



Moreno Valley Logistics Center

ENERGY ANALYSIS

CITY OF MORENO VALLEY

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09302-06 Energy Analysis Report

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LIST OF ABBREVIATED TERMS

(1)	Reference
AQIA	Air Quality Impact Analysis
ARB	Air Resources Board
CalEEMod	California Emissions Estimator Model
CARB	California Air Resources Board
CEC	California Energy Commission
CPUC	California Public Utilities Commission
EVs	Electric Vehicles
EMFAC	Emissions Factor
FERC	Federal Energy Regulatory Commission
GPA	General Plan Amendment
GWh	Gigawatt Hour
HHD	Heavy-Heavy Duty
ISO	Independent Service Operator
ISTEA	Intermodal Surface Transportation Efficiency Act
ITE	Institute of Transportation Engineers
LHD	Light-Heavy Duty
MHD	Medium-Heavy Duty
MPG	Miles Per Gallon
MPO	Metropolitan Planning Organization
Project	Moreno Valley Logistics Center
SCE	Southern California Edison
SoCalGas	Southern California Gas
SF	Square Feet
TEA-21	Transportation Equity Act for the 21 st Century
VMT	Vehicle Miles Traveled

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1 INTRODUCTION

This report presents the results of the air energy analysis prepared by Urban Crossroads, Inc., for the proposed Moreno Valley Logistics Center (referred to as “Project”). The purpose of this report is to ensure that energy implications are considered by the City of Moreno Valley, as the lead agency, and to quantify anticipated energy usage associated with construction and operation of the proposed Project, determine if the usage amounts are efficient, typical, or wasteful for the land use type, and to emphasize avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy.

1.1 SITE LOCATION

The proposed Moreno Valley Logistics Center site is located south of Krameria Avenue between Heacock Street and Indian Street in the City of Moreno Valley, as shown on Exhibit 1-A. The Project site is currently vacant. Under existing conditions, the Project site is surrounded to the north and south by a mixture of industrial warehouse buildings and a few undeveloped and underutilized parcels that are designated by the Moreno Valley Industrial Area Plan (MVIAP) for future industrial development; to the west by March Air Reserve Base, and to the east by a single-family residential neighborhood. The Perris Valley Storm Drain Channel transects the Project site in a northwest to southeast direction. Approximately 15.3 acres of the Project site are located west of the Perris Valley Storm Drain Channel and approximately 74.1 acres of the Project site are located east of the Perris Valley Storm Drain Channel. (1) The Interstate 215 (I-215) Freeway is located approximately 1.3 miles west of the Project site.

1.2 PROJECT DESCRIPTION

The Project is proposed to consist of 1,351,770 square feet (sf) of high-cube warehouse use/distribution center within a single building (Building 1). Building 2, located on the southwest corner of Cosmos Street and Krameria Avenue, is proposed to consist of 122,516 sf of general light industrial use; Building 3, located at the eastern terminus of Cardinal Avenue, is proposed to consist of 97,222 sf of general light industrial use; and Building 4, located on the east of Heacock Street and south of Krameria Avenue (North), is proposed to consist of 166,010 sf of general light industrial use, as shown on Exhibit 1-B¹. This analysis accounts for emissions and impacts associated with tenants that require cold storage (refrigeration). For analytical purposes, a maximum of 10% cold storage is proposed and analyzed. The Project is anticipated to be constructed and occupied by Year 2017.

The Project also includes an alternate site plan that would omit Building 2 and construct a 166-space truck trailer parking lot in its place. In the event the alternate site plan is implemented, the truck trailer parking lot will be utilized as overflow parking for Building 1. The alternative site plan would not involve any changes to the intensity of use, size, location, configuration, or design of proposed Buildings 1, 3, or 4. As part of the Project’s design, all on-site outdoor cargo handling

¹ This report analyzes a slightly higher general light industrial square footage (385,748 square feet compared to 384,417 square feet) than what was analyzed in the EIR. As such, the report represents a more conservative estimate of emissions.

equipment (CHE) (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) will be powered by diesel fueled engines that comply with the California Air Resources Board (CARB)/U.S. EPA Tier IV Engine standards for off-road vehicles or better (defined as less than or equal to 0.015 g/bhp-hr for PM10) and all on-site indoor forklifts shall be powered by electricity, compressed natural gas, or propane.

1.3 SUMMARY OF FINDINGS

For new development such as that proposed by the Moreno Valley Logistics Center, compliance with California Building Standards Code Title 24 energy efficiency requirements (CalGreen), combined with the mitigation measures and project design features that are recommended by the Moreno Valley Logistics Center Air Quality Impact Analysis, Greenhouse Gas Analysis, and Health Risk Assessment, are considered demonstrable evidence of efficient use of energy. Additionally, mitigation measures identified in the AQIA/GHG analysis reports would also have the potential to reduce energy consumption. As such, the mitigation measures from the AQIA/GHG analysis are restated herein.

As previously discussed, the alternate site plan replaces construction of Building 2 with the construction of additional truck trailer parking in its place, thus reducing total building area. Should the alternate site plan be implemented, energy consumption would not exceed the level of energy consumption analyzed within the current Project scenario. As such, the Project scenario analysis represents a “worst-case” analysis scenario.

As discussed below, the Project would provide for, and promote, energy efficiencies beyond those required under other applicable federal and State of California standards and regulations, and in so doing would meet or exceed all California Building Standards Code Title 24 standards. Moreover, energy consumed by the Project’s operation is calculated to be comparable to, or less than, energy consumed by other industrial warehouse uses of similar scale and intensity that are constructed and operating in California. On this basis, the Project would not result in the inefficient, wasteful, or unnecessary consumption of energy. Further, the Project would not cause or result in the need for additional energy producing facilities or energy delivery systems.

1.4 CONSTRUCTION-SOURCE AIR POLLUTANT EMISSIONS MITIGATION MEASURES

The Project Air Quality Impact Analysis (AQIA) establishes construction activity mitigation measures that would globally reduce air pollutant emissions generated by subsequent development proposals within the Project site. Although these measures could act to reduce energy consumption, there is insufficient data to support any reductions associated with the construction activity mitigation measures identified in the AQIA. Thus, as a conservative measure no reduction in energy consumption are taken for construction activity mitigation measures identified in the AQIA.

1.5 OPERATIONAL-SOURCE MITIGATION MEASURES

MM AQ-3:

Prior to the issuance of building permits, the Project applicant shall ensure that the Project is designed to achieve efficiency equal to or exceeding then incumbent (2013 or later) California Building Code Title 24 requirements.

MM AQ-4:

To reduce water consumption and the associated energy-usage, the Project will be designed to comply with the mandatory reductions in indoor water usage contained in the incumbent CalGreen Code (53) and any mandated reduction in outdoor water usage contained in the City's water efficient landscape requirements. Additionally, the Project shall implement the following:

- Landscaping palette emphasizing drought tolerant plants;
- Use of water-efficient irrigation techniques;
- U.S. EPA Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and water-conserving shower heads.

MM AQ-5:

The Project will reduce vehicle miles traveled and emissions associated with by implementing the following measures:

- Pedestrian and bicycle connections shall be provided to surrounding areas consistent with the City's General Plan.
- Implement a voluntary trip reduction program, for which all employees shall be eligible to participate.

MM AQ-6:

The truck access gates and loading docks within the truck court on the Project site shall be posted with signs which state:

- a) Truck drivers shall turn off engines when not in use;
- b) Diesel delivery trucks servicing the Project shall not idle for more than five (5) minutes^[1]; and
- c) Telephone numbers of the building facilities manager and the CARB to report violations.

MM AQ-7:

- Site design shall allow for trucks to check-in within the facility area to prevent queuing of trucks outside the facility.^[2]

^[1] While restricted idling is required per MM HRA-1, the analysis presented here takes no quantified credit or reduction in emissions for restricted idling, and reflects an assumed 15-minute "worst case" idling condition.

^[2] As above, no quantified credit or reduction in emissions is taken for site design requirements reflected in MM HRA-2

- Signs shall be posted in loading dock areas that instruct truck drivers to shut down the engine after 300 seconds of continuous idling operation once the vehicle is stopped, the transmission is set to “neutral” or “park”, and the parking brake is engaged (54).

MM AQ-8

A frequent CEQA petitioner in the Inland Empire routinely asks lead agencies to impose dozens and dozens of a variety of mitigation measures. This list includes suggestions that are often duplicative of current SCAQMD Rules and are duplicative in and of themselves. In an effort to hopefully forestall a future dispute on air quality issues, this assessment has already included most of the mitigation measures from this list that are not already duplicative of existing Rules, State law, and other mitigation measures. As a conservative measure, no reduction for any of the measures listed under MM AQ-8 is taken in the analysis.

Construction Impacts

- Gravel pads must be installed at all access points to prevent tracking of mud onto public roads.
- 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.)
- Limit fugitive dust sources to 20 percent opacity.
- Require a dust control plan for earthmoving operations.
- 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.
- 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.
- 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.
- 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.
- 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.
- Any on-site stock piles of debris, dirt, or other dusty material shall be covered or watered as necessary to minimize fugitive dust pursuant to SCAQMD Rule 403.
- 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.
- Implement activity management techniques including
- Development of a comprehensive construction management plan designed to minimize the number of large construction equipment operating during any given time period;
- Scheduling of construction truck trips during non-peak hours to reduce peak hour emission;
- Require the use of CARB certified equipment for construction activities.

- Utilize only CARB certified equipment for construction activities.
- 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.
- Restrict engine size of construction equipment to minimum practical size.
- Install catalytic converters on gasoline-powered equipment.
- Electrical powered equipment shall be utilized in-lieu of gasoline-powered engines where technically feasible.
- Provide temporary traffic controls such as a flag person, during all phases of construction to maintain smooth traffic flow.
- Reroute construction trucks away from congested streets and sensitive receptor areas.
- Configure construction parking to minimize traffic interference.
- Minimize construction worker trips by requiring carpooling and providing for lunch onsite.
- Provide on-site food service options for the construction crew.
- Provide shuttle service to transit stations/multimodal center for the construction crew.

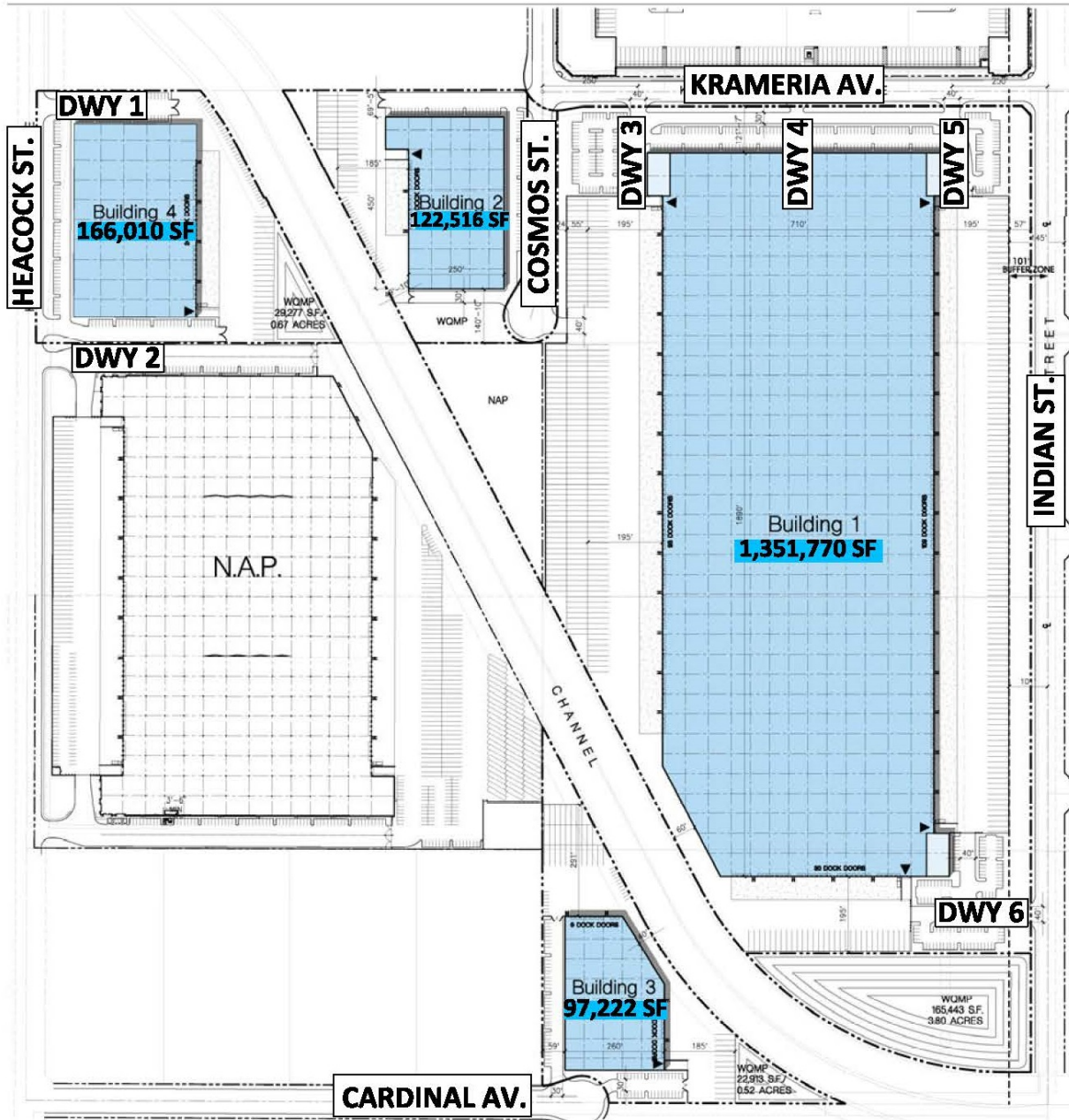
Operational Emissions

- Encourage all fleet vehicles to conform to 2010 air quality standards or better. Users shall maintain compliance through normal course of business. 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 shall be prohibited from accessing the site.
- Install catalytic converters on gasoline-powered equipment.
- Electrical powered equipment should be utilized in-lieu of gasoline-powered engines where technically feasible.
- All forklifts shall be electric or natural gas powered.
- Prohibit idling of trucks for periods exceeding three minutes.
- Charge reduced or no parking fee for EVs and CNG vehicles.
- Provide preferential parking locations for EVs and CNG vehicles.
- Planting shade trees in parking lots to provide minimum 50% cover to reduce evaporative emission from parked vehicles.
- Provide preferential parking for carpool/vanpool vehicles.
- Provide secure, weather protected bicycle parking for employees.
- Design buildings for passive heating and cooling and natural light, including building orientation, proper orientation and placement of windows, overhangs, skylights, etc.

EXHIBIT 1-A: LOCATION MAP



EXHIBIT 1-B: SITE PLAN



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2 EXISTING CONDITIONS

This section provides an overview of the existing energy conditions in the Project area and region.

2.1 OVERVIEW

California's estimated annual energy use as of 2014 included:

- Approximately 296,843 gigawatt hours of electricity; (2)
- Approximately 12,767 million therms natural gas (approximately 3.5 billion cubic feet of natural gas per day); and
- Approximately 18 billion gallons of gasoline. (3)

As of 2013, the year of most recent data currently available by the United States Energy Information Administration (EIA), energy use in California by demand sector was:

- Approximately 37.8 percent transportation;
- Approximately 23.6 percent industrial;
- Approximately 19.3 percent residential; and
- Approximately 19.3 percent commercial. (4)

California's massive electricity in-state generation system generates more than 200,000 gigawatt-hours each year and is transported over the state's 32,000 miles of transmission lines. In 2014, California produced close to 70% of the electricity it uses; the rest was imported from the Pacific Northwest (12%) and the U.S. Southwest (21%). Natural gas is the main source for electricity generation at 45% of the total in-state electric generation system power as shown in Table 2-1.

TABLE 2-1: TOTAL ELECTRICITY SYSTEM POWER (CALIFORNIA 2014)

Fuel Type	California In-State Generation (GWh)	Percent of California In-State Generation	Northwest Imports (GWh)	Southwest Imports (GWh)	California Power Mix (GWh)	Percent California Power Mix
Coal	1,011	0.5%	-	17,877	18,888	6.4%
Large Hydro	14,052	7.1%	160	2,138	16,350	5.5%
Natural Gas	121,934	61.3%	1	10,151	132,087	44.5%
Nuclear	17,027	8.6%	-	8,193	25,220	8.5%
Oil	46	0.0%	-	-	46	0.0%
Other	16	0.0%	-	-	16	0.0%
Renewables	44,887	22.5%	11,423	3,493	59,803	20.1%
Biomass	6,721	3.4%	762	24	7,507	2.5%
Geothermal	12,186	6.1%	150	694	13,030	4.4%
Small Hydro	2,426	1.2%	361	-	2,787	0.9%
Solar	10,557	5.3%	-	2,009	12,566	4.2%
Wind	12,997	6.5%	10,151	766	23,913	8.1%
Unspecified Sources of Power	N/A	N/A	25,676	18,757	44,433	15.0%
Total	198,973	100.00%	37,261	60,609	296,843	100.00%

Source: http://energyalmanac.ca.gov/electricity/total_system_power.html

A summary of, and context for energy consumption and energy demands within the State is presented in “U.S. Energy Information Administration, California State Profile and Energy Estimates, Quick Facts” excerpted below:

- Excluding federal offshore areas, California ranked third in the nation in crude oil production in 2014, despite an overall decline in production rates since the mid-1980s.
- California also ranked third in the nation in refining capacity as of January 2015, with a combined capacity of almost 2 million barrels per calendar day from its 18 operable refineries.
- In 2013, California’s per capita energy consumption ranked 48th in the nation; the state’s low use of energy was due in part to its mild climate and its energy efficiency programs.
- In 2014, California ranked fourth in the nation in conventional hydroelectric generation, second in net electricity generation from other renewable energy resources, and first as a producer of electricity from geothermal energy.
- In 2014, California ranked 16th in net electricity generation from nuclear power after one of its two nuclear plants was taken out of service in January 2012; as of June 2013, operations permanently ceased at that plant, the San Onofre Nuclear Generating Station.
- Average site electricity consumption in California homes is among the lowest in the nation (6.9 megawatt hours per year), according to EIA’s Residential Energy Consumption Survey. (5)

As indicated above, California is one of the nation’s leading energy-producing states, and California per capita energy use is among the nation’s most efficient. Given the nature of the

proposed Project being an industrial development, the remainder of this discussion will focus on the three sources of energy that are most relevant to the project—namely, electricity and natural gas for industrial uses, and transportation fuel for vehicle trips associated with industrial uses planned for the Project.

2.2 ELECTRICITY

The Southern California region’s electricity reliability has been of concern for the past several years due to the planned retirement of aging facilities that depend upon once-through cooling technologies, as well as the June 2013 retirement of the San Onofre Nuclear Generating Station (San Onofre). While the once-through cooling phase-out has been ongoing since the May 2010 adoption of the State Water Resources Control Board’s once through cooling policy, the retirement of San Onofre complicated the situation. California ISO studies had revealed the extent to which the Los Angeles Basin and San Diego region were vulnerable to low-voltage and post-transient voltage instability concerns. A preliminary plan to address these issues was detailed in the 2013 IEPR after a collaborative process with other energy agencies, utilities, and air districts. If the resource development outlined in the preliminary plan continues as detailed, reliability in Southern California would likely be assured; however, tight resource margins have led energy agencies and the ARB to develop a contingency plan. This contingency plan was discussed at a public workshop in Los Angeles on August 20, 2014, and is detailed within this Section (6).

Electricity would be provided to the Project by the Moreno Valley Electric Utility (MVU), a municipally owned electricity provider that began operating in various parts of Moreno Valley on February 6, 2004. MVU is contracted through wholesale distribution service provided by Southern California Edison (SCE). SCE’s wholesale distribution service allows for the transmission of power by SCE from the State’s main power grid and into MVU’s facilities that serve its end-use customers (7) MVU also contracts with Enco Utility Services Moreno Valley, LLC to provide services related to operations of the electric utility, such as meter reading, billing, and emergency response (8).

Electricity would be provided to MVU by Southern California Edison (SCE). SCE provides electric power to more than 14 million persons in 15 counties and in 180 incorporated cities, within a service area encompassing approximately 50,000 square miles. SCE derives electricity from varied energy resources including: fossil fuels, hydroelectric generators, nuclear power plants, geothermal power plants, solar power generation, and wind farms. SCE also purchases from independent power producers and utilities, including out-of-state suppliers. (7)

California’s electricity industry is an organization of traditional utilities, private generating companies, and state agencies, each with a variety of roles and responsibilities to ensure that electrical power is provided to consumers. The California Independent Service Operator (“ISO”) is a nonprofit public benefit corporation, and is the impartial operator of the State’s wholesale power grid and is charged with maintaining grid reliability, and to direct uninterrupted electrical energy supplies to California residential and commercial users. While utilities [such as SCE] still own transmission assets, the ISO routes electrical power along these assets, maximizing the use of the transmission system and its power generation resources. The ISO matches buyers and

sellers of electricity to ensure that sufficient power is available to meet demand. To these ends, every five minutes the ISO forecasts electrical demands, accounts for operating reserves, and assigns the lowest cost power plant unit to meet demands while ensuring adequate system transmission capacities and capabilities. (8)

Part of the ISO's charge is to plan and coordinate grid enhancements to ensure that electrical power is provided to California consumers. To this end, transmission owners (investor-owned utilities such as SCE) file annual transmission expansion/modification plans to accommodate the State's growing electrical needs. The ISO reviews and either approves or denies the proposed additions. In addition, and perhaps most importantly, the ISO works with other areas in the western United States electrical grid to ensure that adequate power supplies are available to the State. In this manner, continuing reliable and affordable electrical power is assured to existing and new consumers throughout the State.

Table 2-2 identifies SCE's specific proportional shares of electricity sources in 2014. It should be noted that since 87% of MVU's specific proportional shares of electricity sources in 2014 are labeled as "unspecified sources of power" and because MVU obtains its source of power through SCE, SCE's power content label is herein provided (11). As indicated in Table 2-2, the 2014 SCE Power Mix has renewable energy at 24% of the overall energy resources. Geothermal is remaining steady at 9%, same as in 2013 and 2012. Wind power is remaining steady at 10%, same as in 2013 and increasing from 8% in 2012. Large hydro is at 3%, having fallen from 4% in 2013 and 2012. Solar energy is at 4%, having increased from 1% in 2013 and 2012. Biomass and waste has remained steady at 1%. Coal is at 0%, having decreased significantly from 6% in 2013 and from 7% in 2012. Natural gas is at 27%, decreasing slightly from 28% in 2013.

TABLE 2-2: SCE 2014 POWER CONTENT MIX

Energy Resources	2014 SCE Power Mix
<i>Eligible Renewable</i>	24%
Biomass & waste	1%
Geothermal	9%
Small Hydroelectric	0%
Solar	4%
Wind	10%
<i>Coal</i>	0%
<i>Large Hydroelectric</i>	3%
<i>Natural Gas</i>	27%
<i>Nuclear</i>	6%
<i>Other</i>	0%
Unspecified Sources of power*	40%
Total	100%

* "Unspecified sources of power" means electricity from transactions that are not traceable to specific generation sources

2.3 NATURAL GAS

Natural gas would be provided to the Project by The Gas Company (Southern California Gas, SoCalGas). The following summary of natural gas resources and service providers, delivery systems, and associated regulation is excerpted from information provided by the California Public Utilities Commission (CPUC).

“The California Public Utilities Commission (PUC) regulates natural gas utility service for approximately 10.8 million customers that receive natural gas from Pacific Gas and Electric (PG&E), Southern California Gas (SoCalGas), San Diego Gas & Electric (SDG&E), Southwest Gas, and several smaller natural gas utilities. The CPUC also regulates independent storage operators Lodi Gas Storage, Wild Goose Storage, Central Valley Storage and Gill Ranch Storage.

The vast majority of California’s natural gas customers are residential and small commercial customers, referred to as “core” customers, who accounted for approximately 32% of the natural gas delivered by California utilities in 2012. Large consumers, like electric generators and industrial customers, referred to as “noncore” customers, accounted for approximately 68% of the natural gas delivered by California utilities in 2012.

The PUC regulates the California utilities’ natural gas rates and natural gas services, including in-state transportation over the utilities’ transmission and distribution pipeline systems, storage, procurement, metering and billing. Most of the natural gas used in California comes from out-of-state natural gas basins. In 2012, California customers received 35% of their natural gas supply from basins located in the Southwest, 16% from Canada, 40% from the Rocky Mountains, and 9% from basins located within California. California gas utilities may soon also begin receiving biogas into their pipeline systems.

Natural gas from out-of-state production basins is delivered into California via the interstate natural gas pipeline system. The major interstate pipelines that deliver out-of-state natural gas to California consumers are the Gas Transmission Northwest Pipeline, Kern River Pipeline, Transwestern Pipeline, El Paso Pipeline, the Ruby Pipeline, Questar Southern Trails and Mojave Pipeline. Another pipeline, the North Baja – Baja Norte Pipeline, takes gas off the El Paso Pipeline at the California/Arizona border, and delivers that gas through California into Mexico. While the Federal Energy Regulatory Commission (FERC) regulates the transportation of natural gas on the interstate pipelines, the PUC often participates in FERC regulatory proceedings to represent the interests of California natural gas consumers.

Most of the natural gas transported via the interstate pipelines, as well as some of the California-produced natural gas, is delivered into the PG&E and SoCalGas intrastate natural gas transmission pipeline systems (commonly referred to as California’s “backbone” natural gas pipeline system). Natural gas on the utilities’ backbone pipeline systems is then delivered into the local transmission and distribution pipeline systems, or to natural gas storage fields. Some large noncore customers take natural gas directly off

the high pressure backbone pipeline systems, while core customers and other noncore customers take natural gas off the utilities' distribution pipeline systems. The PUC has regulatory jurisdiction over 150,000 miles of utility-owned natural gas pipelines, which transported 82% of the total amount of natural gas delivered to California's gas consumers in 2012.

SDG&E and Southwest Gas' southern division are wholesale customers of SoCalGas, and currently receive all of their natural gas from the SoCalGas system (Southwest Gas also provides natural gas distribution service in the Lake Tahoe area). Some other municipal wholesale customers are the cities of Palo Alto, Long Beach, and Vernon, which are not regulated by the CPUC.

Some of the natural gas delivered to California customers may be delivered directly to them without being transported over the regulated utility systems. For example, the Kern River/Mojave pipeline system can deliver natural gas directly to some large customers, "bypassing" the utilities' systems. Much of California-produced natural gas is also delivered directly to large consumers.

PG&E and SoCalGas own and operate several natural gas storage fields that are located in northern and southern California. These storage fields, and four independently owned storage utilities – Lodi Gas Storage, Wild Goose Storage, Central Valley Storage, and Gill Ranch Storage – help meet peak seasonal natural gas demand and allow California natural gas customers to secure natural gas supplies more efficiently. (A portion of the Gill Ranch facility is owned by PG&E).

California's regulated utilities do not own any natural gas production facilities. All of the natural gas sold by these utilities must be purchased from suppliers and/or marketers. The price of natural gas sold by suppliers and marketers was deregulated by the FERC in the mid-1980's and is determined by "market forces." However, the PUC decides whether California's utilities have taken reasonable steps in order to minimize the cost of natural gas purchased on behalf of their core customers." (9)

As indicated in the preceding discussions, natural gas is available from a variety of in-state and out-of-state sources and is provided throughout the state in response to market supply and demand. Complementing available natural gas resources, biogas may soon be available via existing delivery systems, thereby increasing the availability and reliability of resources in total. The PUC oversees utility purchases and transmission of natural gas to ensure reliable and affordable natural gas deliveries to existing and new consumers throughout the State.

2.4 TRANSPORTATION ENERGY RESOURCES

The Project would attract additional vehicle trips with resulting consumption of energy resources, predominantly gasoline and diesel fuel. As of 2012, there are more than 27 million registered vehicles in California, and those vehicles (as noted previously) consume an estimated 18 billion gallons of fuel each year. Gasoline (and other vehicle fuels) are commercially-provided

commodities, and would be available to the Project patrons and employees via commercial outlets.

California's on-road transportation system includes 170,000 miles of highways and major roadways, more than 26 million passenger vehicles and light trucks, and almost 1 million medium- and heavy-duty vehicles. The most recent data available (2012) shows the transportation sector emits 36 percent of the total greenhouse gases in the state and about 83 percent of smog-forming oxides of nitrogen (NO_x). While gasoline consumption has been declining since 2008 it is still by far the dominant fuel. Petroleum comprises about 92 percent of all transportation energy use, excluding fuel consumed for aviation and most marine vessels. Nearly 18 billion gallons of on-highway fuel are burned each year, including 14.5 billion gallons of gasoline (including ethanol) and 3.4 billion gallons of diesel fuel (including biodiesel and renewable diesel). In 2013, Californians also used 174 million therms of natural gas as a transportation fuel, or the equivalent of 142 million gallons of gasoline, and 841,345 megawatt hours of electricity for transportation, or about the equivalent of 25 million gallons of gasoline. For 2013, combined alternative fuel use in California was slightly more than 7 percent of total transportation fuel use.

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3 REGULATORY BACKGROUND

Federal and state agencies regulate energy use and consumption through various means and programs. On the federal level, the United States Department of Transportation, the United States Department of Energy, and the United States Environmental Protection Agency are three federal agencies with substantial influence over energy policies and programs. On the state level, the PUC and the California Energy Commissions (CEC) are two agencies with authority over different aspects of energy. Relevant federal and state energy-related laws and plans are summarized below. Project consistency with applicable federal and state regulations is also presented in *italicized* text.

