistant City Attorney	-	-	-	-	-	-	-	-	-	-
Assistant City Clerk	-	-	-	-	-	-	-	-	-	-
Assoc Environmental Engineer	-	1	-	1	-	-	1	-	-	1
Associate Engineer	(1)	5	-	5	-	-	5	-	-	5
Associate Planner	-	4	-	4	(1)	1	4	-	-	4
Asst Buyer	-	2	-	2	-	-	2	-	-	2
Asst City Manager	-	1	-	1	-	-	1	-	-	1
Asst Crossing Guard Spvr	-	1	-	1	-	-	1	-	-	1
Asst Network Administrator	-	1	-	1	-	-	1	-	-	1
Asst to the City Manager	-	1	-	1	-	-	1	-	-	1
Asst. Applications Analyst	-	-	-	-	-	-	-	-	-	-
Banquet Facility Rep	-	1	-	1	-	-	1	-	-	1
Budget Officer	(1)	-	1	1	(1)	-	-	-	-	-
Building & Neighborhood Services Div Mgr	-	-	-	-	1	-	1	-	-	1
Building Div Mgr / Official	-	1	-	1	(1)	-	-	-	-	-
Building Inspector I I	-	4	-	4	-	-	4	-	-	4
Bus. Support & Neigh Prog Admin	-	1	-	1	(1)	-	-	-	-	-
Cable TV Producer	-	2	-	2	-	-	2	-	-	2
Chief Financial Officer/City Treas	-	1	-	1	-	-	1	-	-	1
Child Care Asst	-	5	-	5	(1)	-	4	-	-	4
Child Care Instructor I I	-	5	-	5	(1)	-	4	-	-	4
Child Care Program Manager	-	1	-	1	-	-	1	-	-	1
Child Care Site Supervisor	-	5	-	5	(1)	-	4	-	-	4
City Attorney	-	1	-	1	-	-	1	-	-	1
City Clerk	-	1	-	1	-	-	1	-	-	1
City Manager	-	1	-	1	-	-	1	-	-	1
Code & Neigh Svcs Official	-	1	-	1	(1)	-	-	-	-	-
Code Compliance Field Sup.	-	-	-	-	-	-	-	-	-	-
Code Compliance Officer I	-	-	-	-	1	-	1	-	-	1
Code Compliance Officer I I	-	5	-	5	-	-	5	-	-	5
Code Supervisor	-	-	-	-	1	-	1	-	-	1
Comm & Economic Dev Director	-	1	-	1	-	-	1	-	-	1
Community Dev Director	(1)	-	-	-	-	-	-	-	-	-
Community Svcs Supervisor	-	1	-	1	-	-	1	-	-	1
Construction Inspector	1	5	-	5	-	-	5	-	-	5
Crossing Guard	-	35	-	35	-	-	35	-	-	35
Crossing Guard Supervisor	-	1	-	1	-	-	1	-	-	1
Customer Service Asst	-	1	-	1	(1)	-	-	-	-	-
Dep PW Dir /Asst City Engineer	-	1	-	1	-	-	1	-	-	1
Deputy City Attorney I I I	-	2	-	2	(2)	-	-	-	-	-
Deputy City Clerk	-	1	-	1	-	-	1	-	-	1
Deputy City Manager	-	-	-	-	-	-	-	-	-	-
Development Svcs Coordinator	-	1	(1)	-	-	-	-	-	-	-
Electric Utility Division Mgr	-	1	-	1	-	-	1	-	-	1
Electric Utility Program Coord	-	1	-	1	-	-	1	-	-	1
Emerg Mgmt & Vol Svc Prog Spec	(1)	1	-	1	-	-	1	-	-	1
Emerg Mgmt & Vol Svcs Prog Mgr	-	1	-	1	-	-	1	-	-	1
Engineering Division Manager	-	1	-	1	-	-	1	-	-	1
Engineering Technician I I	-	1	-	1	-	-	1	-	-	1
Enterprise Systems Admin	-	1	-	1	-	-	1	-	-	1
Environmental Analyst	-	1	-	1	-	-	1	-	-	1
Equipment Operator	-	4	-	4	-	-	4	-	-	4
Exec Asst to Mayor / City Council	-	1	-	1	-	-	1	-	-	1
Exec. Assistant to the City Manager	-	-	-	-	-	-	-	-	-	-
Executive Asst I	-	7	2	9	(1)	1	9	-	-	9
Executive Asst I I	-	1	-	1	-	-	1	-	-	1

