Indian Street Commerce Center

GREENHOUSE GAS ANALYSIS

CITY OF MORENO VALLEY

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JULY 7, 2016

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LIST OF ABBREVIATED TERMS

(1)	Reference
ARB	California Air Resources Board
AQIA	Air Quality Impact Analysis
BAU	Business as Usual
CAA	Federal Clean Air Act
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CALGreen	California Green Building Standards Code
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resource Board
CAP	Climate Action Plan
CAT	Climate Action Team
CBSC	California Building Standards Commission
CCR	California Code of Regulations
CEC	California Energy Commission
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CFCs	Chlorofluorocarbons
CH4	Methane
CO2	Carbon Dioxide
CO2e	Carbon Dioxide Equivalent
CO	Carbon Monoxide
CREED	Citizens for Responsible Equitable Environmental Development
EISA	Energy Independence and Security Act
EPA	Environmental Protection Agency
EPS	Emission Performance Standard
GCC	Global Climate Change
GHGA	Greenhouse Gas Analysis
Gg	Gigagrams
GWP	Global Warming Potential
HFCs	Hydrofluorocarbons
LCA	Life-Cycle Analysis
MMs	Mitigation Measures
MMTCO2e	Million Metric Ton of Carbon Dioxide Equivalent
MTCO2e	Metric Ton of Carbon Dioxide Equivalent

NEPA	National Environmental Policy Act
NHTSA	National Highway Traffic Safety Administration
NIOSH	National Institute for Occupational Safety and Health
NOx	Oxides of Nitrogen
PFCs	Perfluorocarbons
PM10	Particulate Matter 10 microns in diameter or less
PM2.5	Particulate Matter 2.5 microns in diameter or less
PPM	Parts Per Million
Project	Indian Street Commerce Center
RTP	Regional Transportation Plan
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
TSF	Thousand Square Feet
UNFCCC	United Nations' Framework Convention on Climate Change
USEPA	United States Environmental Protection Agency
WCI	Western Regional Climate Action Initiative
ZEV	Zero Emission Vehicle

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EXECUTIVE SUMMARY

For informational purposes herein, the Project's GHG emissions are evaluated to determine if they fall 28.5% or more below 2005 BAU, in accordance with the goals of AB 32. The total amount of Project-related GHG emissions for 2005 BAU without accounting for any project design features or regulatory developments that would reduce GHG emissions from direct and indirect sources combined would total 14,948.63 MMTCO2e.

The total amount of Project-related GHG emissions when accounting for applicable regulatory developments and project design features that would reduce GHG emissions from direct and indirect sources combined would total 11,498.60 MMTCO2e in 2020. This results in a 23.08% reduction from 2005 BAU, thus with implementation of the Project's design features and regulatory developments, the Project's GHG reduction would not meet the AB 32 reduction target of 28.5% (1). Both of these quantities are above the significance criterion used herein of 10,000 MTCO2e per year. Thus, GHG emissions is a significant cumulatively considerable impact of the proposed Project.

INCREMENTAL PROJECT GHG EMISSIONS ARE CUMULATIVELY CONSIDERABLE

The City of Moreno Valley does not have an adopted threshold of significance for GHG emissions. For CEQA purposes, the City has discretion to select an appropriate significance criterion, based on substantial evidence. The AQMD's adopted numerical threshold of 10,000 MTCO2e per year for industrial stationary source emissions is selected as the significance criterion. The AQMD-adopted industrial threshold was selected by the City because the proposed Project is analogous to an industrial use much more closely than any other land use such as commercial or residential in terms of its expected operating characteristics. The Project proposes large buildings with loading bays and fenced truck courts that are expected to house businesses that serve mid- stream functions in the goods movement chain between manufacturers and consumers, characteristic of an industrial operation. Further, analysis of the Project's traffic generation in this Environmental Impact Report (EIR) is based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition, 2012 for industrial and warehouse uses. Also, 10,000 MTCO2e has been used as the significance threshold by many local government lead agencies for logistics projects throughout the SCAG region since the AQMD adopted this threshold for its own use. Further, to ensure that the threshold is conservative in its application, although the AQMD uses their adopted 10,000 MTCO2e threshold to determine the significance of stationary source emissions for industrial projects, the 10,000 MTCO2e threshold used in this EIR is applied to all sources of Project-related GHG emissions whether stationary source, mobile source, area source, or other.

Use of this threshold is also consistent with guidance provided in the CAPCOA *CEQA and Climate Change* handbook, as such the City has opted to use a non-zero threshold approach based on Approach 2 of the handbook. Threshold 2.5 (Unit-Based Thresholds Based on Market Capture) establishes a numerical threshold based on capture of approximately 90 percent of emissions from future development. The latest threshold developed by SCAQMD

using this method is 10,000 metric tons carbon dioxide equivalent (MTCO2E) per year for industrial projects. This threshold is based on the review of 711 CEQA projects.

The Project will result in approximately 1,338.22 MTCO2e per year (approximately 11% of total Project GHG emissions) from construction, area, energy, waste, water usage, and on-site emissions. In addition, the Project has the potential to result in an additional 10,816.76 MTCO2e per year (approximately 89% of total Project GHG emissions) from mobile sources, if the assumption is made that all of the vehicle trips to and from the Project are "new" trips resulting from the development of the Project. As such, the Project has the potential to generate a total of approximately 12,154.98 MTCO2e per year in 2018 and would exceed the SCAQMD's numeric threshold of 10,000 MTCO2e if it were applied. Neither the Project Applicant nor the Lead Agency can substantively or materially affect reductions in Project mobile-source GHG emissions. These emissions sources are regulated by CARB and USEPA. As a result of CARB and USEPA actions, Basin-wide vehicular-source emissions (including GHG Emissions) have been reduced dramatically over the past years and are expected to further decline as clean vehicle and fuel technologies improve. Future CARB and USEPA actions could be expected to have a positive effect on Project-related vehicular-source emissions, resulting in incremental reductions in vehicular-source GHG emissions when compared to GHG emissions estimates presented here. No further feasible measures are available that would substantively mitigate the Project's operational-source GHG emissions.[1] Thus, the Project has the potential to result in a cumulatively considerable impact with respect to GHG emissions.

1 It is noted further, that in developing the 10,000 MT CO2e/year significance threshold for industrial uses, SCAQMD specifically excluded GHG emissions from mobile sources. If this same protocol was employed here rather than the conservative approach taken, Project GHG emissions would total less than 1,400 MTCO2e/year; substantively less than the 10,000 MT CO2e/year significance threshold employed by SCAQMD.

1 INTRODUCTION

This report presents the results of greenhouse gas analysis (GHGA) prepared by Urban Crossroads, Inc. for the proposed Indian Street Commerce Center ("Project"). The purpose of this GHGA is to evaluate Project-related construction and operational emissions and determine the level of greenhouse gas (GHG) impacts as a result of constructing and operating the proposed Project.

1.1 SITE LOCATION

The proposed Indian Street Commerce Center site is located at 17845 Indian Street in the City of Moreno Valley, as shown on Exhibit 1-A. Interstate 215 (I-215) Freeway is located approximately one mile west of the Project site. The March Air Reserve Base/Inland Port Airport (MARB/IPA) is located approximately one-half mile west of the Project site.

1.2 STUDY AREA

The Project site is currently vacant and is designated by the City of Moreno Valley General Plan Land Use Map, Figure 2-2, as Business Park/Light Industrial land use. (2) The properties adjacent to the Project site on all sides are also designated as Business Park/Light Industrial land use. Existing Open Space land use is located west of the Project site at the southern boundary of the MARB/IPA. The existing land uses are shown on Exhibit 1-B.

1.3 PROJECT DESCRIPTION

The Project is proposed to consist of approximately 446,350 square feet, of which 357,080 square feet would be allocated to high-cube warehouse/distribution center use and 89,270 square feet to manufacturing use within a single building. Supporting office uses would be also incorporated in the building design. The Project's site plan is illustrated on Exhibit 1-C. The Project is anticipated to have an Opening Year of 2018[2].

As part of the Project's design, all on-site outdoor cargo handling equipment (CHE) (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) will be powered by non-diesel fueled engines and all on-site indoor forklifts shall be powered by electricity, compressed natural gas, or propane.

The City of Moreno Valley's General Plan Land Use designation for the Project site is Business Park/Light Industrial (BP/LI), which allows for "manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities (2)." The land uses and development proposed by the Project are permitted/conditionally permitted under

[2] Notwithstanding, the Traffic Impact Analysis (TIA) prepared for the project evaluates an Opening Year of 2020 since the City of Moreno Valley traffic study guidelines require the Opening Year to be a minimum of 5 years from baseline (2015) conditions. Using a 2018 Opening Year for purposes of the GHGA herein represents a conservative estimate of emissions compared to if a 2020 opening year consistent with the traffic study were utilized.

the Project site's current BP/LI Land Use designations. The Project is located within Specific Plan 208 (SP 208), Moreno Valley Industrial Area Plan (MVIAP) (formerly the Oleander Specific Plan. SP 208 land uses of the Project site are zoned Industrial. The development concepts and uses proposed by the Project are permitted or conditionally permitted under the site's current SP 208 Industrial zoning designation. As such, the Project's land uses and development are permitted/conditionally permitted under the City General Plan Land Use designations and under the SP 208's zoning designation. Therefore, no changes are proposed to these existing designations.

EXHIBIT 1-A: LOCATION MAP

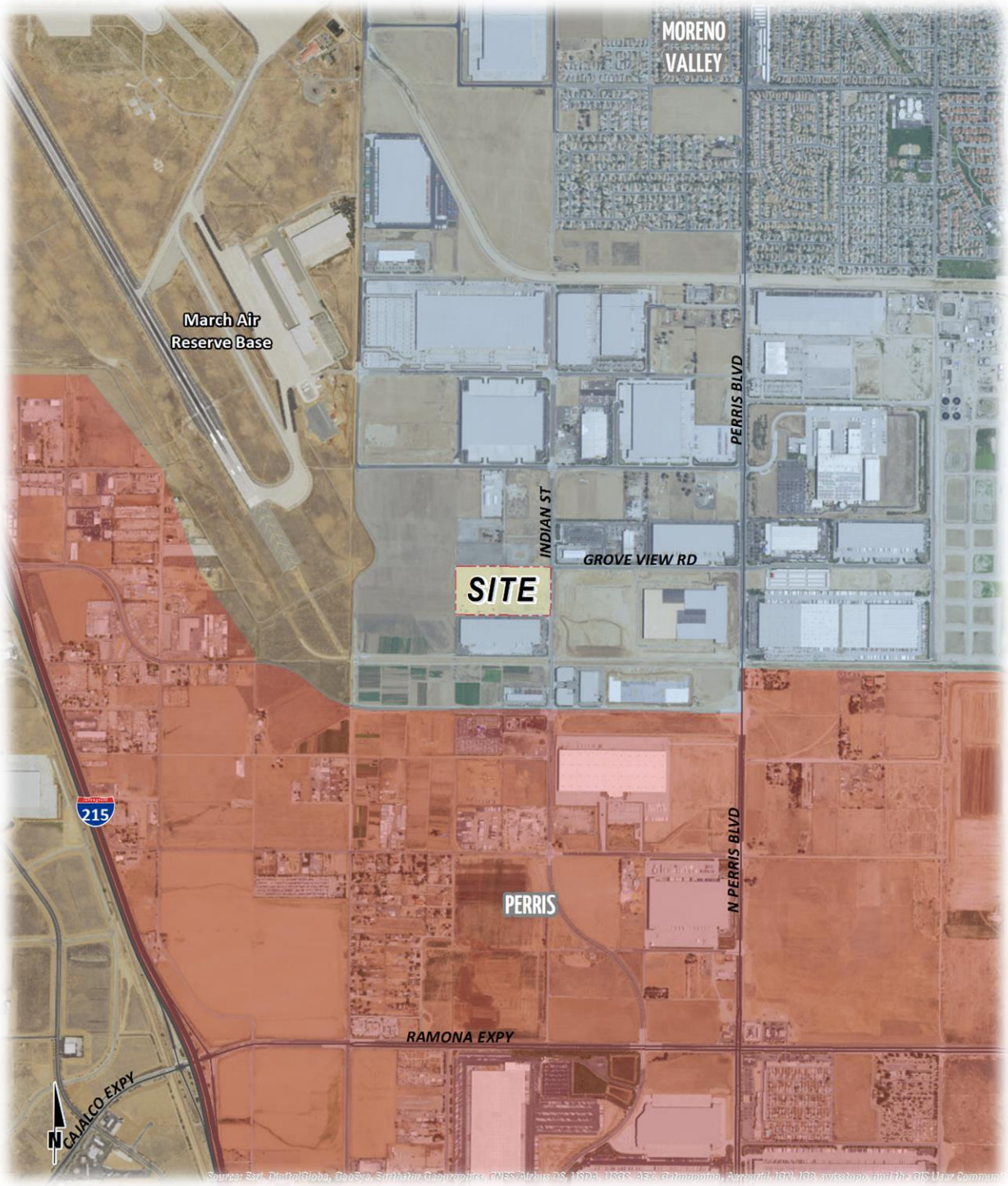
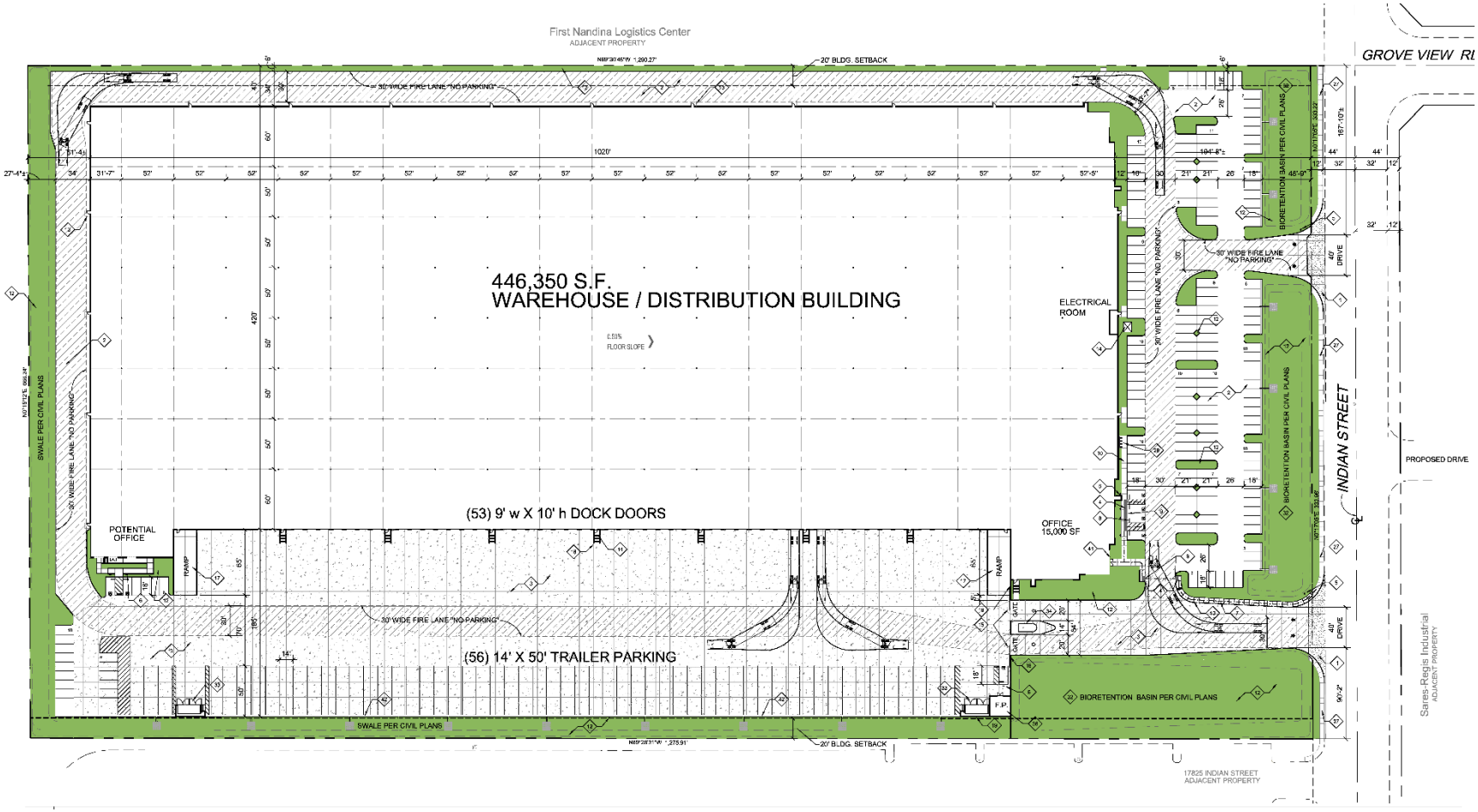


EXHIBIT 1-B: EXISTING LAND USES

Source: Google Earth, Applied Planning.