3.1 FEDERAL REGULATIONS

Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) promoted the development of inter-modal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPOs) were to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values guiding transportation decisions. *Transportation and access to the Project site is provided primarily by the local and regional roadway systems. The Project would not interfere with, nor otherwise obstruct intermodal transportation plans or projects that may be realized pursuant to the ISTEA because SCAG is not planning for intermodal facilities on or through the Project site.*

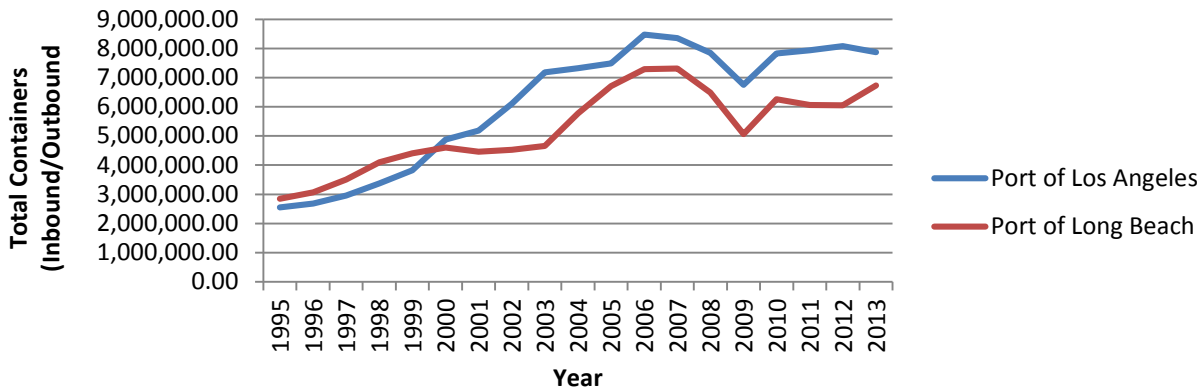
The Transportation Equity Act for the 21st Century (TEA-21)

The Transportation Equity Act for the 21st Century (TEA-21) was signed into law in 1998 and builds upon the initiatives established in the ISTEA legislation, discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of good transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems, to help improve operations and management of transportation systems and vehicle safety. *The Project site is located along major transportation corridors with proximate access to the Interstate freeway system. The site selected for the Project facilitates access, acts to reduce vehicle miles traveled, takes advantage of existing infrastructure systems, and promotes land use compatibilities through collocation of similar uses. The Project supports the strong planning processes emphasized under TEA-21. The Project is therefore consistent with, and would not otherwise interfere with, nor obstruct implementation of TEA-21.*

As shown on Exhibit 3-A, data from both the Port of Los Angeles and the Port of Long Beach shows that the receiving and shipping of containers have had a stable trend since the recession that hit in 2007 (10) (11). Therefore, truck transport from the ports is relatively stable and a Project of this type would not be increasing the amount of truck trips and consequently VMT than what would normally occur within the basin. As such, the estimation of the Moreno Valley Logistics Center Project’s vehicular-source emissions is likely overstated in that no credit for, or reduction in, emissions is assumed based on diversion of existing trips.

Additionally, the Southern California Association of Governments’ (SCAG’s) 2012-2035 Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) includes information on goods movement that clearly illustrates that of the port-related trips within the SCAG region, more than 85% have an origin or destination within Los Angeles County. As a result, the Project would serve to meet this demand and not be expected to increase trips or VMT in the air basin.

EXHIBIT 3-A: PORT OF LOS ANGELES/PORT OF LONG BEACH CONTAINER COUNTS



3.2 CALIFORNIA REGULATIONS

Integrated Energy Policy Report

Senate Bill 1389 (Bowen, Chapter 568, Statutes of 2002) requires the California Energy Commission to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the state’s electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state’s economy; and protect public health and safety (Public Resources Code § 25301a). The Energy Commission prepares these assessments and associated policy recommendations every two years, with updates in alternate years, as part of the Integrated Energy Policy Report.

The 2014 Integrated Energy Policy Report Update (2014 IEPR Update) focused on next steps for transforming transportation energy use in California. The 2014 Integrated Energy Policy Report Update provides the results of the California Energy Commission’s assessments of a variety of energy issues currently facing California. These issues include the role of transportation in meeting state climate, air quality, and energy goals; the Alternative and Renewable Fuel and

Vehicle Technology Program; current and potential funding mechanisms to advance transportation policy; the status of statewide plug-in electric vehicle infrastructure; challenges and opportunities for electric vehicle infrastructure deployment; measuring success and defining metrics within the Alternative and Renewable Fuel and Vehicle Technology Program; market transformation benefits resulting from Alternative and Renewable Fuel and Vehicle Technology Program investments; the state of hydrogen, zero-emission vehicle, biofuels, and natural gas technologies over the next 10 years; transportation linkages with natural gas infrastructure; evaluation of methane emissions from the natural gas system and implications for the transportation system; changing trends in California's sources of crude oil; the increasing use of crude-by-rail in California; the integration of environmental information in renewable energy planning processes; an update on electricity reliability planning for Southern California energy infrastructure; and an update to the electricity demand forecast.

State of California Energy Plan

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The Plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators and encouragement of urban designs that reduce vehicle miles traveled and accommodate pedestrian and bicycle access. *The Project site is located along major transportation corridors with proximate access to the Interstate freeway system. The site selected for the Project facilitates access, acts to reduce vehicle miles traveled, takes advantage of existing infrastructure systems, and promotes land use compatibilities through the introduction of commercial uses on a commercially-designated site. The Project therefore supports urban design and planning processes identified under the State of California Energy Plan, is consistent with, and would not otherwise interfere with, nor obstruct implementation of the State of California Energy Plan.*

California Code Title 24, Part 6, Energy Efficiency Standards

California Code Title 24, Part 6 (also referred to as the California Energy Code), was promulgated by the CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption. To these ends, the California Energy Code provides energy efficiency standards for residential and nonresidential buildings. According to the CEC, the Energy Commission's energy efficiency standards have saved Californians more than \$74 billion in reduced electricity bills since 1977. (12) California's building efficiency standards are updated on an approximately three-year cycle. The 2013 Standards would continue to improve upon the current 2008 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The 2013 Standards went into effect on July 1, 2014, following approval of the California Building Standards Commission.

The 2013 Energy Efficiency Standards in their entirety may be reviewed at: <http://www.energy.ca.gov/title24/2013standards/>. The 2013 Energy Efficiency Standards may

also be reviewed at the California Energy Commission, 1516 Ninth Street, MS-37, Sacramento, CA 95814-5512.

With every installment of new Title 24 requirements, more stringent regulations and standards are placed into effect, thus amounting to increased energy efficiency gains. Table 3-1 illustrates the percentage of energy efficiency gains from the baseline 2005 year to the latest 2013 Title 24 standards.

TABLE 3-1: TITLE 24 ENERGY STANDARD REDUCTIONS (FIRST-YEAR)

Land Use	2008 Standard Reduction from 2005 Baseline		2013 Standard Reduction from 2008 Standard	
	Electricity Savings (GWh)	Gas Savings (millions Therms)	Electricity Savings (GWh)	Gas Savings (millions Therms)
Single-Family Constructed Buildings and Alterations	22.7%	10%	36.4%	6.5%
Multi-Family Constructed Buildings and Alterations	19.7%	7%	23.3%	3.8%
Non-residential Newly Constructed Buildings	4.9%	9.4%	21.8%	16.8%

The Project would be designed, constructed and operated so as to meet or exceed incumbent Title 24 Energy Efficiency Standards. On this basis, the Project is determined to be consistent with, and would not interfere with, nor otherwise obstruct implementation of Title 24 Energy Efficiency Standards.

4 PROJECT ENERGY DEMANDS AND ENERGY EFFICIENCY MEASURES

4.1 EVALUATION CRITERIA

In compliance with Appendix F of the *State CEQA Guidelines*, (13) this report analyzes the project's anticipated energy use to determine if the Project would:

- Result in the wasteful, inefficient or unnecessary consumption of energy; or
- Result in a substantial increase in demand or transmission service, resulting in the need for new or expanded sources of energy supply or new or expanded energy delivery systems or infrastructure.

In addition, Appendix F of the State CEQA Guidelines states that the means of achieving the goal of energy conservation includes the following:

- Decreasing overall per capita energy consumption;
- Decreasing reliance on fossil fuels such as coal, natural gas and oil; and
- Increasing reliance on renewable energy sources.

4.2 METHODOLOGY

Information from the CalEEMod 2013.2.2 outputs for the Moreno Valley Logistics Center Air Quality Impact Analysis, Urban Crossroads (2015) (14) was utilized in this analysis, detailing Project related construction equipment, transportation energy demands, and facility energy demands. These outputs can be referenced in Appendix 3.1.

4.3 CONSTRUCTION ENERGY DEMANDS

4.3.1 CONSTRUCTION EQUIPMENT ELECTRICITY USAGE ESTIMATES

The focus within this section is the energy implications of the construction process, specifically the power cost from on-site electricity consumption during construction of the proposed Project. Based on the 2015 National Construction Estimator, Richard Pray (2015) (15), the typical power cost per 1,000 square feet of building construction per month is estimated to be \$2.28. For the Moreno Valley Logistics Center development, the Project plans to develop 1,737,520 square feet of building space over the course of 12 months. Base on Table 4-1, the total power cost of the on-site electricity usage during the construction of the proposed Project is estimated to be approximately \$47,538.55. Additionally, as of February 23, 2015, SCE's general service rate schedule (GS-1) for an industrial land use is \$.07 per kWh of electricity (16). As shown on Table 4-2, the total electricity usage from on-site Project construction related activities is estimated to be approximately 679,122 kWh.

TABLE 4-1: PROJECT CONSTRUCTION POWER COST

Power Cost (per 1,000 SF of building per month of construction)	Total Building Size (1,000 SF)	Construction Duration (months)	Total Project Construction Power Cost
\$2.28	1,737.52	12	\$47,538.55

TABLE 4-2: PROJECT CONSTRUCTION ELECTRICITY USAGE

Cost per kWh	Total Project Construction Electricity Usage (kWh)
\$0.07	679,122

¹Assumes the Project will be under the GS-1 General Industrial service rate under SCE

4.3.2 CONSTRUCTION EQUIPMENT FUEL ESTIMATES

Fuel consumed by construction equipment would be the primary energy resource expended over the course of Project construction. Project construction activity timeline estimates, construction equipment schedules, equipment power ratings, load factors, and associated fuel consumption estimates are presented in Table 4-3. Eight-hour daily use of all equipment is assumed. The aggregate fuel consumption rate for all equipment is estimated at 18.5 hp-hr-gal., obtained from California Air Resources Board (CARB) 2013 Emissions Factors Tables and cited fuel consumption rate factors presented in Table D-24 of the Moyer guidelines. (17) For the purposes of this analysis, that the calculations are based on all construction equipment being diesel-powered which is standard practice consistent with industry standards. Diesel fuel would be supplied by existing commercial fuel providers serving the County and region.

As presented in Table 4-3, Project construction activities would consume an estimated 334,992 gallons of diesel fuel. Project construction would represent a “single-event” diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources for this purpose.

TABLE 4-3: CONSTRUCTION EQUIPMENT FUEL CONSUMPTION ESTIMATES

Activity/Duration	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	Total Fuel Consumption (gal. diesel fuel)
Phase 1							
Building 1							
Grading (45 days)	Scraper	452	8	8	0.48	13,885	33,775
	Crawler Tractor	410	1	8	0.43	1,410	3,431
	Rubber Tired Dozer	451	1	8	0.4	1,443	3,510
	Off-Highway Tractors	485	2	8	0.44	3,414	8,305
	Other Construction Equip.	354	2	8	0.42	2,379	5,786
	Grader	302	1	8	0.41	991	2,409
	Rubber Tired Loader	350	1	8	0.36	1,008	2,452
	Other General Industrial Equipment	330	3	8	0.37	2,930	7,128
Trenching (98 days)	Rubber Tired Loader	350	2	8	0.36	2,016	10,679
	Tractors/Loaders/Backhoes	110	2	8	0.37	651	3,450
	Other Material Handling Equipment	249	2	8	0.43	1,713	9,075
	Excavator	268	2	8	0.38	1,629	8,632
	Other Construction Equip.	354	2	8	0.42	2,379	12,602
Concrete Shell (82 days)	Tractors/Loaders/Backhoes	110	4	8	0.37	1,302	5,773
	Other Construction Equip.	354	1	8	0.42	1,189	5,272
	Other Construction Equip.	354	1	8	0.42	1,189	5,272
	Other Construction Equip.	354	1	8	0.42	1,189	5,272
	Other Construction Equip.	354	2	8	0.42	2,379	10,544
Steel & Roof (47 days)	Crane	215	2	8	0.29	998	2,534
	Other Construction Equip.	354	2	8	0.42	2,379	6,044
	Other Construction Equip.	354	1	8	0.42	1,189	3,022

Activity/Duration	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	Total Fuel Consumption (gal. diesel fuel)
Roofing & Overhead Work (48 days)	Other Construction Equip.	354	1	8	0.42	1,189	3,086
	Forklifts	110	2	8	0.20	352	913
	Other Construction Equip.	354	2	8	0.42	2,379	6,172
	Aerial Lifts	48	3	8	0.31	357	927
Architectural Coating (39 days)	Other Construction Equip.	354	4	8	0.42	4,758	10,030
Misc. Finishes (65 days)	Aerial Lifts	48	2	8	0.31	238	836
	Other Construction Equip.	354	2	8	0.42	2,379	8,358
Paving (89 days)	Other Construction Equip.	354	1	8	0.42	1,189	5,722
	Rubber Tired Loader	350	2	8	0.3	1,680	8,082
	Trencher	81	1	8	0.50	324	1,559
Building 2							
Grading (14 days)	Scraper	452	3	8	0.48	5,207	3,940
	Crawler Tractor	410	1	8	0.43	1,410	1,067
	Other Construction Equip.	354	1	8	0.42	1,189	900
	Grader	302	1	8	0.41	991	750
	Rubber Tired Loader	350	1	8	0.36	1,008	763
	Other General Industrial Equipment	330	1	8	0.37	977	739
Trenching (34 days)	Rubber Tired Loader	350	1	8	0.36	1,008	1,853
	Tractors/Loaders/Backhoes	110	1	8	0.37	326	598
	Other Material Handling Equipment	249	1	8	0.43	857	1,574
	Excavator	268	1	8	0.38	815	1,497
	Other Construction Equip.	354	1	8	0.42	1,189	2,186
Concrete Shell (50 days)	Tractors/Loaders/Backhoes	110	2	8	0.37	651	1,760
	Other Construction Equip.	354	1	8	0.42	1,189	3,215

Activity/Duration	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	Total Fuel Consumption (gal. diesel fuel)
	Other Construction Equip.	354	1	8	0.42	1,189	3,215
	Other Construction Equip.	354	1	8	0.42	1,189	3,215
	Other Construction Equip.	354	1	8	0.42	1,189	3,215
Steel & Roof (22 days)	Crane	215	1	8	0.29	499	593
	Other Construction Equip.	354	1	8	0.42	1,189	1,414
	Other Construction Equip.	354	1	8	0.42	1,189	1,414
Roofing & Overhead Work (23 days)	Other Construction Equip.	354	1	8	0.42	1,189	1,479
	Forklifts	110	1	8	0.20	176	219
	Other Construction Equip.	354	1	8	0.42	1,189	1,479
	Aerial Lifts	48	1	8	0.31	119	148
Architectural Coating (18 days)	Other Construction Equip.	354	1	8	0.42	1,189	1,157
Misc. Finishes (30 days)	Aerial Lifts	48	1	8	0.31	119	193
	Other Construction Equip.	354	1	8	0.42	1,189	1,929
Paving (28 days)	Other Construction Equip.	354	1	8	0.42	1,189	1,800
	Rubber Tired Loader	350	1	8	0.36	1,008	1,526
	Trencher	81	1	8	0.50	324	490
Phase 2							
Building 3							
Grading (12 days)	Scraper	452	3	8	0.48	5,207	3,378
	Crawler Tractor	410	1	8	0.43	1,410	915
	Other Construction Equip.	354	1	8	0.42	1,189	772
	Grader	302	1	8	0.41	991	643
	Rubber Tired Loader	350	1	8	0.36	1,008	654
	Other General Industrial Equipment	330	1	8	0.37	977	634

Activity/Duration	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	Total Fuel Consumption (gal. diesel fuel)
Trenching (33 days)	Rubber Tired Loader	350	1	8	0.36	1,008	1,798
	Tractors/Loaders/Backhoes	110	1	8	0.37	326	581
	Other Material Handling Equipment	249	1	8	0.43	857	1,528
	Excavator	268	1	8	0.38	815	1,453
	Other Construction Equip.	354	1	8	0.42	1,189	2,122
Concrete Shell (47 days)	Tractors/Loaders/Backhoes	110	2	8	0.37	651	1,654
	Other Construction Equip.	354	1	8	0.42	1,189	3,022
	Other Construction Equip.	354	1	8	0.42	1,189	3,022
	Other Construction Equip.	354	1	8	0.42	1,189	3,022
	Other Construction Equip.	354	1	8	0.42	1,189	3,022
Steel & Roof (20 days)	Crane	215	1	8	0.29	499	539
	Other Construction Equip.	354	1	8	0.42	1,189	1,286
	Other Construction Equip.	354	1	8	0.42	1,189	1,286
Roofing & Overhead Work (22 days)	Other Construction Equip.	354	1	8	0.42	1,189	1,414
	Forklifts	110	1	8	0.20	176	209
	Other Construction Equip.	354	1	8	0.42	1,189	1,414
	Aerial Lifts	48	1	8	0.31	119	142
Architectural Coating (18 days)	Other Construction Equip.	354	1	8	0.42	1,189	1,157
Misc. Finishes (29 days)	Aerial Lifts	48	1	8	0.31	119	187
	Other Construction Equip.	354	1	8	0.42	1,189	1,865
Paving (28 days)	Other Construction Equip.	354	1	8	0.42	1,189	1,800
	Rubber Tired Loader	350	1	8	0.36	1,008	1,526
	Trencher	81	1	8	0.50	324	490
Building 4							

Activity/Duration	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	Total Fuel Consumption (gal. diesel fuel)
Grading (18 days)	Scraper	452	3	8	0.48	5,207	5,066
	Crawler Tractor	410	1	8	0.43	1,410	1,372
	Other Construction Equip.	354	1	8	0.42	1,189	1,157
	Grader	302	1	8	0.41	991	964
	Rubber Tired Loader	350	1	8	0.36	1,008	981
	Other General Industrial Equipment	330	1	8	0.37	977	950
Trenching (35 days)	Rubber Tired Loader	350	1	8	0.36	1,008	1,907
	Tractors/Loaders/Backhoes	110	1	8	0.37	326	616
	Other Material Handling Equipment	249	1	8	0.43	857	1,621
	Excavator	268	1	8	0.38	815	1,541
	Other Construction Equip.	354	1	8	0.42	1,189	2,250
Concrete Shell (50 days)	Tractors/Loaders/Backhoes	110	2	8	0.37	651	1,760
	Other Construction Equip.	354	1	8	0.42	1,189	3,215
	Other Construction Equip.	354	1	8	0.42	1,189	3,215
	Other Construction Equip.	354	1	8	0.42	1,189	3,215
	Other Construction Equip.	354	1	8	0.42	1,189	3,215
Steel & Roof (23 days)	Crane	215	1	8	0.29	499	620
	Other Construction Equip.	354	1	8	0.42	1,189	1,479
	Other Construction Equip.	354	1	8	0.42	1,189	1,479
Roofing & Overhead Work (24 days)	Other Construction Equip.	354	1	8	0.42	1,189	1,543
	Forklifts	110	1	8	0.20	176	228
	Other Construction Equip.	354	1	8	0.42	1,189	1,543
	Aerial Lifts	48	1	8	0.31	119	154
Architectural Coating (20 days)	Other Construction Equip.	354	1	8	0.42	1,189	1,286

Activity/Duration	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	Total Fuel Consumption (gal. diesel fuel)
Misc. Finishes (31 days)	Aerial Lifts	48	1	8	0.31	119	199
	Other Construction Equip.	354	1	8	0.42	1,189	1,993
Paving (36 days)	Other Construction Equip.	354	1	8	0.42	1,189	2,315
	Rubber Tired Loader	350	1	8	0.36	1,008	1,962
	Trencher	81	1	8	0.50	324	630
CONSTRUCTION FUEL DEMAND (gallons diesel fuel)							334,992

Note: Construction equipment schedules, power ratings, load factors populated from CalEEMod data presented in Moreno Valley Logistics Center Air Quality Impact Analysis, County of Riverside (Urban Crossroads, Inc.)

4.3.3 CONSTRUCTION WORKER FUEL ESTIMATES

It is assumed that all construction worker trips are from light duty autos (LDA) along area roadways. With respect to estimated VMT, the construction worker trips would generate an estimated 1,084,375 VMT (18). Data regarding Project related construction worker trips were based on CalEEMod 2013.2.2 model defaults utilized within the Moreno Valley Logistics Center Air Quality Impact Analysis.

Vehicle fuel efficiencies for LDA were estimated using information generated within the 2014 version of the Emissions FACTor model (EMFAC) developed by the Air Resources Board (ARB). EMFAC 2014 is a mathematical model that was developed to calculate emission rates, fuel consumption, and VMT from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the ARB to project changes in future emissions from on-road mobile sources (19). For purposes of this analysis, EMFAC 2014 was run for the LDA vehicle class within the California sub-area for a 2017 calendar year (consistent with the opening year of the Project). Data from EMFAC 2014 is shown in Appendix 3.2

As generated by EMFAC 2014, an aggregated fuel economy of LDAs ranging from model year 1974 to model year 2017 are estimated to have a fuel efficiency of 26.27 miles per gallon (MPG). Table 4-4 provides an estimated annual fuel consumption resulting from Project generated light duty autos related to construction worker trips. Based on Table 4-4, it is estimated that 41,278 gallons of fuel will be consumed related to construction worker trips after full construction of the proposed Project. Project construction worker trips would represent a “single-event” gasoline fuel demand and would not require on-going or permanent commitment of fuel resources for this purpose.

TABLE 4-4: CONSTRUCTION WORKER FUEL CONSUMPTION ESTIMATES

Construction Activity	Worker Trips / Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Phase 1					
Building 1					
Grading 1 (45 days)	48	14.7	31,752	26.27	1,209
Trenching 1 (98 days)	25	14.7	36,015	26.27	1,371
Concrete Shell 1 (82 days)	125	14.7	150,675	26.27	5,736
Steel & Roof 1 (47 days)	125	14.7	86,363	26.27	3,287
Roofing & Overhead Work 1 (48 days)	125	14.7	88,200	26.27	3,357
Architectural Coating 1 (39 days)	213	14.7	122,113	26.27	4,648
Misc. Finishes 1 (65 days)	125	14.7	119,438	26.27	4,547
Paving 1 (89 days)	10	14.7	13,083	26.27	498
Building 2					
Grading 2 (14 days)	20	14.7	4,116	26.27	157
Trenching 2 (34 days)	13	14.7	6,497	26.27	247
Concrete Shell 2 (50 days)	40	14.7	29,400	26.27	1,119
Steel & Roof 2 (22 days)	40	14.7	12,936	26.27	492
Roofing & Overhead Work 2 (23 days)	40	14.7	13,524	26.27	515

Construction Activity	Worker Trips / Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Architectural Coating 2 (18 days)	213	14.7	56,360	26.27	2,145
Misc. Finishes 2 (30 days)	40	14.7	17,640	26.27	671
Paving 2 (28 days)	8	14.7	3,293	26.27	125
Phase 2					
Building 3					
Grading 3 (12 days)	20	14.7	3,528	26.27	134
Trenching 3 (33 days)	13	14.7	6,306	26.27	240
Concrete Shell 3 (47 days)	40	14.7	27,636	26.27	1,052
Steel & Roof 3 (20 days)	40	14.7	11,760	26.27	448
Roofing & Overhead Work 3 (22 days)	40	14.7	12,936	26.27	492
Architectural Coating 3 (18 days)	213	14.7	56,360	26.27	2,145
Misc. Finishes 3 (29 days)	40	14.7	17,052	26.27	649
Paving 3 (28 days)	8	14.7	3,293	26.27	125
Building 4					
Grading 4 (18 days)	20	14.7	5,292	26.27	201
Trenching 4 (35 days)	13	14.7	6,689	26.27	255
Concrete Shell 4(50 days)	40	14.7	29,400	26.27	1,119
Steel & Roof 4 (23 days)	40	14.7	13,524	26.27	515

Construction Activity	Worker Trips / Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Roofing & Overhead Work 4 (24 days)	40	14.7	14,112	26.27	537
Architectural Coating 4 (20 days)	213	14.7	62,622	26.27	2,384
Misc. Finishes 4 (31 days)	40	14.7	18,228	26.27	694
Paving 4 (36 days)	8	14.7	4,234	26.27	161
TOTAL CONSTRUCTION WORKER FUEL CONSUMPTION					41,278

4.3.4 CONSTRUCTION VENDOR/HAULING FUEL ESTIMATES

With respect to estimated VMT, the construction vendor trips would generate an estimated 1,832,316 VMT along area roadways (14). It is assumed that 100% of all hauling trips for Concrete Pours and Site Slabs (modeled in CalEEMod through Concrete Shell phases and Paving phases, respectively) are from heavy-heavy duty trucks (HHD). It is assumed that 50% of all vendor trips are from medium-heavy duty trucks (MHD) and 50% are from heavy-heavy duty trucks (HHD). These assumptions are consistent with the 2013.2.2 CalEEMod defaults utilized within the Moreno Valley Logistics Center Air Quality Impact Analysis. Vehicle fuel efficiencies for MHD and HHD trucks were estimated using information generated within EMFAC 2014. For purposes of this analysis, EMFAC 2014 was run for the MHD and HHD vehicle class within the California sub-area for a 2017 calendar year (consistent with the opening year of the Project). Data from EMFAC 2014 is shown in Appendix 3.2

As generated by EMFAC 2014, an aggregated fuel economy of MHD trucks ranging from model year 1974 to model year 2017 are estimated to have a fuel efficiency of 8.13 mpg. Additionally, HHD trucks are estimated to have a fuel efficiency of 5.70 mpg.

Table 4-5 and Table 4-6 shows the estimated fuel economy of MHD and HHD trucks accessing the Project site. Based on Table 4-5 and Table 4-6, fuel consumption from construction hauling and vendor trips (medium and heavy duty trucks) will total approximately 241,866 gallons. Project construction vendor trips would represent a “single-event” diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources for this purpose.

TABLE 4-5: CONSTRUCTION VENDOR FUEL CONSUMPTION ESTIMATES (MHD TRUCKS) ²

Construction Activity	Vendor/Hauling Trips / Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Concrete Shell 1 (82 days)	416	6.9	235,373	8.13	28,939
Concrete Shell 2 (50 days)	416	6.9	143,520	8.13	17,646
Concrete Shell 3 (47 days)	416	6.9	134,909	8.13	16,587
Concrete Shell 4 (50 days)	416	6.9	143,520	8.13	17,646
Misc. Finishes 1 (65 days)	416	6.9	186,576	8.13	22,939
Misc. Finishes 2 (30 days)	416	6.9	86,112	8.13	10,587
Misc. Finishes 3 (29 days)	416	6.9	83,242	8.13	10,235
Misc. Finishes 4 (31 days)	416	6.9	88,982	8.13	10,940
Roofing & Overhead Work 1 (48 days)	416	6.9	137,779	8.13	16,940
Roofing & Overhead Work 2 (23 days)	416	6.9	66,019	8.13	8,117
Roofing & Overhead Work 3 (22 days)	416	6.9	63,149	8.13	7,764
Roofing & Overhead Work 4 (24 days)	416	6.9	68,890	8.13	8,470

² Assumptions for the vendor trip length and vehicle miles traveled are consistent with 2013.2.2 model defaults utilized within the Moreno Valley Logistics Center Air Quality Impact Analysis.

Construction Activity	Vendor/Hauling Trips / Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Steel & Roof 1 (47 days)	416	6.9	134,909	8.13	16,587
Steel & Roof 2 (22 days)	416	6.9	63,149	8.13	7,764
Steel & Roof 3 (20 days)	416	6.9	57,408	8.13	7,058
Steel & Roof 4 (23 days)	416	6.9	66,019	8.13	8,117

TABLE 4-6: CONSTRUCTION VENDOR FUEL CONSUMPTION ESTIMATES (HHD TRUCKS) 3

Construction Activity	Vendor Trips / Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Concrete Shell 1 (82 days)	127	6.9	71,650	5.70	12,570
Concrete Shell 2 (50 days)	27	6.9	9,481	5.70	1,663
Concrete Shell 3 (47 days)	23	6.9	7,438	5.70	1,305
Concrete Shell 4 (50 days)	35	6.9	12,130	5.70	2,128
Paving 1 (89 days)	47	6.9	28,649	5.70	5,026
Paving 2 (28 days)	26	6.9	5,023	5.70	881
Paving 3 (28 days)	28	6.9	5,368	5.70	942

³ Assumptions for the vendor trip length and vehicle miles traveled are consistent with 2013.2.2 model defaults utilized within the Moreno Valley Logistics Center Air Quality Impact Analysis.

Construction Activity	Vendor Trips / Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Paving 4 (36 days)	23	6.9	5,782	5.70	1,014

4.3.5 CONSTRUCTION ENERGY EFFICIENCY/CONSERVATION MEASURES

The equipment used for Project construction would conform to CARB regulations and CA emissions standards and would evince related fuel efficiencies. There are no unusual Project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities; or equipment that would not conform to current emissions standards (and related fuel efficiencies). Equipment employed in construction of the Project would therefore not result in inefficient wasteful, or unnecessary consumption of fuel.

The Project would utilize construction contractors which practice compliance with applicable CARB regulation regarding retrofitting, repowering, or replacement of diesel off-road construction equipment. Additionally CARB has adopted the Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other Toxic Air Contaminants. Compliance with anti-idling and emissions regulations would result in a more efficient use of construction-related energy and the minimization or elimination of wasteful or unnecessary consumption of energy. Idling restrictions and the use of newer engines and equipment would result in less fuel combustion and energy consumption.

Additionally, certain incidental construction-source energy efficiencies would likely accrue through implementation of California regulations and best available control measures (BACM). More specifically, California Code of Regulations Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than five minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. To this end, "grading plans shall reference the requirement that a sign shall be posted on-site stating that construction workers need to shut off engines at or before three minutes of idling." In this manner, construction equipment operators are informed that engines are to be turned off at or prior to five minutes of idling. Enforcement of idling limitations is realized through periodic site inspections conducted by County building officials, and/or in response to citizen complaints.