Position Title	FY 2011/12 Adj.	FY 2011/12 No.	FY 2012/13 Adj.	FY 2012/13 No.	FY 2013/14 Adj. (Adopted	FY 2013/14 Proposed Mid-Year	FY 2013/14 No.	FY 2014/15 Adj.	FY 2014/15 Proposed Mid-Year	FY 2014/15 No.
Facilities Maint Mechanic	-	1	-	1	-	-	1	-	-	1
Facilities Maint Worker	-	3	-	3	-	-	3	-	-	3
Facilities Maintenance Spvr	(1)	-	-	-	-	-	-	-	-	-
Financial Operations Div Mgr	-	1	-	1	-	-	1	-	-	1
Financial Resources Div Mgr	-	-	-	-	1	-	1	-	-	1
Fire Inspector I	-	-	-	-	2	-	2	1	-	3
Fire Inspector I I	-	2	-	2	-	-	2	-	-	2
Fire Marshal	-	1	-	1	-	-	1	-	(1)	-
Fire Safety Specialist	-	1	-	1	1	-	2	-	-	2
Fleet Supervisor	-	-	-	-	-	-	-	-	-	-
GIS Administrator	-	1	-	1	-	-	1	-	-	1
GIS Specialist	-	1	-	1	-	-	1	-	-	1
GIS Technician	-	1	(1)	-	-	-	-	-	-	-
Housing Program Coordinator	-	1	-	1	-	-	1	-	-	1
Housing Program Specialist	-	3	-	3	(3)	-	-	-	-	-
Human Resources Analyst	-	1	-	1	-	-	1	-	-	1
Human Resources Div Manager	-	-	-	-	-	-	-	-	-	-
Human Resources Technician	(1)	1	(1)	-	-	-	-	-	-	-
Info Technology Technician	-	2	-	2	-	-	2	-	-	2
Landscape Development Coord	-	1	(1)	-	-	-	-	-	-	-
Landscape Irrigation Tech	-	1	-	1	-	-	1	-	-	1
Landscape Svcs Inspector	(2)	5	(2)	3	(1)	-	2	-	-	2
Lead Animal Care Technician	-	1	-	1	-	-	1	-	-	1
Lead Facilities Maint Worker	-	-	-	-	-	-	-	-	-	-
Lead Maintenance Worker	-	3	-	3	-	-	3	-	-	3
Lead Parks Maint Worker	-	5	-	5	-	-	5	-	-	5
Lead Traffic Sign/Marking Tech	-	2	-	2	-	-	2	-	-	2
Lead Vehicle / Equip Tech	-	1	-	1	-	-	1	-	-	1
Legal Secretary	-	1	-	1	-	-	1	-	-	1
Lib Serv Div Mgr	-	1	-	1	(1)	-	-	-	-	-
Librarian	-	4	-	4	(4)	-	-	-	-	-
Library Asst	-	13	-	13	(13)	-	-	-	-	-
Library Circulation Supervisor	-	1	-	1	(1)	-	-	-	-	-
Maint & Operations Div Mgr	-	1	-	1	-	-	1	-	-	1
Maintenance Worker I	-	-	-	-	7	-	7	1	-	8
Maintenance Worker II	-	13	-	13	-	-	13	-	-	13
Management Analyst	-	11	3	14	(1)	(1)	12	-	-	12
Management Asst	-	3	-	3	-	1	4	-	-	4
Media & Production Coordinator	-	1	-	1	-	-	1	-	-	1
Network Administrator	-	1	-	1	-	-	1	-	-	1
Network System Specialist	-	-	-	-	-	-	-	-	-	-
Office Asst	-	1	-	1	-	-	1	-	-	1
Park Ranger	-	3	-	3	-	-	3	-	-	3
Parking Control Officer	-	2	-	2	-	-	2	-	-	2
Parks & Comm Svcs Director	-	1	-	1	-	-	1	-	-	1
Parks & Comm Svcs Div Mgr	-	-	1	1	-	-	1	-	-	1
Parks Maint Division Manager	-	1	(1)	-	-	-	-	-	-	-
Parks Maint Supervisor	-	2	-	2	-	-	2	-	-	2
Parks Maint Worker	-	13	-	13	-	-	13	-	-	13
Parks Projects Coordinator	-	1	-	1	-	-	1	-	-	1
Payroll Supervisor	-	1	-	1	-	-	1	-	-	1
Permit Technician	-	6	-	6	-	(1)	5	-	-	5
Planning Commissioner	-	7	-	7	-	-	7	-	-	7
Planning Div Mgr / Official	-	1	-	1	-	-	1	-	-	1
Principal Accountant	-	1	-	1	-	-	1	-	-	1
Purch & Facilities Div Mgr	-	1	-	1	-	-	1	-	-	1
PW Director / City Engineer	-	1	-	1	-	-	1	-	-	1
PW Program Manager	-	-	-	-	-	-	-	-	-	-
Recreation Program Coord	-	2	(1)	1	-	-	1	-	-	1
Recreation Program Leader	-	7	-	7	-	-	7	-	-	7
Recreation Supervisor	-	-	1	1	-	-	1	-	-	1
Recycling Specialist	-	-	-	-	1	-	1	-	-	1
Resource Analyst	-	-	-	-	-	-	-	-	-	-
Risk Division Manager	-	1	(1)	-	-	-	-	-	-	-
Security Guard	(1)	2	-	2	-	-	2	-	-	2
Spec Dist Budg & Accting Spvr	(1)	-	-	-	-	-	-	-	-	-
Spec Districts Div Mgr	-	1	-	1	-	-	1	-	-	1
Special Districts Prog Mgr	-	1	-	1	-	-	1	-	-	1
Sr Accountant	-	1	-	1	-	-	1	-	-	1
Sr Administrative Asst	(5)	14	2	16	(1)	(1)	14	-	-	14
Sr Applications Analyst	-	-	-	-	-	-	-	-	-	-
Sr Citizens Center Coord	-	1	-	1	-	-	1	-	-	1
Sr Code Compliance Officer	(1)	-	-	-	-	-	-	-	-	-
Sr Customer Service Asst	-	3	-	3	-	-	3	-	-	3
Sr Deputy Clerk	-	-	-	-	-	-	-	-	-	-

City of Moreno Valley
FY 2013/14 - 2014/15
City Position Summary
Proposed Mid-Year Revisions