EXHIBIT 1-C: SITE PLAN



1.4 PROJECT DESIGN FEATURES

Energy-saving and sustainable design features and operational programs would be incorporated into all facilities developed pursuant to the Indian Street Commerce Center. The Project in total would **provide** sustainable design features necessary to achieve a "Certified" rating under the United States Green Building Council's Leadership in Energy & Environmental Design (LEED) programs. The Project also incorporates and expresses the following design features and attributes promoting energy efficiency and sustainability. Because these features/attributes are integral to the Project, and/or are regulatory requirements, they are not considered to be mitigation measures.

- The Project design concept allow for inclusion of a photo-voltaic electrical generation system (PV system) capable of generating sufficient power to serve all Project office areas. Energy savings from such a PV system is preliminarily estimated at 160,350 kilowatt hours per year. Alternatively, as a Condition of Approval, the Project would be required to obtain an equivalent amount of electricity from a utility provide that receives its energy from renewable (non-fossil fuel) sources, and provide documentation to this effect to the City.
- All on-site cargo handling equipment (CHE) would be powered by non-diesel fueled engines (e.g., electric or natural gas).
- Regional vehicle miles traveled (VMT) and associated vehicular-source emissions are reduced by the following Project design features/attributes:
    - Sidewalks along the Project site's Indian Street frontage would be constructed as part of the Project, and would connect to existing and planned sidewalks to the north and south of the Project site. Facilitating pedestrian access encourages people to walk instead of drive. The Project would not impose barriers to pedestrian access and interconnectivity.
    - Distribution warehouse uses proposed by the Project act to reduce truck travel distances and truck trips within the region by consolidating and reducing requirements for single-delivery truck trips.
- To reduce water demands and associated energy use, development proposals within the Project site would be required to implement a Water Conservation Strategy and demonstrate a minimum 20% reduction in indoor water usage when compared to baseline water demand (total expected water demand without implementation of the Water Conservation Strategy)[3]. Development proposals within the Specific Plan Area would also be required to implement the following:
    - Landscaping palette emphasizing drought tolerant plants consistent with provisions of the MVIAP and/or City of Moreno Valley requirements;
    - Use of water-efficient irrigation techniques consistent with provisions of the MVIAP and/or City of Moreno Valley requirements;
    - U.S. Environmental Protection Agency (EPA) Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and water-conserving shower heads.

3 Reduction of 20% indoor water usage is consistent with the current CalGreen Code performance standards for residential and non-residential land uses. Per CalGreen, the reduction shall be based on the maximum allowable water use per plumbing fixture and fittings as required by the California Building Standards Code.

- The Project in total would surpass by a minimum of 5%, incumbent performance standards established under the Building Energy Efficiency Standards contained in the California Code of Regulations (CCR), Title 24, Part 6 (Title 24, Title 24 Energy Efficiency Standards).

1.5 OTHER REQUIREMENTS

The Project would be required to comply with regulations imposed by the State of California and the South Coast Air Quality Management District aimed at the reduction of air pollutant emissions. Those that are directly and indirectly applicable to the Project and that would assist in the reduction of greenhouse gas emissions include:

- Global Warming Solutions Act of 2006 (AB32) (1). AB 32 is applicable to the Project because, as a development Project, the Indian Street Commerce Center will need to meet 2020 GHG reduction goals set forth in AB 32. AB 32 requires the California Air Resources Board (CARB or ARB) to develop regulations and market mechanisms to reduce California's greenhouse gas emissions to 1990 levels by the year of 2020. Many of the GHG reduction measures outlined in AB 32 (e.g., Low Carbon Fuel Standard, Advanced Clean Car standards, and Cap-and-Trade) have been adopted over the last five years and implementation activities are ongoing.
- Pavley Fuel Efficiency Standards (AB1493). Establishes fuel efficiency ratings for new vehicles (3). AB 1493 (Pavley) establishes fuel efficiency rating for model year 2009-2016 passenger cars and light trucks. AB 1493 is applicable to the Project because model year 2009-2016 passenger cars and light duty truck vehicles traveling to and from the Project site are required by the State of California to implement GHG emission reduction standards related to fuel efficiency. The CARB anticipates that implementation of the Pavley regulations will reduce GHG emissions from California passenger vehicles by about 30 percent in 2016 compared to emissions that occurred prior to 2009 when AB 1492 was enacted.
- Title 24 California Code of Regulations (California Building Code). Establishes energy efficiency requirements for new construction (4). The Title 24 energy standards address the energy efficiency of new (and altered) homes and commercial buildings. Because energy efficiency reduces energy costs, increases reliability and availability of electricity, improves building occupant comfort, and reduces impacts to the environment, standards are important and necessary for California's energy future. Therefore, a new development such as the Indian Street Commerce Center is required to comply with Title 24 Code of Regulations and would therefore increase the Project's energy efficiency and reduce its environmental impact.
- Title 17 California Code of Regulations (Low Carbon Fuel Standard). Requires carbon content of fuel sold in California to be 10% less by 2020 (5). Because the LCFS applies to any transportation fuel that is sold, supplied, or offered for sale in California, and to any person who, as a regulated party, is responsible for a transportation fuel in a calendar year, all vehicles accessing the site will be required to comply with LCFS. Implementation of such a standard will reduce greenhouse gas emissions by reducing the full fuel-cycle, carbon intensity of the transportation fuel pool used in California.
- California Water Conservation in Landscaping Act of 2006 (AB1881). Requires local agencies to adopt the Department of Water Resources updated Water Efficient Landscape Ordinance or equivalent by January 1, 2010 to ensure efficient landscapes in new development and reduced water waste in existing landscapes (6). As a new development project within the State of California, the Indian Street Commerce Center is required to comply with the City of Moreno Valley's adopted water efficient landscape requirements and would therefore be consistent with

the requirements of AB1881 in order to help conserve California's water resources and to promote efficient water use.

1.6 CONSTRUCTION ACTIVITY MITIGATION MEASURES

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

1.7 OPERATIONAL ACTIVITY MITIGATION MEASURES

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

2 BACKGROUND

2.1 INTRODUCTION TO GLOBAL CLIMATE CHANGE

Global Climate Change (GCC) is defined as the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. GCC is currently one of the most controversial environmental issues in the United States, and much debate exists within the scientific community about whether or not GCC is occurring naturally or as a result of human activity. Some data suggests that GCC has occurred in the past over the course of thousands or millions of years. These historical changes to the Earth's climate have occurred naturally without human influence, as in the case of an ice age. However, many scientists believe that the climate shift taking place since the industrial revolution (1900) is occurring at a quicker rate and magnitude than in the past. Scientific evidence suggests that GCC is the result of increased concentrations of greenhouse gases in the earth's atmosphere, including carbon dioxide, methane, nitrous oxide, and fluorinated gases. Many scientists believe that this increased rate of climate change is the result of greenhouse gases resulting from human activity and industrialization over the past 200 years.

An individual project like the proposed Project evaluated in this GHGA cannot generate enough greenhouse gas emissions to effect a discernible change in global climate. However, the proposed Project may participate in the potential for GCC by its incremental contribution of greenhouse gasses combined with the cumulative increase of all other sources of greenhouse gases, which when taken together constitute potential influences on GCC. Because these changes may have serious environmental consequences, Section 3.0 will evaluate the potential for the proposed Project to have a significant effect upon the environment as a result of its potential contribution to the greenhouse effect.

2.2 GREENHOUSE GAS EMISSIONS INVENTORIES

Global

Worldwide anthropogenic (man-made) GHG emissions are tracked by the Intergovernmental Panel on Climate Change for industrialized nations (referred to as Annex I) and developing nations (referred to as Non-Annex I). Man-made GHG emissions data for Annex I nations are available through 2012. For the Year 2011 the sum of these emissions totaled approximately 28,865,994 gigagrams (Gg) Carbon Dioxide Equivalent (CO2e[4]) (7) (8). The GHG emissions in more recent years may differ from the inventories presented in Table 2-1; however, the data is representative of currently available inventory data.

United States

As noted in Table 2-1, the United States, as a single country, was the number two producer of GHG emissions in 2012. The primary greenhouse gas emitted by human activities in the United

[4] The global emissions are the sum of Annex I and non-Annex I countries, without counting Land-Use, Land-Use Change and Forestry (LULUCF). For countries without 2005 data, the UNFCCC data for the most recent year were used. United Nations Framework Convention on Climate Change, "Annex I Parties – GHG total without LULUCF,"

States was CO2, representing approximately 83 percent of total greenhouse gas emissions (9). Carbon dioxide from fossil fuel combustion, the largest source of US greenhouse gas emissions, accounted for approximately 78 percent of the GHG emissions.

TABLE 2-1: TOP GHG PRODUCER COUNTRIES AND THE EUROPEAN UNION[5]

Emitting Countries	GHG Emissions (Gg CO2e)
China	10,975,500
United States	6,665,700
European Union (27 member countries)	4,544,224
Russian Federation	2,322,220
India	3,013,770
Japan	1,344,580
Total	**28,865,994**

State of California

CARB compiles GHG inventories for the State of California. CARB GHG inventory data indicates that in 2013 (the most recent inventory of record) California GHG emissions totaled approximately 459.3 Million Metric Tons of Carbon Dioxide Equivalent ($MMTCO_2e$).[6] "In 2010, California accounted for 6.8 percent of all emissions in the country [United States], and ranked second highest among the states with total emissions of 453 $MMTCO_2e$, only behind Texas with 763 $MMTCO_2e$. From a per capita standpoint, California has the 45th lowest emissions with 12.1 $MMTCO_2e$ /person in 2010."[7]

City of Moreno Valley

Year 2010 Baseline Community GHG emissions for the City of Moreno Valley are estimated at 920,712 MTCO2e/year, as summarized at Table 2-2.

TABLE 2-2: CITY OF MORENO VALLEY YEAR 2010 GHG BASELINE EMISSIONS INVENTORY

Sector	$MTCO_2e$/year	Percentof Total
Transportation	513,581	56%
Energy	277,230	30%
Area Sources	69,437	7%
Solid Waste	43,633	5%
Water and Wastewater	16,831	2%
Total	920,712	100%

[5] Used http://unfccc.int data for Annex I countries. Consulted the CAIT Climate Data Explorer http://www.wrig.org site to reference Non-Annex I countries such as China and India.

6 Cal EPA. "California Greenhouse Gas Emission Inventory - 2015 Edition." California's Greenhouse Gas Emission Inventory. Cal EPA, n.d. Web. 29 Oct. 2015.

7 California Environmental Protection Agency. Air Resources Board. California's Greenhouse Gas Emission Inventory - 2014 Edition (May 2014), p. 28.

Source: City of Moreno Valley Greenhouse Gas Analysis Table 3-6 (2012)

Project Site Greenhouse Gas Emissions

The Project site is currently vacant and undeveloped and is not a source of GHG emissions.

2.3 GLOBAL CLIMATE CHANGE DEFINED

Global Climate Change refers to the change in average meteorological conditions on the earth with respect to temperature, wind patterns, precipitation and storms. Global temperatures are regulated by naturally occurring atmospheric gases such as water vapor, CO2 (Carbon Dioxide), N2O (Nitrous Oxide), CH4 (Methane), hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. These particular gases are important due to their residence time (duration they stay) in the atmosphere, which ranges from 10 years to more than 100 years. These gases allow solar radiation into the Earth's atmosphere, but prevent radioactive heat from escaping, thus warming the Earth's atmosphere. GCC can occur naturally as it has in the past with the previous ice ages. According to the California Air Resources Board (CARB), the climate change since the industrial revolution differs from previous climate changes in both rate and magnitude (10).

Gases that trap heat in the atmosphere are often referred to as greenhouse gases. Greenhouse gases are released into the atmosphere by both natural and anthropogenic (human) activity. Without the natural greenhouse gas effect, the Earth's average temperature would be approximately 61° Fahrenheit (F) cooler than it is currently. The cumulative accumulation of these gases in the earth's atmosphere is considered to be the cause for the observed increase in the earth's temperature.

2.4 GREENHOUSE GASES

For the purposes of this analysis, emissions of carbon dioxide, methane, and nitrous oxide were evaluated (see Table 3-2 later in this report) because these gasses are the primary contributors to GCC from development projects. Although other substances such as fluorinated gases also contribute to GCC, sources of fluorinated gases are not well-defined and no accepted emissions factors or methodology exist to accurately calculate these gases.

Greenhouse gases have varying global warming potential values; Global Warming Potential (GWP) values represent the potential of a gas to trap heat in the atmosphere. Carbon dioxide is utilized as the reference gas for GWP, and thus has a GWP of 1.

The atmospheric lifetime and GWP of selected greenhouse gases are summarized at Table 2-3. As shown in the table below, GWP range from 1 for carbon dioxide to 23,900 for sulfur hexafluoride.

TABLE 2-3: GLOBAL WARMING POTENTIAL AND ATMOSPHERIC LIFETIME OF SELECT GHGS

Gas	Atmospheric Lifetime (years)	Global Warming Potential (100 year time horizon)
Carbon Dioxide	50-200	1
Methane	12 ± 3	25
Nitrous Oxide	120	298
HFC-23	264	14,800
HFC-134a	14.6	1,430
HFC-152a	1.5	124
Sulfur Hexafluoride (SF6)	3,200	22,800
Source: Environmental Protection Agency (EPA) 2013 (URL: http://www.epa.gov/ghgreporting/documents/pdf/2013/documents/2013-data-elements.pdf)		

Water Vapor: Water vapor (H20) is the most abundant, important, and variable greenhouse gas in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. A climate feedback is an indirect, or secondary, change, either positive or negative, that occurs within the climate system in response to a forcing mechanism. The feedback loop in which water is involved is critically important to projecting future climate change.

As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to 'hold' more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a "positive feedback loop." The extent to which this positive feedback loop will continue is unknown as there are also dynamics that hold the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it will eventually also condense into clouds, which are more able to reflect incoming solar radiation (thus allowing less energy to reach the Earth's surface and heat it up).

There are no human health effects from water vapor itself; however, when some pollutants come in contact with water vapor, they can dissolve and the water vapor can then act as a pollutant-carrying agent. The main source of water vapor is evaporation from the oceans (approximately 85 percent). Other sources include: evaporation from other water bodies, sublimation (change from solid to gas) from sea ice and snow, and transpiration from plant leaves.

Carbon Dioxide: Carbon dioxide (CO2) is an odorless and colorless GHG. Outdoor levels of carbon dioxide are not high enough to result in negative health effects. Carbon dioxide is emitted from natural and manmade sources. Natural sources include: the decomposition of dead organic matter; respiration of bacteria, plants, animals and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources include: the burning of coal, oil, natural gas, and wood. Carbon dioxide is naturally removed from the air by photosynthesis, dissolution into ocean water, transfer to soils and ice caps, and chemical weathering of carbonate rocks (11).

Since the industrial revolution began in the mid-1700s, the sort of human activity that increases GHG emissions has increased dramatically in scale and distribution. Data from the past 50 years suggests a corollary increase in levels and concentrations. As an example, prior to the industrial revolution, CO2 concentrations were fairly stable at 280 parts per million (ppm). Today, they are around 370 ppm, an increase of more than 30 percent. Left unchecked, the concentration of carbon dioxide in the atmosphere is projected to increase to a minimum of 540 ppm by 2100 as a direct result of anthropogenic sources (12).

Methane: Methane (CH4) is an extremely effective absorber of radiation, though its atmospheric concentration is less than carbon dioxide and its lifetime in the atmosphere is brief (10-12 years), compared to other GHGs. No health effects are known to occur from exposure to methane.