Indirectly, construction energy efficiencies and energy conservation would be achieved for the proposed development through energy efficiencies realized from bulk purchase, transport and use of construction materials.

In general, the construction processes promote conservation and efficient use of energy by reducing raw materials demands, with related reduction in energy demands associated with raw materials extraction, transportation, processing and refinement. Use of materials in bulk reduces energy demands associated with preparation and transport of construction materials as transport and disposal of construction waste and solid waste in general, with corollary reduced demands on area landfill capacities and energy consumed by waste transport and landfill operations.

4.3.6 ALTERNATE SITE PLAN CONSTRUCTION IMPACTS

As previously discussed, the alternate site plan replaces construction of Building 2 with the construction of additional truck trailer parking in its place, thus reducing total building area. Should the alternate site plan be implemented, the level of construction-based energy consumption would not exceed the level of construction-based energy consumption analyzed within the current Project scenario. As such, the Project scenario analysis represents a “worst-case” analysis scenario.

4.3.7 SUMMARY

The estimated power cost of on-site electricity usage during the construction of the proposed Project is assumed to be around \$95,077. Additionally, based on the assumed power cost, it is estimated that the total electricity usage during construction, after full Project build-out, is calculated to be around 1,358,244 kWh.

Construction equipment used by the Project would result in single event consumption of approximately 334,992 gallons of diesel fuel. Construction equipment use of fuel would not be atypical for the type of construction proposed because there are no aspects of the Project’s proposed construction process that are unusual or energy-intensive, and Project construction equipment would conform to the applicable CARB emissions standards, acting to promote equipment fuel efficiencies.

CCR Title 13, Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than 5 minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. Best available control measures inform construction equipment operators of this requirement. Enforcement of idling limitations is realized through periodic site inspections conducted by County building officials, and/or in response to citizen complaints.

Construction worker trips for full construction of the proposed Project would result in the estimated fuel consumption of 41,278 gallons of fuel. Additionally, fuel consumption from construction vendor trips (medium and heavy duty trucks) will total approximately 241,866 gallons. Diesel fuel would be supplied by County and regional commercial vendors. Indirectly, construction energy efficiencies and energy conservation would be achieved through the use of bulk purchases, transport and use of construction materials. The 2014 IEPR released by the California Energy Commission has shown that fuel efficiencies are getting better within on and off-road vehicle engines due to more stringent government requirements. Several vehicle engine regulation includes the CARB Drayage Truck Regulation (22), the CARB statewide On-road Truck and Bus Regulation (23), and the Ports of Los Angeles and Long Beach “Clean Truck Program” (CTP), which require accelerated implementation of “clean trucks” into the statewide truck fleet (24). In other words, older more polluting trucks will be replaced with newer, cleaner trucks as a function of these regulatory requirements. As supported by the preceding discussions, Project construction energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

4.4 OPERATIONAL ENERGY DEMANDS

Energy consumption in support of or related to Project operations would include transportation energy demands (energy consumed by employee and patron vehicles accessing the Project site) and facilities energy demands (energy consumed by building operations and site maintenance activities).

4.4.1 TRANSPORTATION ENERGY DEMANDS

Energy that would be consumed by Project-generated traffic is a function of total VMT and estimated vehicle fuel economies of vehicles accessing the Project site.

LIGHT DUTY AUTOS

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project’s Air Quality Impact Analysis, the Project would generate an estimated 19,836,014 annual VMT along area roadways for all passenger cars with full build-out of the Project (14). As generated by EMFAC 2014, an aggregated fuel economy of LDAs ranging from model year 1974 to model year 2017 are estimated to have a fuel efficiency of 26.27 mpg. Table 4-7 provides an estimated range of annual fuel consumption resulting from Project generated LDAs. Based on Table 4-7, it is estimated that 762,505 gallons of fuel will be consumed from Project generated LDA trips.

TABLE 4-7: PROJECT-GENERATED PASSENGER CAR TRAFFIC ANNUAL FUEL CONSUMPTION

Land Use	Annual Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
High-Cube	7,922,799	26.01	304,556
Light-Industrial	11,913,215	26.01	457,949

LIGHT-HEAVY DUTY TRUCKS

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project’s Air Quality Impact Analysis, the Project would generate an estimated 8,397,486 annual VMT along area roadways for all LHD trucks with full build-out of the Project (14). As generated by EMFAC 2014, an aggregated fuel economy of LHD trucks ranging from model year 1974 to model year 2017 are estimated to have a fuel efficiency of 12.79 mpg. Table 4-8 provides an estimated range of annual fuel consumption resulting from Project generated LHD trucks. Based on Table 4-8, it is estimated that 656,510 gallons of fuel will be consumed from Project generated LHD truck trips.

TABLE 4-8: PROJECT-GENERATED LHD TRUCK TRAFFIC ANNUAL FUEL CONSUMPTION

Land Use	Annual Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
High-Cube	3,946,392	12.79	308,526
Light-Industrial	4,451,094	12.79	347,984

MEDIUM-HEAVY DUTY TRUCKS

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project’s Air Quality Impact Analysis, the Project would generate an estimated 5,333,173 annual VMT along area roadways for all MHD trucks with full build-out of the Project (14). As generated by EMFAC 2014, an aggregated fuel economy of MHD trucks ranging from model year 1974 to model year 2017 are estimated to have a fuel efficiency of 8.13 mpg. Table 4-9 provides an estimated range of annual fuel consumption resulting from Project generated MHD trucks. Based on Table 4-9, it is estimated that 655,710 gallons of fuel will be consumed from Project generated MHD truck trips.

TABLE 4-9: PROJECT-GENERATED MHD TRUCK TRAFFIC ANNUAL FUEL CONSUMPTION

Land Use	Annual Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
High-Cube	3,163,563	8.13	388,958
Light-Industrial	2,169,611	8.13	266,752

HEAVY-HEAVY DUTY TRUCKS

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project’s Air Quality Impact Analysis, the Project would generate an estimated 16,084,379 annual VMT along area roadways for all HHD trucks with full build-out of the Project (14). As generated by EMFAC 2014, an aggregated fuel economy of HHD trucks ranging from model year 1974 to model year 2017 are estimated to have a fuel efficiency of 5.70 mpg. Table 4-10 provides an estimated range of annual fuel consumption resulting from Project generated HHD trucks. Based on Table 4-10, it is estimated that 2,821,826 gallons of fuel will be consumed from Project generated HHD truck trips.

TABLE 4-10: PROJECT-GENERATED HHD TRUCK TRAFFIC ANNUAL FUEL CONSUMPTION

Land Use	Annual Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
High-Cube	10,803,763	5.70	1,895,400
Light-Industrial	5,280,616	5.70	926,426

TABLE 4-11: PROJECT-GENERATED TRAFFIC ANNUAL FUEL CONSUMPTION (ALL VEHICLES)

Vehicle Type	Annual Miles Traveled	Estimated Annual Fuel Consumption (gallons)
Light Duty Autos	19,836,014	762,505
LHD Trucks	8,397,486	656,510
MHD Trucks	5,333,173	655,710
HHD Trucks	16,084,379	2,821,826
Total (All Vehicles)	49,651,053	4,896,551

As summarized on Table 4-11, the Project will result in 49,651,053 annual VMT and an estimated annual fuel consumption of 4,896,550 gallons of fuel.

4.4.2 FACILITY ENERGY DEMANDS

Project building operations and Project site maintenance activities would result in the consumption of natural gas and electricity. Natural gas would be supplied to the Project by The Gas Company; electricity would be supplied to the Project by Southern California Edison. Annual natural gas and electricity demands of the Project are summarized in Table 4-12.

Energy use in buildings is divided into energy consumed by the built environment and energy consumed by uses that are independent of the construction of the building such as in plug-in appliances. In California, the California Building Standards Code Title 24 governs energy consumed by the built environment, mechanical systems, and some types of fixed lighting (20). Non-building energy use, or “plug-in” energy use can be further subdivided by specific end-use (refrigeration, cooking, appliances, etc.).

TABLE 4-12: PROJECT ANNUAL OPERATIONAL ENERGY DEMAND SUMMARY

Natural Gas Demand	kBTU/year
Parking Lot	0
Refrigerated Warehouse	8,923,800
Unrefrigerated Warehouse	2,108,660
General Light Industrial	11,796,180
Total Project Natural Gas Demand	22,828,640

Electricity Demand	kWh/year
Parking Lot	703,296
Refrigerated Warehouse	7,113,330
Unrefrigerated Warehouse	3,439,820
General Light Industrial	4,042,640
Total Project Electricity Demand	15,299,086

Note: Refrigerated Warehouse Natural Gas and Electricity Demand is based on the maximum estimate of 10% cold storage building use.

4.4.3 OPERATIONAL ENERGY EFFICIENCY/CONSERVATION MEASURES

Energy efficient/energy conserving design features and operational programs that would be implemented under the Project are summarized below. Also noted in the following discussions, energy efficiency/energy conservation attributes of the Project would be complemented by increasingly stringent state and federal regulatory actions addressing vehicle fuel economies and vehicle emissions standards; and enhanced building/utilities energy efficiencies mandated under California building codes (e.g., Title24, California Green Building Code). In this latter regard, pursuant to mitigation measures identified in the Project’s air quality and greenhouse gas report, several measures will be implemented that reduce energy associated with the building envelope,

indoor space efficiencies, irrigation and landscaping, potable water use, employment and trip reductions beyond existing requirements. Specifically implementation of MM AQ-3, MM AQ-4, MM AQ-5, and MM AQ-6 will reduce operational energy demand from the project. As such, the Project's energy use is not considered inefficient, wasteful, or unnecessary.

The Project would also not result in a substantial increase in demand or transmission service, resulting in the need for new or expanded sources of energy supply or new or expanded energy delivery systems or infrastructure.

Enhanced Vehicle Fuel Efficiencies

Estimated annual fuel consumption estimates presented previously in Table 4-11 represent likely potential maximums that would occur in the Project. Under subsequent future conditions, average fuel economies of vehicles accessing the Project site can be expected to improve as older, less fuel efficient vehicles are removed from circulation, and in response to fuel economy and emissions standards imposed on newer vehicles entering the circulation system.

4.4.4 ALTERNATE SITE PLAN OPERATIONAL IMPACTS

As previously discussed, the alternate site plan omits Building 2 with the addition of truck trailer parking in its place, thus decreasing operational energy capacity. Should the alternate site plan be implemented, operational-source energy consumption would not exceed the operational-source energy consumption analyzed within the current Project scenario. As such, the Project scenario analysis represents a "worst-case" analysis scenario.

4.5 SUMMARY

4.5.1 TRANSPORTATION ENERGY DEMANDS

Annual vehicular trips and related VMT generated by the Project would result in an estimated 762,504 gallons of fuel consumption per year for LDAs. Additionally, the Project would result in an estimated 656,510 gallons of fuel consumption per year for LHD trucks. In regards to MHD trucks, the Project would result in an estimated 655,710 gallons of fuel consumption per year. For HHD trucks an estimated 2,821,826 gallons of fuel consumption per year is estimated for the year 2017. The total estimated annual fuel consumption from Project generated VMT would result in a fuel demand of 4,896,550 gallons of fuel.

Fuel would be provided by current and future commercial vendors. Trip generation and VMT generated by the Project are consistent with other warehouse uses of similar scale and configuration, as reflected respectively in the Institute of Transportation Engineers (ITE) Trip Generation Manual (9th Ed., 2012); and California Emissions Estimator Model (CalEEMod) v2013.2.2. That is, the Project does not propose uses or operations that would inherently result in excessive and wasteful vehicle trips and VMT, nor associated excess and wasteful vehicle energy consumption.

Enhanced fuel economies realized pursuant to federal and state regulatory actions, and related transition of LDVs and HDVs to alternative energy sources (e.g., electricity, natural gas, bio fuels, hydrogen cells) would likely decrease future gasoline fuel demands per VMT. Location of the

Project proximate to regional and local roadway systems tends to reduce VMT within the region, acting to reduce regional vehicle energy demands. The Project would also implement sidewalks, facilitating and encouraging pedestrian access. Facilitating pedestrian and bicycle access would reduce VMT and associated energy consumption. As supported by the preceding discussions, Project transportation energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

4.5.2 FACILITY ENERGY DEMANDS

Project facility operational energy demands are estimated at: 22,828,640 kBTU/year of natural gas; and 15,535,696 kWh/year of electricity. Natural gas would be supplied to the Project by The Gas Company; electricity would be supplied by Southern California Edison. The Project proposes conventional warehouse uses reflecting contemporary energy efficient/energy conserving designs and operational programs. Uses proposed by the Project are not inherently energy intensive, and the Project energy demands in total would be comparable to, or less than, other warehouse projects of similar scale and configuration.

Various energy conserving features and operational programs that would be realized under the Project are discussed previously. Based on the preceding, Project facilities energy demands and energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

4.6 CONCLUSIONS

As supported by the preceding analyses, Project construction and operations would not result in the inefficient, wasteful or unnecessary consumption of energy. Further, the energy demands of the Project can be accommodated within the context of available resources and energy delivery systems. The Project would therefore not cause or result in the need for additional energy producing or transmission facilities. The Project would not engage in wasteful or inefficient uses of energy and aims to achieve energy conservations goals within the State of California. Notwithstanding, the Project proposes warehousing land use and will not have any long-term effects on an energy provider's future energy development or future energy conservation strategies.

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6 CERTIFICATION

The contents of this air study report represent an accurate depiction of the environmental impacts associated with the proposed Moreno Valley Logistics Center Project. The information contained in this air quality impact report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 660-1994 ext. 217.

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EDUCATION

Master of Science in Environmental Studies
California State University, Fullerton • May, 2010

Bachelor of Arts in Environmental Analysis and Design
University of California, Irvine • June, 2006

PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners
AWMA – Air and Waste Management Association
ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Environmental Site Assessment – American Society for Testing and Materials • June, 2013
Planned Communities and Urban Infill – Urban Land Institute • June, 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April, 2008
Principles of Ambient Air Monitoring – California Air Resources Board • August, 2007
AB2588 Regulatory Standards – Trinity Consultants • November, 2006
Air Dispersion Modeling – Lakes Environmental • June, 2006

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APPENDIX 3.1:
CALEEMOD EMISSIONS MODEL OUTPUTS

MoVal Logistics Center- Construction Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	385.75	1000sqft	16.70	385,748.00	0
Unrefrigerated Warehouse-No Rail	1,351.77	1000sqft	50.14	1,351,770.00	0
Parking Lot	1,998.00	Space	17.98	799,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	515.47	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total Lot Acreage:84.82; A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking=3.27 parking spaces.

Construction Phase - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

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Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Trips and VMT - Based on client specifications

Grading -

Architectural Coating - Based on client specifications; Use 50g/L Low VOC Paint

Vehicle Trips - Construction run only

Vehicle Emission Factors - Construction run only

Vehicle Emission Factors - Construction run only

Vehicle Emission Factors - Construction run only

Road Dust - Construction run only

Consumer Products - Construction run only

Area Coating - Construction run only

Landscape Equipment - Construction run only

Energy Use - Construction run only

Water And Wastewater - Construction run only

Solid Waste - Construction run only

Construction Off-road Equipment Mitigation - Based on client specifications

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	880,747.00	243,073.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	880,747.00	43,746.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	880,747.00	60,727.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	880,747.00	51,832.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	2,642,241.00	243,073.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	2,642,241.00	43,746.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	2,642,241.00	60,727.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	2,642,241.00	51,832.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00

tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	61.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	14.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	17.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	15.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 1
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	110.00	18.00
tblConstructionPhase	NumDays	110.00	39.00
tblConstructionPhase	NumDays	110.00	18.00

tblConstructionPhase	NumDays	110.00	20.00
tblConstructionPhase	NumDays	1,550.00	47.00
tblConstructionPhase	NumDays	1,550.00	50.00
tblConstructionPhase	NumDays	1,550.00	47.00
tblConstructionPhase	NumDays	1,550.00	22.00
tblConstructionPhase	NumDays	1,550.00	20.00
tblConstructionPhase	NumDays	1,550.00	23.00
tblConstructionPhase	NumDays	1,550.00	48.00
tblConstructionPhase	NumDays	1,550.00	30.00
tblConstructionPhase	NumDays	1,550.00	22.00
tblConstructionPhase	NumDays	1,550.00	23.00
tblConstructionPhase	NumDays	1,550.00	29.00
tblConstructionPhase	NumDays	1,550.00	24.00
tblConstructionPhase	NumDays	1,550.00	31.00
tblConstructionPhase	NumDays	1,550.00	65.00
tblConstructionPhase	NumDays	1,550.00	82.00
tblConstructionPhase	NumDays	1,550.00	50.00
tblConstructionPhase	NumDays	155.00	45.00
tblConstructionPhase	NumDays	155.00	14.00
tblConstructionPhase	NumDays	155.00	12.00
tblConstructionPhase	NumDays	155.00	18.00
tblConstructionPhase	NumDays	110.00	28.00
tblConstructionPhase	NumDays	110.00	28.00
tblConstructionPhase	NumDays	110.00	89.00
tblConstructionPhase	NumDays	110.00	36.00
tblConstructionPhase	PhaseEndDate	1/10/2017	12/7/2016
tblConstructionPhase	PhaseEndDate	3/6/2017	1/30/2017
tblConstructionPhase	PhaseEndDate	2/10/2017	1/2/2017

tblConstructionPhase	PhaseEndDate	2/24/2017	2/7/2017
tblConstructionPhase	PhaseEndDate	11/18/2016	10/25/2016
tblConstructionPhase	PhaseEndDate	1/4/2017	11/23/2016
tblConstructionPhase	PhaseEndDate	1/27/2017	12/5/2016
tblConstructionPhase	PhaseEndDate	1/4/2017	10/31/2016
tblConstructionPhase	PhaseEndDate	11/28/2016	11/22/2016
tblConstructionPhase	PhaseEndDate	12/23/2016	11/29/2016
tblConstructionPhase	PhaseEndDate	2/3/2017	1/5/2017
tblConstructionPhase	PhaseEndDate	1/18/2017	12/29/2016
tblConstructionPhase	PhaseEndDate	1/30/2017	12/22/2016
tblConstructionPhase	PhaseEndDate	1/24/2017	12/26/2016
tblConstructionPhase	PhaseEndDate	3/10/2017	1/17/2017
tblConstructionPhase	PhaseEndDate	5/30/2017	1/27/2017
tblConstructionPhase	PhaseEndDate	4/14/2017	2/28/2017
tblConstructionPhase	PhaseEndDate	5/30/2017	4/20/2017
tblConstructionPhase	PhaseEndDate	3/9/2017	10/24/2016
tblConstructionPhase	PhaseEndDate	11/9/2016	9/29/2016
tblConstructionPhase	PhaseEndDate	10/17/2016	8/19/2016
tblConstructionPhase	PhaseEndDate	10/24/2016	9/14/2016
tblConstructionPhase	PhaseEndDate	2/14/2017	12/15/2016
tblConstructionPhase	PhaseEndDate	2/2/2017	1/10/2017
tblConstructionPhase	PhaseEndDate	5/5/2017	4/26/2017
tblConstructionPhase	PhaseEndDate	3/29/2017	3/2/2017
tblConstructionPhase	PhaseEndDate	12/13/2016	10/26/2016
tblConstructionPhase	PhaseEndDate	12/5/2016	11/15/2016
tblConstructionPhase	PhaseEndDate	12/9/2016	8/31/2016
tblConstructionPhase	PhaseEndDate	10/5/2016	9/28/2016
tblConstructionPhase	PhaseStartDate	12/16/2016	11/14/2016

tblConstructionPhase	PhaseStartDate	1/11/2017	12/7/2016
tblConstructionPhase	PhaseStartDate	1/18/2017	12/8/2016
tblConstructionPhase	PhaseStartDate	1/28/2017	1/11/2017
tblConstructionPhase	PhaseStartDate	9/15/2016	8/22/2016
tblConstructionPhase	PhaseStartDate	10/27/2016	9/15/2016
tblConstructionPhase	PhaseStartDate	11/24/2016	9/30/2016
tblConstructionPhase	PhaseStartDate	12/6/2016	9/30/2016
tblConstructionPhase	PhaseStartDate	11/1/2016	10/26/2016
tblConstructionPhase	PhaseStartDate	11/23/2016	10/28/2016
tblConstructionPhase	PhaseStartDate	11/30/2016	11/1/2016
tblConstructionPhase	PhaseStartDate	12/8/2016	11/18/2016
tblConstructionPhase	PhaseStartDate	12/30/2016	11/23/2016
tblConstructionPhase	PhaseStartDate	12/23/2016	11/24/2016
tblConstructionPhase	PhaseStartDate	1/31/2017	12/8/2016
tblConstructionPhase	PhaseStartDate	4/27/2017	12/27/2016
tblConstructionPhase	PhaseStartDate	3/3/2017	1/17/2017
tblConstructionPhase	PhaseStartDate	3/1/2017	1/20/2017
tblConstructionPhase	PhaseStartDate	11/16/2016	7/1/2016
tblConstructionPhase	PhaseStartDate	9/1/2016	7/22/2016
tblConstructionPhase	PhaseStartDate	9/30/2016	8/4/2016
tblConstructionPhase	PhaseStartDate	9/29/2016	8/22/2016
tblConstructionPhase	PhaseStartDate	1/6/2017	11/8/2016
tblConstructionPhase	PhaseStartDate	12/27/2016	12/2/2016
tblConstructionPhase	PhaseStartDate	1/3/2017	12/23/2016
tblConstructionPhase	PhaseStartDate	2/8/2017	1/12/2017
tblConstructionPhase	PhaseStartDate	10/26/2016	9/8/2016
tblConstructionPhase	PhaseStartDate	7/21/2016	7/1/2016
tblConstructionPhase	PhaseStartDate	10/25/2016	7/15/2016

tblConstructionPhase	PhaseStartDate	8/20/2016	8/15/2016
tblEnergyUse	LightingElect	3.36	0.00
tblEnergyUse	LightingElect	0.88	0.00
tblEnergyUse	LightingElect	1.75	0.00
tblEnergyUse	NT24E	5.02	0.00
tblEnergyUse	NT24E	0.82	0.00
tblEnergyUse	NT24NG	17.13	0.00
tblEnergyUse	NT24NG	0.03	0.00
tblEnergyUse	T24E	2.69	0.00
tblEnergyUse	T24E	0.45	0.00
tblEnergyUse	T24NG	16.16	0.00
tblEnergyUse	T24NG	2.11	0.00
tblLandscapeEquipment	NumberSummerDays	250	1
tblLandUse	LandUseSquareFeet	385,750.00	385,748.00
tblLandUse	LotAcreage	8.86	16.70
tblLandUse	LotAcreage	31.03	50.14
tblOffRoadEquipment	HorsePower	226.00	215.00
tblOffRoadEquipment	HorsePower	226.00	215.00
tblOffRoadEquipment	HorsePower	226.00	215.00
tblOffRoadEquipment	HorsePower	226.00	215.00
tblOffRoadEquipment	HorsePower	226.00	215.00
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tblOffRoadEquipment	HorsePower	89.00	110.00
tblOffRoadEquipment	HorsePower	89.00	110.00
tblOffRoadEquipment	HorsePower	89.00	110.00
tblOffRoadEquipment	HorsePower	174.00	302.00

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tbloffRoadEquipment	HorsePower	130.00	49.00
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tbloffRoadEquipment	HorsePower	361.00	330.00
tbloffRoadEquipment	HorsePower	361.00	452.00
tbloffRoadEquipment	HorsePower	253.00	350.00
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tbloffRoadEquipment	HorsePower	253.00	350.00
tbloffRoadEquipment	HorsePower	253.00	350.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00

tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	515.47
tblProjectCharacteristics	OperationalYear	2014	2017
tblRoadDust	RoadPercentPave	100	0
tblSolidWaste	SolidWasteGenerationRate	478.33	0.00
tblSolidWaste	SolidWasteGenerationRate	1,270.66	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,078.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,758.00
tblTripsAndVMT	HaulingTripNumber	0.00	728.00
tblTripsAndVMT	HaulingTripNumber	0.00	778.00
tblTripsAndVMT	HaulingTripNumber	0.00	4,152.00
tblTripsAndVMT	HaulingTripNumber	0.00	838.00
tblTripsAndVMT	HaulingTripNumber	0.00	10,384.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,374.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	125.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00

tblTripsAndVMT	WorkerTripNumber	1,065.00	125.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	125.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	125.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD2	7.3830e-003	0.00
tblVehicleEF	LHD2	7.3830e-003	0.00
tblVehicleEF	LHD2	7.3830e-003	0.00

tblVehicleEF	MCY	6.4540e-003	0.00
tblVehicleEF	MCY	6.4540e-003	0.00
tblVehicleEF	MCY	6.4540e-003	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MH	3.2420e-003	0.00
tblVehicleEF	MH	3.2420e-003	0.00
tblVehicleEF	MH	3.2420e-003	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	OBUS	9.5400e-004	0.00
tblVehicleEF	OBUS	9.5400e-004	0.00
tblVehicleEF	OBUS	9.5400e-004	0.00
tblVehicleEF	SBUS	8.8400e-004	0.00
tblVehicleEF	SBUS	8.8400e-004	0.00
tblVehicleEF	SBUS	8.8400e-004	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	ST_TR	2.59	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	2.59	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	2.59	0.00
tblWater	IndoorWaterUseRate	89,204,687.50	0.00

tblWater	IndoorWaterUseRate	312,596,812.50	0.00
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2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	3.6791	37.7091	27.9859	0.0583	1.5183	1.2935	2.8118	0.4066	1.1900	1.5966	0.0000	5,344.4448	5,344.4448	0.8305	0.0000	5,361.8845
2017	1.0745	6.5290	5.6239	0.0133	0.3350	0.2000	0.5350	0.0927	0.1840	0.2767	0.0000	1,179.5583	1,179.5583	0.1348	0.0000	1,182.3892
Total	4.7537	44.2381	33.6099	0.0715	1.8533	1.4936	3.3468	0.4994	1.3740	1.8734	0.0000	6,524.0030	6,524.0030	0.9653	0.0000	6,544.2737

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	2.1054	17.2071	27.1824	0.0583	1.2477	0.4730	1.7207	0.3409	0.4508	0.7917	0.0000	5,344.4416	5,344.4416	0.8305	0.0000	5,361.8813
2017	0.8504	3.8001	5.7843	0.0133	0.3350	0.0905	0.4255	0.0927	0.0859	0.1787	0.0000	1,179.5578	1,179.5578	0.1348	0.0000	1,182.3887
Total	2.9557	21.0072	32.9667	0.0715	1.5827	0.5635	2.1461	0.4337	0.5367	0.9703	0.0000	6,523.9994	6,523.9994	0.9653	0.0000	6,544.2700

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	37.82	52.51	1.91	0.00	14.60	62.27	35.88	13.16	60.94	48.20	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	9.1665	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.7000e-004	3.7000e-004	0.0000	0.0000	3.9000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	9.1665	0.0000	1.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.7000e-004	3.7000e-004	0.0000	0.0000	3.9000e-004

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	9.1665	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.7000e-004	3.7000e-004	0.0000	0.0000	3.9000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	9.1665	0.0000	1.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.7000e-004	3.7000e-004	0.0000	0.0000	3.9000e-004

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading 1	Grading	4/29/2016	6/30/2016	5	45	
2	Grading 2	Grading	7/1/2016	7/20/2016	5	14	
3	Trenching 1	Trenching	7/1/2016	11/15/2016	5	98	

4	Concrete Shell 1	Building Construction	7/1/2016	10/24/2016	5	82
5	Trenching 2	Trenching	7/15/2016	8/31/2016	5	34
6	Concrete Shell 2	Building Construction	7/22/2016	9/29/2016	5	50
7	Grading 3	Grading	8/4/2016	8/19/2016	5	12
8	Trenching 3	Trenching	8/15/2016	9/28/2016	5	33
9	Grading 4	Grading	8/22/2016	9/14/2016	5	18
10	Concrete Shell 3	Building Construction	8/22/2016	10/25/2016	5	47
11	Trenching 4	Trenching	9/8/2016	10/26/2016	5	35
12	Concrete Shell 4	Building Construction	9/15/2016	11/23/2016	5	50
13	Steel & Roof 1	Building Construction	9/30/2016	12/5/2016	5	47
14	Steel & Roof 2	Building Construction	9/30/2016	10/31/2016	5	22
15	Steel & Roof 3	Building Construction	10/26/2016	11/22/2016	5	20
16	Roofing & Overhead Work 2	Building Construction	10/28/2016	11/29/2016	5	23
17	Roofing & Overhead Work 1	Building Construction	11/1/2016	1/5/2017	5	48
18	Paving 2	Paving	11/8/2016	12/15/2016	5	28
19	Architectural Coating 2	Architectural Coating	11/14/2016	12/7/2016	5	18
20	Misc. Finishes 2	Building Construction	11/18/2016	12/29/2016	5	30
21	Roofing & Overhead Work 3	Building Construction	11/23/2016	12/22/2016	5	22
22	Steel & Roof 4	Building Construction	11/24/2016	12/26/2016	5	23
23	Paving 3	Paving	12/2/2016	1/10/2017	5	28
24	Architectural Coating 1	Architectural Coating	12/7/2016	1/30/2017	5	39
25	Misc. Finishes 3	Building Construction	12/8/2016	1/17/2017	5	29
26	Architectural Coating 3	Architectural Coating	12/8/2016	1/2/2017	5	18
27	Paving 1	Paving	12/23/2016	4/26/2017	5	89
28	Roofing & Overhead Work 4	Building Construction	12/27/2016	1/27/2017	5	24
29	Architectural Coating 4	Architectural Coating	1/11/2017	2/7/2017	5	20
30	Paving 4	Paving	1/12/2017	3/2/2017	5	36
31	Misc. Finishes 4	Building Construction	1/17/2017	2/28/2017	5	31