Position Title	FY 2011/12 Adj.	FY 2011/12 No.	FY 2012/13 Adj.	FY 2012/13 No.	FY 2013/14 Adj. (Adopted	FY 2013/14 Proposed Mid-Year	FY 2013/14 No.	FY 2014/15 Adj.	FY 2014/15 Proposed Mid-Year	FY 2014/15 No.
Sr Electrical Engineer	-	1	-	1	-	-	1	-	-	1
Sr Engineer, P.E.	(2)	9	-	9	-	-	9	-	-	9
Sr Engineering Technician	-	1	-	1	-	-	1	-	-	1
Sr Equipment Operator	-	1	-	1	-	-	1	-	-	1
Sr Financial Analyst	-	2	-	2	-	-	2	-	-	2
Sr GIS Analyst	-	1	-	1	-	-	1	-	-	1
Sr Graphics Designer	-	1	-	1	-	-	1	-	-	1
Sr Human Resources Analyst	-	1	-	1	-	-	1	-	-	1
Sr IT Technician	-	-	-	-	-	-	-	-	-	-
Sr Landscape Svcs Inspector	-	1	-	1	-	-	1	-	-	1
Sr Management Analyst	-	2	-	2	-	-	2	-	-	2
Sr Office Asst	(1)	5	-	5	-	(1)	4	-	-	4
Sr Park Ranger	(1)	-	-	-	-	-	-	-	-	-
Sr Parking Control Officer	-	1	-	1	-	-	1	-	-	1
Sr Parks Maint Technician	-	1	1	2	-	-	2	-	-	2
Sr Payroll Technician	-	1	-	1	-	-	1	-	-	1
Sr Permit Technician	-	2	-	2	-	-	2	-	-	2
Sr Planner	-	2	-	2	-	-	2	-	-	2
Sr Recreation Program Leader	-	2	-	2	-	-	2	-	-	2
Sr Telecomm Technician	-	1	-	1	-	-	1	-	-	1
Sr Traffic Engineer	-	1	-	1	-	-	1	-	-	1
Sr Traffic Signal Technician	-	1	-	1	-	-	1	-	-	1
Storekeeper	-	1	-	1	-	-	1	-	-	1
Storm Water Prog Mgr	-	1	-	1	-	-	1	-	-	1
Street Maintenance Supervisor	-	2	-	2	-	-	2	-	-	2
Sustainability and Intergovernmental Prog. Mgr.	-	-	-	-	-	1	1	-	-	1
Technology Services Div Mgr	-	1	-	1	-	-	1	-	-	1
Telecomm Engineer / Admin	-	1	-	1	-	-	1	-	-	1
Telecomm Technician	-	1	-	1	-	-	1	-	-	1
Traffic Operations Supervisor	-	1	-	1	-	-	1	-	-	1
Traffic Sign / Marking Tech I	-	1	-	1	-	-	1	-	-	1
Traffic Sign/Marking Tech I I	-	2	-	2	-	-	2	-	-	2
Traffic Signal Technician	-	2	-	2	-	-	2	-	-	2
Trans Div Mgr / City Traf Engr	-	1	-	1	-	-	1	-	-	1
Treasury Operations Div Mgr	-	1	-	1	-	-	1	-	-	1
Tree Trimmer	-	1	-	1	-	-	1	-	-	1
Vehicle / Equipment Technician	-	2	-	2	1	-	3	-	-	3
Web Master	-	-	-	-	-	-	-	-	-	-
Subtotal	**(35)**	**376**	**2**	**378**	**(19)**	**1**	**360**	**2**	**(1)**	**361**
Temporary Positions	(44)	121	(17)	104	(15)	-	89	(1)	-	88
Total	**(79)**	**497**	**(15)**	**482**	**(34)**	**1**	**449**	**1**	**(1)**	**449**

* FY 2013/14 - As a result of the contracting of library services 20 positions were removed from the position control roster.

City of Moreno Valley **Date Council Approved ____________**

Date Effective _____

CLASS SPECIFICATION
Sustainability & Intergovernmental Programs Manager

GENERAL PURPOSE

Under general supervision, performs responsible administrative, financial, statistical and other management analyses in support of City and departmental activities, functions and programs; Manages, coordinates and administers a variety of environmental programs and initiatives; recommends action and assists in formulating policy and procedure and in budget development and administration; and performs related duties as assigned. Responsible for assisting with the coordination, development and implementation of the City's intergovernmental relations program and represents the City's interests with various government agencies and officials.

DISTINGUISHING CHARACTERISTICS

The Sustainability & Intergovernmental Programs Manager manages a variety of specialized environmental programs; works with City Council on intergovernmental issues and developing legislative priorities and platforms, serves as City representative to various groups involving interaction with other governmental jurisdictions, and consistently performs high level and complex analytical assignments that have great impact to the City, including proposed state and federal legislation.

ESSENTIAL DUTIES AND RESPONSIBILITIES

The duties listed below are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to this class.

1. Leads and engages in environmental and sustainability-related public information and outreach functions by meeting with residents, businesses, school representatives, and other parties; writes technical reports, press releases, news articles, and correspondence; researches, writes and presents staff reports and prepares letters and resolutions in support of environmental policies; administers the City’s solid waste franchise agreement; coordinates the Keep Moreno Valley Beautiful initiative; coordinates neighborhood clean-up events with residents, the franchise trash hauler and other City departments; administers and monitors the implementation of the illegal hauler ordinance; seeks, obtains, and administers grant funds for environmental programs and projects; serves as the City’s liaison on any environmental task forces or committees and reports on all regional activities related to sustainability.

2. Reviews, researches and analyzes proposed state and federal legislation affecting the City; facilitates the review of the information by City departments; works with the City Council on intergovernmental issues and developing annual legislative priorities and platform; monitors Riverside County Transportation Committee (RCTC), Western Riverside Council of Governments (WRCOG), Riverside County, and Riverside Transit Authority (RTA) activities and provides reports on these activities to the

City Manager; coordinates the preparation of communication on activities associated with the intergovernmental relations program and responses to intergovernmental requests for information; assists with representing the City's interests with other government entities; assists in the legislative process by monitoring hearings and drafting testimony to be presented before legislative committees; meets with individual legislators and their staffs to advocate the City's position; serves as City representative in various projects, committees and programs involving interaction with other governmental jurisdictions; acts as the City's liaison with the League of California Cities; monitors contracts for state and/or federal level advocates.