Methane has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of methane. Other anthropocentric sources include fossil-fuel combustion and biomass burning.

Nitrous Oxide: Nitrous oxide (N2O), also known as laughing gas, is a colorless greenhouse gas. Nitrous oxide can cause dizziness, euphoria, and sometimes slight hallucinations. In small doses, it is considered harmless. However, in some cases, heavy and extended use can cause Olney's Lesions (brain damage) (13).

Concentrations of nitrous oxide also began to rise at the beginning of the industrial revolution. In 1998, the global concentration was 314 parts per billion (ppb). Nitrous oxide is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used as an aerosol spray propellant, i.e., in whipped cream bottles. It is also used in potato chip bags to keep chips fresh. It is used in rocket engines and in race cars. Nitrous oxide can be transported into the stratosphere, be deposited on the Earth's surface, and be converted to other compounds by chemical reaction

Chlorofluorocarbons: Chlorofluorocarbons (CFCs) are gases formed synthetically by replacing all hydrogen atoms in methane or ethane (C2H6) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble and chemically unreactive in the troposphere (the level of

air at the Earth's surface). CFCs are no longer being used; therefore, it is not likely that health effects would be experienced. Nonetheless, in confined indoor locations, working with CFC-113 or other CFCs is thought to result in death by cardiac arrhythmia (heart frequency too high or too low) or asphyxiation.

CFCs have no natural source, but were first synthesized in 1928. They were used for refrigerants, aerosol propellants and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and was extremely successful, so much so that levels of the major CFCs are now remaining steady or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.

Hydrofluorocarbons: Hydrofluorocarbons (HFCs) are synthetic, man-made chemicals that are used as a substitute for CFCs. Out of all the greenhouse gases, they are one of three groups with the highest global warming potential. The HFCs with the largest measured atmospheric abundances are (in order), HFC-23 (CHF3), HFC-134a (CF3CH2F), and HFC-152a (CH3CHF2). Prior to 1990, the only significant emissions were of HFC-23. HFC-134a emissions are increasing due to its use as a refrigerant. The U.S. EPA estimates that concentrations of HFC-23 and HFC-134a are now about 10 parts per trillion (ppt) each; and that concentrations of HFC-152a are about 1 ppt (14). No health effects are known to result from exposure to HFCs, which are manmade for applications such as automobile air conditioners and refrigerants.

Perfluorocarbons: Perfluorocarbons (PFCs) have stable molecular structures and do not break down through chemical processes in the lower atmosphere. High-energy ultraviolet rays, which occur about 60 kilometers above Earth's surface, are able to destroy the compounds. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF4) and hexafluoroethane (C2F6). The U.S. EPA estimates that concentrations of CF4 in the atmosphere are over 70 ppt.

No health effects are known to result from exposure to PFCs. The two main sources of PFCs are primary aluminum production and semiconductor manufacture.

Sulfur Hexafluoride: Sulfur hexafluoride (SF6) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It also has the highest GWP of any gas evaluated (23,900). The U.S. EPA indicates that concentrations in the 1990s were about 4 ppt. In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing.

Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

2.5 EFFECTS OF CLIMATE CHANGE IN CALIFORNIA

The California Environmental Protection Agency (CalEPA) published a report titled "Scenarios of Climate Change in California: An Overview" (Climate Scenarios report) in February 2006

(California Climate Change Center 2006), that while not adequate for a CEQA project-specific or cumulative analysis, is generally instructive about the statewide impacts of global warming.

The Climate Scenarios report uses a range of emissions scenarios developed by the Intergovernmental Panel on Climate Change (IPCC) to project a series of potential warming ranges (i.e., temperature increases) that may occur in California during the 21st century: lower warming range (3.0-5.5°F); medium warming range (5.5-8.0°F); and higher warming range (8.0-10.5°F). The Climate Scenarios report then presents an analysis of future climate in California under each warming range, that while uncertain, present a picture of the impacts of global climate change trends in California.

In addition, most recently on August 5, 2009, the State's Natural Resources Agency released a public review draft of its "California Climate Adaptation Strategy" report that details many vulnerabilities arising from climate change with respect to matters such as temperature extremes, sea level rise, wildfires, floods and droughts and precipitation changes. This report responds to the Governor's Executive Order S-13-2008 that called on state agencies to develop California's strategy to identify and prepare for expected climate impacts

According to the reports, substantial temperature increases arising from increased GHG emissions potentially could result in a variety of impacts to the people, economy, and environment of California associated with a projected increase in extreme conditions, with the severity of the impacts depending upon actual future emissions of GHGs and associated warming. Under the emissions scenarios of the Climate Scenarios report, the impacts of global warming in California have the potential to include, but are not limited to, the following areas:

Air Quality/General Thermal Effects

According to Cal EPA, higher temperatures may increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation could increase from 25 to 35 percent under the lower warming range to 75 to 85 percent under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become difficult to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances, depending on wind conditions. The Climate Scenarios report indicates that large wildfires could become more frequent if GHG emissions are not significantly reduced.

In addition, under the higher warming range scenario, there could be up to 100 more days per year with temperatures above 90°F in Los Angeles and 95°F in Sacramento by 2100. This is a large increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures could increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat.

Water Resources

A vast network of man-made reservoirs and aqueducts captures and transports water throughout the state from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages.

If temperatures continue to increase, more precipitation could fall as rain instead of snow, and the snow that does fall could melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. Under the lower warming range scenario, snowpack losses could be only half as large as those possible if temperatures were to rise to the higher warming range. How much snowpack could be lost depends in part on future precipitation patterns, the projections for which remain uncertain. However, even under the wetter climate projections, the loss of snowpack could pose challenges to water managers and hamper hydropower generation. It could also adversely affect winter tourism. Under the lower warming range, the ski season at lower elevations could be reduced by as much as a month. If temperatures reach the higher warming range and precipitation declines, there might be many years with insufficient snow for skiing and snowboarding.

The State's water supplies are also at risk from rising sea levels. An influx of saltwater could degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta – a major fresh water supply.

Agriculture

Increased temperatures could cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. First, California farmers could possibly lose as much as 25 percent of the water supply they need. Although higher CO2 levels can stimulate plant production and increase plant water-use efficiency, California's farmers could face greater water demand for crops and a less reliable water supply as temperatures rise. Crop growth and development could change, as could the intensity and frequency of pest and disease outbreaks. Rising temperatures could aggravate O3 pollution, which makes plants more susceptible to disease and pests and interferes with plant growth.

Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less-than-optimal development for many crops, so rising temperatures could worsen the quantity and quality of yield for a number of California's agricultural products. Products likely to be most affected include wine grapes, fruits and nuts.

In addition, continued global climate change could shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Range expansion could occur in many species while range contractions may be less likely in rapidly evolving species with significant populations already established. Should range contractions occur, new or different weed species could fill the emerging gaps. Continued global climate change could alter the

abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates.

Forests and Landscapes

Global climate change has the potential to intensify the current threat to forests and landscapes by increasing the risk of wildfire and altering the distribution and character of natural vegetation. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55 percent, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout the state. In contrast, wildfires in northern California could increase by up to 90 percent due to decreased precipitation.

Moreover, continued global climate change has the potential to alter natural ecosystems and biological diversity within the state. For example, alpine and subalpine ecosystems could decline by as much as 60 to 80 percent by the end of the century as a result of increasing temperatures. The productivity of the state's forests has the potential to decrease as a result of global climate change.

Rising Sea Levels

Rising sea levels, more intense coastal storms, and warmer water temperatures could increasingly threaten the state's coastal regions. Under the higher warming range scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate low-lying coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats. Under the lower warming range scenario, sea level could rise 12-14 inches.

2.6 HUMAN HEALTH EFFECTS

The potential health effects related directly to the emissions of carbon dioxide, methane, and nitrous oxide as they relate to development projects such as the proposed Project are still being debated in the scientific community. Their cumulative effects to global climate change have the potential to cause adverse effects to human health. Increases in Earth's ambient temperatures would result in more intense heat waves, causing more heat-related deaths. Scientists also purport that higher ambient temperatures would increase disease survival rates and result in more widespread disease. Climate change will likely cause shifts in weather patterns, potentially resulting in devastating droughts and food shortages in some areas (15). Exhibit 2-A presents the potential impacts of global warming.

Water Vapor: There are no known direct health effects related to water vapor at this time. It should be noted however that when some pollutants react with water vapor, the reaction forms a transport mechanism for some of these pollutants to enter the human body through water vapor.

Carbon Dioxide: According to the National Institute for Occupational Safety and Health (NIOSH) high concentrations of carbon dioxide can result in health effects such as: headaches, dizziness, restlessness, difficulty breathing, sweating, increased heart rate, increased cardiac output, increased blood pressure, coma, asphyxia, and/or convulsions. It should be noted that current concentrations of carbon dioxide in the earth's atmosphere are estimated to be approximately 370 parts per million (ppm), the actual reference exposure level (level at which adverse health effects typically occur) is at exposure levels of 5,000 ppm averaged over 10 hours in a 40-hour workweek and short-term reference exposure levels of 30,000 ppm averaged over a 15 minute period (16).

Specific health effects associated with directly emitted GHG emissions are as follows:

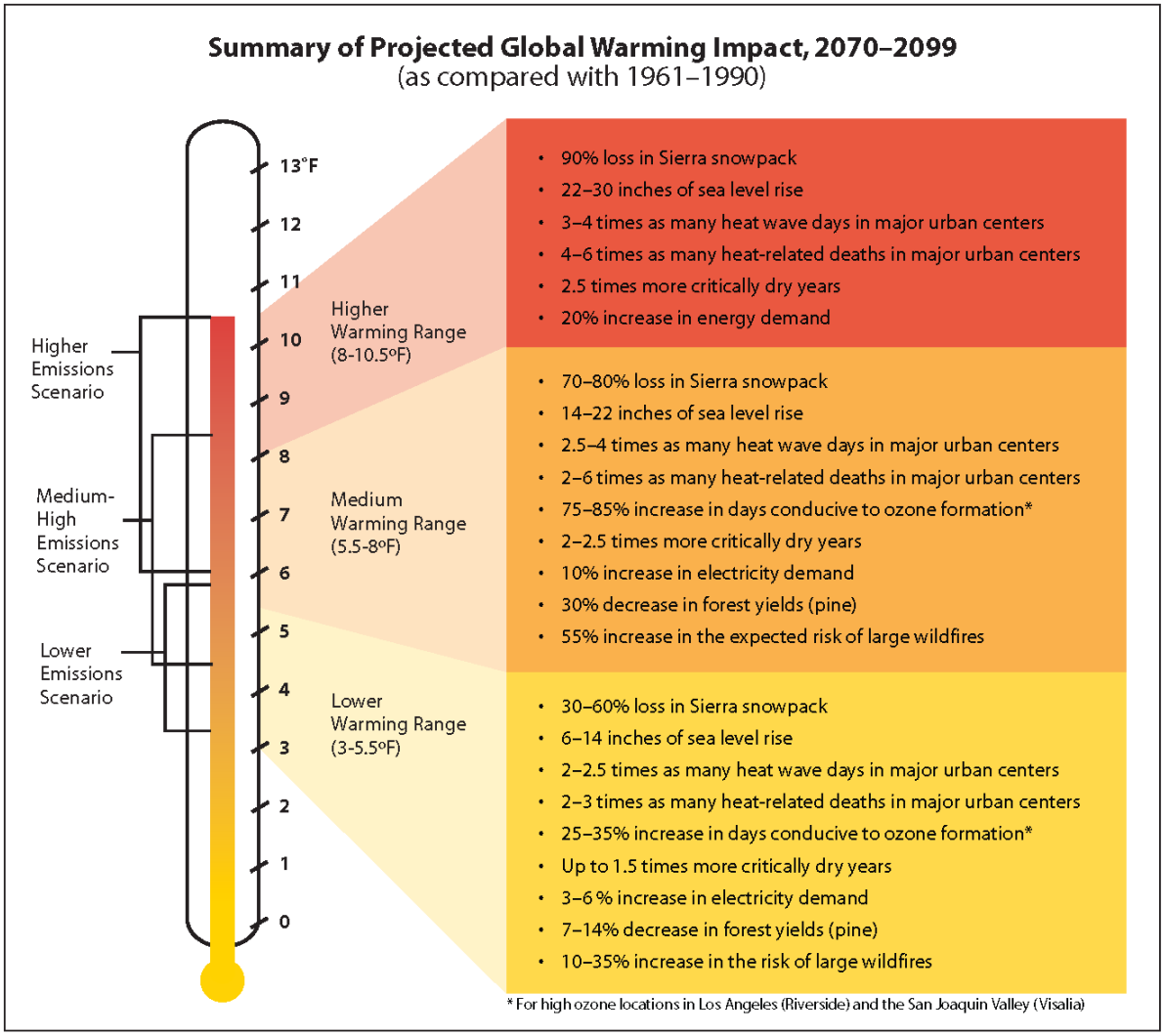
Methane: Methane is extremely reactive with oxidizers, halogens, and other halogen-containing compounds. Methane is also an asphyxiant and may displace oxygen in an enclosed space (17).

Nitrous Oxide: Nitrous Oxide is often referred to as laughing gas; it is a colorless greenhouse gas. The health effects associated with exposure to elevated concentrations of nitrous oxide include dizziness, euphoria, slight hallucinations, and in extreme cases of elevated concentrations nitrous oxide can also cause brain damage (17).

Fluorinated Gases: High concentrations of fluorinated gases can also result in adverse health effects such as asphyxiation, dizziness, headache, cardiovascular disease, cardiac disorders, and in extreme cases, increased mortality (16).

Aerosols: The health effects of aerosols are similar to that of other fine particulate matter. Thus aerosols can cause elevated respiratory and cardiovascular diseases as well as increased mortality (18).

EXHIBIT 2-A: SUMMARY OF PROJECTED GLOBAL WARMING IMPACT



2.7 REGULATORY SETTING

<u>International Regulation and the Kyoto Protocol:</u>

In 1988, the United Nations established the Intergovernmental Panel on Climate Change to evaluate the impacts of global warming and to develop strategies that nations could implement to curtail global climate change. In 1992, the United States joined other countries around the world in signing the United Nations' Framework Convention on Climate Change (UNFCCC) agreement with the goal of controlling greenhouse gas emissions. As a result, the Climate Change Action Plan was developed to address the reduction of GHGs in the United States. The Plan currently consists of more than 50 voluntary programs for member nations to adopt.

The Kyoto protocol is a treaty made under the UNFCCC and was the first international agreement to regulate GHG emissions. Some have estimated that if the commitments outlined

in the Kyoto protocol are met, global GHG emissions could be reduced an estimated five percent from 1990 levels during the first commitment period of 2008-2012. Notably, while the United States is a signatory to the Kyoto protocol, Congress has not ratified the Protocol and the United States is not bound by the Protocol's commitments. In December 2009, international leaders from 192 nations met in Copenhagen to address the future of international climate change commitments post-Kyoto. There have been no international agreements on specific levels of GHG reductions within any particular time frames, or on specific methods of achieving reductions by developed and developing nations.

2015 United Nations Paris Climate Change Conference

On December 12, 2015, which marks the 11th meeting of the Parties to the Kyoto Protocol, 195 nations, including the United States and China, agreed upon a strategy for combatting global climate change to be in effect in 2020. This historic meeting, known as the 21st annual Conference of the Parties (COP21), focused on five key elements: mitigation, a transparency system and global stock-take, adaptation, loss and damage, and support.

In mitigating global climate change, COP 21 participating nations agreed upon a universal long-term goal of keeping the global temperature to well below 2°C or 3.6°F well above pre-industrial levels. The agreement also encouraged participating nations to limit temperature increases even further to 1.5°C or 2.7°F above pre-industrial levels. In addition to that, nations agreed to peak their GHG emissions as soon as possible, with the recognition that developing countries may take longer than developed countries. Thereafter, nations are to undergo rapid reductions in accordance to best available technological advances. The nations are to submit national climate action plans that detail future objectives to address climate change.

In supporting a transparency system and global stock-take, the participating nations agreed to meet every 5 years to set more ambitious targets on global climate change as technologically feasible. The nations are to report to each other and to the public on their progress towards implementing targets and goals through a transparency and accountability system.