32	Misc. Finishes 1	Building Construction	1/20/2017	4/20/2017	5	65
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Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 51,832; Non-Residential Outdoor: 51,832 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading 1	Crawler Tractors	1	8.00	410	0.43
Grading 1	Excavators	0	8.00	162	0.38
Grading 1	Graders	1	8.00	302	0.41
Grading 1	Off-Highway Tractors	2	8.00	485	0.44
Grading 1	Other Construction Equipment	2	8.00	354	0.44
Grading 1	Other General Industrial Equipment	3	8.00	330	0.37
Grading 1	Rubber Tired Dozers	1	8.00	451	0.40
Grading 1	Rubber Tired Loaders	1	8.00	350	0.36
Grading 1	Scrapers	8	8.00	452	0.48
Grading 1	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading 2	Cranes	0	7.00	226	0.29
Grading 2	Crawler Tractors	1	8.00	410	0.43
Grading 2	Excavators	0	8.00	162	0.38
Grading 2	Forklifts	0	8.00	89	0.20
Grading 2	Generator Sets	0	8.00	84	0.74
Grading 2	Graders	1	8.00	302	0.41
Grading 2	Other Construction Equipment	1	8.00	354	0.42
Grading 2	Other General Industrial Equipment	1	8.00	330	0.37

Grading 2	Pavers	0	8.00	125	0.42
Grading 2	Paving Equipment	0	8.00	49	0.36
Grading 2	Rollers	0	8.00	80	0.38
Grading 2	Rubber Tired Dozers	0	8.00	255	0.40
Grading 2	Rubber Tired Loaders	1	8.00	350	0.36
Grading 2	Scrapers	3	8.00	452	0.48
Grading 2	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Grading 2	Welders	0	8.00	46	0.45
Trenching 1	Excavators	2	8.00	268	0.38
Trenching 1	Other Construction Equipment	2	8.00	354	0.42
Trenching 1	Other Material Handling Equipment	2	8.00	249	0.40
Trenching 1	Rubber Tired Loaders	2	8.00	350	0.36
Trenching 1	Tractors/Loaders/Backhoes	2	8.00	110	0.37
Concrete Shell 1	Cranes	0	7.00	226	0.29
Concrete Shell 1	Excavators	0	8.00	268	0.38
Concrete Shell 1	Forklifts	0	8.00	89	0.20
Concrete Shell 1	Generator Sets	0	8.00	84	0.74
Concrete Shell 1	Other Construction Equipment	5	8.00	354	0.42
Concrete Shell 1	Other Material Handling Equipment	0	8.00	249	0.43
Concrete Shell 1	Pavers	0	8.00	125	0.42
Concrete Shell 1	Paving Equipment	0	8.00	49	0.36
Concrete Shell 1	Rollers	0	8.00	80	0.38
Concrete Shell 1	Rubber Tired Loaders	0	8.00	350	0.36
Concrete Shell 1	Surfacing Equipment	0	8.00	350	0.30
Concrete Shell 1	Tractors/Loaders/Backhoes	4	8.00	110	0.37
Concrete Shell 1	Welders	0	8.00	46	0.45
Trenching 2	Excavators	1	8.00	268	0.38
Trenching 2	Other Construction Equipment	1	8.00	354	0.42

Trenching 2	Other Material Handling Equipment	1	8.00	249	0.43
Trenching 2	Rubber Tired Loaders	1	8.00	350	0.36
Trenching 2	Tractors/Loaders/Backhoes	1	8.00	110	0.37
Concrete Shell 2	Air Compressors	0	6.00	78	0.48
Concrete Shell 2	Cranes	0	7.00	226	0.29
Concrete Shell 2	Forklifts	0	8.00	89	0.20
Concrete Shell 2	Generator Sets	0	8.00	84	0.74
Concrete Shell 2	Other Construction Equipment	4	8.00	354	0.42
Concrete Shell 2	Tractors/Loaders/Backhoes	2	8.00	110	0.37
Concrete Shell 2	Welders	0	8.00	46	0.45
Grading 3	Air Compressors	0	6.00	78	0.48
Grading 3	Cranes	0	8.00	215	0.29
Grading 3	Crawler Tractors	1	8.00	410	0.43
Grading 3	Excavators	0	8.00	162	0.38
Grading 3	Forklifts	0	8.00	89	0.20
Grading 3	Generator Sets	0	8.00	84	0.74
Grading 3	Graders	1	8.00	302	0.41
Grading 3	Off-Highway Tractors	0	8.00	485	0.44
Grading 3	Other Construction Equipment	1	8.00	354	0.42
Grading 3	Other General Industrial Equipment	1	8.00	330	0.34
Grading 3	Rubber Tired Dozers	0	8.00	255	0.40
Grading 3	Rubber Tired Loaders	1	8.00	350	0.36
Grading 3	Scrapers	3	8.00	452	0.48
Grading 3	Surfacing Equipment	0	8.00	350	0.30
Grading 3	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading 3	Welders	0	8.00	46	0.45
Trenching 3	Excavators	1	8.00	268	0.38
Trenching 3	Other Construction Equipment	1	8.00	354	0.42

Trenching 3	Other Material Handling Equipment	1	8.00	249	0.43
Trenching 3	Rubber Tired Loaders	1	8.00	350	0.36
Trenching 3	Tractors/Loaders/Backhoes	1	8.00	110	0.37
Grading 4	Aerial Lifts	0	8.00	48	0.31
Grading 4	Cranes	0	8.00	215	0.29
Grading 4	Crawler Tractors	1	8.00	410	0.43
Grading 4	Excavators	0	8.00	162	0.38
Grading 4	Forklifts	0	8.00	110	0.20
Grading 4	Generator Sets	0	8.00	84	0.74
Grading 4	Graders	1	8.00	302	0.41
Grading 4	Other Construction Equipment	1	8.00	354	0.42
Grading 4	Other General Industrial Equipment	1	8.00	330	0.34
Grading 4	Rubber Tired Dozers	0	8.00	255	0.40
Grading 4	Rubber Tired Loaders	1	8.00	350	0.36
Grading 4	Scrapers	3	8.00	452	0.48
Grading 4	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Grading 4	Welders	0	8.00	46	0.45
Concrete Shell 3	Cranes	0	7.00	226	0.29
Concrete Shell 3	Forklifts	0	8.00	89	0.20
Concrete Shell 3	Generator Sets	0	8.00	84	0.74
Concrete Shell 3	Other Construction Equipment	4	8.00	354	0.42
Concrete Shell 3	Tractors/Loaders/Backhoes	2	8.00	110	0.37
Concrete Shell 3	Welders	0	8.00	46	0.45
Trenching 4	Excavators	1	8.00	268	0.38
Trenching 4	Other Construction Equipment	1	8.00	354	0.42
Trenching 4	Other Material Handling Equipment	1	8.00	249	0.40
Trenching 4	Rubber Tired Loaders	1	8.00	350	0.36
Trenching 4	Tractors/Loaders/Backhoes	1	8.00	110	0.37

Concrete Shell 4	Air Compressors	0	6.00	78	0.48
Concrete Shell 4	Cranes	0	7.00	226	0.29
Concrete Shell 4	Excavators	0	8.00	268	0.38
Concrete Shell 4	Forklifts	0	8.00	89	0.20
Concrete Shell 4	Generator Sets	0	8.00	84	0.74
Concrete Shell 4	Other Construction Equipment	4	8.00	354	0.42
Concrete Shell 4	Other Material Handling Equipment	0	8.00	249	0.40
Concrete Shell 4	Rubber Tired Loaders	0	8.00	350	0.36
Concrete Shell 4	Tractors/Loaders/Backhoes	2	8.00	110	0.37
Concrete Shell 4	Welders	0	8.00	46	0.45
Steel & Roof 1	Aerial Lifts	0	8.00	48	0.31
Steel & Roof 1	Air Compressors	0	6.00	78	0.48
Steel & Roof 1	Cranes	2	8.00	215	0.29
Steel & Roof 1	Forklifts	0	8.00	89	0.20
Steel & Roof 1	Forklifts	0	8.00	89	0.20
Steel & Roof 1	Generator Sets	0	8.00	84	0.74
Steel & Roof 1	Other Construction Equipment	3	8.00	354	0.42
Steel & Roof 1	Pavers	0	8.00	125	0.42
Steel & Roof 1	Paving Equipment	0	8.00	130	0.36
Steel & Roof 1	Rollers	0	8.00	80	0.38
Steel & Roof 1	Rubber Tired Loaders	0	8.00	350	0.36
Steel & Roof 1	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Steel & Roof 1	Trenchers	0	8.00	81	0.50
Steel & Roof 1	Welders	0	8.00	46	0.45
Steel & Roof 2	Aerial Lifts	0	8.00	48	0.31
Steel & Roof 2	Air Compressors	0	6.00	78	0.48
Steel & Roof 2	Cranes	1	8.00	215	0.29
Steel & Roof 2	Crawler Tractors	0	8.00	410	0.43

Steel & Roof 2	Excavators	0	8.00	162	0.38
Steel & Roof 2	Forklifts	0	8.00	89	0.20
Steel & Roof 2	Forklifts	0	8.00	89	0.20
Steel & Roof 2	Generator Sets	0	8.00	84	0.74
Steel & Roof 2	Graders	0	8.00	302	0.41
Steel & Roof 2	Off-Highway Tractors	0	8.00	485	0.44
Steel & Roof 2	Other Construction Equipment	2	8.00	354	0.42
Steel & Roof 2	Rubber Tired Dozers	0	8.00	255	0.40
Steel & Roof 2	Scrapers	0	8.00	452	0.48
Steel & Roof 2	Surfacing Equipment	0	8.00	350	0.30
Steel & Roof 2	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Steel & Roof 2	Welders	0	8.00	46	0.45
Steel & Roof 3	Aerial Lifts	0	8.00	48	0.31
Steel & Roof 3	Cranes	1	8.00	215	0.29
Steel & Roof 3	Forklifts	0	8.00	110	0.20
Steel & Roof 3	Generator Sets	0	8.00	84	0.74
Steel & Roof 3	Other Construction Equipment	2	8.00	354	0.42
Steel & Roof 3	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Steel & Roof 3	Welders	0	8.00	46	0.45
Roofing & Overhead Work 2	Aerial Lifts	1	8.00	48	0.31
Roofing & Overhead Work 2	Air Compressors	0	6.00	78	0.48
Roofing & Overhead Work 2	Cranes	0	8.00	215	0.29
Roofing & Overhead Work 2	Crawler Tractors	0	8.00	249	0.43
Roofing & Overhead Work 2	Excavators	0	8.00	268	0.38
Roofing & Overhead Work 2	Forklifts	1	8.00	110	0.20
Roofing & Overhead Work 2	Generator Sets	0	8.00	84	0.74
Roofing & Overhead Work 2	Graders	0	8.00	302	0.41
Roofing & Overhead Work 2	Graders	0	8.00	302	0.41

Roofing & Overhead Work 2	Off-Highway Tractors	0	8.00	451	0.44
Roofing & Overhead Work 2	Other Construction Equipment	2	8.00	354	0.42
Roofing & Overhead Work 2	Other General Industrial Equipment	0	8.00	330	0.34
Roofing & Overhead Work 2	Pavers	0	8.00	125	0.42
Roofing & Overhead Work 2	Paving Equipment	0	8.00	130	0.36
Roofing & Overhead Work 2	Rollers	0	8.00	80	0.38
Roofing & Overhead Work 2	Rubber Tired Dozers	0	8.00	255	0.40
Roofing & Overhead Work 2	Rubber Tired Loaders	0	8.00	350	0.36
Roofing & Overhead Work 2	Scrapers	0	8.00	330	0.48
Roofing & Overhead Work 2	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Roofing & Overhead Work 2	Welders	0	8.00	46	0.45
Roofing & Overhead Work 1	Aerial Lifts	3	8.00	48	0.31
Roofing & Overhead Work 1	Air Compressors	0	6.00	78	0.48
Roofing & Overhead Work 1	Cranes	0	8.00	215	0.29
Roofing & Overhead Work 1	Excavators	0	8.00	268	0.38
Roofing & Overhead Work 1	Forklifts	2	8.00	110	0.20
Roofing & Overhead Work 1	Generator Sets	0	8.00	84	0.74
Roofing & Overhead Work 1	Other Construction Equipment	3	8.00	354	0.42
Roofing & Overhead Work 1	Other Material Handling Equipment	0	8.00	249	0.43
Roofing & Overhead Work 1	Rubber Tired Loaders	0	8.00	350	0.36
Roofing & Overhead Work 1	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Roofing & Overhead Work 1	Welders	0	8.00	46	0.45
Paving 2	Aerial Lifts	0	8.00	48	0.31
Paving 2	Cranes	0	7.00	226	0.29
Paving 2	Crawler Tractors	0	8.00	249	0.43
Paving 2	Excavators	0	8.00	268	0.38
Paving 2	Forklifts	0	8.00	110	0.20
Paving 2	Generator Sets	0	8.00	84	0.74

Paving 2	Graders	0	8.00	174	0.41
Paving 2	Other Construction Equipment	1	8.00	354	0.42
Paving 2	Pavers	0	8.00	125	0.42
Paving 2	Paving Equipment	0	8.00	130	0.36
Paving 2	Rollers	0	8.00	80	0.38
Paving 2	Rubber Tired Dozers	0	8.00	255	0.40
Paving 2	Rubber Tired Loaders	1	8.00	350	0.36
Paving 2	Scrapers	0	8.00	361	0.48
Paving 2	Surfacing Equipment	0	8.00	350	0.30
Paving 2	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Paving 2	Trenchers	1	8.00	81	0.50
Paving 2	Welders	0	8.00	46	0.45
Architectural Coating 2	Air Compressors	0	6.00	78	0.48
Architectural Coating 2	Other Construction Equipment	1	8.00	354	0.42
Misc. Finishes 2	Aerial Lifts	1	8.00	48	0.31
Misc. Finishes 2	Cranes	0	7.00	226	0.29
Misc. Finishes 2	Forklifts	0	8.00	89	0.20
Misc. Finishes 2	Generator Sets	0	8.00	84	0.74
Misc. Finishes 2	Other Construction Equipment	1	8.00	354	0.42
Misc. Finishes 2	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Misc. Finishes 2	Welders	0	8.00	46	0.45
Roofing & Overhead Work 3	Aerial Lifts	1	8.00	48	0.31
Roofing & Overhead Work 3	Air Compressors	0	6.00	78	0.48
Roofing & Overhead Work 3	Cranes	0	7.00	226	0.29
Roofing & Overhead Work 3	Crawler Tractors	0	8.00	249	0.43
Roofing & Overhead Work 3	Excavators	0	8.00	268	0.38
Roofing & Overhead Work 3	Forklifts	1	8.00	110	0.20
Roofing & Overhead Work 3	Generator Sets	0	8.00	84	0.74

Roofing & Overhead Work 3	Other Construction Equipment	2	8.00	354	0.42
Roofing & Overhead Work 3	Rubber Tired Dozers	0	8.00	255	0.40
Roofing & Overhead Work 3	Surfacing Equipment	0	8.00	350	0.30
Roofing & Overhead Work 3	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Roofing & Overhead Work 3	Welders	0	8.00	46	0.45
Steel & Roof 4	Cranes	1	8.00	215	0.29
Steel & Roof 4	Forklifts	0	8.00	89	0.20
Steel & Roof 4	Generator Sets	0	8.00	84	0.74
Steel & Roof 4	Other Construction Equipment	2	8.00	354	0.42
Steel & Roof 4	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Steel & Roof 4	Welders	0	8.00	46	0.45
Paving 3	Other Construction Equipment	1	8.00	354	0.42
Paving 3	Pavers	0	8.00	125	0.42
Paving 3	Paving Equipment	0	8.00	130	0.36
Paving 3	Rollers	0	8.00	80	0.38
Paving 3	Rubber Tired Loaders	1	8.00	350	0.36
Paving 3	Trenchers	1	8.00	81	0.50
Architectural Coating 1	Air Compressors	0	6.00	78	0.48
Architectural Coating 1	Other Construction Equipment	4	8.00	354	0.42
Misc. Finishes 3	Aerial Lifts	1	8.00	48	0.31
Misc. Finishes 3	Cranes	0	7.00	226	0.29
Misc. Finishes 3	Forklifts	0	8.00	89	0.20
Misc. Finishes 3	Generator Sets	0	8.00	84	0.74
Misc. Finishes 3	Other Construction Equipment	1	8.00	354	0.42
Misc. Finishes 3	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Misc. Finishes 3	Welders	0	8.00	46	0.45
Architectural Coating 3	Air Compressors	0	6.00	78	0.48
Architectural Coating 3	Other Construction Equipment	1	8.00	354	0.42

Paving 1	Other Construction Equipment	1	8.00	354	0.42
Paving 1	Pavers	0	8.00	125	0.42
Paving 1	Paving Equipment	0	8.00	130	0.36
Paving 1	Rollers	0	8.00	80	0.38
Paving 1	Rubber Tired Loaders	2	8.00	350	0.36
Paving 1	Trenchers	1	8.00	81	0.50
Roofing & Overhead Work 4	Aerial Lifts	1	8.00	48	0.31
Roofing & Overhead Work 4	Air Compressors	0	6.00	78	0.48
Roofing & Overhead Work 4	Concrete/Industrial Saws	0	8.00	81	0.73
Roofing & Overhead Work 4	Cranes	0	7.00	226	0.29
Roofing & Overhead Work 4	Crawler Tractors	0	8.00	410	0.43
Roofing & Overhead Work 4	Crawler Tractors	0	8.00	249	0.43
Roofing & Overhead Work 4	Excavators	0	8.00	162	0.38
Roofing & Overhead Work 4	Excavators	0	8.00	268	0.38
Roofing & Overhead Work 4	Forklifts	1	8.00	110	0.20
Roofing & Overhead Work 4	Generator Sets	0	8.00	84	0.74
Roofing & Overhead Work 4	Graders	0	8.00	302	0.41
Roofing & Overhead Work 4	Off-Highway Tractors	0	8.00	451	0.44
Roofing & Overhead Work 4	Off-Highway Tractors	0	8.00	485	0.44
Roofing & Overhead Work 4	Other Construction Equipment	2	8.00	354	0.42
Roofing & Overhead Work 4	Other General Industrial Equipment	0	8.00	330	0.37
Roofing & Overhead Work 4	Pavers	0	8.00	125	0.42
Roofing & Overhead Work 4	Paving Equipment	0	8.00	130	0.36
Roofing & Overhead Work 4	Rollers	0	8.00	80	0.38
Roofing & Overhead Work 4	Rubber Tired Dozers	0	8.00	451	0.40
Roofing & Overhead Work 4	Rubber Tired Loaders	0	8.00	350	0.37
Roofing & Overhead Work 4	Scrapers	0	8.00	452	0.48
Roofing & Overhead Work 4	Surfacing Equipment	0	8.00	350	0.30

Roofing & Overhead Work 4	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Roofing & Overhead Work 4	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Roofing & Overhead Work 4	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Roofing & Overhead Work 4	Welders	0	8.00	46	0.45
Architectural Coating 4	Air Compressors	0	6.00	78	0.48
Architectural Coating 4	Other Construction Equipment	1	8.00	354	0.42
Paving 4	Other Construction Equipment	1	8.00	354	0.42
Paving 4	Pavers	0	8.00	125	0.42
Paving 4	Paving Equipment	0	8.00	130	0.36
Paving 4	Rollers	0	8.00	80	0.38
Paving 4	Rubber Tired Loaders	1	8.00	350	0.36
Paving 4	Trenchers	1	8.00	81	0.50
Misc. Finishes 4	Aerial Lifts	1	8.00	48	0.31
Misc. Finishes 4	Cranes	0	7.00	226	0.29
Misc. Finishes 4	Forklifts	0	8.00	89	0.20
Misc. Finishes 4	Generator Sets	0	8.00	84	0.74
Misc. Finishes 4	Other Construction Equipment	1	8.00	354	0.42
Misc. Finishes 4	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Misc. Finishes 4	Welders	0	8.00	46	0.45
Misc. Finishes 1	Aerial Lifts	2	8.00	48	0.31
Misc. Finishes 1	Cranes	0	7.00	226	0.29
Misc. Finishes 1	Forklifts	0	8.00	89	0.20
Misc. Finishes 1	Generator Sets	0	8.00	84	0.74
Misc. Finishes 1	Other Construction Equipment	2	8.00	354	0.42
Misc. Finishes 1	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Misc. Finishes 1	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading 1	19	48.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading 2	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 1	10	25.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Shell 1	9	125.00	416.00	10,384.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 2	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Shell 2	6	40.00	416.00	1,374.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading 3	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 3	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading 4	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Shell 3	6	40.00	416.00	1,078.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 4	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Shell 4	6	40.00	416.00	1,758.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Steel & Roof 1	5	125.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Steel & Roof 2	3	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Steel & Roof 3	3	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Roofing & Overhead Work 2	4	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Roofing & Overhead Work 1	8	125.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving 2	3	8.00	0.00	728.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 2	1	213.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Misc. Finishes 2	2	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Roofing & Overhead Work 3	4	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Steel & Roof 4	3	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving 3	3	8.00	0.00	778.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 1	4	213.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Misc. Finishes 3	2	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 3	1	213.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Paving 1	4	10.00	0.00	4,152.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Roofing & Overhead Work 4	4	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 4	1	213.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving 4	3	8.00	0.00	838.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Misc. Finishes 4	2	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Misc. Finishes 1	4	125.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Grading 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3503	0.0000	0.3503	0.0977	0.0000	0.0977	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5124	6.4082	3.9145	5.8500e-003		0.2573	0.2573		0.2367	0.2367	0.0000	551.4246	551.4246	0.1663	0.0000	554.9175
Total	0.5124	6.4082	3.9145	5.8500e-003	0.3503	0.2573	0.6076	0.0977	0.2367	0.3344	0.0000	551.4246	551.4246	0.1663	0.0000	554.9175

3.2 Grading 1 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7100e-003	5.4300e-003	0.0547	1.3000e-004	0.0119	8.0000e-005	0.0120	3.1500e-003	7.0000e-005	3.2200e-003	0.0000	10.0701	10.0701	4.7000e-004	0.0000	10.0799
Total	3.7100e-003	5.4300e-003	0.0547	1.3000e-004	0.0119	8.0000e-005	0.0120	3.1500e-003	7.0000e-005	3.2200e-003	0.0000	10.0701	10.0701	4.7000e-004	0.0000	10.0799

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1366	0.0000	0.1366	0.0381	0.0000	0.0381	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1328	1.3915	3.0024	5.8500e-003		0.0559	0.0559		0.0539	0.0539	0.0000	551.4239	551.4239	0.1663	0.0000	554.9169
Total	0.1328	1.3915	3.0024	5.8500e-003	0.1366	0.0559	0.1925	0.0381	0.0539	0.0920	0.0000	551.4239	551.4239	0.1663	0.0000	554.9169

3.2 Grading 1 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7100e-003	5.4300e-003	0.0547	1.3000e-004	0.0119	8.0000e-005	0.0120	3.1500e-003	7.0000e-005	3.2200e-003	0.0000	10.0701	10.0701	4.7000e-004	0.0000	10.0799
Total	3.7100e-003	5.4300e-003	0.0547	1.3000e-004	0.0119	8.0000e-005	0.0120	3.1500e-003	7.0000e-005	3.2200e-003	0.0000	10.0701	10.0701	4.7000e-004	0.0000	10.0799

3.3 Grading 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0297	0.0000	0.0297	3.2100e-003	0.0000	3.2100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0670	0.8435	0.4878	8.1000e-004		0.0332	0.0332		0.0305	0.0305	0.0000	76.4976	76.4976	0.0231	0.0000	76.9822
Total	0.0670	0.8435	0.4878	8.1000e-004	0.0297	0.0332	0.0629	3.2100e-003	0.0305	0.0337	0.0000	76.4976	76.4976	0.0231	0.0000	76.9822

3.3 Grading 2 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8000e-004	7.0000e-004	7.0900e-003	2.0000e-005	1.5400e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.3054	1.3054	6.0000e-005	0.0000	1.3067
Total	4.8000e-004	7.0000e-004	7.0900e-003	2.0000e-005	1.5400e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.3054	1.3054	6.0000e-005	0.0000	1.3067

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0116	0.0000	0.0116	1.2500e-003	0.0000	1.2500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0131	0.1512	0.3870	8.1000e-004		5.5200e-003	5.5200e-003		5.5200e-003	5.5200e-003	0.0000	76.4975	76.4975	0.0231	0.0000	76.9821
Total	0.0131	0.1512	0.3870	8.1000e-004	0.0116	5.5200e-003	0.0171	1.2500e-003	5.5200e-003	6.7700e-003	0.0000	76.4975	76.4975	0.0231	0.0000	76.9821

3.3 Grading 2 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8000e-004	7.0000e-004	7.0900e-003	2.0000e-005	1.5400e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.3054	1.3054	6.0000e-005	0.0000	1.3067
Total	4.8000e-004	7.0000e-004	7.0900e-003	2.0000e-005	1.5400e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.3054	1.3054	6.0000e-005	0.0000	1.3067

3.4 Trenching 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3082	3.8105	1.8246	4.3500e-003		0.1529	0.1529		0.1407	0.1407	0.0000	409.8082	409.8082	0.1236	0.0000	412.4040
Total	0.3082	3.8105	1.8246	4.3500e-003		0.1529	0.1529		0.1407	0.1407	0.0000	409.8082	409.8082	0.1236	0.0000	412.4040

3.4 Trenching 1 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2100e-003	6.1500e-003	0.0621	1.5000e-004	0.0135	9.0000e-005	0.0136	3.5800e-003	8.0000e-005	3.6500e-003	0.0000	11.4221	11.4221	5.3000e-004	0.0000	11.4333
Total	4.2100e-003	6.1500e-003	0.0621	1.5000e-004	0.0135	9.0000e-005	0.0136	3.5800e-003	8.0000e-005	3.6500e-003	0.0000	11.4221	11.4221	5.3000e-004	0.0000	11.4333

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0815	1.2180	2.2283	4.3500e-003		0.0516	0.0516		0.0516	0.0516	0.0000	409.8077	409.8077	0.1236	0.0000	412.4035
Total	0.0815	1.2180	2.2283	4.3500e-003		0.0516	0.0516		0.0516	0.0516	0.0000	409.8077	409.8077	0.1236	0.0000	412.4035

3.4 Trenching 1 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2100e-003	6.1500e-003	0.0621	1.5000e-004	0.0135	9.0000e-005	0.0136	3.5800e-003	8.0000e-005	3.6500e-003	0.0000	11.4221	11.4221	5.3000e-004	0.0000	11.4333
Total	4.2100e-003	6.1500e-003	0.0621	1.5000e-004	0.0135	9.0000e-005	0.0136	3.5800e-003	8.0000e-005	3.6500e-003	0.0000	11.4221	11.4221	5.3000e-004	0.0000	11.4333

3.5 Concrete Shell 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2287	2.8039	1.6770	3.2200e-003		0.1276	0.1276		0.1174	0.1174	0.0000	303.1787	303.1787	0.0915	0.0000	305.0991
Total	0.2287	2.8039	1.6770	3.2200e-003		0.1276	0.1276		0.1174	0.1174	0.0000	303.1787	303.1787	0.0915	0.0000	305.0991

3.5 Concrete Shell 1 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0807	1.4507	0.9900	3.6900e-003	0.0893	0.0252	0.1145	0.0245	0.0232	0.0477	0.0000	337.8962	337.8962	2.1500e-003	0.0000	337.9414
Vendor	0.1399	1.4959	1.7508	3.5800e-003	0.1058	0.0279	0.1337	0.0303	0.0256	0.0559	0.0000	325.7243	325.7243	2.1600e-003	0.0000	325.7696
Worker	0.0176	0.0258	0.2596	6.4000e-004	0.0563	3.6000e-004	0.0567	0.0150	3.3000e-004	0.0153	0.0000	47.7863	47.7863	2.2300e-003	0.0000	47.8330
Total	0.2382	2.9724	3.0004	7.9100e-003	0.2514	0.0535	0.3048	0.0697	0.0492	0.1189	0.0000	711.4069	711.4069	6.5400e-003	0.0000	711.5441

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0464	0.4623	1.6182	3.2200e-003		0.0269	0.0269		0.0269	0.0269	0.0000	303.1783	303.1783	0.0915	0.0000	305.0988
Total	0.0464	0.4623	1.6182	3.2200e-003		0.0269	0.0269		0.0269	0.0269	0.0000	303.1783	303.1783	0.0915	0.0000	305.0988

3.5 Concrete Shell 1 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0807	1.4507	0.9900	3.6900e-003	0.0893	0.0252	0.1145	0.0245	0.0232	0.0477	0.0000	337.8962	337.8962	2.1500e-003	0.0000	337.9414
Vendor	0.1399	1.4959	1.7508	3.5800e-003	0.1058	0.0279	0.1337	0.0303	0.0256	0.0559	0.0000	325.7243	325.7243	2.1600e-003	0.0000	325.7696
Worker	0.0176	0.0258	0.2596	6.4000e-004	0.0563	3.6000e-004	0.0567	0.0150	3.3000e-004	0.0153	0.0000	47.7863	47.7863	2.2300e-003	0.0000	47.8330
Total	0.2382	2.9724	3.0004	7.9100e-003	0.2514	0.0535	0.3048	0.0697	0.0492	0.1189	0.0000	711.4069	711.4069	6.5400e-003	0.0000	711.5441

3.6 Trenching 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0544	0.6726	0.3202	7.7000e-004		0.0270	0.0270		0.0248	0.0248	0.0000	72.1163	72.1163	0.0218	0.0000	72.5731
Total	0.0544	0.6726	0.3202	7.7000e-004		0.0270	0.0270		0.0248	0.0248	0.0000	72.1163	72.1163	0.0218	0.0000	72.5731

3.6 Trenching 2 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.6000e-004	1.1100e-003	0.0112	3.0000e-005	2.4300e-003	2.0000e-005	2.4400e-003	6.5000e-004	1.0000e-005	6.6000e-004	0.0000	2.0606	2.0606	1.0000e-004	0.0000	2.0627
Total	7.6000e-004	1.1100e-003	0.0112	3.0000e-005	2.4300e-003	2.0000e-005	2.4400e-003	6.5000e-004	1.0000e-005	6.6000e-004	0.0000	2.0606	2.0606	1.0000e-004	0.0000	2.0627