OTHER DUTIES

1. May provide work direction and guidance to office support staff.

2. Performs a variety of special projects as assigned.

3. Represents the City or department on committees and in a variety of meetings and other functions applicable to areas of responsibility; may attend and give testimony before the City Council.

QUALIFICATIONS

Knowledge of:

- Management principles
- Public administration and governmental operations
- Theories and principles related to environmental sustainability
- Strategy development principles and procedures
- Applicable local, state and federal laws, codes, rules, and regulations
- Program development and administration principles and practices
- Project management principles
- Contract negotiation principles
- Budgeting principles
- Public relations principles

Ability to:

1. Monitor and evaluate employees
2. Prioritize and assign work
3. Provide leadership
4. Manage projects
5. Manage multiple priorities simultaneously

6. Speak in public, communicate effectively, orally and in writing; present conclusions and recommendations clearly and logically
7. Analyze and develop policies and procedures
8. Ensure compliance with applicable federal, state, and local laws, codes, rules and regulations
9. Interpret and apply applicable laws, rules, codes, and regulations
10. Analyze problems, identify alternative solutions, project consequences of proposed actions, and implement recommendations in support of goals
11. Prepare and administer budgets
12. Plan, analyze, and evaluate programs and services, operational needs, and fiscal constraints
13. Analyze, interpret and report research findings and recommendations
14. Communicate and use interpersonal skills to interact with coworkers, supervisor, the general public, legislators and their staffs, regional partners, etc. to sufficiently exchange or convey information and to receive work direction.
15. Analyze administrative, operational, procedural, organizational and/or financial problems, evaluate alternatives and reach sound, logical, fact-based conclusions and recommendations.
16. Maintain files, records and documentation.
17. Exercise independent judgment and initiative within established guidelines.

Education, Training and Experience:

A typical way of obtaining the knowledge, skills and abilities outlined above is graduation from a four-year college or university with major coursework in public or business administration, environmental affairs, or a closely related field; and at least three years of progressively responsible professional experience performing administrative, operations, budgetary and similar analyses; or an equivalent combination of training and experience. Experience working in or closely with governmental agencies is preferred.

Licenses; Certificates; Special Requirements:

A valid California driver's license and the ability to maintain insurability under the City’s vehicle insurance policy.

PHYSICAL AND MENTAL DEMANDS

The physical and mental demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Physical Demands

While performing the duties of this job, employees are regularly required to sit; talk or hear, both in person and by telephone; use hands to finger, handle and feel computers and standard business equipment; and reach with hands and arms. The employee is frequently required to stand and walk.

Specific vision abilities required by this job include close vision and the ability to adjust focus.

Mental Demands

While performing the duties of this class, incumbents are regularly required to use written and oral communication skill; read and interpret data, information and documents; analyze and solve problems; observe and interpret people and situations; use math and mathematical reasoning; learn and apply new information or skills; perform highly detailed work under changing, intensive deadlines, on multiple concurrent tasks; work with constant interruptions, and interact with all levels of management, employees, the public and others encountered in the course of work.

WORK ENVIRONMENT

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee works under typical office conditions and the noise level is usually quiet.

MORENO VALLEY
WHERE DREAMS SOAR

Mid-Year Budget Report

ichelle Dawson, City Manager
ick Teichert, Chief Financial Officer
arshall Eyerman, Financial Resources Division Manager

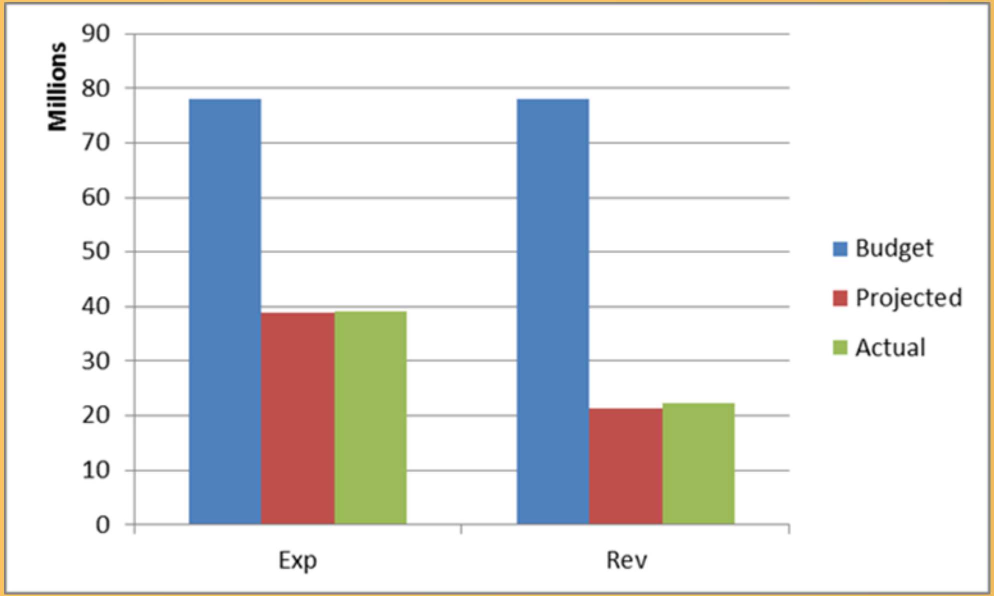
Item No. G.3

Context

- Two Year Budget (FY 13/14 & 14/15)
- Adopted with General Fund Balanced
- Revenues & Expenses on track
- Development on the upswing
- Challenges remain

Status

Overall General Fund Operating Expenses & Revenues meeting mid-year projections



At 50% of the year:

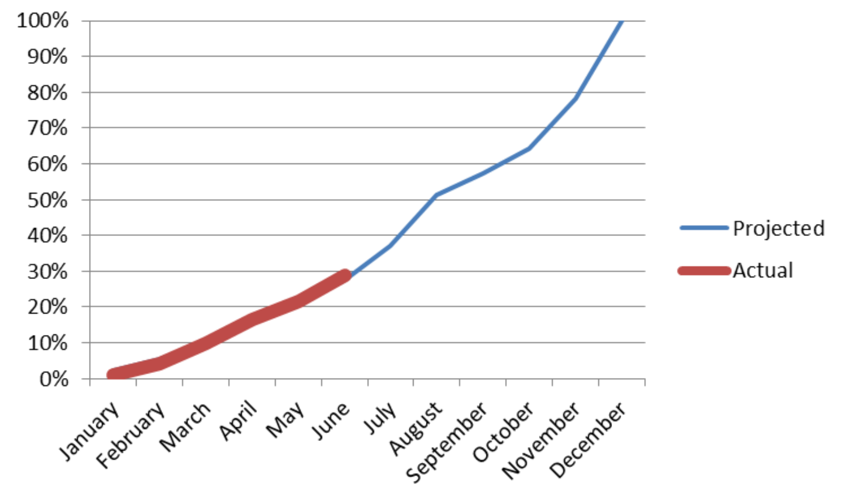
- Overall expenses should be close to 50%
- Some revenue receipts vary
    - Property Tax receipts in Jan & May
- Some expenses vary
    - Debt Service, Capital Projects
- *Gen. Fund revenue target: ~27.5%*

- Revenues continue to grow as predicted
- Service levels climbing
  - Development Services
  - Library
- *Gen. Fund budget remains balanced*

Item No. G.3

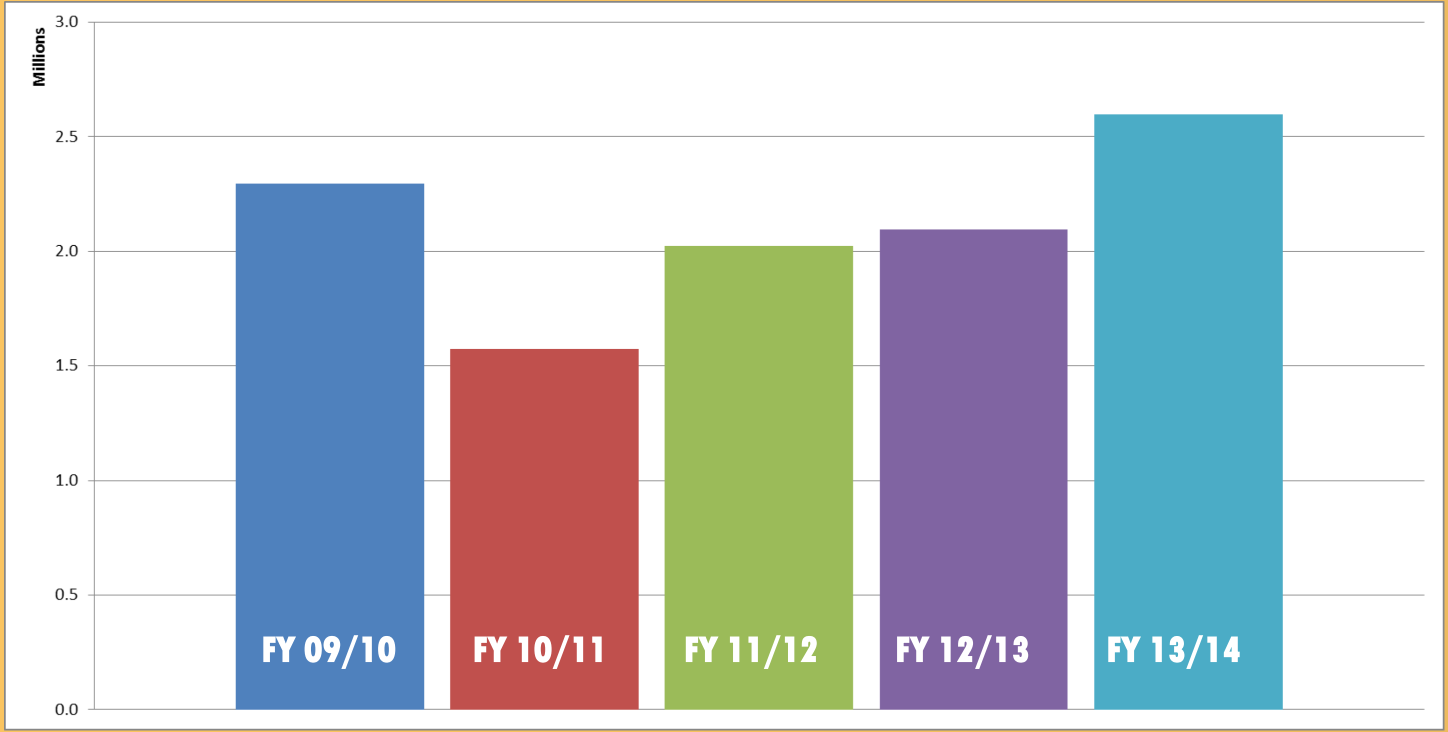
General Fund Revenue Trends

- General Fund Revenue Budget: $77.9M
- Licenses/Permits/ Charges revenues slightly ahead
- Dec. 31 Receipts: $22.2M (= 28.5%)