In adaptation, participating nations are to strengthen the ability of nations to deal with climate impacts and provide continued international support for adaptation to developing countries.

In supporting loss and damage, participating nations understand the importance of minimizing and addressing the loss and damage associated with adverse effects of global climate change. These nations acknowledge the need to corporate with each other and support each other through safeguards, such as early warning systems, emergency preparedness, and risk insurance.

Participating nations are to support each other in their efforts to fight against global climate change. Developed countries within the COP21 are to continue their existing collective goal of utilizing 100 billion per year in support of the poorest and most vulnerable participating nations, known as climate finance, until 2025, when a new collective goal will be set. (19) (20)

Federal Regulation and the Clean Air Act:

Coinciding 2009 meeting in Copenhagen, on December 7, 2009, the U.S. Environmental Protection Agency issued an Endangerment Finding under Section 202(a) of the Clean Air Act, opening the door to federal regulation of GHGs. The Endangerment Finding notes that GHGs threaten public health and welfare and are subject to regulation under the Clean Air Act.

The Act requires that when new industrial facilities are designed and built, good pollution control must be part of the design. This means that as new, cleaner facilities are built, the country's industrial base becomes cleaner overall. Public health is protected as economic growth proceeds. In areas not meeting air quality standards, to avoid making pollution worse, new and modified large plants and factories must meet the lowest achievable emission rate and obtain offsetting emissions reductions from other sources. In areas that meet air quality standards, new and modified large plants and factories must apply the best available technology considering cost and avoid causing significant degradation of air quality or visibility impairment in national parks. For example, new coal-fired power plants typically install control devices that capture up to 98 percent of the sulfur dioxide and in many cases 90 percent of the nitrogen oxide emissions, relative to uncontrolled levels.

These requirements are applied through pre-construction permitting programs that are administered by state, local, tribal, or EPA permitting authorities, depending on the location. State and local permitting authorities usually administer the pre-construction permit programs that determine how to apply these requirements to facilities.

To date, the EPA has not promulgated regulations on GHG emissions, but it has already begun to develop them. Previously the EPA had not regulated GHGs under the Clean Air Act (21) because it asserted that the Act did not authorize it to issue mandatory regulations to address global climate change and that such regulation would be unwise without an unequivocally established causal link between GHGs and the increase in global surface air temperatures. In Massachusetts v. Environmental Protection Agency et al. (127 S. Ct. 1438 (2007), however, the U.S. Supreme Court held that GHGs are pollutants under the Clean Air Act and directed the EPA to decide whether the gases endangered public health or welfare. The EPA had also not moved aggressively to regulate GHGs because it expected Congress to make progress on GHG legislation, primarily from the standpoint of a cap-and-trade system. However, proposals circulated in both the House of Representative and Senate have been controversial and it may be some time before the U.S. Congress adopts major climate change legislation. The EPA's Endangerment Finding paves the way for federal regulation of GHGs with or without Congress.

Title 24 Energy Standards:

Although global climate change did not become an international concern until the 1980s, efforts to reduce energy consumption began in California in response to the oil crisis in the 1970s, resulting in the unintended reduction of greenhouse gas emissions. In order to manage the state's energy needs and promote energy efficiency, AB 1575 created the California Energy Commission (CEC) in 1975.

The California Energy Commission (CEC) first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (22) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods. The Energy Commission's most recent standard, 2013 Building Energy Efficiency Standard, is 25 percent more efficient than previous standards for residential construction and 30 percent better for nonresidential construction. The Standards, which took effect on January 1, 2014, offer builders better windows, insulation, lighting, ventilation systems and other features that reduce energy consumption in homes and businesses. Some improved measures in the Standards include:

Residential:

- Solar-ready roofs to allow homeowners to add solar photovoltaic panels at a future date
- More efficient windows to allow increased sunlight, while decreasing heat gain
- Insulated hot water pipes, to save water and energy and reduce the time it takes to deliver hot water
- Whole house fans to cool homes and attics with evening air reducing the need for air conditioning load
- Air conditioner installation verification to insure efficient operation

Nonresidential:

- High performance windows, sensors and controls that allow buildings to use "daylighting"
- Efficient process equipment in supermarkets, computer data centers, commercial kitchens, laboratories, and parking garages
- Advanced lighting controls to synchronize light levels with daylight and building occupancy, and provide demand response capability
- Solar-ready roofs to allow businesses to add solar photovoltaic panels at a future date
- Cool roof technologies

<u>CALGreen</u>

Part 11 of the Title 24 Building Standards Code is referred to as the California Green Building Standards Code (CALGreen Code) (23). The purpose of the CALGreen Code is to “improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality.” The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC). The CBSC has released the 2010 California Green Building Standards Code on its Web site. Unless

otherwise noted in the regulation, all newly constructed buildings in California are subject of the requirements of the CALGreen Code.

CALGreen contains both mandatory and voluntary measures, for Non-Residential land uses there are 39 mandatory measures including, but not limited to: exterior light pollution reduction, wastewater reduction by 20%, and commissioning of projects over 10,000 sf. There are two tiers of voluntary measures for Non-Residential land uses for a total of 36 additional elective measures.

The 2013 CALGreen includes additions and amendments to the water efficiency standards for non residential buildings in order to comply with the reduced flow rate table. The 2013 CALGreen has also been rewritten to clarify and definitively identify the requirements and applicability for residential and nonresidential buildings.

Vehicle Standards for Fuel Economy and Reducing Carbon Content

Other regulations have been adopted to address vehicle standards including United States Environmental Protection Agency (USEPA) and National Highway Traffic Safety Administration (NHTSA) joint rulemaking for vehicle standards:

- On March 30, 2009, the NHTSA issued a final rule for model year 2011 (24).
- On May 7, 2010, the USEPA and NHTSA issued a Supplemental Notice of Intent announcing plans to propose stringent, coordinated federal greenhouse gas and fuel economy standards for model year 2017-2025 light-duty vehicles (25)
- On August 9, 2011 USEPA and NHTSA issued a Supplemental Notice of Intent announcing plans to propose stringent, coordinated federal greenhouse has and fuel economy standards for model year 2017-2025 light-duty vehicles (26)
- The NHSTA intends to set standards for model years 2022-2025 in a future rulemaking (27)
- In addition to the regulations applicable to cars and light-duty trucks, on August 9, 2011, the USEPA and the NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks, which applies to vehicles from model year 2014–2018 (28)

Energy Independence and Security Act

On December 19, 2007, the Energy Independence and Security Act of 2007 (EISA) was signed into law (29). Among other key measures, the Act would do the following, which would aid in the reduction of national GHG emissions, both mobile and non-mobile.

Council on Environmental Quality (CEQ) National Environmental Policy Act (NEPA) Guidelines on GHG

On February 18, 2010, the White House Council on Environmental Quality published draft guidance on the consideration of greenhouse gases and climate change for NEPA analyses (30). It recommends that proposed federal actions that are reasonably expected to directly emit 25,000 metric tons of CO2e/year should prepare a quantitative and qualitative NEPA analysis of direct and indirect greenhouse gas emissions.

The draft guidance provides reporting tools and instructions on how to assess the effects of climate change. The draft guidance does not apply to land and resource management actions, nor does it propose to regulate greenhouse gases. Although CEQ has not yet issued final guidance, various NEPA documents are beginning to incorporate the approach recommended in the draft guidance (31)

Other Applicable Regulations and Policies

In addition to the federal regulations and programs described above, there are still more policies and programs to address climate change. A database compiled by the International Energy Agency lists more than 300 policies and measures addressing climate change in the United States (32).

The Western Regional Climate Action Initiative (WCI)

The Western Regional Climate Action Initiative (WCI) is a partnership among seven states, including California, and four Canadian provinces to implement a regional, economy-wide cap-and-trade system to reduce global warming pollution. The WCI will cap GHG emissions from the region's electricity, industrial, and transportation sectors with the goal to reduce the heat trapping emissions that cause global warming to 15% below 2005 levels by 2020. When the WCI adopted this goal in 2007, it estimated that this would require 2007 levels to be reduced worldwide between 50% and 85% by 2050. California is working closely with the other states and provinces to design a regional GHG reduction program that includes a cap-and-trade approach. Air Resource Board's (ARB) planned cap and-trade program, discussed below, is also intended to link California and the other member states and provinces.

California Assembly Bill No. 1493 (AB 1493):

AB 1493 requires CARB to develop and adopt the nation's first greenhouse gas emission standards for automobiles. The Legislature declared in AB 1493 that global warming was a matter of increasing concern for public health and environment in California (33). Further, the legislature stated that technological solutions to reduce greenhouse gas emissions would stimulate the California economy and provide jobs.

To meet the requirements of AB 1493, ARB approved amendments to the California Code of Regulations (CCR) adding GHG emission standards to California's existing motor vehicle emission standards in 2004. Amendments to CCR Title 13 Sections 1900 (CCR 13 1900) and 1961 (CCR 13 1961) and adoption of Section 1961.1 (CCR 13 1961.1) require automobile manufacturers to meet fleet average GHG emission limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes beginning with the 2009 model year. Emission limits are further reduced each model year through 2016.

In December 2004 a group of car dealerships, automobile manufacturers, and trade groups representing automobile manufacturers filed suit against ARB to prevent enforcement of CCR 13 1900 and CCR 13 1961 as amended by AB 1493 and CCR 13 1961.1 (Central Valley Chrysler-Jeep et al. v. Catherine E. Witherspoon, in her official capacity as Executive Director of the

California Air Resources Board, et al.). The suit, heard in the U.S. District Court for the Eastern District of California, contended that California's implementation of regulations that in effect regulate vehicle fuel economy violates various federal laws, regulations, and policies. In January 2007, the judge hearing the case accepted a request from the State Attorney General's office that the trial be postponed until a decision is reached by the U.S. Supreme Court on a separate case addressing GHGs. In the Supreme Court Case, Massachusetts vs. EPA, the primary issue in question is whether the Federal Clean Air Act (CAA) provides authority for USEPA to regulate CO2 emissions. In April 2007, the U.S. Supreme Court ruled in Massachusetts' favor, holding that GHGs are air pollutants under the CAA. On December 11, 2007, the judge in the Central Valley Chrysler-Jeep case rejected each plaintiff's arguments and ruled in California's favor. On December 19, 2007, the USEPA denied California's waiver request. California filed a petition with the Ninth Circuit Court of Appeals challenging USEPA's denial on January 2, 2008.

The Obama administration subsequently directed the USEPA to re-examine their decision. On May 19, 2009, challenging parties, automakers, the State of California, and the federal government reached an agreement on a series of actions that would resolve these current and potential future disputes over the standards through model year 2016. In summary, the USEPA and the U.S. Department of Transportation agreed to adopt a federal program to reduce GHGs and improve fuel economy, respectively, from passenger vehicles in order to achieve equivalent or greater greenhouse gas benefits as the AB 1493 regulations for the 2012–2016 model years. Manufacturers agreed to ultimately drop current and forego similar future legal challenges, including challenging a waiver grant, which occurred on June 30, 2009. The State of California committed to (1) revise its standards to allow manufacturers to demonstrate compliance with the fleet-average GHG emission standard by "pooling" California and specified State vehicle sales; (2) revise its standards for 2012–2016 model year vehicles so that compliance with USEPA-adopted GHG standards would also comply with California's standards; and (3) revise its standards, as necessary, to allow manufacturers to use emissions data from the federal CAFE program to demonstrate compliance with the AB 1493 regulations (34). Both of these programs are aimed at light-duty auto and light-duty trucks.

Executive Order S-3-05:

Executive Order S-3-05, which was signed by Governor Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change (35). It declares that increased temperatures could reduce the Sierra's snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the Executive Order established total greenhouse gas emission targets. Specifically, emissions are to be reduced to the 1990 level by 2020, and to 80% below the 1990 level by 2050. The Executive Order directed the Secretary of the California Environmental Protection Agency to coordinate a multi-agency effort to reduce greenhouse gas emissions to the target levels. The Secretary also is required to submit biannual reports to the Governor and state Legislature describing: (1) progress made toward reaching the emission targets; (2) impacts of global warming on California's resources; and (3) mitigation and adaptation plans to combat these impacts. To comply with the Executive Order, the Secretary of the CalEPA created a Climate Action Team (CAT) made up of members from various state agencies and commission. CAT released its first

report in March 2006. The report proposed to achieve the targets by building on voluntary actions of California businesses, local government and community actions, as well as through state incentive and regulatory programs.

California Assembly Bill 32 (AB 32):

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Climate Solutions Act of 2006. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by the year 2020 (36). This reduction will be accomplished through an enforceable statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires that CARB adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrives at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state achieves reductions in GHG emissions necessary to meet the cap. AB 32 also includes guidance to institute emissions reductions in an economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions.

In November 2007, CARB completed its estimates of 1990 GHG levels. Net emission 1990 levels were estimated at 427 MMTs (emission sources by sector were: transportation – 35 percent; electricity generation – 26 percent; industrial – 24 percent; residential – 7 percent; agriculture – 5 percent; and commercial – 3 percent). Accordingly, 427 MMTs of CO2 equivalent was established as the emissions limit for 2020. For comparison, CARB's estimate for baseline GHG emissions was 473 MMT for 2000 and 532 MMT for 2010. "Business as usual" conditions (without the 28.4 percent reduction to be implemented by CARB regulations) for 2020 were projected to be 596 MMTs.

In December 2007, CARB approved a regulation for mandatory reporting and verification of GHG emissions for major sources. This regulation covered major stationary sources such as cement plants, oil refineries, electric generating facilities/providers, and co-generation facilities, which comprise 94 percent of the point source CO2 emissions in the State.

On December 11, 2008, CARB adopted a scoping plan to reduce GHG emissions to 1990 levels. The Scoping Plan's recommendations for reducing GHG emissions to 1990 levels by 2020 include emission reduction measures, including a cap-and-trade program linked to Western Climate Initiative partner jurisdictions, green building strategies, recycling and waste-related measures, as well as Voluntary Early Actions and Reductions. Implementation of individual measures must begin no later than January 1, 2012, so that the emissions reduction target can be fully achieved by 2020.

Table 2-4 shows the proposed reductions from regulations and programs outlined in the Scoping Plan. While local government operations were not accounted for in achieving the 2020

emissions reduction, local land use changes are estimated to result in a reduction of 5 MMTons of CO2e, which is approximately 3 percent of the 2020 GHG emissions reduction goal. In recognition of the critical role local governments will play in successful implementation of AB 32, CARB is recommending GHG reduction goals of 15 percent of 2006 levels by 2020 to ensure that municipal and community-wide emissions match the state's reduction target (see Climate Change Scoping Plan, Page 27) (37). According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 MMTons of CO2e (or approximately 1.2 percent of the GHG reduction target).

TABLE 2-4: SCOPING PLAN GHG REDUCTION MEASURES TOWARDS 2020 TARGET

Recommended Reduction Measures	*Reductions Counted toward 2020 Target of 169 MMT CO2e*	*Percentage of Statewide 2020 Target*
Cap and Trade Program and Associated Measures		
California Light-Duty Vehicle GHG Standards	31.7	19%
Energy Efficiency	26.3	16%
Renewable Portfolio Standard (33 percent by 2020)	21.3	13%
Low Carbon Fuel Standard	15	9%
Regional Transportation-Related GHG Targets[1]	5	3%
Vehicle Efficiency Measures	4.5	3%
Goods Movement	3.7	2%
Million Solar Roofs	2.1	1%
Medium/Heavy Duty Vehicles	1.4	1%
High Speed Rail	1.0	1%
Industrial Measures	0.3	0%
Additional Reduction Necessary to Achieve Cap	34.4	20%
Total Cap and Trade Program Reductions	146.7	87%
Uncapped Sources/Sectors Measures		
High Global Warming Potential Gas Measures	20.2	12%
Sustainable Forests	5	3%
Industrial Measures (for sources not covered under cap and trade program)	1.1	1%
Recycling and Waste (landfill methane capture)	1	1%
Total Uncapped Sources/Sectors Reductions	27.3	16%
Total Reductions Counted toward 2020 Target	174	100%
Other Recommended Measures – Not Counted toward 2020 Target		
State Government Operations	1.0 to 2.0	1%
Local Government Operations	To Be Determined[2]	NA
Green Buildings	26	15%
Recycling and Waste	9	5%
Water Sector Measures	4.8	3%
Methane Capture at Large Dairies	1	1%
Total Other Recommended Measures – Not Counted toward 2020 Target	42.8	NA

Source: CARB. 2008, MMTons CO2e: million metric tons of CO2e

[1]Reductions represent an estimate of what may be achieved from local land use changes. It is not the SB 375 regional target.