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0143	0.2119	0.3915	7.7000e-004		8.9700e-003	8.9700e-003		8.9700e-003	8.9700e-003	0.0000	72.1163	72.1163	0.0218	0.0000	72.5731
Total	0.0143	0.2119	0.3915	7.7000e-004		8.9700e-003	8.9700e-003		8.9700e-003	8.9700e-003	0.0000	72.1163	72.1163	0.0218	0.0000	72.5731

3.6 Trenching 2 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.6000e-004	1.1100e-003	0.0112	3.0000e-005	2.4300e-003	2.0000e-005	2.4400e-003	6.5000e-004	1.0000e-005	6.6000e-004	0.0000	2.0606	2.0606	1.0000e-004	0.0000	2.0627
Total	7.6000e-004	1.1100e-003	0.0112	3.0000e-005	2.4300e-003	2.0000e-005	2.4400e-003	6.5000e-004	1.0000e-005	6.6000e-004	0.0000	2.0606	2.0606	1.0000e-004	0.0000	2.0627

3.7 Concrete Shell 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1000	1.2570	0.7360	1.4600e-003		0.0537	0.0537		0.0494	0.0494	0.0000	137.9024	137.9024	0.0416	0.0000	138.7759
Total	0.1000	1.2570	0.7360	1.4600e-003		0.0537	0.0537		0.0494	0.0494	0.0000	137.9024	137.9024	0.0416	0.0000	138.7759

3.7 Concrete Shell 2 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0107	0.1920	0.1310	4.9000e-004	0.0118	3.3300e-003	0.0151	3.2400e-003	3.0700e-003	6.3100e-003	0.0000	44.7101	44.7101	2.8000e-004	0.0000	44.7161
Vendor	0.0853	0.9122	1.0676	2.1800e-003	0.0645	0.0170	0.0815	0.0185	0.0156	0.0341	0.0000	198.6124	198.6124	1.3200e-003	0.0000	198.6400
Worker	3.4400e-003	5.0200e-003	0.0507	1.2000e-004	0.0110	7.0000e-005	0.0111	2.9200e-003	6.0000e-005	2.9800e-003	0.0000	9.3242	9.3242	4.3000e-004	0.0000	9.3333
Total	0.0994	1.1091	1.2492	2.7900e-003	0.0873	0.0204	0.1077	0.0246	0.0188	0.0434	0.0000	252.6466	252.6466	2.0300e-003	0.0000	252.6894

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0200	0.1665	0.7097	1.4600e-003		8.9900e-003	8.9900e-003		8.9900e-003	8.9900e-003	0.0000	137.9022	137.9022	0.0416	0.0000	138.7758
Total	0.0200	0.1665	0.7097	1.4600e-003		8.9900e-003	8.9900e-003		8.9900e-003	8.9900e-003	0.0000	137.9022	137.9022	0.0416	0.0000	138.7758

3.7 Concrete Shell 2 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0107	0.1920	0.1310	4.9000e-004	0.0118	3.3300e-003	0.0151	3.2400e-003	3.0700e-003	6.3100e-003	0.0000	44.7101	44.7101	2.8000e-004	0.0000	44.7161
Vendor	0.0853	0.9122	1.0676	2.1800e-003	0.0645	0.0170	0.0815	0.0185	0.0156	0.0341	0.0000	198.6124	198.6124	1.3200e-003	0.0000	198.6400
Worker	3.4400e-003	5.0200e-003	0.0507	1.2000e-004	0.0110	7.0000e-005	0.0111	2.9200e-003	6.0000e-005	2.9800e-003	0.0000	9.3242	9.3242	4.3000e-004	0.0000	9.3333
Total	0.0994	1.1091	1.2492	2.7900e-003	0.0873	0.0204	0.1077	0.0246	0.0188	0.0434	0.0000	252.6466	252.6466	2.0300e-003	0.0000	252.6894

3.8 Grading 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0255	0.0000	0.0255	2.7500e-003	0.0000	2.7500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0571	0.7187	0.4156	6.9000e-004		0.0283	0.0283		0.0260	0.0260	0.0000	65.0874	65.0874	0.0196	0.0000	65.4997
Total	0.0571	0.7187	0.4156	6.9000e-004	0.0255	0.0283	0.0537	2.7500e-003	0.0260	0.0288	0.0000	65.0874	65.0874	0.0196	0.0000	65.4997

3.8 Grading 3 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	6.0000e-004	6.0800e-003	1.0000e-005	1.3200e-003	1.0000e-005	1.3300e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.1189	1.1189	5.0000e-005	0.0000	1.1200
Total	4.1000e-004	6.0000e-004	6.0800e-003	1.0000e-005	1.3200e-003	1.0000e-005	1.3300e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.1189	1.1189	5.0000e-005	0.0000	1.1200

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.9300e-003	0.0000	9.9300e-003	1.0700e-003	0.0000	1.0700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0111	0.1272	0.3290	6.9000e-004		4.6400e-003	4.6400e-003		4.6400e-003	4.6400e-003	0.0000	65.0874	65.0874	0.0196	0.0000	65.4996
Total	0.0111	0.1272	0.3290	6.9000e-004	9.9300e-003	4.6400e-003	0.0146	1.0700e-003	4.6400e-003	5.7100e-003	0.0000	65.0874	65.0874	0.0196	0.0000	65.4996

3.8 Grading 3 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	6.0000e-004	6.0800e-003	1.0000e-005	1.3200e-003	1.0000e-005	1.3300e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.1189	1.1189	5.0000e-005	0.0000	1.1200
Total	4.1000e-004	6.0000e-004	6.0800e-003	1.0000e-005	1.3200e-003	1.0000e-005	1.3300e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.1189	1.1189	5.0000e-005	0.0000	1.1200

3.9 Trenching 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0528	0.6529	0.3108	7.4000e-004		0.0262	0.0262		0.0241	0.0241	0.0000	69.9953	69.9953	0.0211	0.0000	70.4386
Total	0.0528	0.6529	0.3108	7.4000e-004		0.0262	0.0262		0.0241	0.0241	0.0000	69.9953	69.9953	0.0211	0.0000	70.4386

3.9 Trenching 3 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4000e-004	1.0800e-003	0.0109	3.0000e-005	2.3600e-003	1.0000e-005	2.3700e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	2.0000	2.0000	9.0000e-005	0.0000	2.0020
Total	7.4000e-004	1.0800e-003	0.0109	3.0000e-005	2.3600e-003	1.0000e-005	2.3700e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	2.0000	2.0000	9.0000e-005	0.0000	2.0020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0138	0.2056	0.3800	7.4000e-004		8.7000e-003	8.7000e-003		8.7000e-003	8.7000e-003	0.0000	69.9952	69.9952	0.0211	0.0000	70.4386
Total	0.0138	0.2056	0.3800	7.4000e-004		8.7000e-003	8.7000e-003		8.7000e-003	8.7000e-003	0.0000	69.9952	69.9952	0.0211	0.0000	70.4386

3.9 Trenching 3 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4000e-004	1.0800e-003	0.0109	3.0000e-005	2.3600e-003	1.0000e-005	2.3700e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	2.0000	2.0000	9.0000e-005	0.0000	2.0020
Total	7.4000e-004	1.0800e-003	0.0109	3.0000e-005	2.3600e-003	1.0000e-005	2.3700e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	2.0000	2.0000	9.0000e-005	0.0000	2.0020

3.10 Grading 4 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0382	0.0000	0.0382	4.1200e-003	0.0000	4.1200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0856	1.0780	0.6234	1.0400e-003		0.0424	0.0424		0.0390	0.0390	0.0000	97.6311	97.6311	0.0295	0.0000	98.2496
Total	0.0856	1.0780	0.6234	1.0400e-003	0.0382	0.0424	0.0806	4.1200e-003	0.0390	0.0431	0.0000	97.6311	97.6311	0.0295	0.0000	98.2496

3.10 Grading 4 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2000e-004	9.0000e-004	9.1200e-003	2.0000e-005	1.9800e-003	1.0000e-005	1.9900e-003	5.3000e-004	1.0000e-005	5.4000e-004	0.0000	1.6784	1.6784	8.0000e-005	0.0000	1.6800
Total	6.2000e-004	9.0000e-004	9.1200e-003	2.0000e-005	1.9800e-003	1.0000e-005	1.9900e-003	5.3000e-004	1.0000e-005	5.4000e-004	0.0000	1.6784	1.6784	8.0000e-005	0.0000	1.6800

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0149	0.0000	0.0149	1.6100e-003	0.0000	1.6100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0167	0.1908	0.4935	1.0400e-003		6.9600e-003	6.9600e-003		6.9600e-003	6.9600e-003	0.0000	97.6310	97.6310	0.0295	0.0000	98.2495
Total	0.0167	0.1908	0.4935	1.0400e-003	0.0149	6.9600e-003	0.0219	1.6100e-003	6.9600e-003	8.5700e-003	0.0000	97.6310	97.6310	0.0295	0.0000	98.2495

3.10 Grading 4 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2000e-004	9.0000e-004	9.1200e-003	2.0000e-005	1.9800e-003	1.0000e-005	1.9900e-003	5.3000e-004	1.0000e-005	5.4000e-004	0.0000	1.6784	1.6784	8.0000e-005	0.0000	1.6800
Total	6.2000e-004	9.0000e-004	9.1200e-003	2.0000e-005	1.9800e-003	1.0000e-005	1.9900e-003	5.3000e-004	1.0000e-005	5.4000e-004	0.0000	1.6784	1.6784	8.0000e-005	0.0000	1.6800

3.11 Concrete Shell 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0940	1.1816	0.6918	1.3800e-003		0.0505	0.0505		0.0465	0.0465	0.0000	129.6283	129.6283	0.0391	0.0000	130.4494
Total	0.0940	1.1816	0.6918	1.3800e-003		0.0505	0.0505		0.0465	0.0465	0.0000	129.6283	129.6283	0.0391	0.0000	130.4494

3.11 Concrete Shell 3 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.3800e-003	0.1506	0.1028	3.8000e-004	9.2700e-003	2.6200e-003	0.0119	2.5400e-003	2.4100e-003	4.9500e-003	0.0000	35.0782	35.0782	2.2000e-004	0.0000	35.0829
Vendor	0.0802	0.8574	1.0035	2.0500e-003	0.0607	0.0160	0.0766	0.0174	0.0147	0.0321	0.0000	186.6957	186.6957	1.2400e-003	0.0000	186.7216
Worker	3.2300e-003	4.7200e-003	0.0476	1.2000e-004	0.0103	7.0000e-005	0.0104	2.7400e-003	6.0000e-005	2.8000e-003	0.0000	8.7647	8.7647	4.1000e-004	0.0000	8.7733
Total	0.0918	1.0128	1.1539	2.5500e-003	0.0803	0.0187	0.0989	0.0226	0.0172	0.0398	0.0000	230.5386	230.5386	1.8700e-003	0.0000	230.5778

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0188	0.1565	0.6671	1.3800e-003		8.4500e-003	8.4500e-003		8.4500e-003	8.4500e-003	0.0000	129.6281	129.6281	0.0391	0.0000	130.4492
Total	0.0188	0.1565	0.6671	1.3800e-003		8.4500e-003	8.4500e-003		8.4500e-003	8.4500e-003	0.0000	129.6281	129.6281	0.0391	0.0000	130.4492

3.11 Concrete Shell 3 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.3800e-003	0.1506	0.1028	3.8000e-004	9.2700e-003	2.6200e-003	0.0119	2.5400e-003	2.4100e-003	4.9500e-003	0.0000	35.0782	35.0782	2.2000e-004	0.0000	35.0829
Vendor	0.0802	0.8574	1.0035	2.0500e-003	0.0607	0.0160	0.0766	0.0174	0.0147	0.0321	0.0000	186.6957	186.6957	1.2400e-003	0.0000	186.7216
Worker	3.2300e-003	4.7200e-003	0.0476	1.2000e-004	0.0103	7.0000e-005	0.0104	2.7400e-003	6.0000e-005	2.8000e-003	0.0000	8.7647	8.7647	4.1000e-004	0.0000	8.7733
Total	0.0918	1.0128	1.1539	2.5500e-003	0.0803	0.0187	0.0989	0.0226	0.0172	0.0398	0.0000	230.5386	230.5386	1.8700e-003	0.0000	230.5778

3.12 Trenching 4 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0550	0.6804	0.3258	7.8000e-004		0.0273	0.0273		0.0251	0.0251	0.0000	73.1800	73.1800	0.0221	0.0000	73.6436
Total	0.0550	0.6804	0.3258	7.8000e-004		0.0273	0.0273		0.0251	0.0251	0.0000	73.1800	73.1800	0.0221	0.0000	73.6436

3.12 Trenching 4 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.8000e-004	1.1400e-003	0.0115	3.0000e-005	2.5000e-003	2.0000e-005	2.5200e-003	6.6000e-004	1.0000e-005	6.8000e-004	0.0000	2.1213	2.1213	1.0000e-004	0.0000	2.1233
Total	7.8000e-004	1.1400e-003	0.0115	3.0000e-005	2.5000e-003	2.0000e-005	2.5200e-003	6.6000e-004	1.0000e-005	6.8000e-004	0.0000	2.1213	2.1213	1.0000e-004	0.0000	2.1233

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0145	0.2175	0.3979	7.8000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	73.1799	73.1799	0.0221	0.0000	73.6435
Total	0.0145	0.2175	0.3979	7.8000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	73.1799	73.1799	0.0221	0.0000	73.6435

3.12 Trenching 4 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.8000e-004	1.1400e-003	0.0115	3.0000e-005	2.5000e-003	2.0000e-005	2.5200e-003	6.6000e-004	1.0000e-005	6.8000e-004	0.0000	2.1213	2.1213	1.0000e-004	0.0000	2.1233
Total	7.8000e-004	1.1400e-003	0.0115	3.0000e-005	2.5000e-003	2.0000e-005	2.5200e-003	6.6000e-004	1.0000e-005	6.8000e-004	0.0000	2.1213	2.1213	1.0000e-004	0.0000	2.1233

3.13 Concrete Shell 4 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1000	1.2570	0.7360	1.4600e-003		0.0537	0.0537		0.0494	0.0494	0.0000	137.9024	137.9024	0.0416	0.0000	138.7759
Total	0.1000	1.2570	0.7360	1.4600e-003		0.0537	0.0537		0.0494	0.0494	0.0000	137.9024	137.9024	0.0416	0.0000	138.7759

3.13 Concrete Shell 4 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0137	0.2456	0.1676	6.3000e-004	0.0151	4.2700e-003	0.0194	4.1500e-003	3.9200e-003	8.0700e-003	0.0000	57.2055	57.2055	3.6000e-004	0.0000	57.2131
Vendor	0.0853	0.9122	1.0676	2.1800e-003	0.0645	0.0170	0.0815	0.0185	0.0156	0.0341	0.0000	198.6124	198.6124	1.3200e-003	0.0000	198.6400
Worker	3.4400e-003	5.0200e-003	0.0507	1.2000e-004	0.0110	7.0000e-005	0.0111	2.9200e-003	6.0000e-005	2.9800e-003	0.0000	9.3242	9.3242	4.3000e-004	0.0000	9.3333
Total	0.1024	1.1628	1.2859	2.9300e-003	0.0906	0.0213	0.1120	0.0255	0.0196	0.0452	0.0000	265.1420	265.1420	2.1100e-003	0.0000	265.1864

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0200	0.1665	0.7097	1.4600e-003		8.9900e-003	8.9900e-003		8.9900e-003	8.9900e-003	0.0000	137.9022	137.9022	0.0416	0.0000	138.7758
Total	0.0200	0.1665	0.7097	1.4600e-003		8.9900e-003	8.9900e-003		8.9900e-003	8.9900e-003	0.0000	137.9022	137.9022	0.0416	0.0000	138.7758

3.13 Concrete Shell 4 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0137	0.2456	0.1676	6.3000e-004	0.0151	4.2700e-003	0.0194	4.1500e-003	3.9200e-003	8.0700e-003	0.0000	57.2055	57.2055	3.6000e-004	0.0000	57.2131
Vendor	0.0853	0.9122	1.0676	2.1800e-003	0.0645	0.0170	0.0815	0.0185	0.0156	0.0341	0.0000	198.6124	198.6124	1.3200e-003	0.0000	198.6400
Worker	3.4400e-003	5.0200e-003	0.0507	1.2000e-004	0.0110	7.0000e-005	0.0111	2.9200e-003	6.0000e-005	2.9800e-003	0.0000	9.3242	9.3242	4.3000e-004	0.0000	9.3333
Total	0.1024	1.1628	1.2859	2.9300e-003	0.0906	0.0213	0.1120	0.0255	0.0196	0.0452	0.0000	265.1420	265.1420	2.1100e-003	0.0000	265.1864

3.14 Steel & Roof 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0891	1.1375	0.5559	1.1600e-003		0.0452	0.0452		0.0416	0.0416	0.0000	109.2624	109.2624	0.0330	0.0000	109.9545
Total	0.0891	1.1375	0.5559	1.1600e-003		0.0452	0.0452		0.0416	0.0416	0.0000	109.2624	109.2624	0.0330	0.0000	109.9545

3.14 Steel & Roof 1 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0802	0.8574	1.0035	2.0500e-003	0.0607	0.0160	0.0766	0.0174	0.0147	0.0321	0.0000	186.6957	186.6957	1.2400e-003	0.0000	186.7216
Worker	0.0101	0.0148	0.1488	3.6000e-004	0.0323	2.1000e-004	0.0325	8.5700e-003	1.9000e-004	8.7600e-003	0.0000	27.3897	27.3897	1.2800e-003	0.0000	27.4165
Total	0.0903	0.8722	1.1523	2.4100e-003	0.0929	0.0162	0.1091	0.0259	0.0149	0.0408	0.0000	214.0854	214.0854	2.5200e-003	0.0000	214.1381

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0433	0.4295	0.5402	1.1600e-003		0.0188	0.0188		0.0174	0.0174	0.0000	109.2623	109.2623	0.0330	0.0000	109.9544
Total	0.0433	0.4295	0.5402	1.1600e-003		0.0188	0.0188		0.0174	0.0174	0.0000	109.2623	109.2623	0.0330	0.0000	109.9544

3.14 Steel & Roof 1 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0802	0.8574	1.0035	2.0500e-003	0.0607	0.0160	0.0766	0.0174	0.0147	0.0321	0.0000	186.6957	186.6957	1.2400e-003	0.0000	186.7216
Worker	0.0101	0.0148	0.1488	3.6000e-004	0.0323	2.1000e-004	0.0325	8.5700e-003	1.9000e-004	8.7600e-003	0.0000	27.3897	27.3897	1.2800e-003	0.0000	27.4165
Total	0.0903	0.8722	1.1523	2.4100e-003	0.0929	0.0162	0.1091	0.0259	0.0149	0.0408	0.0000	214.0854	214.0854	2.5200e-003	0.0000	214.1381

3.15 Steel & Roof 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0253	0.3252	0.1631	3.4000e-004		0.0127	0.0127		0.0117	0.0117	0.0000	32.2410	32.2410	9.7300e-003	0.0000	32.4452
Total	0.0253	0.3252	0.1631	3.4000e-004		0.0127	0.0127		0.0117	0.0117	0.0000	32.2410	32.2410	9.7300e-003	0.0000	32.4452

3.15 Steel & Roof 2 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0375	0.4013	0.4697	9.6000e-004	0.0284	7.4800e-003	0.0359	8.1300e-003	6.8800e-003	0.0150	0.0000	87.3895	87.3895	5.8000e-004	0.0000	87.4016
Worker	1.5100e-003	2.2100e-003	0.0223	5.0000e-005	4.8400e-003	3.0000e-005	4.8700e-003	1.2800e-003	3.0000e-005	1.3100e-003	0.0000	4.1026	4.1026	1.9000e-004	0.0000	4.1066
Total	0.0391	0.4036	0.4920	1.0100e-003	0.0332	7.5100e-003	0.0407	9.4100e-003	6.9100e-003	0.0163	0.0000	91.4921	91.4921	7.7000e-004	0.0000	91.5083

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0110	0.1043	0.1582	3.4000e-004		4.5100e-003	4.5100e-003		4.1900e-003	4.1900e-003	0.0000	32.2409	32.2409	9.7300e-003	0.0000	32.4452
Total	0.0110	0.1043	0.1582	3.4000e-004		4.5100e-003	4.5100e-003		4.1900e-003	4.1900e-003	0.0000	32.2409	32.2409	9.7300e-003	0.0000	32.4452

3.15 Steel & Roof 2 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0375	0.4013	0.4697	9.6000e-004	0.0284	7.4800e-003	0.0359	8.1300e-003	6.8800e-003	0.0150	0.0000	87.3895	87.3895	5.8000e-004	0.0000	87.4016
Worker	1.5100e-003	2.2100e-003	0.0223	5.0000e-005	4.8400e-003	3.0000e-005	4.8700e-003	1.2800e-003	3.0000e-005	1.3100e-003	0.0000	4.1026	4.1026	1.9000e-004	0.0000	4.1066
Total	0.0391	0.4036	0.4920	1.0100e-003	0.0332	7.5100e-003	0.0407	9.4100e-003	6.9100e-003	0.0163	0.0000	91.4921	91.4921	7.7000e-004	0.0000	91.5083

3.16 Steel & Roof 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0230	0.2957	0.1482	3.1000e-004		0.0116	0.0116		0.0107	0.0107	0.0000	29.3100	29.3100	8.8400e-003	0.0000	29.4956
Total	0.0230	0.2957	0.1482	3.1000e-004		0.0116	0.0116		0.0107	0.0107	0.0000	29.3100	29.3100	8.8400e-003	0.0000	29.4956

3.16 Steel & Roof 3 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0341	0.3649	0.4270	8.7000e-004	0.0258	6.8000e-003	0.0326	7.3900e-003	6.2500e-003	0.0136	0.0000	79.4450	79.4450	5.3000e-004	0.0000	79.4560
Worker	1.3700e-003	2.0100e-003	0.0203	5.0000e-005	4.4000e-003	3.0000e-005	4.4200e-003	1.1700e-003	3.0000e-005	1.1900e-003	0.0000	3.7297	3.7297	1.7000e-004	0.0000	3.7333
Total	0.0355	0.3669	0.4473	9.2000e-004	0.0302	6.8300e-003	0.0370	8.5600e-003	6.2800e-003	0.0148	0.0000	83.1746	83.1746	7.0000e-004	0.0000	83.1893

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0100	0.0948	0.1438	3.1000e-004		4.1000e-003	4.1000e-003		3.8100e-003	3.8100e-003	0.0000	29.3099	29.3099	8.8400e-003	0.0000	29.4956
Total	0.0100	0.0948	0.1438	3.1000e-004		4.1000e-003	4.1000e-003		3.8100e-003	3.8100e-003	0.0000	29.3099	29.3099	8.8400e-003	0.0000	29.4956

3.16 Steel & Roof 3 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0341	0.3649	0.4270	8.7000e-004	0.0258	6.8000e-003	0.0326	7.3900e-003	6.2500e-003	0.0136	0.0000	79.4450	79.4450	5.3000e-004	0.0000	79.4560
Worker	1.3700e-003	2.0100e-003	0.0203	5.0000e-005	4.4000e-003	3.0000e-005	4.4200e-003	1.1700e-003	3.0000e-005	1.1900e-003	0.0000	3.7297	3.7297	1.7000e-004	0.0000	3.7333
Total	0.0355	0.3669	0.4473	9.2000e-004	0.0302	6.8300e-003	0.0370	8.5600e-003	6.2800e-003	0.0148	0.0000	83.1746	83.1746	7.0000e-004	0.0000	83.1893

3.17 Roofing & Overhead Work 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0225	0.2855	0.1654	3.3000e-004		0.0117	0.0117		0.0108	0.0108	0.0000	31.4762	31.4762	9.4900e-003	0.0000	31.6756
Total	0.0225	0.2855	0.1654	3.3000e-004		0.0117	0.0117		0.0108	0.0108	0.0000	31.4762	31.4762	9.4900e-003	0.0000	31.6756

3.17 Roofing & Overhead Work 2 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0392	0.4196	0.4911	1.0000e-003	0.0297	7.8200e-003	0.0375	8.4900e-003	7.1900e-003	0.0157	0.0000	91.3617	91.3617	6.1000e-004	0.0000	91.3744
Worker	1.5800e-003	2.3100e-003	0.0233	6.0000e-005	5.0600e-003	3.0000e-005	5.0900e-003	1.3400e-003	3.0000e-005	1.3700e-003	0.0000	4.2891	4.2891	2.0000e-004	0.0000	4.2933
Total	0.0408	0.4219	0.5144	1.0600e-003	0.0347	7.8500e-003	0.0426	9.8300e-003	7.2200e-003	0.0171	0.0000	95.6508	95.6508	8.1000e-004	0.0000	95.6677

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.5300e-003	0.0545	0.1603	3.3000e-004		3.1200e-003	3.1200e-003		2.9100e-003	2.9100e-003	0.0000	31.4762	31.4762	9.4900e-003	0.0000	31.6756
Total	7.5300e-003	0.0545	0.1603	3.3000e-004		3.1200e-003	3.1200e-003		2.9100e-003	2.9100e-003	0.0000	31.4762	31.4762	9.4900e-003	0.0000	31.6756

3.17 Roofing & Overhead Work 2 - 2016**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0392	0.4196	0.4911	1.0000e-003	0.0297	7.8200e-003	0.0375	8.4900e-003	7.1900e-003	0.0157	0.0000	91.3617	91.3617	6.1000e-004	0.0000	91.3744
Worker	1.5800e-003	2.3100e-003	0.0233	6.0000e-005	5.0600e-003	3.0000e-005	5.0900e-003	1.3400e-003	3.0000e-005	1.3700e-003	0.0000	4.2891	4.2891	2.0000e-004	0.0000	4.2933
Total	0.0408	0.4219	0.5144	1.0600e-003	0.0347	7.8500e-003	0.0426	9.8300e-003	7.2200e-003	0.0171	0.0000	95.6508	95.6508	8.1000e-004	0.0000	95.6677

3.18 Roofing & Overhead Work 1 - 2016**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0695	0.8777	0.5195	1.0300e-003		0.0368	0.0368		0.0338	0.0338	0.0000	96.7040	96.7040	0.0292	0.0000	97.3165
Total	0.0695	0.8777	0.5195	1.0300e-003		0.0368	0.0368		0.0338	0.0338	0.0000	96.7040	96.7040	0.0292	0.0000	97.3165

3.18 Roofing & Overhead Work 1 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0751	0.8027	0.9395	1.9200e-003	0.0568	0.0150	0.0717	0.0163	0.0138	0.0300	0.0000	174.7789	174.7789	1.1600e-003	0.0000	174.8032
Worker	9.4500e-003	0.0138	0.1393	3.4000e-004	0.0302	1.9000e-004	0.0304	8.0300e-003	1.8000e-004	8.2000e-003	0.0000	25.6414	25.6414	1.1900e-003	0.0000	25.6665
Total	0.0845	0.8165	1.0788	2.2600e-003	0.0870	0.0152	0.1022	0.0243	0.0139	0.0382	0.0000	200.4204	200.4204	2.3500e-003	0.0000	200.4697

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0267	0.2149	0.5048	1.0300e-003		0.0121	0.0121		0.0112	0.0112	0.0000	96.7039	96.7039	0.0292	0.0000	97.3164
Total	0.0267	0.2149	0.5048	1.0300e-003		0.0121	0.0121		0.0112	0.0112	0.0000	96.7039	96.7039	0.0292	0.0000	97.3164

3.18 Roofing & Overhead Work 1 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0751	0.8027	0.9395	1.9200e-003	0.0568	0.0150	0.0717	0.0163	0.0138	0.0300	0.0000	174.7789	174.7789	1.1600e-003	0.0000	174.8032
Worker	9.4500e-003	0.0138	0.1393	3.4000e-004	0.0302	1.9000e-004	0.0304	8.0300e-003	1.8000e-004	8.2000e-003	0.0000	25.6414	25.6414	1.1900e-003	0.0000	25.6665
Total	0.0845	0.8165	1.0788	2.2600e-003	0.0870	0.0152	0.1022	0.0243	0.0139	0.0382	0.0000	200.4204	200.4204	2.3500e-003	0.0000	200.4697

3.18 Roofing & Overhead Work 1 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.9300e-003	0.0739	0.0445	9.0000e-005		3.0400e-003	3.0400e-003		2.8000e-003	2.8000e-003	0.0000	8.6453	8.6453	2.6500e-003	0.0000	8.7009
Total	5.9300e-003	0.0739	0.0445	9.0000e-005		3.0400e-003	3.0400e-003		2.8000e-003	2.8000e-003	0.0000	8.6453	8.6453	2.6500e-003	0.0000	8.7009

3.18 Roofing & Overhead Work 1 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.1500e-003	0.0662	0.0806	1.7000e-004	5.1600e-003	1.2200e-003	6.3800e-003	1.4800e-003	1.1200e-003	2.6000e-003	0.0000	15.6205	15.6205	1.0000e-004	0.0000	15.6227
Worker	7.7000e-004	1.1300e-003	0.0113	3.0000e-005	2.7500e-003	2.0000e-005	2.7600e-003	7.3000e-004	2.0000e-005	7.5000e-004	0.0000	2.2385	2.2385	1.0000e-004	0.0000	2.2406
Total	6.9200e-003	0.0673	0.0920	2.0000e-004	7.9100e-003	1.2400e-003	9.1400e-003	2.2100e-003	1.1400e-003	3.3500e-003	0.0000	17.8591	17.8591	2.0000e-004	0.0000	17.8633

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.3200e-003	0.0186	0.0458	9.0000e-005		1.0000e-003	1.0000e-003		9.3000e-004	9.3000e-004	0.0000	8.6453	8.6453	2.6500e-003	0.0000	8.7009
Total	2.3200e-003	0.0186	0.0458	9.0000e-005		1.0000e-003	1.0000e-003		9.3000e-004	9.3000e-004	0.0000	8.6453	8.6453	2.6500e-003	0.0000	8.7009