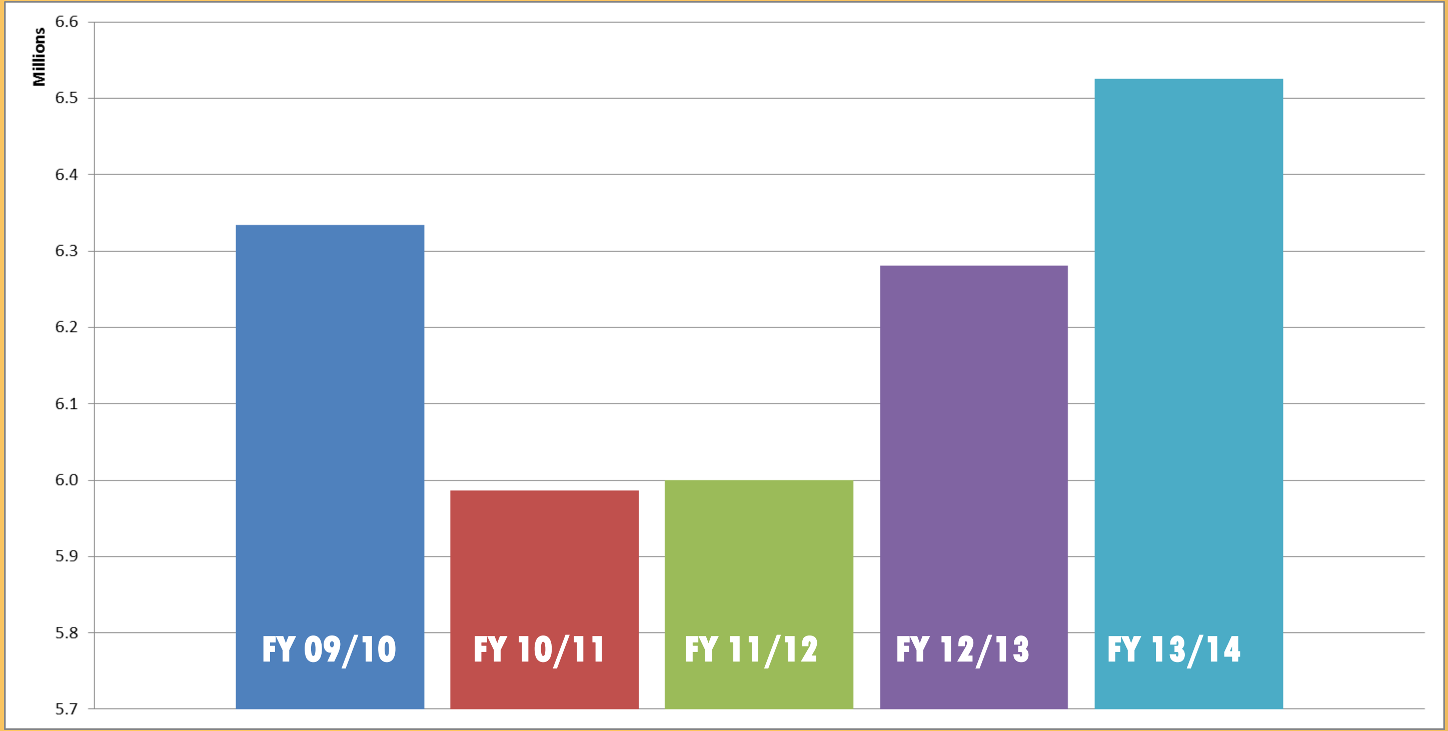
5-Year Revenue Trends

Sales Tax at Mid-Year



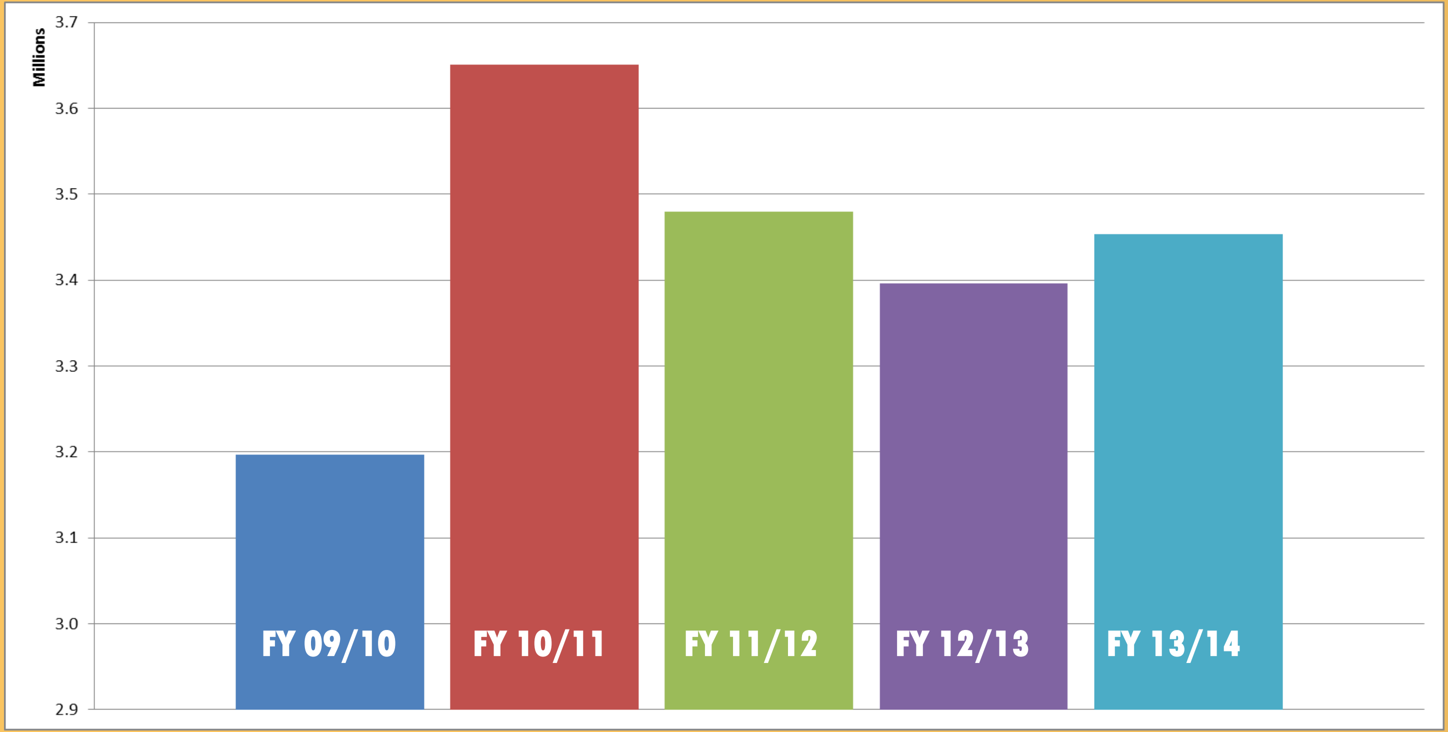
5-Year Revenue Trends

Utility User Tax at Mid-Year



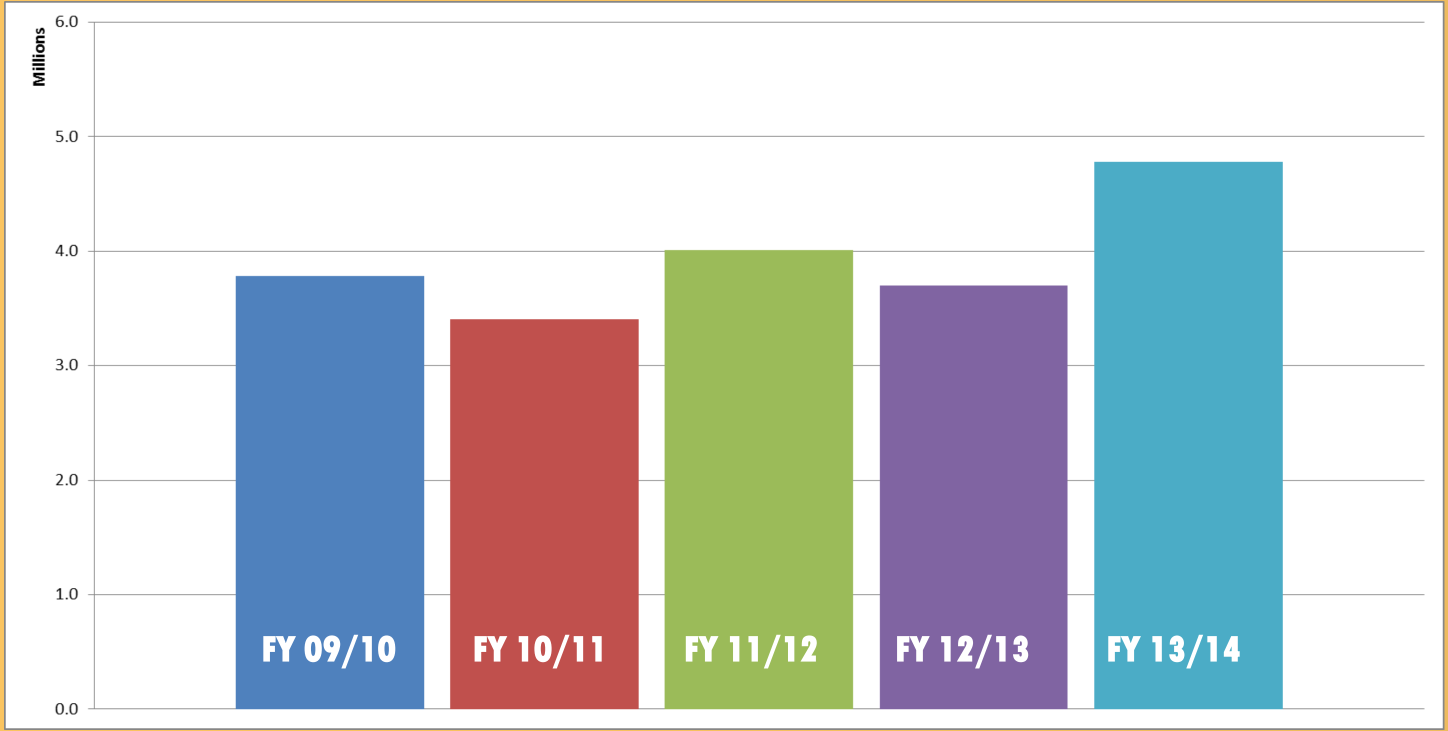
5-Year Revenue Trends