[2]According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 million metric tons of CO2e (or approximately 1.2 percent of the GHG reduction target). However, these reductions were not included in the Scoping Plan reductions to achieve the 2020 Target

Overall, CARB determined that achieving the 1990 emission level in 2020 would require a reduction in GHG emissions of approximately 28.5 percent in the absence of new laws and regulations (referred to as "Business-As-Usual" [BAU]). The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and California Climate Action Team early actions and additional GHG reduction measures, identifies additional measures to be pursued as regulations, and outlines the role of the cap-and-trade program.

In connection with its preparation of the August 2011 Final Supplement to the Scoping Plan's Functional Equivalent Document, CARB released revised estimates of the 2020 emissions level projection in light of the economic recession and the availability of updated information from development of measure-specific regulations. Based on the new economic data, CARB determined the 2020 emissions level projection in the BAU condition would be reduced from 596 metric tons of CO2 equivalent (MTCO2e) to 545 MTCO2e. (38) Under this scenario, achieving the 1990 emissions level in 2020 would require a reduction of GHG emissions of 118 MTCO2e, or 21.7 percent (down from 28.5 percent), from the BAU condition.

When the 2020 emissions level projection also was updated to account for implemented regulatory measures, including Pavley (vehicle model-years 2009 - 2016) and the renewable portfolio standard (12% - 20%), the 2020 projection in the BAU condition was reduced further to 507 MTCO2e. As a result, based on the updated economic and regulatory data, CARB determined that achieving the 1990 emissions level in 2020 would now only require a reduction of GHG emissions of 80 MTCO2e, or approximately 16 percent (down from 28.5 percent), from the BAU condition. (38) (39)

On February 10, 2014, CARB released a Draft Proposed First Update of the Scoping Plan. The draft recalculates 1990 GHG emissions using new global warming potentials identified in the IPCC Fourth Assessment Report released in 2007. Using those GWPs, the 427 MTCO2e 1990 emissions level and 2020 GHG emissions limit identified in the 2008 Scoping Plan would be slightly higher, at 431 MTCO2e. (40) Based on the revised 2020 emissions level projection identified in the 2011 Final Supplement and the updated 1990 emissions levels identified in the discussion draft of the First Update, achieving the 1990 emissions level in 2020 would require a reduction of 78 MTCO2e (down from 509 MTCO2e), or approximately 15.3 percent (down from 28.5 percent), from the BAU condition. (38) (39) (40)

<u>California Senate Bill No. 1368 (SB 1368):</u>

In 2006, the State Legislature adopted Senate Bill 1368 ("SB 1368"), which was subsequently signed into law by the Governor (41). SB 1368 directs the California Public Utilities Commission ("CPUC") to adopt a greenhouse gas emission performance standard ("EPS") for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than five years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. Due to the carbon content of its fuel source, a coal-fired plant cannot meet this standard because such plants emit roughly twice as much carbon as natural gas, combined cycle plants.

Accordingly, the new law will effectively prevent California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. Thus, SB 1368 will lead to dramatically lower greenhouse gas emissions associated with California energy demand, as SB 1368 will effectively prohibit California utilities from purchasing power from out of state producers that cannot satisfy the EPS standard required by SB 1368.

Senate Bill 97 (SB 97):

Pursuant to the direction of SB 97, OPR released preliminary draft CEQA Guideline amendments for greenhouse gas emissions on January 8, 2009, and submitted its final proposed guidelines to the Secretary for Natural Resources on April 13, 2009 (42). The Natural Resources Agency adopted the Guideline amendments and they became effective on March 18, 2010.

Of note, the new guidelines state that a lead agency shall have discretion to determine whether to use a quantitative model or methodology, or in the alternative, rely on a qualitative analysis or performance based standards. CEQA Guideline § 15064.4(a)"A lead agency shall have discretion to determine, in the context of a particular project, whether to: (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use . . .; or (2) Rely on a qualitative analysis or performance based standards."

Also amended were CEQA Guidelines Sections 15126.4 and 15130, which address mitigation measures and cumulative impacts respectively. Greenhouse gas mitigation measures are referenced in general terms, but no specific measures are championed. The revision to the cumulative impact discussion requirement (Section 15130) simply directs agencies to analyze greenhouse gas emissions in an EIR when a project's incremental contribution of emissions may be cumulatively considerable, however it does not answer the question of when emission are cumulatively considerable.

Section 15183.5 permits programmatic greenhouse gas analysis and later project-specific tiering, as well as the preparation of Greenhouse Gas Reduction Plans. Compliance with such plans can support determination that a project's cumulative effect is not cumulatively considerable, according to proposed Section 15183.5(b).

CEQA emphasizes that the effects of greenhouse gas emissions are cumulative, and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis. (See CEQA Guidelines Section 15130(f)).

Section 15064.4(b) of the CEQA Guidelines provides direction for lead agencies for assessing the significance of impacts of greenhouse gas emissions:

1. The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; or

3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

The CEQA Guideline amendments do not identify a threshold of significance for greenhouse gas emissions, nor do they prescribe assessment methodologies or specific mitigation measures. Instead, they call for a "good-faith effort, based on available information, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project." The amendments encourage lead agencies to consider many factors in performing a CEQA analysis and preserve lead agencies' discretion to make their own determinations based upon substantial evidence. The amendments also encourage public agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses. Specific GHG language incorporated in the Guidelines' suggested Environmental Checklist (Guidelines Appendix G) is as follows:

VII. GREENHOUSE GAS EMISSIONS

Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

<u>Executive Order S-01-07:</u>

On January 18, 2007 California Governor Arnold Schwarzenegger, through Executive Order S-01-07, mandated a statewide goal to reduce the carbon intensity of California's transportation fuel by at least ten percent by 2020 (43). The order also requires that a California specific Low Carbon Fuel Standard be established for transportation fuels.

<u>Executive Order B-30-15</u>

In January 2015, Governor Brown, in his inaugural address and annual report to the Legislature, established supplementary goals which would further reduce GHG emissions over the next 15 years. These goals include an increase in California's renewable energy portfolio from 33% to 50%, a reduction in vehicle petroleum use for cars and trucks by up to 50% measures to double the efficiency of existing buildings, and decreasing emissions associated with heating fuels.

On April 29, 2015 California Governor Jerry Brown, through Executive Order B-30-15 ("BEO") states a new statewide policy goal to reduce GHG emissions 40 percent below their 1990 levels by 2030.

The BEO sets an ambitious new Statewide GHG emissions reduction target of 40% below 1990 levels by 2030 as a "mid-term" benchmark needed to achieve the 80% below 1990 levels by 2050. It should be noted however that this target has not been formally enacted by the Legislature or even CARB. As such, the BEO does not appear to constitute a new regulation or requirement adopted to implement a statewide, regional or local plan for the reduction of GHG emissions within the context of CEQA.

The Project reduces its GHG emissions to the maximum extent feasible as discussed in this document. At this time, no further analysis is necessary or required by CEQA as it pertains to Executive Order B-30-15.

Additionally, as described previously, the project applicant would not actively interfere with any future City-mandated, state-mandated, or federally-mandated retrofit obligations enacted or promulgated to legally require development City-wide, state-wide, or nation-wide to assist in meeting state-adopted greenhouse gas emissions reduction targets, including that established under Executive Order S-3-05 or Executive Order B-30-15.

Based on the foregoing, the Project does not interfere with the state's implementation of (i) Executive Order B-30-15's target of reducing statewide GHG emissions to 40% below 1990 levels by 2030 or (ii) Executive Order S-3-05's target of reducing statewide GHG emissions to 80% below 1990 levels by 2050 because it does not interfere with the state's implementation of GHG reduction plans described in the CARB's Updated Scoping Plan, including the state providing for 12,000 MW of renewable distributed generation by 2020, the California Building Commission mandating net zero energy homes in the building code after 2020, or existing building retrofits under AB 758. Therefore, the project's impacts on greenhouse gas emissions in the 2030 and 2050 horizon years are less than significant.

<u>Senate Bills 1078 and 107 and Executive Order S-14-08:</u>

SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20% of their supply from renewable sources by 2017 (44). SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010 (43). In November 2008 Governor Schwarzenegger signed Executive Order S-14-08, which expands the state's Renewable Energy Standard to 33% renewable power by 2020 (45).

<u>Senate Bill 375:</u>

SB 375, signed in September 2008 (Chapter 728, Statutes of 2008), aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 requires metropolitan planning organizations (MPOs) to adopt a sustainable communities strategy (SCS) or alternative planning strategy (APS) that will prescribe land use allocation in that MPO's regional transportation plan. ARB, in consultation with MPOs, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035.

These reduction targets will be updated every 8 years but can be updated every 4 years if advancements in emissions technologies affect the reduction strategies to achieve the targets. ARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, transportation projects will not be eligible for funding programmed after January 1, 2012.

This law also extends the minimum time period for the regional housing needs allocation cycle from 5 years to 8 years for local governments located within an MPO that meets certain requirements. City or county land use policies (including general plans) are not required to be consistent with the regional transportation plan (and associated SCS or APS). However, new provisions of CEQA would incentivize (through streamlining and other provisions) qualified projects that are consistent with an approved SCS or APS, categorized as "transit priority projects."

The Southern California Association of Governments (SCAG) is required by law to update the Southern California Regional Transportation Plan (RTP) every four years. The 2012 draft plan has been released; this draft plan differs from past plans because it includes development of a SCS. The RTP/SCS incorporates land use and housing policies to meet the greenhouse gas emissions targets established by the California Air Resource Board for 2020 (8% reduction) and 2035 (13% reduction). On April 4, 2012, the Regional Council of SCAG adopted the 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS): Towards a Sustainable Future.

<u>CARB's Preliminary Draft Staff Proposal for Interim Significance Thresholds:</u>

Separate from its Scoping Plan approved in December of 2008 (46), CARB issued a Staff Proposal in October 2008, as its first step toward developing recommended statewide interim thresholds of significance for GHGs that may be adopted by local agencies for their own use. CARB staff's objective in this proposal is to develop a threshold of significance that will result in the vast majority (approximately 90 percent statewide) of GHG emissions from new industrial projects being subject to CEQA's requirement to impose feasible mitigation. The proposal does not attempt to address every type of project that may be subject to CEQA, but instead focuses on common project types that, collectively, are responsible for substantial GHG emissions – specifically, industrial, residential, and commercial projects. CARB is developing these thresholds in these sectors to advance climate objectives, streamline project review, and encourage consistency and uniformity in the CEQA analysis of GHG emissions throughout the state. These draft thresholds are under revision in response to comments. There is currently no timetable for finalized thresholds at this time.

As currently proposed by CARB, a quantitative threshold of 7,000 metric tons (MT) of CO2e per year for operational emissions (excluding transportation), and performance standards yet to be defined for construction and transportation emissions are under consideration. However, CARB's proposal is not yet final, and thus cannot be applied to the Project.

<u>South Coast Air Quality Management District Recommendations for Significance Thresholds:</u>

In April 2008, the South Coast Air Quality Management District (SCAQMD), in order to provide guidance to local lead agencies on determining the significance of GHG emissions identified in CEQA documents, convened a "GHG CEQA Significance Threshold Working Group." The goal of the working group is to develop and reach consensus on an acceptable CEQA significance threshold for GHG emissions that would be utilized on an interim basis until CARB (or some other state agency) develops statewide guidance on assessing the significance of GHG emissions under CEQA.

Initially, SCAQMD staff presented the working group with a significance threshold that could be applied to various types of projects—residential; non-residential; industrial; etc. (47). However, the threshold is still under development. In December 2008, staff presented the SCAQMD Governing Board with a significance threshold for stationary source projects where it is the lead agency. This threshold uses a tiered approach to determine a project's significance, with 10,000 metric tons of carbon dioxide equivalent (MTCO2e) as a screening numerical threshold for stationary sources. More importantly it should be noted that when setting the 10,000 MTCO2e threshold, the SCAQMD did not consider mobile sources (vehicular travel), rather the threshold is based mainly on stationary source generators such as boilers, refineries, power plants, etc. Therefore it would be misleading to apply a threshold that was developed without consideration for mobile sources to a project where the majority of emissions are related to mobile sources. Thus there is no SCAQMD threshold that can be applied to this Project.

In September 2010 (48), the Working Group released additional revisions that consist of the following recommended tiered approach:

- Tier 1 consists of evaluating whether or not the Project qualifies for applicable CEQA exemptions.
- Tier 2 consists of determining whether or not a Project is consistent with a greenhouse gas reduction plan. If a Project is consistent with a greenhouse gas reduction plan, it would not have a significant impact.
- Tier 3 consists of screening values at the discretion of the lead agency; however they should be consistent for all projects within its jurisdiction. Project-related construction emissions should be amortized over 30 years and should be added back the Project's operational emissions. The following thresholds are proposed for consideration:
    - 3,000 MTCO2e per year for all land use types

      or
    - 3,500 MTCO2e per year for residential; 1,400 MTCO2e per year for commercial; or 3,000 MTCO2e per year for mixed-use projects
- Tier 4 has the following options:
    - Option 1: Reduce emissions from business as usual by a certain percentage (currently undefined)
    - Option 2: Early implementation of applicable AB 32 Scoping Plan measures
    - Option 3: A project-level efficiency target of 4.8 MTCO2e per service population as a 2020 target and 3.0 MTCO2e per service population as a 2035 target. The recommended

plan-level target for 2020 is 6.6 MTCO2e and the plan level target for 2035 is 4.1 MTCO2e

- Tier 5 involves mitigation offsets to achieve target significance thresholds

The SCAQMD has also adopted Rules 2700, 2701, and 2702 that address GHG reductions. However, these rules address boilers and process heaters, forestry, and manure management projects, none of which are proposed by the Project.

2.8 SCAG REGIONAL TRANSPORTATION PLAN/SUSTAINABLE COMMUNITIES STRATEGY

The 2012 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) for the SCAG region was prepared to ensure that the Southern California region attains the per capita vehicle miles targets for passenger vehicles identified by CARB, as required by Senate Bill 375 (49). The Project would be consistent with the plan for integrating the transportation network and related strategies with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. The Project's consistency with the proposed RTP strategies would therefore not conflict with GHG reduction goals set forth in the SAG 2012 RTP/SCS.

2.9 CITY OF MORENO VALLEY GENERAL PLAN MEASURES

Although the City of Moreno Valley General Plan does not identify specific GHG or climate change policies or goal, a number of the measures identified in the General Plan's Air Quality Element act to reduce or control criteria pollutant emissions and peripherally reduce GHG emissions. The proposed Project has been evaluated for consistency with the City's General Plan Air Quality Element, as shown on Table 2-4.

TABLE 2-4: CITY OF MORENO VALLEY GENERAL PLAN CONSISTENCY

Objective 6.6: Promote land use patterns that reduce daily automotive trips and reduce trip distance for work, shopping, school, and recreation.	**Consistent.** *The Project site is providing employment opportunities to Moreno Valley and the surrounding area.*
Objective 6.7: Reduce mobile and stationary source air pollutant emissions.	**Consistent.** *The Project site is located proximate to existing and proposed major roadways, acting to generally reduce vehicle trip lengths, thereby reducing mobile source emissions. The Project will further reduce mobile source emissions by creating local employment opportunities, reducing commuter vehicle miles traveled (VMT) within the region. Additionally, the Project will implement energy efficient designs and operational programs meeting or surpassing California Code of Regulations (CCR) Title 24 Building Standards, including but not limited to compliance with or betterment of, energy conservation requirements identified at CCR Title 24, Part 6, and Energy Code. Energy efficient designs and programs implemented by the Project reduce resources consumption with correlating reductions in stationary-source emissions.*
Policy 6.7.5: Require grading activities to comply with South Coast Air Quality Management District's Rule 403 regarding the control of fugitive dust.	**Consistent.** *The Project will be required to implement fugitive dust control measures consistent with SCAQMD Rule 403.*
Policy 6.7.6: Require building construction to comply with the energy conservation requirements of Title 24 of the California Administrative Code [California Code of Regulations].	**Consistent.** *Pursuant to City and State Building Code requirements, the Project will meet or surpass applicable CCR Title 24 energy conservation requirements.*

Source: City of Moreno Valley General Plan, Safety Element

2.10 CITY OF MORENO VALLEY ENERGY EFFICIENCY AND CLIMATE ACTION STRATEGY

The City of Moreno Valley released an Energy Efficiency and Climate Action Strategy (CAS) as well as a Greenhouse Gas Analysis for public review on May 8, 2012. The documents were approved on October 9, 2012. The CAS identifies ways that the City can reduce energy and water consumption and greenhouse gas emissions as an organization (its employees and the operation of its facilities) and outlines the actions that the City can encourage and community members can employ to reduce their own energy and water consumption and greenhouse gas emissions. The policies in the document are to reduce greenhouse gas emissions in 2010 by 15 percent by 2020. The following consists of an analysis of Project consistency with the policies in the CAS.