3.18 Roofing & Overhead Work 1 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.1500e-003	0.0662	0.0806	1.7000e-004	5.1600e-003	1.2200e-003	6.3800e-003	1.4800e-003	1.1200e-003	2.6000e-003	0.0000	15.6205	15.6205	1.0000e-004	0.0000	15.6227
Worker	7.7000e-004	1.1300e-003	0.0113	3.0000e-005	2.7500e-003	2.0000e-005	2.7600e-003	7.3000e-004	2.0000e-005	7.5000e-004	0.0000	2.2385	2.2385	1.0000e-004	0.0000	2.2406
Total	6.9200e-003	0.0673	0.0920	2.0000e-004	7.9100e-003	1.2400e-003	9.1400e-003	2.2100e-003	1.1400e-003	3.3500e-003	0.0000	17.8591	17.8591	2.0000e-004	0.0000	17.8633

3.19 Paving 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0313	0.3631	0.1908	3.8000e-004		0.0164	0.0164		0.0150	0.0150	0.0000	35.7254	35.7254	0.0108	0.0000	35.9517
Paving	0.0236					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0549	0.3631	0.1908	3.8000e-004		0.0164	0.0164		0.0150	0.0150	0.0000	35.7254	35.7254	0.0108	0.0000	35.9517

3.19 Paving 2 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.6600e-003	0.1017	0.0694	2.6000e-004	6.2600e-003	1.7700e-003	8.0200e-003	1.7200e-003	1.6300e-003	3.3400e-003	0.0000	23.6892	23.6892	1.5000e-004	0.0000	23.6924
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	5.6000e-004	5.6700e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.3000e-004	0.0000	1.0443	1.0443	5.0000e-005	0.0000	1.0453
Total	6.0400e-003	0.1023	0.0751	2.7000e-004	7.4900e-003	1.7800e-003	9.2600e-003	2.0500e-003	1.6400e-003	3.6700e-003	0.0000	24.7335	24.7335	2.0000e-004	0.0000	24.7377

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.1400e-003	0.1091	0.1987	3.8000e-004		4.9500e-003	4.9500e-003		4.9500e-003	4.9500e-003	0.0000	35.7254	35.7254	0.0108	0.0000	35.9517
Paving	0.0236					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0307	0.1091	0.1987	3.8000e-004		4.9500e-003	4.9500e-003		4.9500e-003	4.9500e-003	0.0000	35.7254	35.7254	0.0108	0.0000	35.9517

3.19 Paving 2 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.6600e-003	0.1017	0.0694	2.6000e-004	6.2600e-003	1.7700e-003	8.0200e-003	1.7200e-003	1.6300e-003	3.3400e-003	0.0000	23.6892	23.6892	1.5000e-004	0.0000	23.6924
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	5.6000e-004	5.6700e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.3000e-004	0.0000	1.0443	1.0443	5.0000e-005	0.0000	1.0453
Total	6.0400e-003	0.1023	0.0751	2.7000e-004	7.4900e-003	1.7800e-003	9.2600e-003	2.0500e-003	1.6400e-003	3.6700e-003	0.0000	24.7335	24.7335	2.0000e-004	0.0000	24.7377

3.20 Architectural Coating 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1201					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.2600e-003	0.0965	0.0539	1.2000e-004		3.5600e-003	3.5600e-003		3.2700e-003	3.2700e-003	0.0000	10.9128	10.9128	3.2900e-003	0.0000	10.9819
Total	0.1274	0.0965	0.0539	1.2000e-004		3.5600e-003	3.5600e-003		3.2700e-003	3.2700e-003	0.0000	10.9128	10.9128	3.2900e-003	0.0000	10.9819

3.20 Architectural Coating 2 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5900e-003	9.6300e-003	0.0971	2.4000e-004	0.0211	1.3000e-004	0.0212	5.5900e-003	1.2000e-004	5.7200e-003	0.0000	17.8744	17.8744	8.3000e-004	0.0000	17.8919
Total	6.5900e-003	9.6300e-003	0.0971	2.4000e-004	0.0211	1.3000e-004	0.0212	5.5900e-003	1.2000e-004	5.7200e-003	0.0000	17.8744	17.8744	8.3000e-004	0.0000	17.8919

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1201					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4200e-003	6.1400e-003	0.0519	1.2000e-004		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	10.9128	10.9128	3.2900e-003	0.0000	10.9819
Total	0.1215	6.1400e-003	0.0519	1.2000e-004		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	10.9128	10.9128	3.2900e-003	0.0000	10.9819

3.20 Architectural Coating 2 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5900e-003	9.6300e-003	0.0971	2.4000e-004	0.0211	1.3000e-004	0.0212	5.5900e-003	1.2000e-004	5.7200e-003	0.0000	17.8744	17.8744	8.3000e-004	0.0000	17.8919
Total	6.5900e-003	9.6300e-003	0.0971	2.4000e-004	0.0211	1.3000e-004	0.0212	5.5900e-003	1.2000e-004	5.7200e-003	0.0000	17.8744	17.8744	8.3000e-004	0.0000	17.8919

3.21 Misc. Finishes 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0130	0.1753	0.1025	2.1000e-004		6.3400e-003	6.3400e-003		5.8300e-003	5.8300e-003	0.0000	20.1985	20.1985	6.0900e-003	0.0000	20.3265
Total	0.0130	0.1753	0.1025	2.1000e-004		6.3400e-003	6.3400e-003		5.8300e-003	5.8300e-003	0.0000	20.1985	20.1985	6.0900e-003	0.0000	20.3265

3.21 Misc. Finishes 2 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0512	0.5473	0.6406	1.3100e-003	0.0387	0.0102	0.0489	0.0111	9.3800e-003	0.0205	0.0000	119.1674	119.1674	7.9000e-004	0.0000	119.1840
Worker	2.0600e-003	3.0100e-003	0.0304	7.0000e-005	6.5900e-003	4.0000e-005	6.6400e-003	1.7500e-003	4.0000e-005	1.7900e-003	0.0000	5.5945	5.5945	2.6000e-004	0.0000	5.6000
Total	0.0533	0.5503	0.6709	1.3800e-003	0.0453	0.0102	0.0556	0.0128	9.4200e-003	0.0223	0.0000	124.7619	124.7619	1.0500e-003	0.0000	124.7840

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.2600e-003	0.0247	0.0991	2.1000e-004		7.3000e-004	7.3000e-004		6.9000e-004	6.9000e-004	0.0000	20.1985	20.1985	6.0900e-003	0.0000	20.3264
Total	3.2600e-003	0.0247	0.0991	2.1000e-004		7.3000e-004	7.3000e-004		6.9000e-004	6.9000e-004	0.0000	20.1985	20.1985	6.0900e-003	0.0000	20.3264

3.21 Misc. Finishes 2 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0512	0.5473	0.6406	1.3100e-003	0.0387	0.0102	0.0489	0.0111	9.3800e-003	0.0205	0.0000	119.1674	119.1674	7.9000e-004	0.0000	119.1840
Worker	2.0600e-003	3.0100e-003	0.0304	7.0000e-005	6.5900e-003	4.0000e-005	6.6400e-003	1.7500e-003	4.0000e-005	1.7900e-003	0.0000	5.5945	5.5945	2.6000e-004	0.0000	5.6000
Total	0.0533	0.5503	0.6709	1.3800e-003	0.0453	0.0102	0.0556	0.0128	9.4200e-003	0.0223	0.0000	124.7619	124.7619	1.0500e-003	0.0000	124.7840

3.22 Roofing & Overhead Work 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0215	0.2731	0.1582	3.2000e-004		0.0112	0.0112		0.0103	0.0103	0.0000	30.1077	30.1077	9.0800e-003	0.0000	30.2984
Total	0.0215	0.2731	0.1582	3.2000e-004		0.0112	0.0112		0.0103	0.0103	0.0000	30.1077	30.1077	9.0800e-003	0.0000	30.2984

3.22 Roofing & Overhead Work 3 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0375	0.4013	0.4697	9.6000e-004	0.0284	7.4800e-003	0.0359	8.1300e-003	6.8800e-003	0.0150	0.0000	87.3895	87.3895	5.8000e-004	0.0000	87.4016
Worker	1.5100e-003	2.2100e-003	0.0223	5.0000e-005	4.8400e-003	3.0000e-005	4.8700e-003	1.2800e-003	3.0000e-005	1.3100e-003	0.0000	4.1026	4.1026	1.9000e-004	0.0000	4.1066
Total	0.0391	0.4036	0.4920	1.0100e-003	0.0332	7.5100e-003	0.0407	9.4100e-003	6.9100e-003	0.0163	0.0000	91.4921	91.4921	7.7000e-004	0.0000	91.5083

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.2000e-003	0.0522	0.1533	3.2000e-004		2.9800e-003	2.9800e-003		2.7800e-003	2.7800e-003	0.0000	30.1077	30.1077	9.0800e-003	0.0000	30.2984
Total	7.2000e-003	0.0522	0.1533	3.2000e-004		2.9800e-003	2.9800e-003		2.7800e-003	2.7800e-003	0.0000	30.1077	30.1077	9.0800e-003	0.0000	30.2984

3.22 Roofing & Overhead Work 3 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0375	0.4013	0.4697	9.6000e-004	0.0284	7.4800e-003	0.0359	8.1300e-003	6.8800e-003	0.0150	0.0000	87.3895	87.3895	5.8000e-004	0.0000	87.4016
Worker	1.5100e-003	2.2100e-003	0.0223	5.0000e-005	4.8400e-003	3.0000e-005	4.8700e-003	1.2800e-003	3.0000e-005	1.3100e-003	0.0000	4.1026	4.1026	1.9000e-004	0.0000	4.1066
Total	0.0391	0.4036	0.4920	1.0100e-003	0.0332	7.5100e-003	0.0407	9.4100e-003	6.9100e-003	0.0163	0.0000	91.4921	91.4921	7.7000e-004	0.0000	91.5083

3.23 Steel & Roof 4 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0264	0.3400	0.1705	3.6000e-004		0.0133	0.0133		0.0123	0.0123	0.0000	33.7065	33.7065	0.0102	0.0000	33.9200
Total	0.0264	0.3400	0.1705	3.6000e-004		0.0133	0.0133		0.0123	0.0123	0.0000	33.7065	33.7065	0.0102	0.0000	33.9200

3.23 Steel & Roof 4 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0392	0.4196	0.4911	1.0000e-003	0.0297	7.8200e-003	0.0375	8.4900e-003	7.1900e-003	0.0157	0.0000	91.3617	91.3617	6.1000e-004	0.0000	91.3744
Worker	1.5800e-003	2.3100e-003	0.0233	6.0000e-005	5.0600e-003	3.0000e-005	5.0900e-003	1.3400e-003	3.0000e-005	1.3700e-003	0.0000	4.2891	4.2891	2.0000e-004	0.0000	4.2933
Total	0.0408	0.4219	0.5144	1.0600e-003	0.0347	7.8500e-003	0.0426	9.8300e-003	7.2200e-003	0.0171	0.0000	95.6508	95.6508	8.1000e-004	0.0000	95.6677

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0115	0.1090	0.1653	3.6000e-004		4.7200e-003	4.7200e-003		4.3800e-003	4.3800e-003	0.0000	33.7064	33.7064	0.0102	0.0000	33.9199
Total	0.0115	0.1090	0.1653	3.6000e-004		4.7200e-003	4.7200e-003		4.3800e-003	4.3800e-003	0.0000	33.7064	33.7064	0.0102	0.0000	33.9199

3.23 Steel & Roof 4 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0392	0.4196	0.4911	1.0000e-003	0.0297	7.8200e-003	0.0375	8.4900e-003	7.1900e-003	0.0157	0.0000	91.3617	91.3617	6.1000e-004	0.0000	91.3744
Worker	1.5800e-003	2.3100e-003	0.0233	6.0000e-005	5.0600e-003	3.0000e-005	5.0900e-003	1.3400e-003	3.0000e-005	1.3700e-003	0.0000	4.2891	4.2891	2.0000e-004	0.0000	4.2933
Total	0.0408	0.4219	0.5144	1.0600e-003	0.0347	7.8500e-003	0.0426	9.8300e-003	7.2200e-003	0.0171	0.0000	95.6508	95.6508	8.1000e-004	0.0000	95.6677

3.24 Paving 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0235	0.2724	0.1431	2.8000e-004		0.0123	0.0123		0.0113	0.0113	0.0000	26.7941	26.7941	8.0800e-003	0.0000	26.9638
Paving	0.0177					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0412	0.2724	0.1431	2.8000e-004		0.0123	0.0123		0.0113	0.0113	0.0000	26.7941	26.7941	8.0800e-003	0.0000	26.9638

3.24 Paving 3 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.5300e-003	0.0815	0.0556	2.1000e-004	6.2800e-003	1.4200e-003	7.6900e-003	1.6900e-003	1.3000e-003	2.9900e-003	0.0000	18.9871	18.9871	1.2000e-004	0.0000	18.9897
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9000e-004	4.2000e-004	4.2500e-003	1.0000e-005	9.2000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004	0.0000	0.7832	0.7832	4.0000e-005	0.0000	0.7840
Total	4.8200e-003	0.0819	0.0599	2.2000e-004	7.2000e-003	1.4300e-003	8.6200e-003	1.9400e-003	1.3100e-003	3.2400e-003	0.0000	19.7704	19.7704	1.6000e-004	0.0000	19.7737

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.3500e-003	0.0818	0.1490	2.8000e-004		3.7100e-003	3.7100e-003		3.7100e-003	3.7100e-003	0.0000	26.7940	26.7940	8.0800e-003	0.0000	26.9638
Paving	0.0177					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0230	0.0818	0.1490	2.8000e-004		3.7100e-003	3.7100e-003		3.7100e-003	3.7100e-003	0.0000	26.7940	26.7940	8.0800e-003	0.0000	26.9638

3.24 Paving 3 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.5300e-003	0.0815	0.0556	2.1000e-004	6.2800e-003	1.4200e-003	7.6900e-003	1.6900e-003	1.3000e-003	2.9900e-003	0.0000	18.9871	18.9871	1.2000e-004	0.0000	18.9897
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9000e-004	4.2000e-004	4.2500e-003	1.0000e-005	9.2000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004	0.0000	0.7832	0.7832	4.0000e-005	0.0000	0.7840
Total	4.8200e-003	0.0819	0.0599	2.2000e-004	7.2000e-003	1.4300e-003	8.6200e-003	1.9400e-003	1.3100e-003	3.2400e-003	0.0000	19.7704	19.7704	1.6000e-004	0.0000	19.7737

3.24 Paving 3 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.4400e-003	0.0844	0.0454	9.0000e-005		3.8200e-003	3.8200e-003		3.5200e-003	3.5200e-003	0.0000	8.7845	8.7845	2.6900e-003	0.0000	8.8410
Paving	5.8900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0133	0.0844	0.0454	9.0000e-005		3.8200e-003	3.8200e-003		3.5200e-003	3.5200e-003	0.0000	8.7845	8.7845	2.6900e-003	0.0000	8.8410

3.24 Paving 3 - 2017**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4000e-003	0.0249	0.0178	7.0000e-005	5.4600e-003	4.3000e-004	5.8900e-003	1.3900e-003	4.0000e-004	1.7900e-003	0.0000	6.2218	6.2218	4.0000e-005	0.0000	6.2226
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	1.3000e-004	1.2700e-003	0.0000	3.1000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2507	0.2507	1.0000e-005	0.0000	0.2510
Total	1.4900e-003	0.0250	0.0191	7.0000e-005	5.7700e-003	4.3000e-004	6.2000e-003	1.4700e-003	4.0000e-004	1.8700e-003	0.0000	6.4725	6.4725	5.0000e-005	0.0000	6.4736

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.7800e-003	0.0273	0.0497	9.0000e-005		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003	0.0000	8.7845	8.7845	2.6900e-003	0.0000	8.8410
Paving	5.8900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	7.6700e-003	0.0273	0.0497	9.0000e-005		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003	0.0000	8.7845	8.7845	2.6900e-003	0.0000	8.8410

3.24 Paving 3 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4000e-003	0.0249	0.0178	7.0000e-005	5.4600e-003	4.3000e-004	5.8900e-003	1.3900e-003	4.0000e-004	1.7900e-003	0.0000	6.2218	6.2218	4.0000e-005	0.0000	6.2226
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	1.3000e-004	1.2700e-003	0.0000	3.1000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2507	0.2507	1.0000e-005	0.0000	0.2510
Total	1.4900e-003	0.0250	0.0191	7.0000e-005	5.7700e-003	4.3000e-004	6.2000e-003	1.4700e-003	4.0000e-004	1.8700e-003	0.0000	6.4725	6.4725	5.0000e-005	0.0000	6.4736

3.25 Architectural Coating 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2600					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0290	0.3861	0.2157	4.6000e-004		0.0142	0.0142		0.0131	0.0131	0.0000	43.6511	43.6511	0.0132	0.0000	43.9276
Total	0.2890	0.3861	0.2157	4.6000e-004		0.0142	0.0142		0.0131	0.0131	0.0000	43.6511	43.6511	0.0132	0.0000	43.9276

3.25 Architectural Coating 1 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5900e-003	9.6300e-003	0.0971	2.4000e-004	0.0211	1.3000e-004	0.0212	5.5900e-003	1.2000e-004	5.7200e-003	0.0000	17.8744	17.8744	8.3000e-004	0.0000	17.8919
Total	6.5900e-003	9.6300e-003	0.0971	2.4000e-004	0.0211	1.3000e-004	0.0212	5.5900e-003	1.2000e-004	5.7200e-003	0.0000	17.8744	17.8744	8.3000e-004	0.0000	17.8919

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2600					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.6600e-003	0.0245	0.2077	4.6000e-004		7.6000e-004	7.6000e-004		7.6000e-004	7.6000e-004	0.0000	43.6510	43.6510	0.0132	0.0000	43.9275
Total	0.2657	0.0245	0.2077	4.6000e-004		7.6000e-004	7.6000e-004		7.6000e-004	7.6000e-004	0.0000	43.6510	43.6510	0.0132	0.0000	43.9275

3.25 Architectural Coating 1 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5900e-003	9.6300e-003	0.0971	2.4000e-004	0.0211	1.3000e-004	0.0212	5.5900e-003	1.2000e-004	5.7200e-003	0.0000	17.8744	17.8744	8.3000e-004	0.0000	17.8919
Total	6.5900e-003	9.6300e-003	0.0971	2.4000e-004	0.0211	1.3000e-004	0.0212	5.5900e-003	1.2000e-004	5.7200e-003	0.0000	17.8744	17.8744	8.3000e-004	0.0000	17.8919

3.25 Architectural Coating 1 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3033					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0319	0.4160	0.2336	5.4000e-004		0.0152	0.0152		0.0140	0.0140	0.0000	50.0693	50.0693	0.0153	0.0000	50.3915
Total	0.3353	0.4160	0.2336	5.4000e-004		0.0152	0.0152		0.0140	0.0140	0.0000	50.0693	50.0693	0.0153	0.0000	50.3915

3.25 Architectural Coating 1 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8600e-003	0.0101	0.1014	2.8000e-004	0.0246	1.5000e-004	0.0247	6.5300e-003	1.4000e-004	6.6700e-003	0.0000	20.0260	20.0260	8.9000e-004	0.0000	20.0447
Total	6.8600e-003	0.0101	0.1014	2.8000e-004	0.0246	1.5000e-004	0.0247	6.5300e-003	1.4000e-004	6.6700e-003	0.0000	20.0260	20.0260	8.9000e-004	0.0000	20.0447

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3033					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6100e-003	0.0286	0.2423	5.4000e-004		8.8000e-004	8.8000e-004		8.8000e-004	8.8000e-004	0.0000	50.0693	50.0693	0.0153	0.0000	50.3914
Total	0.3099	0.0286	0.2423	5.4000e-004		8.8000e-004	8.8000e-004		8.8000e-004	8.8000e-004	0.0000	50.0693	50.0693	0.0153	0.0000	50.3914

3.25 Architectural Coating 1 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8600e-003	0.0101	0.1014	2.8000e-004	0.0246	1.5000e-004	0.0247	6.5300e-003	1.4000e-004	6.6700e-003	0.0000	20.0260	20.0260	8.9000e-004	0.0000	20.0447
Total	6.8600e-003	0.0101	0.1014	2.8000e-004	0.0246	1.5000e-004	0.0247	6.5300e-003	1.4000e-004	6.6700e-003	0.0000	20.0260	20.0260	8.9000e-004	0.0000	20.0447

3.26 Misc. Finishes 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.3600e-003	0.0994	0.0581	1.2000e-004		3.5900e-003	3.5900e-003		3.3000e-003	3.3000e-003	0.0000	11.4458	11.4458	3.4500e-003	0.0000	11.5183
Total	7.3600e-003	0.0994	0.0581	1.2000e-004		3.5900e-003	3.5900e-003		3.3000e-003	3.3000e-003	0.0000	11.4458	11.4458	3.4500e-003	0.0000	11.5183

3.26 Misc. Finishes 3 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0290	0.3101	0.3630	7.4000e-004	0.0219	5.7800e-003	0.0277	6.2800e-003	5.3200e-003	0.0116	0.0000	67.5282	67.5282	4.5000e-004	0.0000	67.5376
Worker	1.1700e-003	1.7100e-003	0.0172	4.0000e-005	3.7400e-003	2.0000e-005	3.7600e-003	9.9000e-004	2.0000e-005	1.0100e-003	0.0000	3.1702	3.1702	1.5000e-004	0.0000	3.1733
Total	0.0302	0.3118	0.3802	7.8000e-004	0.0257	5.8000e-003	0.0315	7.2700e-003	5.3400e-003	0.0126	0.0000	70.6984	70.6984	6.0000e-004	0.0000	70.7109

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.8500e-003	0.0140	0.0562	1.2000e-004		4.1000e-004	4.1000e-004		3.9000e-004	3.9000e-004	0.0000	11.4458	11.4458	3.4500e-003	0.0000	11.5183
Total	1.8500e-003	0.0140	0.0562	1.2000e-004		4.1000e-004	4.1000e-004		3.9000e-004	3.9000e-004	0.0000	11.4458	11.4458	3.4500e-003	0.0000	11.5183

3.26 Misc. Finishes 3 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0290	0.3101	0.3630	7.4000e-004	0.0219	5.7800e-003	0.0277	6.2800e-003	5.3200e-003	0.0116	0.0000	67.5282	67.5282	4.5000e-004	0.0000	67.5376
Worker	1.1700e-003	1.7100e-003	0.0172	4.0000e-005	3.7400e-003	2.0000e-005	3.7600e-003	9.9000e-004	2.0000e-005	1.0100e-003	0.0000	3.1702	3.1702	1.5000e-004	0.0000	3.1733
Total	0.0302	0.3118	0.3802	7.8000e-004	0.0257	5.8000e-003	0.0315	7.2700e-003	5.3400e-003	0.0126	0.0000	70.6984	70.6984	6.0000e-004	0.0000	70.7109

3.26 Misc. Finishes 3 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.8900e-003	0.0649	0.0384	9.0000e-005		2.3000e-003	2.3000e-003		2.1200e-003	2.1200e-003	0.0000	7.9445	7.9445	2.4300e-003	0.0000	7.9956
Total	4.8900e-003	0.0649	0.0384	9.0000e-005		2.3000e-003	2.3000e-003		2.1200e-003	2.1200e-003	0.0000	7.9445	7.9445	2.4300e-003	0.0000	7.9956

3.26 Misc. Finishes 3 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0185	0.1984	0.2419	5.2000e-004	0.0155	3.6600e-003	0.0191	4.4300e-003	3.3600e-003	7.8000e-003	0.0000	46.8616	46.8616	3.0000e-004	0.0000	46.8680
Worker	7.4000e-004	1.0800e-003	0.0109	3.0000e-005	2.6400e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.1490	2.1490	1.0000e-004	0.0000	2.1510
Total	0.0192	0.1995	0.2527	5.5000e-004	0.0181	3.6800e-003	0.0218	5.1300e-003	3.3800e-003	8.5200e-003	0.0000	49.0106	49.0106	4.0000e-004	0.0000	49.0190

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.2700e-003	9.5500e-003	0.0396	9.0000e-005		2.5000e-004	2.5000e-004		2.4000e-004	2.4000e-004	0.0000	7.9445	7.9445	2.4300e-003	0.0000	7.9956
Total	1.2700e-003	9.5500e-003	0.0396	9.0000e-005		2.5000e-004	2.5000e-004		2.4000e-004	2.4000e-004	0.0000	7.9445	7.9445	2.4300e-003	0.0000	7.9956

3.26 Misc. Finishes 3 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0185	0.1984	0.2419	5.2000e-004	0.0155	3.6600e-003	0.0191	4.4300e-003	3.3600e-003	7.8000e-003	0.0000	46.8616	46.8616	3.0000e-004	0.0000	46.8680
Worker	7.4000e-004	1.0800e-003	0.0109	3.0000e-005	2.6400e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.1490	2.1490	1.0000e-004	0.0000	2.1510
Total	0.0192	0.1995	0.2527	5.5000e-004	0.0181	3.6800e-003	0.0218	5.1300e-003	3.3800e-003	8.5200e-003	0.0000	49.0106	49.0106	4.0000e-004	0.0000	49.0190

3.27 Architectural Coating 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0958					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8500e-003	0.0912	0.0509	1.1000e-004		3.3600e-003	3.3600e-003		3.0900e-003	3.0900e-003	0.0000	10.3065	10.3065	3.1100e-003	0.0000	10.3718
Total	0.1026	0.0912	0.0509	1.1000e-004		3.3600e-003	3.3600e-003		3.0900e-003	3.0900e-003	0.0000	10.3065	10.3065	3.1100e-003	0.0000	10.3718

3.27 Architectural Coating 3 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2200e-003	9.1000e-003	0.0917	2.2000e-004	0.0199	1.3000e-004	0.0200	5.2800e-003	1.2000e-004	5.4000e-003	0.0000	16.8814	16.8814	7.9000e-004	0.0000	16.8979
Total	6.2200e-003	9.1000e-003	0.0917	2.2000e-004	0.0199	1.3000e-004	0.0200	5.2800e-003	1.2000e-004	5.4000e-003	0.0000	16.8814	16.8814	7.9000e-004	0.0000	16.8979

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0958					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3400e-003	5.8000e-003	0.0490	1.1000e-004		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	10.3065	10.3065	3.1100e-003	0.0000	10.3718
Total	0.0971	5.8000e-003	0.0490	1.1000e-004		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	10.3065	10.3065	3.1100e-003	0.0000	10.3718

3.27 Architectural Coating 3 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2200e-003	9.1000e-003	0.0917	2.2000e-004	0.0199	1.3000e-004	0.0200	5.2800e-003	1.2000e-004	5.4000e-003	0.0000	16.8814	16.8814	7.9000e-004	0.0000	16.8979
Total	6.2200e-003	9.1000e-003	0.0917	2.2000e-004	0.0199	1.3000e-004	0.0200	5.2800e-003	1.2000e-004	5.4000e-003	0.0000	16.8814	16.8814	7.9000e-004	0.0000	16.8979

3.27 Architectural Coating 3 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	5.6300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.8000e-004	4.9500e-003	2.7800e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.7000e-004	1.7000e-004	0.0000	0.5961	0.5961	1.8000e-004	0.0000	0.5999
Total	6.0100e-003	4.9500e-003	2.7800e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.7000e-004	1.7000e-004	0.0000	0.5961	0.5961	1.8000e-004	0.0000	0.5999

3.27 Architectural Coating 3 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	4.8000e-004	4.8300e-003	1.0000e-005	1.1700e-003	1.0000e-005	1.1800e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	0.9536	0.9536	4.0000e-005	0.0000	0.9545
Total	3.3000e-004	4.8000e-004	4.8300e-003	1.0000e-005	1.1700e-003	1.0000e-005	1.1800e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	0.9536	0.9536	4.0000e-005	0.0000	0.9545

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	5.6300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.0000e-005	3.4000e-004	2.8800e-003	1.0000e-005		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.5961	0.5961	1.8000e-004	0.0000	0.5999
Total	5.7100e-003	3.4000e-004	2.8800e-003	1.0000e-005		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.5961	0.5961	1.8000e-004	0.0000	0.5999

3.27 Architectural Coating 3 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	4.8000e-004	4.8300e-003	1.0000e-005	1.1700e-003	1.0000e-005	1.1800e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	0.9536	0.9536	4.0000e-005	0.0000	0.9545
Total	3.3000e-004	4.8000e-004	4.8300e-003	1.0000e-005	1.1700e-003	1.0000e-005	1.1800e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	0.9536	0.9536	4.0000e-005	0.0000	0.9545

3.28 Paving 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.3200e-003	0.1087	0.0553	1.1000e-004		4.6600e-003	4.6600e-003		4.2900e-003	4.2900e-003	0.0000	10.6821	10.6821	3.2200e-003	0.0000	10.7497
Paving	1.5900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0109	0.1087	0.0553	1.1000e-004		4.6600e-003	4.6600e-003		4.2900e-003	4.2900e-003	0.0000	10.6821	10.6821	3.2200e-003	0.0000	10.7497

3.28 Paving 1 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1800e-003	0.0391	0.0267	1.0000e-004	0.0275	6.8000e-004	0.0282	6.8200e-003	6.2000e-004	7.4500e-003	0.0000	9.1083	9.1083	6.0000e-005	0.0000	9.1095
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	1.5000e-004	1.5200e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2797	0.2797	1.0000e-005	0.0000	0.2800
Total	2.2800e-003	0.0393	0.0282	1.0000e-004	0.0278	6.8000e-004	0.0285	6.9100e-003	6.2000e-004	7.5400e-003	0.0000	9.3880	9.3880	7.0000e-005	0.0000	9.3895

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.3300e-003	0.0389	0.0599	1.1000e-004		1.6500e-003	1.6500e-003		1.6500e-003	1.6500e-003	0.0000	10.6821	10.6821	3.2200e-003	0.0000	10.7497
Paving	1.5900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.9200e-003	0.0389	0.0599	1.1000e-004		1.6500e-003	1.6500e-003		1.6500e-003	1.6500e-003	0.0000	10.6821	10.6821	3.2200e-003	0.0000	10.7497