Property Tax at Mid-Year



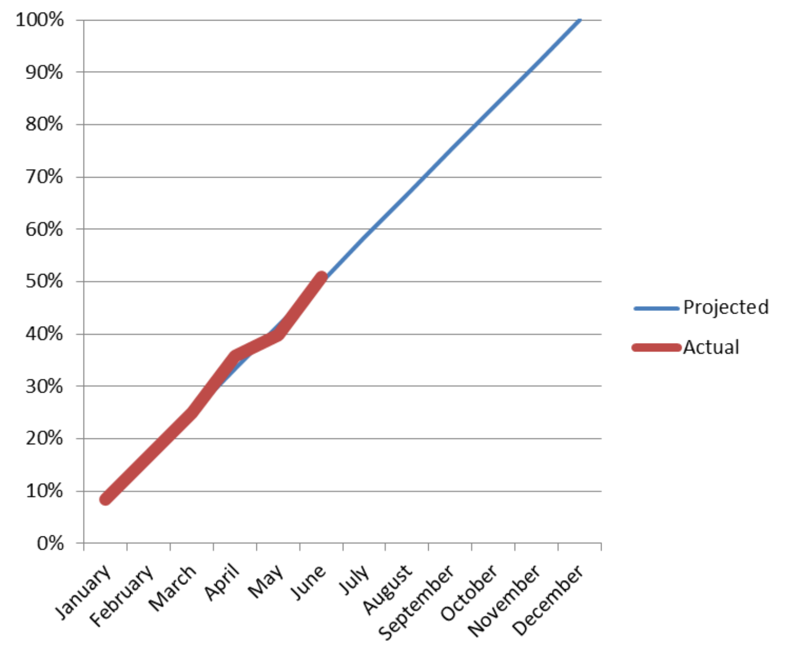
5-Year Revenue Trends

Charges for Service at Mid-Year



General Fund Expenditure Trends

- General Fund Budget: $77.9M
- Overall Expenses matching projections
- Dec. 31 Expenditures: $39.1M (= 50.2%)