- R2-T1: Land Use Based Trips and VMT Reduction Policies. Encourage the development of Transit Priority Projects along High Quality Transit Corridors identified in the SCAG Sustainable Communities Plan, to allow a reduction in vehicle miles traveled.

  Project consistency: Not applicable.

- R2-T3: Employment-Based Trip Reductions. Require a Transportation Demand Management (TDM) program for new development to reduce automobile travel by encouraging ride-sharing, carpooling, and alternative modes of transportation.

  Project consistency: Consistent. Trip reductions are part of the Project's design features.

- R2-E1: New Construction Residential Energy Efficiency Requirements. Require energy efficient design for all new residential buildings to be 10 percent beyond the current Title 24 standards. (Reach Code)

  Project consistency: Not applicable; this measure applies to residential projects.

- R2-E2: New Construction Residential Renewable Energy. Facilitate the use of renewable energy (such as solar (photovoltaic) panels or small wind turbines) for new residential developments. Alternative approach would be the purchase of renewable energy resources offsite.

  Project consistency: Not applicable; this measure applies to residential projects.

- R2-E5: New Construction Commercial Energy Efficiency Requirements. Require energy efficient design for all new commercial buildings to be 10% beyond the 2008 Title 24 standards (which were in effect at the time the CAP was adopted). (Reach Code)

  Project consistency: Consistent; Current 2013 Title 24 requirements would achieve greater reduction than envisioned by the City's Climate Action Strategy. Further, the Project would be required to comply with any adopted municipal code requirements set forth by the City of Moreno Valley. As such the Project would be consistent with R2-E5.

- R3-E1: Energy Efficient Development, and Renewable Energy Deployment Facilitation and Streamlining. Updating of codes and zoning requirements and guidelines to further implement green building practices. This could include incentives for energy efficient projects.

- Project consistency: Not applicable on a project-level.

- R3-L2: Heat Island Plan. Develop measures that address "heat islands." Potential measures include using strategically placed shade trees, using paving materials with a Solar Reflective Index of at least 29, an open grid pavement system, or covered parking.

  Project consistency: Consistent; the Project will comply with the City of Moreno Valley's landscaping requirements.

- R2-W1: Water Use Reduction Initiative. Consider adopting a per capita water use reduction goal, which mandates the reduction of water use of 20 percent per capita with requirements applicable to new development and with cooperative support of the water agencies.

  Project consistency: Consistent. California Green Building Standards Code, Chapter 5, Division 5.3, Section 5.303.2 requires that indoor water use be reduced by 20 percent. Section 5.304.3 requires irrigation controllers and sensors. Water conservation is part of the Project's design features.

- R3-W1: Water Efficiency Training and Education. Work with EMWD and local water companies to implement a public information and education program that promotes water conservation.

  Project consistency: Not applicable at a project-level.

- R2-S1: City Diversion Program. For Solid Waste, consider a target of increasing the waste diverted from the landfill to a total of 75 percent by 2020.

  Project consistency: Consistent; the Project will comply with the City of Moreno Valley's citywide goal of solid waste reduction. Additionally the Project will be compliant with the City of Moreno Valley's Municipal Code 8.80.030 by implementing a Waste Management Plan.

As shown above and in Appendix 3.2, Project Consistency with Moreno Valley Energy Efficiency and Climate Action Strategy, of this report, many of the measures are not applicable to the Project.

2.11 CONSISTENCY WITH CARB SCOPING PLAN

Table 3-5 below, presents the 39 Recommended Actions (qualitative measures) identified to date by CARB in its Climate Change Proposed Scoping Plan. Of the 39 measures identified, those that would be considered to be applicable to the Project would primarily be those actions related to transportation, electricity and natural gas use, green building design and industrial uses. Consistency of the Project with these measures is evaluated by each source-type measure below. Table 3-5 identifies which CARB Recommended Actions apply to the Project, and of those, whether the Project is consistent therewith. A discussion of how the Project is consistent with each applicable CARB Recommended Action is set forth after Table 3-5.

TABLE 2-5: RECOMMENDED ACTIONS FOR CLIMATE CHANGED PROPOSED SCOPING PLAN

ID #	Sector	Strategy Name	Applicable to Project?	Will Project Conflict With Implementation?
T-1	Transportation	Pavley I and II – Light-Duty Vehicle GHG Standards	NO	NO
T-2	Transportation	Low Carbon Fuel Standard (Discrete Early Action)	NO	NO
T-3	Transportation	Regional Transportation-Related GHG Targets	NO	NO
T-4	Transportation	Vehicle Efficiency Measures	NO	NO
T-5	Transportation	Ship Electrification at Ports (Discrete Early Action)	NO	NO
T-6	Transportation	Goods-movement Efficiency Measures	NO	NO
T-7	Transportation	Heavy Duty Vehicle Greenhouse Gas Emission Reduction Measure – Aerodynamic Efficiency (Discrete Early Action)	NO	NO
T-8	Transportation	Medium and Heavy-Duty Vehicle Hybridization	NO	NO
T-9	Transportation	High Speed Rail	NO	NO
E-1	Electricity and Natural Gas	Increased Utility Energy efficiency programs More stringent Building and Appliance Standards	YES	NO
E-2	Electricity and Natural Gas	Increase Combined Heat and Power Use by 30,000GWh	NO	NO
E-3	Electricity and Natural Gas	Renewable Portfolio Standard	NO	NO
E-4	Electricity and Natural Gas	Million Solar Roofs	YES	NO
CR-1	Electricity and Natural Gas	Energy Efficiency	YES	NO
CR-2	Electricity and Natural Gas	Solar Water Heating	NO	NO
GB-1	Green Buildings	Green Buildings	YES	NO
W-1	Water	Water Use Efficiency	YES	NO
W-2	Water	Water Recycling	NO	NO
W-3	Water	Water System Energy Efficiency	YES	NO
W-4	Water	Reuse Urban Runoff	NO	NO
W-5	Water	Increase Renewable Energy Production	NO	NO
W-6	Water	Public Goods Charge (Water)	NO	NO
I-1	Industry	Energy Efficiency and Co-benefits Audits for Large Industrial Sources	YES	NO
I-2	Industry	Oil and Gas Extraction GHG Emission Reduction	NO	NO
I-3	Industry	GHG Leak Reduction from Oil and Gas Transmission	NO	NO
I-4	Industry	Refinery Flare Recovery Process Improvements	NO	NO
I-5	Industry	Removal of Methane Exemption from Existing Refinery Regulations	NO	NO
RW-1	Recycling and Waste Management	Landfill Methane Control (Discrete Early Action)	NO	NO
RW-2	Recycling and Waste Management	Additional Reductions in Landfill Methane – Capture Improvements	NO	NO
RW-3	Recycling and Waste Management	High Recycling/Zero Waste	NO	NO
F-1	Forestry	Sustainable Forest Target	NO	NO
H-1	High Global Warming Potential Gases	Motor Vehicle Air Conditioning Systems (Discrete Early Action)	NO	NO
H-2	High Global Warming Potential Gases	SF_6 Limits in Non-Utility and Non-Semiconductor Applications (Discrete Early Action)	NO	NO
H-3	High Global Warming Potential Gases	Reduction in Perfluorocarbons in Semiconductor Manufacturing (Discrete Early Action)	NO	NO
H-4	High Global Warming Potential Gases	Limit High GWP Use in Consumer Products (Discrete Early Action, Adopted June 2008)	NO	NO
H-5	High Global Warming Potential Gases	High GWP Reductions from Mobile Sources	NO	NO
H-6	High Global Warming Potential Gases	High GWP Reductions from Stationary Sources	NO	NO
H-7	High Global Warming Potential Gases	Mitigation Fee on High GWP Gases	NO	NO
A-1	Agriculture	Methane Capture at Large Dairies	NO	NO

SOURCE: CARB, 2008.

Discussion of the applicability of each measure and Project consistency with or support of its implementation follows. It also noted that certain measures and enforcement actions listed below are beyond the scope of control of the Project. Notwithstanding implementation and enforcement of these measures by the State or other responsible entity will act to reduce areawide GHG emissions.

Transportation

CARB's Scoping Plan identifies nine transportation-related recommended actions. Action T-1 concerns improvements to light-duty vehicle technology for the purposes of reducing GHG emissions. This action focuses on legislating improved controls for vehicle manufacturers and would not generally be considered applicable to the proposed Project. Implementation of the Pavley standards is dependent on implementation by the State on vehicle fuel economy standards.

Implementation of such a standard is not within the purview of this Project. However, the Project will be required to comply with the requirements of the measures as they are adopted by the responsible entity.

Action T-2 concerns implementation of a low carbon fuel standard. To reduce the carbon intensity of transportation fuels, CARB is developing a Low Carbon Fuel Standard (LCFS), which would reduce the carbon intensity of California's transportation fuels by at least ten percent by 2020 as called for by Governor Schwarzenegger in Executive Order S-01-07. LCFS will incorporate compliance mechanisms that provide flexibility to fuel providers in how they meet the requirements to reduce greenhouse gas emissions.

Implementation of such a standard is not within the purview of this Project. However, the Project will be required to comply with the requirements of the measures as they are adopted by the responsible entity.

Action T-3 addressees regional transportation targets for reducing GHG emissions. SB 375 requires CARB to develop, in consultation with metropolitan planning organizations (MPOs), passenger vehicle greenhouse gas emissions reduction targets for 2020 and 2035. It sets forth a collaborative process to establish these targets, including the appointment by CARB of a Regional Targets Advisory Committee to recommend factors to be considered and methodologies for setting greenhouse gas emissions reduction targets. SB 375 also provides incentives – relief from certain California Environmental Quality Act (CEQA) requirements for development projects that are consistent with regional plans that achieve the targets.

Implementation of such a standard is not within the purview of this Project. However, the Project will be required to comply with the requirements of the measures as they are adopted by the responsible entity.

Action T-4 is concerned with vehicle efficiency measures. The California Integrated Waste Management Board (CIWMB) with various partners continues to conduct a public awareness campaign to promote sustainable tire practices. CARB is pursuing a regulation to ensure that tires are properly inflated when vehicles are serviced. In addition, CEC in consultation with

CIWMB is developing an efficient tire program focusing first on data gathering and outreach, then on potential adoption of minimum fuel-efficient tire standards, and lastly on the development of consumer information requirements for replacing tires. CARB is also pursuing ways to reduce engine load via lower friction oil and reducing the need for air conditioner use. ARB is actively engaged in the regulatory development process for the tire inflation component of this measure.

Implementation of such a standard is not within the purview of this Project. However, the Project will be required to comply with the requirements of the measures as they are adopted by the responsible entity.

Action T-5 addresses electrification of ships at ports and is not applicable to the proposed Project.

Action T-6 also primarily addresses port operations and is not applicable to the proposed Project.

Action T-7 requires existing trucks/trailers to be retrofitted with the best available technology and/or CARB-approved technology.

Implementation of such a standard is not within the purview of the proposed Project since various trucks fleets from numerous commercial entities may access the site. However, the Project will be required to comply with the requirements of the measures as they are adopted by the responsible entity.

Action T-8 focuses on hybridization of medium- and heavy-duty vehicles. The implementation approach to Action T-8 is to adopt a regulation and/or incentive program that reduces GHG emissions by encouraging hybrid technology as applied to vocational applications that have significant urban, stop-and-go driving, idling, and power take-off operations in their duty cycle. Such applications include parcel delivery trucks and vans.

Implementation of such a standard is not within the purview of the proposed Project since various trucks fleets from numerous commercial entities may access the site. However, the Project will be required to comply with the requirements of the measures as they are adopted by the responsible entity.

Action T-9 concerns implementation of a high speed rail system. This measure is not applicable to the Project.

<u>Electricity and Natural Gas</u>

Action E-1/CR-1, together with Action GB-1 (Green Building), aims to reduce electricity demand by increased efficiency of Utility Energy Programs and adoption of more stringent building and appliance standards.

The Project will comply with or surpass incumbent Title 24 Energy Efficiency Standards. Therefore, the proposed Project would not conflict with this measure.

Action E-2 encourages an increase in the use of combined heat and power (CHP) use, or co-generation, facilities. California has supported CHP for many years, but market and other barriers continue to keep CHP from reaching its full market potential. Increasing the deployment of efficient CHP will require a multi-pronged approach that includes addressing significant barriers and instituting incentives or mandates where appropriate.

Implementation of such a standard is not within the purview of the proposed Project. However, the Project will be required to comply with the requirements of the measures as they are adopted by the responsible entity.

Action E-3 concerns Renewable Portfolio Standards for utilities and does not apply to development projects.

Action E-4 strives to promote solar generated electricity.

Project building designs will accommodate renewable energy sources, such as photovoltaic solar electricity systems, appropriate to their architectural design(s). The Project would therefore not conflict with the recommended measure.

Action CR-2 strives to promote solar water heaters (SWH). The ARB recommends that California pursue approaches with the goal of developing a viable SWH industry for 2020 and beyond.

Implementation of such a standard is not within the purview of the Project. However, the Project will be required to comply with the requirements of the measures as they are adopted by the responsible entity.

<u>Water Use</u>

Implementation of all but two of the Recommended Actions related to water use are not within the purview of the proposed Project. The two measures that apply are measures W-1 (Water Use Efficiency) and W-3 (Water System Energy Efficiency). However, since the proposed Project would not exceed the audit threshold of 25,000 MT CO_2 (50) from on-site combustion and related activities, the proposed Project is consistent with and would not obstruct the recommended actions.

<u>Industrial Use</u>

All but one of the Recommended Actions related to industrial use are specific to oil and gas extraction, refining and transmission and are not applicable to the proposed Project. The one other Action I-1 targets large emitters of GHGs (in excess of 0.5 million metric tons (MMT)/year of CO_2E (equivalent)) for auditing[8] (51). Because the proposed Project would not exceed the audit threshold, as set forth in Section 3.0, the proposed Project is consistent with and would not obstruct the recommended actions.

[8] Certain "covered sectors" of activities in California account for 85% of GHG emissions. Each source in these sectors will be subject to a system of declining GHG emissions allowances issued by CARB under a total emissions cap, as well as an allowance trading system. The Plan's lynch-pin is a cap-and-trade program that would apply to the electricity sector, the transportation sector, the commercial and residential sector, and large industrial sources (those emitting more than 0.5 million metric tons per year of carbon dioxide ("CO2") equivalents).

3 PROJECT GREENHOUSE GAS IMPACT

3.1 INTRODUCTION

The Project has been evaluated to determine if it will result in a significant greenhouse gas impact. The significance of these potential impacts is described in the following section.

3.2 STANDARDS OF SIGNIFICANCE

The criteria used to determine the significance of potential Project-related greenhouse gas impacts are taken from the Initial Study Checklist in Appendix G of the State CEQA Guidelines (14 California Code of Regulations §§15000, et seq.). Based on these thresholds, a project would result in a significant impact related to air quality if it would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

For informational purposes, the SCAQMD's Tier 4 Option 1 approach is utilized within this greenhouse gas analysis in order to evaluate if the Project GHG emissions fall 28.5% or more below 2005 BAU in accordance with the goals of AB 32.