3.28 Paving 1 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1800e-003	0.0391	0.0267	1.0000e-004	0.0275	6.8000e-004	0.0282	6.8200e-003	6.2000e-004	7.4500e-003	0.0000	9.1083	9.1083	6.0000e-005	0.0000	9.1095
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	1.5000e-004	1.5200e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2797	0.2797	1.0000e-005	0.0000	0.2800
Total	2.2800e-003	0.0393	0.0282	1.0000e-004	0.0278	6.8000e-004	0.0285	6.9100e-003	6.2000e-004	7.5400e-003	0.0000	9.3880	9.3880	7.0000e-005	0.0000	9.3895

3.28 Paving 1 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1222	1.3935	0.7285	1.5700e-003		0.0601	0.0601		0.0553	0.0553	0.0000	145.3445	145.3445	0.0445	0.0000	146.2797
Paving	0.0220					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1442	1.3935	0.7285	1.5700e-003		0.0601	0.0601		0.0553	0.0553	0.0000	145.3445	145.3445	0.0445	0.0000	146.2797

3.28 Paving 1 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0279	0.4949	0.3548	1.3800e-003	0.0351	8.6400e-003	0.0437	9.5800e-003	7.9500e-003	0.0175	0.0000	123.8626	123.8626	7.8000e-004	0.0000	123.8790
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2700e-003	1.8700e-003	0.0188	5.0000e-005	4.5600e-003	3.0000e-005	4.5900e-003	1.2100e-003	3.0000e-005	1.2400e-003	0.0000	3.7160	3.7160	1.7000e-004	0.0000	3.7194
Total	0.0292	0.4968	0.3736	1.4300e-003	0.0397	8.6700e-003	0.0483	0.0108	7.9800e-003	0.0188	0.0000	127.5785	127.5785	9.5000e-004	0.0000	127.5984

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0322	0.5374	0.8287	1.5700e-003		0.0228	0.0228		0.0228	0.0228	0.0000	145.3443	145.3443	0.0445	0.0000	146.2795
Paving	0.0220					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0542	0.5374	0.8287	1.5700e-003		0.0228	0.0228		0.0228	0.0228	0.0000	145.3443	145.3443	0.0445	0.0000	146.2795

3.28 Paving 1 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0279	0.4949	0.3548	1.3800e-003	0.0351	8.6400e-003	0.0437	9.5800e-003	7.9500e-003	0.0175	0.0000	123.8626	123.8626	7.8000e-004	0.0000	123.8790
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2700e-003	1.8700e-003	0.0188	5.0000e-005	4.5600e-003	3.0000e-005	4.5900e-003	1.2100e-003	3.0000e-005	1.2400e-003	0.0000	3.7160	3.7160	1.7000e-004	0.0000	3.7194
Total	0.0292	0.4968	0.3736	1.4300e-003	0.0397	8.6700e-003	0.0483	0.0108	7.9800e-003	0.0188	0.0000	127.5785	127.5785	9.5000e-004	0.0000	127.5984

3.29 Roofing & Overhead Work 4 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.9100e-003	0.0497	0.0288	6.0000e-005		2.0400e-003	2.0400e-003		1.8800e-003	1.8800e-003	0.0000	5.4741	5.4741	1.6500e-003	0.0000	5.5088
Total	3.9100e-003	0.0497	0.0288	6.0000e-005		2.0400e-003	2.0400e-003		1.8800e-003	1.8800e-003	0.0000	5.4741	5.4741	1.6500e-003	0.0000	5.5088

3.29 Roofing & Overhead Work 4 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.8300e-003	0.0730	0.0854	1.7000e-004	5.1600e-003	1.3600e-003	6.5200e-003	1.4800e-003	1.2500e-003	2.7300e-003	0.0000	15.8890	15.8890	1.1000e-004	0.0000	15.8912
Worker	2.7000e-004	4.0000e-004	4.0500e-003	1.0000e-005	8.8000e-004	1.0000e-005	8.8000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7459	0.7459	3.0000e-005	0.0000	0.7467
Total	7.1000e-003	0.0734	0.0895	1.8000e-004	6.0400e-003	1.3700e-003	7.4000e-003	1.7100e-003	1.2600e-003	2.9700e-003	0.0000	16.6349	16.6349	1.4000e-004	0.0000	16.6379

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.3100e-003	9.4800e-003	0.0279	6.0000e-005		5.4000e-004	5.4000e-004		5.1000e-004	5.1000e-004	0.0000	5.4741	5.4741	1.6500e-003	0.0000	5.5088
Total	1.3100e-003	9.4800e-003	0.0279	6.0000e-005		5.4000e-004	5.4000e-004		5.1000e-004	5.1000e-004	0.0000	5.4741	5.4741	1.6500e-003	0.0000	5.5088

3.29 Roofing & Overhead Work 4 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.8300e-003	0.0730	0.0854	1.7000e-004	5.1600e-003	1.3600e-003	6.5200e-003	1.4800e-003	1.2500e-003	2.7300e-003	0.0000	15.8890	15.8890	1.1000e-004	0.0000	15.8912
Worker	2.7000e-004	4.0000e-004	4.0500e-003	1.0000e-005	8.8000e-004	1.0000e-005	8.8000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7459	0.7459	3.0000e-005	0.0000	0.7467
Total	7.1000e-003	0.0734	0.0895	1.8000e-004	6.0400e-003	1.3700e-003	7.4000e-003	1.7100e-003	1.2600e-003	2.9700e-003	0.0000	16.6349	16.6349	1.4000e-004	0.0000	16.6379

3.29 Roofing & Overhead Work 4 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0184	0.2298	0.1350	2.9000e-004		9.3200e-003	9.3200e-003		8.5700e-003	8.5700e-003	0.0000	26.9141	26.9141	8.2500e-003	0.0000	27.0873
Total	0.0184	0.2298	0.1350	2.9000e-004		9.3200e-003	9.3200e-003		8.5700e-003	8.5700e-003	0.0000	26.9141	26.9141	8.2500e-003	0.0000	27.0873

3.29 Roofing & Overhead Work 4 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0308	0.3307	0.4031	8.7000e-004	0.0258	6.0900e-003	0.0319	7.3900e-003	5.6000e-003	0.0130	0.0000	78.1026	78.1026	5.1000e-004	0.0000	78.1133
Worker	1.2300e-003	1.8000e-003	0.0181	5.0000e-005	4.4000e-003	3.0000e-005	4.4200e-003	1.1700e-003	3.0000e-005	1.1900e-003	0.0000	3.5817	3.5817	1.6000e-004	0.0000	3.5850
Total	0.0320	0.3325	0.4212	9.2000e-004	0.0302	6.1200e-003	0.0363	8.5600e-003	5.6300e-003	0.0142	0.0000	81.6843	81.6843	6.7000e-004	0.0000	81.6983

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.3000e-003	0.0453	0.1391	2.9000e-004		2.4900e-003	2.4900e-003		2.3200e-003	2.3200e-003	0.0000	26.9140	26.9140	8.2500e-003	0.0000	27.0872
Total	6.3000e-003	0.0453	0.1391	2.9000e-004		2.4900e-003	2.4900e-003		2.3200e-003	2.3200e-003	0.0000	26.9140	26.9140	8.2500e-003	0.0000	27.0872

3.29 Roofing & Overhead Work 4 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0308	0.3307	0.4031	8.7000e-004	0.0258	6.0900e-003	0.0319	7.3900e-003	5.6000e-003	0.0130	0.0000	78.1026	78.1026	5.1000e-004	0.0000	78.1133
Worker	1.2300e-003	1.8000e-003	0.0181	5.0000e-005	4.4000e-003	3.0000e-005	4.4200e-003	1.1700e-003	3.0000e-005	1.1900e-003	0.0000	3.5817	3.5817	1.6000e-004	0.0000	3.5850
Total	0.0320	0.3325	0.4212	9.2000e-004	0.0302	6.1200e-003	0.0363	8.5600e-003	5.6300e-003	0.0142	0.0000	81.6843	81.6843	6.7000e-004	0.0000	81.6983

3.30 Architectural Coating 4 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1407					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.6000e-003	0.0990	0.0556	1.3000e-004		3.6200e-003	3.6200e-003		3.3300e-003	3.3300e-003	0.0000	11.9213	11.9213	3.6500e-003	0.0000	11.9980
Total	0.1483	0.0990	0.0556	1.3000e-004		3.6200e-003	3.6200e-003		3.3300e-003	3.3300e-003	0.0000	11.9213	11.9213	3.6500e-003	0.0000	11.9980

3.30 Architectural Coating 4 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5300e-003	9.6000e-003	0.0966	2.6000e-004	0.0234	1.4000e-004	0.0236	6.2200e-003	1.3000e-004	6.3500e-003	0.0000	19.0723	19.0723	8.5000e-004	0.0000	19.0902
Total	6.5300e-003	9.6000e-003	0.0966	2.6000e-004	0.0234	1.4000e-004	0.0236	6.2200e-003	1.3000e-004	6.3500e-003	0.0000	19.0723	19.0723	8.5000e-004	0.0000	19.0902

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1407					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5700e-003	6.8200e-003	0.0577	1.3000e-004		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	11.9213	11.9213	3.6500e-003	0.0000	11.9980
Total	0.1423	6.8200e-003	0.0577	1.3000e-004		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	11.9213	11.9213	3.6500e-003	0.0000	11.9980

3.30 Architectural Coating 4 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5300e-003	9.6000e-003	0.0966	2.6000e-004	0.0234	1.4000e-004	0.0236	6.2200e-003	1.3000e-004	6.3500e-003	0.0000	19.0723	19.0723	8.5000e-004	0.0000	19.0902
Total	6.5300e-003	9.6000e-003	0.0966	2.6000e-004	0.0234	1.4000e-004	0.0236	6.2200e-003	1.3000e-004	6.3500e-003	0.0000	19.0723	19.0723	8.5000e-004	0.0000	19.0902

3.31 Paving 4 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0382	0.4343	0.2336	4.9000e-004		0.0197	0.0197		0.0181	0.0181	0.0000	45.1772	45.1772	0.0138	0.0000	45.4679
Paving	0.0236					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0618	0.4343	0.2336	4.9000e-004		0.0197	0.0197		0.0181	0.0181	0.0000	45.1772	45.1772	0.0138	0.0000	45.4679

3.31 Paving 4 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0400e-003	0.1071	0.0768	3.0000e-004	7.2000e-003	1.8700e-003	9.0700e-003	1.9800e-003	1.7200e-003	3.7000e-003	0.0000	26.8064	26.8064	1.7000e-004	0.0000	26.8100
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	6.5000e-004	6.5300e-003	2.0000e-005	1.5800e-003	1.0000e-005	1.5900e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.2894	1.2894	6.0000e-005	0.0000	1.2906
Total	6.4800e-003	0.1078	0.0833	3.2000e-004	8.7800e-003	1.8800e-003	0.0107	2.4000e-003	1.7300e-003	4.1300e-003	0.0000	28.0958	28.0958	2.3000e-004	0.0000	28.1006

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.1800e-003	0.1403	0.2554	4.9000e-004		6.3700e-003	6.3700e-003		6.3700e-003	6.3700e-003	0.0000	45.1772	45.1772	0.0138	0.0000	45.4679
Paving	0.0236					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0327	0.1403	0.2554	4.9000e-004		6.3700e-003	6.3700e-003		6.3700e-003	6.3700e-003	0.0000	45.1772	45.1772	0.0138	0.0000	45.4679

3.31 Paving 4 - 2017**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0400e-003	0.1071	0.0768	3.0000e-004	7.2000e-003	1.8700e-003	9.0700e-003	1.9800e-003	1.7200e-003	3.7000e-003	0.0000	26.8064	26.8064	1.7000e-004	0.0000	26.8100
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	6.5000e-004	6.5300e-003	2.0000e-005	1.5800e-003	1.0000e-005	1.5900e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.2894	1.2894	6.0000e-005	0.0000	1.2906
Total	6.4800e-003	0.1078	0.0833	3.2000e-004	8.7800e-003	1.8800e-003	0.0107	2.4000e-003	1.7300e-003	4.1300e-003	0.0000	28.0958	28.0958	2.3000e-004	0.0000	28.1006

3.32 Misc. Finishes 4 - 2017**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0126	0.1676	0.0991	2.2000e-004		5.9400e-003	5.9400e-003		5.4600e-003	5.4600e-003	0.0000	20.5233	20.5233	6.2900e-003	0.0000	20.6553
Total	0.0126	0.1676	0.0991	2.2000e-004		5.9400e-003	5.9400e-003		5.4600e-003	5.4600e-003	0.0000	20.5233	20.5233	6.2900e-003	0.0000	20.6553

3.32 Misc. Finishes 4 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0477	0.5126	0.6248	1.3500e-003	0.0400	9.4500e-003	0.0495	0.0115	8.6900e-003	0.0201	0.0000	121.0591	121.0591	7.9000e-004	0.0000	121.0756
Worker	1.9000e-003	2.7900e-003	0.0281	8.0000e-005	6.8100e-003	4.0000e-005	6.8600e-003	1.8100e-003	4.0000e-005	1.8500e-003	0.0000	5.5516	5.5516	2.5000e-004	0.0000	5.5568
Total	0.0496	0.5154	0.6529	1.4300e-003	0.0468	9.4900e-003	0.0563	0.0133	8.7300e-003	0.0220	0.0000	126.6106	126.6106	1.0400e-003	0.0000	126.6323

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.2900e-003	0.0247	0.1023	2.2000e-004		6.5000e-004	6.5000e-004		6.2000e-004	6.2000e-004	0.0000	20.5232	20.5232	6.2900e-003	0.0000	20.6553
Total	3.2900e-003	0.0247	0.1023	2.2000e-004		6.5000e-004	6.5000e-004		6.2000e-004	6.2000e-004	0.0000	20.5232	20.5232	6.2900e-003	0.0000	20.6553

3.32 Misc. Finishes 4 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0477	0.5126	0.6248	1.3500e-003	0.0400	9.4500e-003	0.0495	0.0115	8.6900e-003	0.0201	0.0000	121.0591	121.0591	7.9000e-004	0.0000	121.0756
Worker	1.9000e-003	2.7900e-003	0.0281	8.0000e-005	6.8100e-003	4.0000e-005	6.8600e-003	1.8100e-003	4.0000e-005	1.8500e-003	0.0000	5.5516	5.5516	2.5000e-004	0.0000	5.5568
Total	0.0496	0.5154	0.6529	1.4300e-003	0.0468	9.4900e-003	0.0563	0.0133	8.7300e-003	0.0220	0.0000	126.6106	126.6106	1.0400e-003	0.0000	126.6323

3.33 Misc. Finishes 1 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0530	0.7030	0.4156	9.3000e-004		0.0249	0.0249		0.0229	0.0229	0.0000	86.0653	86.0653	0.0264	0.0000	86.6191
Total	0.0530	0.7030	0.4156	9.3000e-004		0.0249	0.0249		0.0229	0.0229	0.0000	86.0653	86.0653	0.0264	0.0000	86.6191

3.33 Misc. Finishes 1 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0999	1.0749	1.3101	2.8300e-003	0.0839	0.0198	0.1037	0.0240	0.0182	0.0422	0.0000	253.8335	253.8335	1.6500e-003	0.0000	253.8681
Worker	0.0125	0.0183	0.1842	5.0000e-004	0.0447	2.8000e-004	0.0449	0.0119	2.5000e-004	0.0121	0.0000	36.3762	36.3762	1.6200e-003	0.0000	36.4102
Total	0.1124	1.0932	1.4942	3.3300e-003	0.1285	0.0201	0.1486	0.0359	0.0185	0.0543	0.0000	290.2097	290.2097	3.2700e-003	0.0000	290.2784

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0138	0.1035	0.4290	9.3000e-004		2.7100e-003	2.7100e-003		2.6000e-003	2.6000e-003	0.0000	86.0652	86.0652	0.0264	0.0000	86.6190
Total	0.0138	0.1035	0.4290	9.3000e-004		2.7100e-003	2.7100e-003		2.6000e-003	2.6000e-003	0.0000	86.0652	86.0652	0.0264	0.0000	86.6190

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

~~5.1 Fleet Mix~~

Historical Energy Use: N

5.1 Mitigation Measures Energy

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	tons/yr										MT/yr						
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Fuel	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Fuel	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	9.1665	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.7000e-004	3.7000e-004	0.0000	0.0000	3.9000e-004
Unmitigated	9.1665	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.7000e-004	3.7000e-004	0.0000	0.0000	3.9000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	9.1664					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.7000e-004	3.7000e-004	0.0000	0.0000	3.9000e-004
Total	9.1665	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.7000e-004	3.7000e-004	0.0000	0.0000	3.9000e-004

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	9.1664					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.7000e-004	3.7000e-004	0.0000	0.0000	3.9000e-004
Total	9.1665	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.7000e-004	3.7000e-004	0.0000	0.0000	3.9000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

**MoVal Logistics Center- 2020 High Cube (Trucks)
Riverside-South Coast County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	173.75	1000sqft	4.62	173,750.00	0
Unrefrigerated Warehouse-No Rail	1,178.02	1000sqft	41.61	1,178,020.00	0
Parking Lot	1,386.00	Space	12.47	554,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	466.91	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Lot Acreage:58.7; Cold Storage takes into account 10% of total Project land uses (High Cube and Light Industrial)

Construction Phase - Operation run only

Off-road Equipment - Operational run only

Trips and VMT - Operational Run Only.

Vehicle Trips - ITE Truck Trip Rate for High-Cube Warehouse.

Vehicle Emission Factors - Trucks Only.

Vehicle Emission Factors - Trucks Only.

Vehicle Emission Factors - Trucks Only.

Area Coating -

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Water And Wastewater - Water usage based on 0.75 AFY per acre which is based on EMWD data for similar projects.

Operational Off-Road Equipment - based on CARB Cargo Handling Equipment Yard Truck Emission Testing Report. hours per day based on the Port of Long Beach Air Emissions Inventory (June 2008)

Mobile Land Use Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	70.00	1.00
tblEnergyUse	T24E	1.30	1.02
tblEnergyUse	T24E	0.45	0.35
tblEnergyUse	T24NG	3.42	2.85
tblEnergyUse	T24NG	2.11	1.76
tblLandUse	LotAcreage	3.99	4.62
tblLandUse	LotAcreage	27.04	41.61
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	5.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	466.91
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblVehicleEF	HHD	0.04	0.60
tblVehicleEF	HHD	0.04	0.60
tblVehicleEF	HHD	0.04	0.60
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.05	0.22
tblVehicleEF	LHD1	0.05	0.22
tblVehicleEF	LHD1	0.05	0.22
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	MCY	6.5150e-003	0.00
tblVehicleEF	MCY	6.5150e-003	0.00

tblVehicleEF	MCY	6.5150e-003	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	61.00
tblVehicleTrips	CW_TL	16.60	61.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	ST_TR	2.59	0.64
tblVehicleTrips	ST_TR	2.59	0.64
tblVehicleTrips	SU_TR	2.59	0.64

tblVehicleTrips	SU_TR	2.59	0.64
tblVehicleTrips	WD_TR	2.59	0.64
tblVehicleTrips	WD_TR	2.59	0.64
tblWater	IndoorWaterUseRate	40,179,687.50	1,843,913.00
tblWater	IndoorWaterUseRate	272,417,125.00	12,501,696.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	8.4769	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718
Energy	0.0595	0.5408	0.4543	3.2400e-003		0.0411	0.0411		0.0411	0.0411	0.0000	2,927.0753	2,927.0753	0.1565	0.0408	2,943.0233
Mobile	3.3388	61.1427	33.0996	0.2437	7.6556	1.3959	9.0515	2.1285	1.2843	3.4128	0.0000	20,763.9797	20,763.9797	0.1368	0.0000	20,766.8515
Offroad	0.1341	1.6304	0.7121	2.8900e-003		0.0535	0.0535		0.0492	0.0492	0.0000	254.1640	254.1640	0.0822	0.0000	255.8902
Waste						0.0000	0.0000		0.0000	0.0000	257.9325	0.0000	257.9325	15.2434	0.0000	578.0434
Water						0.0000	0.0000		0.0000	0.0000	4.5512	39.5605	44.1117	0.4699	0.0116	57.5591
Total	12.0093	63.3142	34.3012	0.2499	7.6556	1.4906	9.1462	2.1285	1.3747	3.5032	262.4837	23,984.8475	24,247.3312	16.0889	0.0524	24,601.4393

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	8.4769	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718
Energy	0.0595	0.5408	0.4543	3.2400e-003		0.0411	0.0411		0.0411	0.0411	0.0000	2,927.0753	2,927.0753	0.1565	0.0408	2,943.0233
Mobile	3.2838	59.9586	32.6731	0.2389	7.5025	1.3681	8.8706	2.0860	1.2586	3.3446	0.0000	20,351.6423	20,351.6423	0.1342	0.0000	20,354.4594
Offroad	0.1341	1.6304	0.7121	2.8900e-003		0.0535	0.0535		0.0492	0.0492	0.0000	254.1640	254.1640	0.0822	0.0000	255.8902
Waste						0.0000	0.0000		0.0000	0.0000	257.9325	0.0000	257.9325	15.2434	0.0000	578.0434
Water						0.0000	0.0000		0.0000	0.0000	3.6410	31.6484	35.2894	0.3759	9.2200e-003	46.0415
Total	11.9543	62.1301	33.8747	0.2450	7.5025	1.4628	8.9653	2.0860	1.3491	3.4350	261.5735	23,564.5980	23,826.1714	15.9923	0.0501	24,177.5295

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	1.57	4.45	3.32	3.09	2.00	5.46	2.56	2.00	5.44	3.35	0.35	2.81	2.79	1.11	4.45	2.76

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/1/2016	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	0.00	0.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	3.3388	61.1427	33.0996	0.2437	7.6556	1.3959	9.0515	2.1285	1.2843	3.4128	0.0000	20,763.9797	20,763.9797	0.1368	0.0000	20,766.8515
Mitigated	3.2838	59.9586	32.6731	0.2389	7.5025	1.3681	8.8706	2.0860	1.2586	3.3446	0.0000	20,351.6423	20,351.6423	0.1342	0.0000	20,354.4594

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	111.20	111.20	111.20	2,302,543	2,256,492
Unrefrigerated Warehouse-No Rail	753.93	753.93	753.93	15,611,175	15,298,952
Total	865.13	865.13	865.13	17,913,718	17,555,444

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	61.00	8.40	6.90	100.00	0.00	0.00	92	5	3
Unrefrigerated Warehouse-No	61.00	8.40	6.90	100.00	0.00	0.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.220300	0.000000	0.176600	0.603100	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
NaturalGas Unmitigated	0.0595	0.5408	0.4543	3.2400e-003		0.0411	0.0411		0.0411	0.0411	0.0000	588.7339	588.7339	0.0113	0.0108	592.3168
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,338.3415	2,338.3415	0.1452	0.0301	2,350.7065
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,338.3415	2,338.3415	0.1452	0.0301	2,350.7065
NaturalGas Mitigated	0.0595	0.5408	0.4543	3.2400e-003		0.0411	0.0411		0.0411	0.0411	0.0000	588.7339	588.7339	0.0113	0.0108	592.3168

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Refrigerated Warehouse-No Fuel	8.9238e+006	0.0481	0.4374	0.3675	2.6200e-003		0.0333	0.0333		0.0333	0.0333	0.0000	476.2080	476.2080	9.1300e-003	8.7300e-003	479.1061
Unrefrigerated Warehouse-No Fuel	2.10866e+006	0.0114	0.1034	0.0868	6.2000e-004		7.8600e-003	7.8600e-003		7.8600e-003	7.8600e-003	0.0000	112.5259	112.5259	2.1600e-003	2.0600e-003	113.2107
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0595	0.5408	0.4543	3.2400e-003		0.0411	0.0411		0.0411	0.0411	0.0000	588.7339	588.7339	0.0113	0.0108	592.3168

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Refrigerated Warehouse-No Fuel	8.9238e+006	0.0481	0.4374	0.3675	2.6200e-003		0.0333	0.0333		0.0333	0.0333	0.0000	476.2080	476.2080	9.1300e-003	8.7300e-003	479.1061
Unrefrigerated Warehouse-No Fuel	2.10866e+006	0.0114	0.1034	0.0868	6.2000e-004		7.8600e-003	7.8600e-003		7.8600e-003	7.8600e-003	0.0000	112.5259	112.5259	2.1600e-003	2.0600e-003	113.2107
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0595	0.5408	0.4543	3.2400e-003		0.0411	0.0411		0.0411	0.0411	0.0000	588.7339	588.7339	0.0113	0.0108	592.3168

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	487872	103.3249	6.4200e-003	1.3300e-003	103.8712
Refrigerated Warehouse-No Pail	7.11333e+006	1,506.5084	0.0936	0.0194	1,514.4748
Unrefrigerated Warehouse-No Pail	3.43982e+006	728.5082	0.0453	9.3600e-003	732.3605
Total		2,338.3415	0.1452	0.0301	2,350.7065

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	487872	103.3249	6.4200e-003	1.3300e-003	103.8712
Refrigerated Warehouse-No Pail	7.11333e+006	1,506.5084	0.0936	0.0194	1,514.4748
Unrefrigerated Warehouse-No Pail	3.43982e+006	728.5082	0.0453	9.3600e-003	732.3605
Total		2,338.3415	0.1452	0.0301	2,350.7065

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	8.4769	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718
Mitigated	8.4769	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.5856					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.8880					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.3100e-003	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718
Total	8.4769	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.5856					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.8880					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.3100e-003	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718
Total	8.4769	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	44.1117	0.4699	0.0116	57.5591
Mitigated	35.2894	0.3759	9.2200e-003	46.0415

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Pail	1.84391 / 0	5.6699	0.0604	1.4800e-003	7.3984
Unrefrigerated Warehouse-No Pail	12.5017 / 0	38.4418	0.4095	0.0101	50.1607
Total		44.1117	0.4699	0.0115	57.5591

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Pail	1.47513 / 0	4.5359	0.0483	1.1900e-003	5.9179
Unrefrigerated Warehouse-No Pail	10.0014 / 0	30.7535	0.3276	8.0400e-003	40.1235
Total		35.2894	0.3759	9.2300e-003	46.0415

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	257.9325	15.2434	0.0000	578.0434
Unmitigated	257.9325	15.2434	0.0000	578.0434

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	163.32	33.1525	1.9593	0.0000	74.2969
Unrefrigerated Warehouse-No Rail	1107.34	224.7800	13.2841	0.0000	503.7465
Total		257.9325	15.2434	0.0000	578.0433

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	163.32	33.1525	1.9593	0.0000	74.2969
Unrefrigerated Warehouse-No Rail	1107.34	224.7800	13.2841	0.0000	503.7465
Total		257.9325	15.2434	0.0000	578.0433

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	5	4.00	365	200	0.37	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/Backhoes	0.1341	1.6304	0.7121	2.8900e-003		0.0535	0.0535		0.0492	0.0492	0.0000	254.1640	254.1640	0.0822	0.0000	255.8902
Total	0.1341	1.6304	0.7121	2.8900e-003		0.0535	0.0535		0.0492	0.0492	0.0000	254.1640	254.1640	0.0822	0.0000	255.8902

10.0 Vegetation

**MoVal Logistics Center- 2020 High Cube (Passenger Car)
Riverside-South Coast County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	173.75	1000sqft	4.62	173,750.00	0
Unrefrigerated Warehouse-No Rail	1,178.02	1000sqft	41.61	1,178,020.00	0
Parking Lot	1,386.00	Space	12.47	554,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	466.91	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocation," cells AH/AQ 35-44.

Land Use - Lot Acreage:58.7; Cold Storage takes into account 10% of total Project land uses (High Cube and Light Industrial)

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Trips and VMT - Operation run only

Vehicle Trips - ITE Passenger Cars Trip Rate for High-Cube Warehouse. For conservative analysis, C-W trip % changed to 100%.

Vehicle Emission Factors - Passenger Cars Only.

Vehicle Emission Factors - Passenger Cars Only.

Vehicle Emission Factors - Passenger Cars Only.

Area Coating -

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Water And Wastewater - Water usage based on 0.75 AFY per acre which is based on EMWD data for similar projects.