Recommended Revenue Adjustments

Total 13/14 General Fund: $885,130 increase

- Fire Plan Check/Inspection Fees
- Property Tax In-Lieu of VLF
- Permit/Planning/Plan Check Fees
- $1.13M in FY 14/15

Recommended Expenditure Adjustments

Total FY 13/14 GF increase: $565,696

- Police: Recognize receipt of SLESF Grant
- Fire: Fire Prevention salary savings
- Employee separation costs
- Subpoena/Records costs ($275,000+)
- Consultant Services, election costs, operations/personnel adjustments
- $546,444 in FY 14/15

Other Mid-Year Adjustments

Recommending minor changes to other funds:

- Gas Tax
- Storm Water
- Successor Agency
- CSD Zone A
- Electric Utility
- Facilities Maintenance

General Fund Amended Budget

	FY 2013/14 Amended Budget (Proposed)
Total Revenues	$ 78,827,770
Total Expenditures	$ 78,485,627
Balance	**$ 342,143**

Position Control Changes

- CEDD Planning: Grant Funded Position
- 3 Reclassifications: ASD, Parks, Public Works to align positions with duties
- Fire Prevention: Fire Marshal via contract
- Sustainability & Intergovernmental Program
- No net increase in positions

Proposed Leave Usage Incentive

- Compensated Absences: $6.3M Unfunded Liability Citywide
- Sell back one week of leave when one week used
- Begin to address liability
- Encourage Work/Life Balance

$MORE
$VALUE
Balance Your Work & Life

Continuing Challenges

Staff working with Council to address:

- $1M annual GF subsidy for street lights
- Public Safety costs
- Pension, other retirement benefit costs
- RDA dissolution poses GF risks
- Deferred infrastructure maintenance

Summary

- Balanced General Fund Budget
- Unassigned GF Reserves: $25.5M (6/30/13)
- Revenues/Expenditures on track
- Minor adjustments for funding/operational changes
- Council’s strong leadership leaves City positioned to address future challenges

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ORDINANCE NO. 873

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF MORENO VALLEY, CALIFORNIA, AMENDING SECTIONS 2.25.010 AND 2.25.020 OF TITLE 2 OF THE CITY OF MORENO VALLEY MUNICIPAL CODE RELATING TO THE COMPOSITION OF THE UTILITIES COMMISSION

The City Council of the City of Moreno Valley does ordain as follows:

SECTION 1: AMENDMENT OF SECTIONS 2.25.010 AND 2.25.020 OF CHAPTER 2.25 OF TITLE 2 OF THE MORENO VALLEY MUNICIPAL CODE:

1.1 Sections 2.25.010 and 2.25.020 of Chapter 2.25 of Title 2 of the City of Moreno Valley Municipal Code are hereby amended to read as follows:

“Section 2.25.010 Created.

There is created a utilities commission for the city. It shall consist of five city council-appointed members serving without compensation, and appointed in the manner and for the terms prescribed in Sections 2.04.060 and 2.06.010, respectively, of this code, except that the terms of the members first appointed to the utilities commission shall be set by lot, with one member serving for one year after the effective date of their appointment, two other members serving for two years after the effective date of their appointment, and the two remaining members serving for three years after the effective date of their appointment. Thereafter, all terms shall be for three years and shall expire three years after the effective date of the appointment; provided, however, that the term of an appointment made to fill an unexpired term shall be for the unexpired balance of such term.

Section 2.25.020 Composition.

The utilities commission shall be composed of five public members, of which at least two members must be Moreno Valley Utility customers. Of the two members that are Moreno Valley Utility customers, one member must be a business customer of Moreno Valley Utility. It is not required that the utilities commission members be a resident of the City of Moreno Valley. All members shall each have the ability to evaluate utility issues.

SECTION 2: EFFECT OF ENACTMENT:

Except as specifically provided herein, nothing contained in this ordinance shall be deemed to modify or supersede any prior enactment of the City Council which addresses the same subject addressed herein.

SECTION 3: NOTICE OF ADOPTION:

Within fifteen days after the date of adoption hereof, the City Clerk shall certify to the adoption of this ordinance and cause it to be posted in three public places within the city.

SECTION 4: EFFECTIVE DATE:

This ordinance shall take effect thirty days after the date of its adoption.

APPROVED AND ADOPTED this 11th day of March, 2014.

Mayor

ATTEST:

City Clerk

APPROVED AS TO FORM:

City Attorney

ORDINANCE JURAT

STATE OF CALIFORNIA)
COUNTY OF RIVERSIDE) ss.
CITY OF MORENO VALLEY)

I, Jane Halstead, City Clerk of the City of Moreno Valley, California, do hereby certify that Ordinance No. 873 had its first reading on February 25, 2014 and had its second reading on March 11, 2014, and was duly and regularly adopted by the City Council of the City of Moreno Valley at a regular meeting thereof held on the 11th day of March, 2014, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

(Council Members, Mayor Pro Tem and Mayor)

____
CITY CLERK

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