The City of Moreno Valley does not have an adopted threshold of significance for GHG emissions. For CEQA purposes, the City has discretion to select an appropriate significance criterion, based on substantial evidence. The AQMD's adopted numerical threshold of 10,000 MTCO2e per year for industrial stationary source emissions is selected as the significance criterion. The AQMD-adopted industrial threshold was selected by the City because the proposed Project is analogous to an industrial use much more closely than any other land use such as commercial or residential in terms of its expected operating characteristics. The Project proposes large buildings with loading bays and fenced truck courts that are expected to house businesses that serve mid- stream functions in the goods movement chain between manufacturers and consumers, characteristic of an industrial operation. Further, analysis of the Project's traffic generation in this EIR is based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition, 2012 for industrial and warehouse uses. Also, 10,000 MTCO2e has been used as the significance threshold by many local government lead agencies for logistics projects throughout the SCAG region since the AQMD adopted this threshold for its own use. Further, to ensure that the threshold is conservative in its application, although the AQMD uses their adopted 10,000 MTCO2e threshold to determine the significance of stationary source emissions for industrial projects, the 10,000 MTCO2e threshold used in this EIR is applied to all sources of Project-related GHG emissions whether stationary source, mobile source, area source, or other.

Use of this threshold is also consistent with guidance provided in the CAPCOA *CEQA and Climate Change* handbook, as such the City has opted to use a non-zero threshold approach based on Approach 2 of the handbook. Threshold 2.5 (Unit-Based Thresholds Based on Market Capture) establishes a numerical threshold based on capture of approximately 90 percent of emissions from future development. The latest threshold developed by SCAQMD using this method is 10,000 metric tons carbon dioxide equivalent (MTCO2E) per year for industrial projects. This threshold is based on the review of 711 CEQA projects.

3.3 PROJECT RELATED GREENHOUSE GAS EMISSIONS

CEQA Guidelines 15064.4 (b) (1) states that a lead agency may use a model or methodology to quantify greenhouse gas emissions associated with a project (52).

On October 2, 2013, the SCAQMD in conjunction with the California Air Pollution Control Officers Association (CAPCOA) released the latest version of the California Emissions Estimator Model™ (CalEEMod™) v2013.2.2. The purpose of this model is to more accurately calculate construction-source and operational-source criteria pollutant (NO_x, VOC, PM_{10}, $PM_{2.5}$, SO_x, and CO) and greenhouse gas (GHG) emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation measures (53). Accordingly, the latest version of CalEEMod™ has been used for this Project to determine construction and operational air quality impacts. Output from the model runs for both construction and operational activity are provided in Appendix 3.1

3.4 CONSTRUCTION AND OPERATIONAL LIFE-CYCLE ANALYSIS

A full life-cycle analysis (LCA) for construction and operational activity is not included in this analysis due to the lack of consensus guidance on LCA methodology at this time. Life-cycle analysis (i.e., assessing economy-wide GHG emissions from the processes in manufacturing and transporting all raw materials used in the project development, infrastructure and on-going operations) depends on emission factors or econometric factors that are not well established for all processes. At this time a LCA would be extremely speculative and thus has not been prepared.

Additionally, the SCAQMD recommends analyzing direct and indirect project GHG emissions generated within California and not life-cycle emissions because the life-cycle effects from a project could occur outside of California, might not be very well understood or documented, and would be challenging to mitigate (54). Additionally, the science to calculate life cycle emissions is not yet established or well defined, therefore SCAQMD has not recommended, and is not requiring, life-cycle emissions analysis.

3.5 CONSTRUCTION EMISSIONS

The report, Indian Street Commerce Center Air Quality Impact Analysis (Urban Crossroads, Inc., 2016) (Project AQIA) provides additional details on the specific construction-related inputs programmed in the CalEEMod model (55).

Project construction activities would generate GHG emissions of CO_2 and CH_4. Construction-source GHG emissions are quantified and amortized over the life of the Project. To this end, and consistent with SCAQMD-recommended methodology, greenhouse gas emissions generated by Project construction activities were totaled and then divided by 30, reflecting an assumed 30 year Project life consistent with SCAQMD-recommended methodology. The resulting quotient was then summed with annual operational phase GHG emissions.

3.6 OPERATIONAL EMISSIONS

Operational activities associated with the proposed Project will result in emissions of CO2, CH4, and N2O from the following primary sources:

- Area Source Emissions
- Energy Source Emissions
- Mobile Source Emissions
- Solid Waste
- Water Supply, Treatment and Distribution
- On-Site Equipment Emissions

3.6.1 AREA SOURCE EMISSIONS

Landscape Maintenance Equipment

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shedders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on assumptions provided in the CalEEMod model.

3.6.2 ENERGY SOURCE EMISSIONS

Combustion Emissions Associated with Natural Gas and Electricity

GHGs are emitted from buildings as a result of activities for which electricity and natural gas are typically used as energy sources. Combustion of any type of fuel emits CO2 and other GHGs directly into the atmosphere; these emissions are considered direct emissions associated with a building. GHGs are also emitted during the generation of electricity from fossil fuels; these emissions are considered to be indirect emissions. Unless otherwise noted, CalEEMod™ default parameters were used.

3.6.3 MOBILE SOURCE EMISSIONS

Vehicles

Project-related operational air quality impacts derive predominantly from mobile sources. In this regard, approximately 92 percent (by weight) of all Project operational-source emissions would be generated by mobile sources (vehicles). Neither the Project Applicant nor the City has

any regulatory control over these tail pipe emissions. Rather, vehicle tail pipe source emissions are regulated by CARB and USEPA. As summarized previously herein, as the result of CARB and USEPA actions, Basin-wide vehicular-source emissions have been reduced dramatically over the past years and are expected to further decline as clean vehicle and fuel technologies improve.

Project mobile source air quality impacts are dependent on both overall daily vehicle trip generation and the effect of the Project on peak hour traffic volumes and traffic operations in the vicinity of the Project. The Project related operational air quality impacts derive primarily from vehicle trips generated by the Project. Trip characteristics available from the report, Indian Street Commerce Center Traffic Impact Analysis (Urban Crossroads) 2016 were utilized in this analysis (56). It should be noted that the Project's traffic study presents the total Project vehicle trips in terms of Passenger Car Equivalents (PCEs) in an effort to recognize and acknowledge the effects of heavy vehicles at the study area intersections. Notwithstanding, for purposes of the air quality study, the PCE trips were not used. Rather, to more accurately estimate and model vehicular-source emissions, the actual number of vehicles, by vehicle classification (e.g., passenger cars (including light trucks), heavy trucks) were used in the analysis.

For purposes of this analysis, the following ITE land use codes and vehicle mixes have been utilized:

- ITE land use code 140 (Manufacturing) has been used to derive site specific trip generation estimates. Manufacturing facilities (ITE Land Use Code 140) are areas where the primary activity is the conversion of raw materials or parts into finished products. Size and type of activity may vary substantially from one facility to another. In addition to the actual production of goods, manufacturing facilities generally also have office, warehouse, research and associated functions. The ITE *Trip Generation* manual includes very limited data regarding the types of vehicles that are generated for manufacturing uses (passenger cars and various sizes of trucks). Total vehicle mix percentages were obtained from the City of Fontana's Truck Trip Generation Study for Heavy Industrial (Land Use Code 110) (57) for the manufacturing use proposed as part of the Project.
- ITE land use code 152 (High-Cube Warehousing) has been used to derive site specific trip generation. High-cube warehouse/distribution centers (ITE Land Use Code 152) are a unique land use type within the larger, more generalized industrial land use category. ITE's most recent edition of the Trip Generation manual (ITE 9th Edition), published in 2012, defines "high-cube warehouses" as "…used for storage of materials, goods and merchandise prior to their distribution to retail outlets, distribution centers or other warehouses. These facilities are typically characterized by ceiling heights of at least 24 feet with small employment counts due to a high level of mechanization." The average square footage for the sites surveyed for high-cube warehouse/distribution center (Land Use 152) use is above 500,000 square feet. The number of sites observed in the compilation of this data ranges from 57-70 sites of which more than 20 sites exceed 1,000,000 square feet in gross floor area. The weighted average daily trip generation

rate for high-cube warehouse (Land Use 152) use is 1.68 trips per thousand square feet (TSF). Total vehicle mix percentages were also obtained from the ITE Trip Generation manual in conjunction with the South Coast Air Quality Management District's (SCAQMD) recommended truck mix, by axle type (58). The SCAQMD is currently recommending the use of the ITE Trip Generation manual in conjunction with their truck mix by axle-type to better quantify trip rates associated with local warehouse and distribution projects, as truck emission represent more than 90 percent of air quality impacts from these projects. This recommended procedure has been utilized for the purposes of this analysis in effort to be consistent with other technical studies being prepared for the Project. The percentage of trucks has been determined from the table shown on page 267 of the ITE *Trip Generation* manual. As shown on page 267, the truck trip generation rate for weekday daily traffic is 0.64 or 38.1% of the total traffic. Trip generation for heavy trucks was further broken down by truck type (or axle type). The total truck percentage is comprised of 3 different truck types: 2-axle, 3-axle, and 4+-axle trucks. For the purposes of this analysis, the percentage of trucks, by axle type, were obtained from the SCAQMD interim recommended truck mix. The SCAQMD has recently performed surveys of existing facilities and compiled the data to provide interim guidance on the mix of heavy trucks for these types of high-cube warehousing/distribution facilities. Based on this interim guidance from the SCAQMD, the following truck fleet mix was utilized for the purposes of estimating the truck trip generation for the site: 22.03% of the total trucks as 2-axle trucks, 17.76% of the total trucks as 3-axle trucks, and 60.31% of the total trucks as 4+-axle trucks.

3.5.3.1 Trip Length

Background

A technical deficiency inherent in calculating the projected vehicle emissions associated with any project is related to the estimation of trip length and vehicle miles traveled (VMT). VMT for a given project is calculated by the total number of vehicle trips to/from the Project x average trip length. This method of estimating VMT for use in calculating vehicle emissions likely results in the over-estimation and double-counting of emissions because, for a distribution warehouse center such as the Project, the land use is likely to attract (divert) existing vehicle trips that are already on the circulation system as opposed to generating new trips. In this regard, the Project would, to a large extent, redistribute existing mobile-source emissions rather than generate additional emissions within the Basin. As such, the estimation of the Indian Street Commerce 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.

Provided below is a summary of the VMT recommendations of the SCAQMD and SCAG, followed by a description of the methodology used to calculate the VMT rates used in this AQIA.

SCAQMD Recommendation

In the last five years, the SCAQMD has provided numerous comments on the trip length for warehouse/distribution and industrial land use projects (59). The SCAQMD asserts that the model-default trip length in CalEEMod™ and the URBan EMISsions (URBEMIS) 2007 model (version 9.2.4) would underestimate emissions. The SCAQMD asserts that for warehouse, distribution center, and industrial land use projects, most of the heavy-duty trucks would be hauling consumer goods, often from the Ports of Long Beach and Los Angeles (POLA and POLB) and/or to destinations outside of California. The SCAQMD states that for this reason, the CalEEMod™ and the URBan EMISsions model default trip length (approximately 12.6 miles) would not be representative of activities at like facilities. The SCAQMD generally recommends the use of a 40-mile one-way trip length.

Southern California Association of Government (SCAG) Heavy Duty Truck Model

SCAG is comprised of six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura) and 190 cities in Southern California, and is the organization charged with addressing and resolving short- and long-term regional policy issues. The SCAG region also consists of 14 sub-regional entities recognized by the Regional Council as partners in the regional policy planning process. The SCAG region has more than 19 million residents and encompasses more than 38,000 square miles, representing the largest and most diverse region in the country.

SCAG maintains a regional transportation model. In its most recent (2008) transportation validation for the 2003 Regional Model, SCAG indicates the average internal truck trip length for the SCAG region is 5.92 miles for Light Duty Trucks, 13.06 miles for Medium Duty Trucks, and 24.11 miles for Heavy Duty Trucks.

Approach for Analysis of the Project

Trip lengths and VMT estimates employed in this AQIA report generate vehicular-source emissions that would represent a maximum impact scenario. Other Environmental Impact Reports (EIRs) for similar land use projects within the region have utilized these same or similar estimates. Though the VMT analyzed in this analysis may differ from the Project's traffic impact analysis, to maintain analytic consistency and establish the maximum impact scenario noted above, the following approach has been utilized in calculating emissions associated with vehicles accessing the Project. This approach is consistent with professional industry practice (60) (61) (62).

For passenger car trips, the CalEEMod default for a one-way trip length of 16.6 miles was assumed. For heavy duty trucks, an average trip length was derived from distances from the Project site to the far edges of the South Coast Air Basin (SCAB) as follows.

- Project site to the Port of Los Angeles/Long Beach: 80 miles;
- Project site to East on State Route 60: 30 miles;
- Project site to San Diego County line: 60 miles;
- Project site to Inland Empire: 50 miles;

- Project site to Perris destinations: 10 miles;
- Project site to Moreno Valley destinations: 10 miles;

Assuming that 50% of all delivery trips will travel to and from the Project and the Port of Los Angeles/Long Beach, 10% go East on the State Route 60, 20% go to San Diego, 10% go to the Inland Empire, 5% go to Perris destinations and the remainder as Moreno Valley destinations. The average truck trip length is calculated as 61 miles.

For each land use (Manufacturing and High-Cube Warehouse), two separate model runs were utilized in order to more accurately model emissions resulting from vehicle operations. The first run analyzed passenger car emissions, which incorporated a default trip length of 16.6 miles for passenger cars and a fleet mix of 100% Light-Duty-Auto vehicles (LDA). The second run analyzed truck emissions, which incorporated an average truck trip length of 61 miles. A fleet mix of 22.03% LHD, 17.66% MHD, and 60.31% HHD was used for High-Cube Warehouse and a fleet mix of 15.76% LHD, 32.82% MHD, and 51.42% HHD was used for Manufacturing Warehouse. The estimated emissions resulting from vehicle operations are summarized in Table 3-7 (presented later in this report.) Detailed emission calculations are provided in Appendix 3.2.

3.6.4 Solid Waste

The Project land uses will result in the generation and landfill disposal of solid waste. GHG emissions from landfills are associated with the anaerobic breakdown of material. GHG emissions associated with the disposal of solid waste associated with the proposed Project were calculated by the CalEEMod™ model using default parameters.

3.6.5 Water Supply, Treatment and Distribution

Indirect GHG emissions result from the production of electricity used to convey, treat and distribute water and wastewater. The amount of electricity required to convey, treat and distribute water depends on the volume of water as well as the sources of the water. Water demand was estimated based on the CalEEMod™ model using default parameters.

3.6.6 On-Site Equipment Emissions

It is common for an industrial warehouse project to require cargo handling equipment to move empty containers and empty chassis to and from the various pieces of cargo handling equipment that receive and distribute containers. The most common type of cargo handling equipment is the yard truck which is designed for moving cargo containers. Yard trucks are also known as yard goats, utility tractors (UTRs), hustlers, yard hostlers, and yard tractors. Yard trucks have a horsepower (hp) range of approximately 175 hp to 200 hp (63). Based on the latest available information from SCAQMD (64); high-cube warehouse projects typically have 3.6 yard trucks per million square feet of building space. For this particular Project, on-site modeled operational equipment includes two (2) yard tractors operating at 4 hours a day (65) for 365 days of the year[9]. In addition to the use of yard trucks operating at the Project site,

[9] 4 hour daily on-site operation of the yard trucks is based on the Southern California International Gateway Recirculated Draft EIR. Table C1.2-BL-17 *Activity Data for Existing Business CHE – 2010 Baseline* indicates that the average annual hours of operation for all diesel Container Handling Equipment, Forklifts, and Yard Tractors totaled 72,187 annual operating hours. The total number of pieces of equipment equals 52. As

forklifts are a common piece of equipment used in warehouse operations. The Project includes two (2) 89 hp yard forklifts operating at 4 hours a day for 365 days of the year interior to the building. However for purposes of the AQIA forklifts are not included in the health risk calculations since there is no diesel exhaust associated with the forklifts as they are assumed to be non-diesel consistent with industry standards.

As part of the Project's design, all on-site outdoor cargo handling equipment (CHE) (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) will be powered by non-diesel fueled engines and all on-site indoor forklifts shall be powered by electricity, compressed natural gas, or propane.