Operational Off-Road Equipment - based on CARB Cargo Handling Equipment Yard Truck Emission Testing Report. hours per day based on the Port of Long Beach Air Emissions Inventory (June 2008)

Mobile Land Use Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	70.00	1.00
tblEnergyUse	T24E	1.30	1.02
tblEnergyUse	T24E	0.45	0.35
tblEnergyUse	T24NG	3.42	2.85
tblEnergyUse	T24NG	2.11	1.76
tblLandUse	LotAcreage	3.99	4.62
tblLandUse	LotAcreage	27.04	41.61
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	5.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	466.91
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	LDA	0.46	1.00
tblVehicleEF	LDA	0.46	1.00
tblVehicleEF	LDA	0.46	1.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	MCY	6.5150e-003	0.00

tblVehicleEF	MCY	6.5150e-003	0.00
tblVehicleEF	MCY	6.5150e-003	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	ST_TR	2.59	1.04
tblVehicleTrips	ST_TR	2.59	1.04
tblVehicleTrips	SU_TR	2.59	1.04
tblVehicleTrips	SU_TR	2.59	1.04

tblVehicleTrips	WD_TR	2.59	1.04
tblVehicleTrips	WD_TR	2.59	1.04
tblWater	IndoorWaterUseRate	40,179,687.50	1,843,913.00
tblWater	IndoorWaterUseRate	272,417,125.00	12,501,696.00

2.0 Emissions Summary

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	8.4769	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718
Energy	0.0595	0.5408	0.4543	3.2400e-003		0.0411	0.0411		0.0411	0.0411	0.0000	2,927.0753	2,927.0753	0.1565	0.0408	2,943.0233
Mobile	0.3504	0.5912	6.3621	0.0293	2.9593	0.0151	2.9744	0.7855	0.0140	0.7995	0.0000	1,809.4387	1,809.4387	0.0636	0.0000	1,810.7741
Offroad	0.1341	1.6304	0.7121	2.8900e-003		0.0535	0.0535		0.0492	0.0492	0.0000	254.1640	254.1640	0.0822	0.0000	255.8902
Waste						0.0000	0.0000		0.0000	0.0000	257.9325	0.0000	257.9325	15.2434	0.0000	578.0434
Water						0.0000	0.0000		0.0000	0.0000	4.5512	39.5605	44.1117	0.4699	0.0116	57.5591
Total	9.0209	2.7627	7.5636	0.0355	2.9593	0.1098	3.0691	0.7855	0.1045	0.8899	262.4837	5,030.3065	5,292.7902	16.0158	0.0524	5,645.3618

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	8.4769	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718
Energy	0.0595	0.5408	0.4543	3.2400e-003		0.0411	0.0411		0.0411	0.0411	0.0000	2,927.0753	2,927.0753	0.1565	0.0408	2,943.0233
Mobile	0.3485	0.5802	6.2491	0.0288	2.9001	0.0149	2.9150	0.7698	0.0138	0.7835	0.0000	1,773.7831	1,773.7831	0.0624	0.0000	1,775.0928
Offroad	0.1341	1.6304	0.7121	2.8900e-003		0.0535	0.0535		0.0492	0.0492	0.0000	254.1640	254.1640	0.0822	0.0000	255.8902
Waste						0.0000	0.0000		0.0000	0.0000	257.9325	0.0000	257.9325	15.2434	0.0000	578.0434
Water						0.0000	0.0000		0.0000	0.0000	3.6410	31.6484	35.2894	0.3759	9.2200e-003	46.0415
Total	9.0190	2.7517	7.4506	0.0349	2.9001	0.1096	3.0097	0.7698	0.1042	0.8740	261.5735	4,986.7387	5,248.3122	15.9205	0.0501	5,598.1629

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	1.51	59.41	10.91	9.78	2.00	48.93	3.68	2.00	47.34	7.32	0.35	5.92	5.64	1.11	4.45	5.37

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/1/2016	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	0.00	0.00	0.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	0.3504	0.5912	6.3621	0.0293	2.9593	0.0151	2.9744	0.7855	0.0140	0.7995	0.0000	1,809.4387	1,809.4387	0.0636	0.0000	1,810.7741
Mitigated	0.3485	0.5802	6.2491	0.0288	2.9001	0.0149	2.9150	0.7698	0.0138	0.7835	0.0000	1,773.7831	1,773.7831	0.0624	0.0000	1,775.0928

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	180.70	180.70	180.70	1,018,358	997,991
Unrefrigerated Warehouse-No Rail	1,225.14	1,225.14	1,225.14	6,904,440	6,766,351
Total	1,405.84	1,405.84	1,405.84	7,922,799	7,764,343

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	16.60	8.40	6.90	100.00	0.00	0.00	92	5	3
Unrefrigerated Warehouse-No	16.60	8.40	6.90	100.00	0.00	0.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Unmitigated	0.0595	0.5408	0.4543	3.2400e-003		0.0411	0.0411		0.0411	0.0411	0.0000	588.7339	588.7339	0.0113	0.0108	592.3168
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,338.3415	2,338.3415	0.1452	0.0301	2,350.7065
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,338.3415	2,338.3415	0.1452	0.0301	2,350.7065
NaturalGas Mitigated	0.0595	0.5408	0.4543	3.2400e-003		0.0411	0.0411		0.0411	0.0411	0.0000	588.7339	588.7339	0.0113	0.0108	592.3168

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Refrigerated Warehouse-No Fuel	8.9238e+006	0.0481	0.4374	0.3675	2.6200e-003		0.0333	0.0333		0.0333	0.0333	0.0000	476.2080	476.2080	9.1300e-003	8.7300e-003	479.1061
Unrefrigerated Warehouse-No Fuel	2.10866e+006	0.0114	0.1034	0.0868	6.2000e-004		7.8600e-003	7.8600e-003		7.8600e-003	7.8600e-003	0.0000	112.5259	112.5259	2.1600e-003	2.0600e-003	113.2107
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0595	0.5408	0.4543	3.2400e-003		0.0411	0.0411		0.0411	0.0411	0.0000	588.7339	588.7339	0.0113	0.0108	592.3168

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Refrigerated Warehouse-No Fuel	8.9238e+006	0.0481	0.4374	0.3675	2.6200e-003		0.0333	0.0333		0.0333	0.0333	0.0000	476.2080	476.2080	9.1300e-003	8.7300e-003	479.1061
Unrefrigerated Warehouse-No Fuel	2.10866e+006	0.0114	0.1034	0.0868	6.2000e-004		7.8600e-003	7.8600e-003		7.8600e-003	7.8600e-003	0.0000	112.5259	112.5259	2.1600e-003	2.0600e-003	113.2107
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0595	0.5408	0.4543	3.2400e-003		0.0411	0.0411		0.0411	0.0411	0.0000	588.7339	588.7339	0.0113	0.0108	592.3168

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	487872	103.3249	6.4200e-003	1.3300e-003	103.8712
Refrigerated Warehouse-No Pail	7.11333e+006	1,506.5084	0.0936	0.0194	1,514.4748
Unrefrigerated Warehouse-No Pail	3.43982e+006	728.5082	0.0453	9.3600e-003	732.3605
Total		2,338.3415	0.1452	0.0301	2,350.7065

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	487872	103.3249	6.4200e-003	1.3300e-003	103.8712
Refrigerated Warehouse-No Pail	7.11333e+006	1,506.5084	0.0936	0.0194	1,514.4748
Unrefrigerated Warehouse-No Pail	3.43982e+006	728.5082	0.0453	9.3600e-003	732.3605
Total		2,338.3415	0.1452	0.0301	2,350.7065

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	8.4769	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718
Mitigated	8.4769	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.5856					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.8880					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.3100e-003	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718
Total	8.4769	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.5856					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.8880					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.3100e-003	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718
Total	8.4769	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	44.1117	0.4699	0.0116	57.5591
Mitigated	35.2894	0.3759	9.2200e-003	46.0415

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Pail	1.84391 / 0	5.6699	0.0604	1.4800e-003	7.3984
Unrefrigerated Warehouse-No Pail	12.5017 / 0	38.4418	0.4095	0.0101	50.1607
Total		44.1117	0.4699	0.0115	57.5591

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Pail	1.47513 / 0	4.5359	0.0483	1.1900e-003	5.9179
Unrefrigerated Warehouse-No Pail	10.0014 / 0	30.7535	0.3276	8.0400e-003	40.1235
Total		35.2894	0.3759	9.2300e-003	46.0415

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	257.9325	15.2434	0.0000	578.0434
Unmitigated	257.9325	15.2434	0.0000	578.0434

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	163.32	33.1525	1.9593	0.0000	74.2969
Unrefrigerated Warehouse-No Rail	1107.34	224.7800	13.2841	0.0000	503.7465
Total		257.9325	15.2434	0.0000	578.0433

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	163.32	33.1525	1.9593	0.0000	74.2969
Unrefrigerated Warehouse-No Rail	1107.34	224.7800	13.2841	0.0000	503.7465
Total		257.9325	15.2434	0.0000	578.0433

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	5	4.00	365	200	0.37	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/Backhoes	0.1341	1.6304	0.7121	2.8900e-003		0.0535	0.0535		0.0492	0.0492	0.0000	254.1640	254.1640	0.0822	0.0000	255.8902
Total	0.1341	1.6304	0.7121	2.8900e-003		0.0535	0.0535		0.0492	0.0492	0.0000	254.1640	254.1640	0.0822	0.0000	255.8902

10.0 Vegetation

**MoVal Logistics Center- 2020 Light Industrial (Trucks)
Riverside-South Coast County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	122.52	1000sqft	5.27	122,516.00	0
General Light Industry	97.22	1000sqft	4.61	97,222.00	0
General Light Industry	166.01	1000sqft	6.83	166,010.00	0
Parking Lot	187.00	Space	1.68	74,800.00	0
Parking Lot	220.00	Space	1.98	88,000.00	0
Parking Lot	205.00	Space	1.84	82,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	466.91	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Lot Acreage (Light Industrial Buildings 2,3,4):22.21

Construction Phase -

Off-road Equipment - Operational Run Only.

Trips and VMT - Operational Run Only.

Vehicle Trips - Truck Trip Rate based on Traffic Study

Vehicle Emission Factors - Trucks Only; Information derived from Traffic Study.

Vehicle Emission Factors - Trucks Only; Information derived from Traffic Study.

Vehicle Emission Factors - Trucks Only; Information derived from Traffic Study.

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Water And Wastewater - Water usage based on 0.75 AFY per acre which is based on EMWD data for similar projects.

Operational Off-Road Equipment - based on CARB Cargo Handling Equipment Yard Truck Emission Testing Report. hours per day based on the Port of Long Beach Air Emissions Inventory (June 2008)

Mobile Land Use Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblEnergyUse	T24E	2.69	2.10
tblEnergyUse	T24NG	16.16	13.45
tblLandUse	LandUseSquareFeet	122,520.00	122,516.00
tblLandUse	LandUseSquareFeet	97,220.00	97,222.00
tblLandUse	LotAcreage	2.81	5.27
tblLandUse	LotAcreage	3.81	6.83
tblLandUse	LotAcreage	2.23	4.61
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00

tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	466.91
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblVehicleEF	HHD	0.04	0.44
tblVehicleEF	HHD	0.04	0.44
tblVehicleEF	HHD	0.04	0.44
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.05	0.37
tblVehicleEF	LHD1	0.05	0.37
tblVehicleEF	LHD1	0.05	0.37
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	MCY	6.5150e-003	0.00
tblVehicleEF	MCY	6.5150e-003	0.00
tblVehicleEF	MCY	6.5150e-003	0.00

tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	16.60	61.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	ST_TR	1.32	1.49
tblVehicleTrips	SU_TR	0.68	1.49
tblVehicleTrips	WD_TR	6.97	1.49
tblWater	IndoorWaterUseRate	89,204,687.50	5,427,870.00

2.0 Emissions Summary

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.7352	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262
Energy	0.0636	0.5782	0.4857	3.4700e-003		0.0440	0.0440		0.0440	0.0440	0.0000	1,531.2904	1,531.2904	0.0681	0.0231	1,539.8900
Mobile	1.8593	34.5609	18.4798	0.1405	5.0192	0.7377	5.7568	1.3949	0.6787	2.0736	0.0000	11,934.1878	11,934.1878	0.0854	0.0000	11,935.9819
Offroad	0.0537	0.6521	0.2849	1.1600e-003		0.0214	0.0214		0.0197	0.0197	0.0000	101.6656	101.6656	0.0329	0.0000	102.3561
Waste						0.0000	0.0000		0.0000	0.0000	97.0967	0.0000	97.0967	5.7383	0.0000	217.5999
Water						0.0000	0.0000		0.0000	0.0000	1.7220	14.9683	16.6903	0.1778	4.3700e-003	21.7783
Total	4.7118	35.7914	19.2632	0.1451	5.0192	0.8031	5.8222	1.3949	0.7423	2.1373	98.8187	13,582.1368	13,680.9555	6.1025	0.0275	13,817.6323

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.7352	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262
Energy	0.0636	0.5782	0.4857	3.4700e-003		0.0440	0.0440		0.0440	0.0440	0.0000	1,531.2904	1,531.2904	0.0681	0.0231	1,539.8900
Mobile	1.8291	33.8911	18.2319	0.1377	4.9188	0.7229	5.6417	1.3670	0.6651	2.0322	0.0000	11,697.1168	11,697.1168	0.0838	0.0000	11,698.8766
Offroad	0.0537	0.6521	0.2849	1.1600e-003		0.0214	0.0214		0.0197	0.0197	0.0000	101.6656	101.6656	0.0329	0.0000	102.3561
Waste						0.0000	0.0000		0.0000	0.0000	97.0967	0.0000	97.0967	5.7383	0.0000	217.5999
Water						0.0000	0.0000		0.0000	0.0000	1.3776	11.9747	13.3523	0.1422	3.4900e-003	17.4205
Total	4.6816	35.1216	19.0153	0.1423	4.9188	0.7883	5.7071	1.3670	0.7288	2.0958	98.4743	13,342.0721	13,440.5464	6.0653	0.0266	13,576.1692

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	1.78	3.69	2.77	2.72	2.00	4.50	2.34	2.00	4.48	2.86	0.35	2.52	2.50	1.15	3.20	2.49

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	0.00	0.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	1.8593	34.5609	18.4798	0.1405	5.0192	0.7377	5.7568	1.3949	0.6787	2.0736	0.0000	11,934.1878	11,934.1878	0.0854	0.0000	11,935.9819
Mitigated	1.8291	33.8911	18.2319	0.1377	4.9188	0.7229	5.6417	1.3670	0.6651	2.0322	0.0000	11,697.1168	11,697.1168	0.0838	0.0000	11,698.8766

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	182.55	182.55	182.55	3,780,038	3,704,438
General Light Industry	144.86	144.86	144.86	2,999,472	2,939,483
General Light Industry	247.35	247.35	247.35	5,121,810	5,019,374
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	574.77	574.77	574.77	11,901,321	11,663,295

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	61.00	8.40	6.90	100.00	0.00	0.00	92	5	3
General Light Industry	61.00	8.40	6.90	100.00	0.00	0.00	92	5	3
General Light Industry	61.00	8.40	6.90	100.00	0.00	0.00	92	5	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.374000	0.000000	0.182300	0.443700	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
NaturalGas Unmitigated	0.0636	0.5782	0.4857	3.4700e-003		0.0440	0.0440		0.0440	0.0440	0.0000	629.4888	629.4888	0.0121	0.0115	633.3197
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	901.8016	901.8016	0.0560	0.0116	906.5703
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	901.8016	901.8016	0.0560	0.0116	906.5703
NaturalGas Mitigated	0.0636	0.5782	0.4857	3.4700e-003		0.0440	0.0440		0.0440	0.0440	0.0000	629.4888	629.4888	0.0121	0.0115	633.3197

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	2.97305e+006	0.0160	0.1457	0.1224	8.7000e-004		0.0111	0.0111		0.0111	0.0111	0.0000	158.6532	158.6532	3.0400e-003	2.9100e-003	159.6187
General Light Industry	3.74654e+006	0.0202	0.1837	0.1543	1.1000e-003		0.0140	0.0140		0.0140	0.0140	0.0000	199.9296	199.9296	3.8300e-003	3.6700e-003	201.1463
General Light Industry	5.07659e+006	0.0274	0.2489	0.2090	1.4900e-003		0.0189	0.0189		0.0189	0.0189	0.0000	270.9060	270.9060	5.1900e-003	4.9700e-003	272.5546
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0636	0.5782	0.4857	3.4600e-003		0.0440	0.0440		0.0440	0.0440	0.0000	629.4888	629.4888	0.0121	0.0116	633.3197

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	2.97305e+006	0.0160	0.1457	0.1224	8.7000e-004		0.0111	0.0111		0.0111	0.0111	0.0000	158.6532	158.6532	3.0400e-003	2.9100e-003	159.6187
General Light Industry	3.74654e+006	0.0202	0.1837	0.1543	1.1000e-003		0.0140	0.0140		0.0140	0.0140	0.0000	199.9296	199.9296	3.8300e-003	3.6700e-003	201.1463
General Light Industry	5.07659e+006	0.0274	0.2489	0.2090	1.4900e-003		0.0189	0.0189		0.0189	0.0189	0.0000	270.9060	270.9060	5.1900e-003	4.9700e-003	272.5546
Total		0.0636	0.5782	0.4857	3.4600e-003		0.0440	0.0440		0.0440	0.0440	0.0000	629.4888	629.4888	0.0121	0.0116	633.3197

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	1.01889e+006	215.7867	0.0134	2.7700e-003	216.9278
General Light Industry	1.28397e+006	271.9274	0.0169	3.4900e-003	273.3654
General Light Industry	1.73978e+006	368.4635	0.0229	4.7300e-003	370.4119
Parking Lot	65824	13.9407	8.7000e-004	1.8000e-004	14.0144
Parking Lot	72160	15.2825	9.5000e-004	2.0000e-004	15.3634
Parking Lot	77440	16.4008	1.0200e-003	2.1000e-004	16.4875
Total		901.8016	0.0560	0.0116	906.5703

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	1.01889e+006	215.7867	0.0134	2.7700e-003	216.9278
General Light Industry	1.28397e+006	271.9274	0.0169	3.4900e-003	273.3654
General Light Industry	1.73978e+006	368.4635	0.0229	4.7300e-003	370.4119
Parking Lot	65824	13.9407	8.7000e-004	1.8000e-004	14.0144
Parking Lot	72160	15.2825	9.5000e-004	2.0000e-004	15.3634
Parking Lot	77440	16.4008	1.0200e-003	2.1000e-004	16.4875
Total		901.8016	0.0560	0.0116	906.5703

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	2.7352	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262
Mitigated	2.7352	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4555					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.2785					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2100e-003	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262
Total	2.7352	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4555					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.2785					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2100e-003	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262
Total	2.7352	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	16.6903	0.1778	4.3700e-003	21.7783
Mitigated	13.3523	0.1422	3.4900e-003	17.4205

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	5.42787 / 0	16.6903	0.1778	4.3700e-003	21.7783
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		16.6903	0.1778	4.3700e-003	21.7783

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	4.3423 / 0	13.3523	0.1422	3.4900e-003	17.4205
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		13.3523	0.1422	3.4900e-003	17.4205

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	97.0967	5.7383	0.0000	217.5999
Unmitigated	97.0967	5.7383	0.0000	217.5999

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	478.33	97.0967	5.7383	0.0000	217.5999
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		97.0967	5.7383	0.0000	217.5999

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	478.33	97.0967	5.7383	0.0000	217.5999
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		97.0967	5.7383	0.0000	217.5999

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	2	4.00	365	200	0.37	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/Backhoes	0.0537	0.6521	0.2849	1.1600e-003		0.0214	0.0214		0.0197	0.0197	0.0000	101.6656	101.6656	0.0329	0.0000	102.3561
Total	0.0537	0.6521	0.2849	1.1600e-003		0.0214	0.0214		0.0197	0.0197	0.0000	101.6656	101.6656	0.0329	0.0000	102.3561

10.0 Vegetation

**MoVal Logistics Center- 2020 Light Industrial (Passenger Cars)
Riverside-South Coast County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	122.52	1000sqft	5.27	122,516.00	0
General Light Industry	97.22	1000sqft	4.61	97,222.00	0
General Light Industry	166.01	1000sqft	6.83	166,010.00	0
Parking Lot	187.00	Space	1.68	74,800.00	0
Parking Lot	220.00	Space	1.98	88,000.00	0
Parking Lot	205.00	Space	1.84	82,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	466.91	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Lot Acreage (Light Industrial Buildings 2,3,4):22.21

Construction Phase -

Off-road Equipment - Operational Run Only.

Trips and VMT - Operational Run Only.

Vehicle Trips - Passenger Trip Rate based on Traffic Study; For conservative analysis, C-W trip % changed to 100%.

Vehicle Emission Factors - Passenger Cars Only; Information derived from Traffic Study.

Vehicle Emission Factors - Passenger Cars Only; Information derived from Traffic Study.

Vehicle Emission Factors - Passenger Cars Only; Information derived from Traffic Study.

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Water And Wastewater - Water usage based on 0.75 AFY per acre which is based on EMWD data for similar projects.

Operational Off-Road Equipment - based on CARB Cargo Handling Equipment Yard Truck Emission Testing Report. hours per day based on the Port of Long Beach Air Emissions Inventory (June 2008)

Mobile Land Use Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblEnergyUse	T24E	2.69	2.10
tblEnergyUse	T24NG	16.16	13.45
tblLandUse	LandUseSquareFeet	122,520.00	122,516.00
tblLandUse	LandUseSquareFeet	97,220.00	97,222.00
tblLandUse	LotAcreage	2.81	5.27
tblLandUse	LotAcreage	3.81	6.83
tblLandUse	LotAcreage	2.23	4.61
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00

tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	466.91
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	LDA	0.46	1.00
tblVehicleEF	LDA	0.46	1.00
tblVehicleEF	LDA	0.46	1.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	MCY	6.5150e-003	0.00
tblVehicleEF	MCY	6.5150e-003	0.00
tblVehicleEF	MCY	6.5150e-003	0.00

tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	ST_TR	1.32	5.48
tblVehicleTrips	SU_TR	0.68	5.48
tblVehicleTrips	WD_TR	6.97	5.48
tblWater	IndoorWaterUseRate	89,204,687.50	5,427,870.00

2.0 Emissions Summary

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.7352	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262
Energy	0.0636	0.5782	0.4857	3.4700e-003		0.0440	0.0440		0.0440	0.0440	0.0000	1,531.2904	1,531.2904	0.0681	0.0231	1,539.8900
Mobile	0.5269	0.8889	9.5664	0.0441	4.4498	0.0227	4.4725	1.1811	0.0211	1.2022	0.0000	2,720.7850	2,720.7850	0.0956	0.0000	2,722.7930
Offroad	0.0537	0.6521	0.2849	1.1600e-003		0.0214	0.0214		0.0197	0.0197	0.0000	101.6656	101.6656	0.0329	0.0000	102.3561
Waste						0.0000	0.0000		0.0000	0.0000	97.0967	0.0000	97.0967	5.7383	0.0000	217.5999
Water						0.0000	0.0000		0.0000	0.0000	1.7220	14.9683	16.6903	0.1778	4.3700e-003	21.7783
Total	3.3793	2.1194	10.3498	0.0487	4.4498	0.0881	4.5379	1.1811	0.0848	1.2658	98.8187	4,368.7340	4,467.5527	6.1127	0.0275	4,604.4434

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.7352	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262
Energy	0.0636	0.5782	0.4857	3.4700e-003		0.0440	0.0440		0.0440	0.0440	0.0000	1,531.2904	1,531.2904	0.0681	0.0231	1,539.8900
Mobile	0.5240	0.8725	9.3965	0.0432	4.3608	0.0223	4.3831	1.1575	0.0207	1.1782	0.0000	2,667.1709	2,667.1709	0.0938	0.0000	2,669.1403
Offroad	0.0537	0.6521	0.2849	1.1600e-003		0.0214	0.0214		0.0197	0.0197	0.0000	101.6656	101.6656	0.0329	0.0000	102.3561
Waste						0.0000	0.0000		0.0000	0.0000	97.0967	0.0000	97.0967	5.7383	0.0000	217.5999
Water						0.0000	0.0000		0.0000	0.0000	1.3776	11.9747	13.3523	0.1422	3.4900e-003	17.4205
Total	3.3764	2.1030	10.1799	0.0479	4.3608	0.0877	4.4485	1.1575	0.0844	1.2418	98.4743	4,312.1263	4,410.6006	6.0753	0.0266	4,546.4329

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	1.67	31.54	4.39	4.16	2.00	24.73	2.44	2.00	23.66	3.45	0.35	3.62	3.55	1.15	3.20	3.48

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	0.00	0.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	0.5269	0.8889	9.5664	0.0441	4.4498	0.0227	4.4725	1.1811	0.0211	1.2022	0.0000	2,720.7850	2,720.7850	0.0956	0.0000	2,722.7930
Mitigated	0.5240	0.8725	9.3965	0.0432	4.3608	0.0223	4.3831	1.1575	0.0207	1.1782	0.0000	2,667.1709	2,667.1709	0.0938	0.0000	2,669.1403

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	671.41	671.41	671.41	3,783,816	3,708,140
General Light Industry	532.77	532.77	532.77	3,002,470	2,942,420
General Light Industry	909.73	909.73	909.73	5,126,929	5,024,390
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	2,113.91	2,113.91	2,113.91	11,913,215	11,674,950

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	100.00	0.00	0.00	92	5	3
General Light Industry	16.60	8.40	6.90	100.00	0.00	0.00	92	5	3
General Light Industry	16.60	8.40	6.90	100.00	0.00	0.00	92	5	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
NaturalGas Unmitigated	0.0636	0.5782	0.4857	3.4700e-003		0.0440	0.0440		0.0440	0.0440	0.0000	629.4888	629.4888	0.0121	0.0115	633.3197
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	901.8016	901.8016	0.0560	0.0116	906.5703
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	901.8016	901.8016	0.0560	0.0116	906.5703
NaturalGas Mitigated	0.0636	0.5782	0.4857	3.4700e-003		0.0440	0.0440		0.0440	0.0440	0.0000	629.4888	629.4888	0.0121	0.0115	633.3197

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	2.97305e+006	0.0160	0.1457	0.1224	8.7000e-004		0.0111	0.0111		0.0111	0.0111	0.0000	158.6532	158.6532	3.0400e-003	2.9100e-003	159.6187
General Light Industry	3.74654e+006	0.0202	0.1837	0.1543	1.1000e-003		0.0140	0.0140		0.0140	0.0140	0.0000	199.9296	199.9296	3.8300e-003	3.6700e-003	201.1463
General Light Industry	5.07659e+006	0.0274	0.2489	0.2090	1.4900e-003		0.0189	0.0189		0.0189	0.0189	0.0000	270.9060	270.9060	5.1900e-003	4.9700e-003	272.5546
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0636	0.5782	0.4857	3.4600e-003		0.0440	0.0440		0.0440	0.0440	0.0000	629.4888	629.4888	0.0121	0.0116	633.3197

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	2.97305e+006	0.0160	0.1457	0.1224	8.7000e-004		0.0111	0.0111		0.0111	0.0111	0.0000	158.6532	158.6532	3.0400e-003	2.9100e-003	159.6187
General Light Industry	3.74654e+006	0.0202	0.1837	0.1543	1.1000e-003		0.0140	0.0140		0.0140	0.0140	0.0000	199.9296	199.9296	3.8300e-003	3.6700e-003	201.1463
General Light Industry	5.07659e+006	0.0274	0.2489	0.2090	1.4900e-003		0.0189	0.0189		0.0189	0.0189	0.0000	270.9060	270.9060	5.1900e-003	4.9700e-003	272.5546
Total		0.0636	0.5782	0.4857	3.4600e-003		0.0440	0.0440		0.0440	0.0440	0.0000	629.4888	629.4888	0.0121	0.0116	633.3197

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	1.01889e+006	215.7867	0.0134	2.7700e-003	216.9278
General Light Industry	1.28397e+006	271.9274	0.0169	3.4900e-003	273.3654
General Light Industry	1.73978e+006	368.4635	0.0229	4.7300e-003	370.4119
Parking Lot	65824	13.9407	8.7000e-004	1.8000e-004	14.0144
Parking Lot	72160	15.2825	9.5000e-004	2.0000e-004	15.3634
Parking Lot	77440	16.4008	1.0200e-003	2.1000e-004	16.4875
Total		901.8016	0.0560	0.0116	906.5703

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	1.01889e+006	215.7867	0.0134	2.7700e-003	216.9278
General Light Industry	1.28397e+006	271.9274	0.0169	3.4900e-003	273.3654
General Light Industry	1.73978e+006	368.4635	0.0229	4.7300e-003	370.4119
Parking Lot	65824	13.9407	8.7000e-004	1.8000e-004	14.0144
Parking Lot	72160	15.2825	9.5000e-004	2.0000e-004	15.3634
Parking Lot	77440	16.4008	1.0200e-003	2.1000e-004	16.4875
Total		901.8016	0.0560	0.0116	906.5703

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	2.7352	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262
Mitigated	2.7352	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4555					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.2785					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2100e-003	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262
Total	2.7352	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4555					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.2785					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2100e-003	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262
Total	2.7352	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	16.6903	0.1778	4.3700e-003	21.7783
Mitigated	13.3523	0.1422	3.4900e-003	17.4205

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	5.42787 / 0	16.6903	0.1778	4.3700e-003	21.7783
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		16.6903	0.1778	4.3700e-003	21.7783

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	4.3423 / 0	13.3523	0.1422	3.4900e-003	17.4205
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		13.3523	0.1422	3.4900e-003	17.4205

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	97.0967	5.7383	0.0000	217.5999
Unmitigated	97.0967	5.7383	0.0000	217.5999

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	478.33	97.0967	5.7383	0.0000	217.5999
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		97.0967	5.7383	0.0000	217.5999

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	478.33	97.0967	5.7383	0.0000	217.5999
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		97.0967	5.7383	0.0000	217.5999

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	2	4.00	365	200	0.37	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/Backhoes	0.0537	0.6521	0.2849	1.1600e-003		0.0214	0.0214		0.0197	0.0197	0.0000	101.6656	101.6656	0.0329	0.0000	102.3561
Total	0.0537	0.6521	0.2849	1.1600e-003		0.0214	0.0214		0.0197	0.0197	0.0000	101.6656	101.6656	0.0329	0.0000	102.3561

10.0 Vegetation

APPENDIX 3.2:
EMFAC 2014 MODEL OUTPUTS

EMFAC2014 (v1.0.7) Emissions Inventory

Region Type: Statewide

Region: California

Calendar Year: 2017

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	CalYr	VehClass	MdYr	Speed	Fuel	Population	VMT	Fuel_Consumption			
Statewide	2017	HHDT	Aggregate	Aggregate	GAS	1951.672	237237.1	53.18238	53,182.38	4.460822	5.699996
Statewide	2017	HHDT	Aggregate	Aggregate	DSL	262062.9	37511294	6569.371	6,569,371.08	5.710028	
Statewide	2017	LDA	Aggregate	Aggregate	GAS	13744297	4.99E+08	19207.63	19,207,627.74	25.9583	26.01426
Statewide	2017	LDA	Aggregate	Aggregate	DSL	117684.9	4599520	135.49	135,490.02	33.9473	
Statewide	2017	LHDT1	Aggregate	Aggregate	GAS	373673.2	11449741	1140.361	1,140,360.93	10.04045	12.7911
Statewide	2017	LHDT1	Aggregate	Aggregate	DSL	316855.1	11085324	621.4165	621,416.45	17.8388	
Statewide	2017	MHDT	Aggregate	Aggregate	GAS	41009.19	2048387	312.3257	312,325.66	6.558498	8.133431
Statewide	2017	MHDT	Aggregate	Aggregate	DSL	288070.3	14981854	1781.531	1,781,531.29	8.409538	