3.7 EMISSIONS SUMMARY

The total amount of Project-related GHG emissions would total 12,154.98 MTCO2e as shown on Table 3-3.

INCREMENTAL PROJECT GHG EMISSIONS ARE CUMULATIVELY CONSIDERABLE

The City of Moreno Valley does not have an adopted threshold of significance for GHG emissions. For CEQA purposes, the City has discretion to select an appropriate significance criterion, based on substantial evidence. The AQMD's adopted numerical threshold of 10,000 MTCO2e per year for industrial stationary source emissions is selected as the significance criterion. The AQMD-adopted industrial threshold was selected by the City because the proposed Project is analogous to an industrial use much more closely than any other land use such as commercial or residential in terms of its expected operating characteristics. The Project proposes large buildings with loading bays and fenced truck courts that are expected to house businesses that serve mid- stream functions in the goods movement chain between manufacturers and consumers, characteristic of an industrial operation. Further, analysis of the Project's traffic generation in this EIR is based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition, 2012 for industrial and warehouse uses. Also, 10,000 MTCO2e has been used as the significance threshold by many local government lead agencies for logistics projects throughout the SCAG region since the AQMD adopted this threshold for its own use. Further, to ensure that the threshold is conservative in its application, although the AQMD uses their adopted 10,000 MTCO2e threshold to determine the significance of stationary source emissions for industrial projects, the 10,000 MTCO2e threshold used in this EIR is applied to all sources of Project-related GHG emissions whether stationary source, mobile source, area source, or other.

Use of this threshold is also consistent with guidance provided in the CAPCOA *CEQA and Climate Change* handbook, as such the City has opted to use a non-zero threshold approach based on Approach 2 of the handbook. Threshold 2.5 (Unit-Based Thresholds Based on Market Capture) establishes a numerical threshold based on capture of approximately 90 percent of emissions from future development. The latest threshold developed by SCAQMD

such, 72,187/52 = 1,388 annual hours per piece of equipment. 1,388 annual hours per piece of equipment/365 days = an average of 3.80 hours per day per piece of equipment. As a conservative measure this is rounded up to 4 hours for analytical purposes.

using this method is 10,000 metric tons carbon dioxide equivalent (MTCO2E) per year for industrial projects. This threshold is based on the review of 711 CEQA projects.

The Project will result in approximately 1,338.22 MTCO2e per year (approximately 11% of total Project GHG emissions) from construction, area, energy, waste, water usage, and on-site emissions. In addition, the Project has the potential to result in an additional 10,816.76 MTCO2e per year (approximately 89% of total Project GHG emissions) from mobile sources, if the assumption is made that all of the vehicle trips to and from the Project are "new" trips resulting from the development of the Project. As such, the Project has the potential to generate a total of approximately 12,154.98 MTCO2e per year and would exceed the SCAQMD's numeric threshold of 10,000 MTCO2e if it were applied. Neither the Project Applicant nor the Lead Agency can substantively or materially affect reductions in Project mobile-source GHG emissions. These emissions sources are regulated by CARB and USEPA. As a result of CARB and USEPA actions, Basin-wide vehicular-source emissions (including GHG Emissions) have been reduced dramatically over the past years and are expected to further decline as clean vehicle and fuel technologies improve. Future CARB and USEPA actions could be expected to have a positive effect on Project-related vehicular-source emissions, resulting in incremental reductions in vehicular-source GHG emissions when compared to GHG emissions estimates presented here. No further feasible measures are available that would substantively mitigate the Project's operational-source GHG emissions.[10] Thus, the Project has the potential to result in a cumulatively considerable impact with respect to GHG emissions.

10 It is noted further, that in developing the 10,000 MT CO2e/year significance threshold for industrial uses, SCAQMD specifically excluded GHG emissions from mobile sources. If this same protocol was employed here rather than the conservative approach taken, Project GHG emissions would total less than 1,400 MTCO2e/year; substantively less than the 10,000 MT CO2e/year significance threshold employed by SCAQMD.

TABLE 3-1: PROJECT GREENHOUSE GAS EMISSIONS

Emission Source	Emissions (metric tons per year)			
	CO_2	CH_4	N_2O	Total CO_2E
Annual construction-related emissions amortized over 30 years	45.02	6.67E-03	--	45.16
High-Cube				
Area	0.02	4.00E-05	--	0.02
Energy	2,297.67	0.11	0.03	262.43
Mobile Sources (Trucks)	6,252.59	0.05	--	6,253.70
Mobile Sources (Passenger Cars)	616.63	0.03	--	617.17
On-site Emissions	105.33	0.03		106.02
Waste	68.14	4.03	--	152.70
Water Usage	208.38	2.16	0.05	270.27
Manufacturing				
Area	4.05E-03	1.00E-05	--	4.28E-03
Energy	362.73	0.01	5.29E-03	364.70
Mobile Sources (Trucks)	3,598.15	0.03	0.02	3,598.73
Mobile Sources (Passenger Cars)	346.85	0.01	--	347.16
Waste	22.47	1.33	--	50.35
Water Usage	67.22	0.68	0.02	86.57
Total CO_2E (All Sources)	**12,154.98**			

Source: CalEEMod™ model output, See Appendix 3.1 for detailed model outputs.
Note: Totals obtained from CalEEMod™ and may not total 100% due to rounding. Table results include scientific notation. *e* is used to represent *times ten raised to the power of* (which would be written as x 10^{b}") and is followed by the value of the exponent

4 BUSINESS AS USUAL VS 2020 PROJECT EMISSIONS

To further evaluate GHG emissions impact significance, GHG emissions that would be generated pursuant to development of the Project area are compared with GHG emissions for the "Business as Usual" scenario. This comparison indicates whether GHG emissions generated by development of the Project area would likely be consistent with the CARB Scoping Plan GHG emissions reductions measures and GHG emissions reductions targets. In summary, as part of the AB 32 Scoping Plan, 2005, the Air Resources Board (ARB) recommended a greenhouse gas reduction goal for local governments of 28.5% below 2005 levels by 2020 to ensure that their municipal and community-wide emissions match the State's reduction target.

Results of the analysis indicate that the Project GHG emissions may result in or cause a potentially significant impact on the environment. To this end, the analysis demonstrates that the Project is consistent with, or otherwise not in conflict with, recommended measures and actions in the CARB Scoping Plan. The Scoping Plan establishes strategies and measures to implement in order to achieve the GHG reductions goals set forth in AB 32. As shown in Table 4-1, Project GHG emissions would be reduced by approximately 22.85% when compared to the 2005 BAU scenario. Thus, Project-related emissions may have a significant direct or indirect impact on GHG and climate change.

TABLE 4-1: SUMMARY OF GHG EMISSIONS FOR 2005 BAU VS 2020 PROJECT

Emission Source	CO2e Emissions Levels by Year (Metric Tons Per Year)	
	2005	**2020**
Annual Construction-related emissions amortized over 30 years	45.16	45.16
Area	0.02	0.02
Energy Use	870.08	587.56
Mobile Sources	13,193.19	10,237.08
On-Site	123.07	102.36
Waste	203.05	203.05
Water Usage	514.06	323.37
Total	14,948.63	11,498.60
Project Reduction over 2005 levels	**23.08%**	
CAP Minimum Improvement	**28.5%**	
Meets Requirement?	**NO**	

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5 REFERENCES

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6 CERTIFICATION

The contents of this greenhouse gas study report represent an accurate depiction of the greenhouse gas impacts associated with the proposed Indian Street Commerce Center Project. The information contained in this greenhouse gas 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

Construction-Mitigated

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	89.27	1000sqft	2.05	89,270.00	0
Unrefrigerated Warehouse-No Rail	357.08	1000sqft	8.20	357,080.00	0
Parking Lot	372.00	Space	9.39	148,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	497.64	**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 - Total lot acreage: 19.64; 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 a 2018 opening year

Off-road Equipment - Based on a 8 hour workday and past project experience

Off-road Equipment - Based on a 8 hour workday

Off-road Equipment - Off-highway trucks=water trucks; based on past project experience

Off-road Equipment -

Off-road Equipment - Off-highway trucks=water trucks; based on past project experience

Demolition -

Grading -

Architectural Coating - Based on updated Rule 1113- All flat, nonflat, and default coatings should be no more than 50 g/L low VOC level; Interior/Exterior area based on information provided by the architect

Vehicle Trips - Construction run only

Vechicle Emission Factors - Construction run only

Vechicle Emission Factors - Construction run only

Vechicle Emission Factors - Construction run only

Road Dust - 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 - For site preparation and grading phase, all construction equipment greater than 150 HP shall be CARB certified Tier 3

Consumer Products - Construction run only

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	225,407.00	125,820.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	676,221.00	131,376.00

tblArchitecturalCoating	EF_Nonresidential_Exterior	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	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	40.00
tblConsumerProducts	ROG_EF	1.98E-05	1E-10
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

tblGrading	MaterialImported	0.00	3,000.00
tblLandscapeEquipment	NumberSummerDays	250	1
tblLandUse	LotAcreage	3.35	9.39
tblOffRoadEquipment	HorsePower	400.00	189.00
tblOffRoadEquipment	HorsePower	400.00	189.00
tblOffRoadEquipment	LoadFactor	0.38	0.50
tblOffRoadEquipment	LoadFactor	0.38	0.50
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	497.64
tblProjectCharacteristics	OperationalYear	2014	2018
tblRoadDust	RoadPercentPave	100	0
tblSolidWaste	SolidWasteGenerationRate	110.69	0.00
tblSolidWaste	SolidWasteGenerationRate	335.66	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDA	0.51	0.00

tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00

tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleTrips	ST_TR	1.49	0.00
tblVehicleTrips	ST_TR	2.59	0.00
tblVehicleTrips	SU_TR	0.62	0.00
tblVehicleTrips	SU_TR	2.59	0.00
tblVehicleTrips	WD_TR	3.82	0.00
tblVehicleTrips	WD_TR	2.59	0.00
tblWater	IndoorWaterUseRate	20,643,687.50	0.00
tblWater	IndoorWaterUseRate	82,574,750.00	0.00

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					
2017	0.7621	6.7994	6.1724	0.0110	0.7632	0.3393	1.1024	0.2710	0.3155	0.5866	0.0000	940.5012	940.5012	0.1485	0.0000	943.6188
2018	0.5849	2.1330	2.5662	5.0100e-003	0.1799	0.1140	0.2940	0.0484	0.1077	0.1561	0.0000	409.9734	409.9734	0.0515	0.0000	411.0541
Total	**1.3470**	**8.9324**	**8.7385**	**0.0161**	**0.9431**	**0.4533**	**1.3964**	**0.3194**	**0.4232**	**0.7427**	**0.0000**	**1,350.4746**	**1,350.4746**	**0.1999**	**0.0000**	**1,354.6728**

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					
2017	0.5654	5.0079	5.8857	0.0110	0.5082	0.2528	0.7610	0.1624	0.2397	0.4021	0.0000	940.5006	940.5006	0.1485	0.0000	943.6182
2018	0.5849	2.1330	2.5662	5.0100e-003	0.1799	0.1140	0.2940	0.0484	0.1077	0.1561	0.0000	409.9732	409.9732	0.0515	0.0000	411.0539
Total	**1.1503**	**7.1409**	**8.4518**	**0.0161**	**0.6881**	**0.3668**	**1.0549**	**0.2108**	**0.3474**	**0.5582**	**0.0000**	**1,350.4738**	**1,350.4738**	**0.1999**	**0.0000**	**1,354.6720**

	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**	**N20**	**CO2e**
Percent Reduction	**14.61**	**20.06**	**3.28**	**0.00**	**27.03**	**19.08**	**24.45**	**34.02**	**17.92**	**24.85**	**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	1.0000e-005	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	9.0000e-005
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	**1.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.0000**	**9.0000e-005**

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	1.0000e-005	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	9.0000e-005
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	**1.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.0000**	**9.0000e-005**

	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	N20	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	Site Preparation	Site Preparation	1/28/2017	2/10/2017	5	10	
2	Grading	Grading	2/11/2017	3/24/2017	5	30	
3	Building Construction	Building Construction	3/25/2017	5/18/2018	5	300	
4	Paving	Paving	5/19/2018	6/15/2018	5	20	
5	Architectural Coating	Architectural Coating	6/16/2018	8/10/2018	5	40	

Acres of Grading (Site Preparation Phase): 10

Acres of Grading (Grading Phase): 210

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 131,376; Non-Residential Outdoor: 125,820 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Crawler Tractors	2	8.00	208	0.43
Site Preparation	Excavators	4	8.00	162	0.38
Site Preparation	Off-Highway Trucks	2	8.00	189	0.50
Site Preparation	Rubber Tired Dozers	4	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	2	8.00	208	0.43
Grading	Excavators	0	8.00	162	0.38
Grading	Graders	4	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	189	0.50
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	4	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Aerial Lifts	4	8.00	62	0.31
Architectural Coating	Air Compressors	4	8.00	78	0.48

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
Site Preparation	12	30.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	14	35.00	0.00	375.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	250.00	98.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	8	50.00	0.00	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

Clean Paved Roads

3.2 Site Preparation - 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					
Fugitive Dust					0.1257	0.0000	0.1257	0.0668	0.0000	0.0668	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0448	0.5079	0.3239	4.4000e-004		0.0228	0.0228		0.0210	0.0210	0.0000	40.9655	40.9655	0.0126	0.0000	41.2291
Total	**0.0448**	**0.5079**	**0.3239**	**4.4000e-004**	**0.1257**	**0.0228**	**0.1486**	**0.0668**	**0.0210**	**0.0878**	**0.0000**	**40.9655**	**40.9655**	**0.0126**	**0.0000**	**41.2291**

3.2 Site Preparation - 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	5.4000e-004	8.0000e-004	8.2900e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4827	1.4827	8.0000e-005	0.0000	1.4843
Total	**5.4000e-004**	**8.0000e-004**	**8.2900e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.4827**	**1.4827**	**8.0000e-005**	**0.0000**	**1.4843**

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					0.0490	0.0000	0.0490	0.0260	0.0000	0.0260	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0108	0.2091	0.2582	4.4000e-004		8.4500e-003	8.4500e-003		8.4500e-003	8.4500e-003	0.0000	40.9654	40.9654	0.0126	0.0000	41.2290
Total	**0.0108**	**0.2091**	**0.2582**	**4.4000e-004**	**0.0490**	**8.4500e-003**	**0.0575**	**0.0260**	**8.4500e-003**	**0.0345**	**0.0000**	**40.9654**	**40.9654**	**0.0126**	**0.0000**	**41.2290**

3.2 Site Preparation - 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	5.4000e-004	8.0000e-004	8.2900e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4827	1.4827	8.0000e-005	0.0000	1.4843
Total	**5.4000e-004**	**8.0000e-004**	**8.2900e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.4827**	**1.4827**	**8.0000e-005**	**0.0000**	**1.4843**

3.3 Grading - 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					
Fugitive Dust					0.2922	0.0000	0.2922	0.1114	0.0000	0.1114	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2120	2.4443	1.3705	2.0100e-003		0.1100	0.1100		0.1012	0.1012	0.0000	186.2917	186.2917	0.0571	0.0000	187.4904
Total	**0.2120**	**2.4443**	**1.3705**	**2.0100e-003**	**0.2922**	**0.1100**	**0.4022**	**0.1114**	**0.1012**	**0.2126**	**0.0000**	**186.2917**	**186.2917**	**0.0571**	**0.0000**	**187.4904**

3.3 Grading - 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	3.1700e-003	0.0502	0.0396	1.4000e-004	3.2100e-003	7.4000e-004	3.9500e-003	8.8000e-004	6.8000e-004	1.5600e-003	0.0000	12.4363	12.4363	9.0000e-005	0.0000	12.4381
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	1.8900e-003	2.7900e-003	0.0290	7.0000e-005	5.7600e-003	5.0000e-005	5.8100e-003	1.5300e-003	4.0000e-005	1.5700e-003	0.0000	5.1893	5.1893	2.7000e-004	0.0000	5.1949
Total	**5.0600e-003**	**0.0530**	**0.0686**	**2.1000e-004**	**8.9700e-003**	**7.9000e-004**	**9.7600e-003**	**2.4100e-003**	**7.2000e-004**	**3.1300e-003**	**0.0000**	**17.6255**	**17.6255**	**3.6000e-004**	**0.0000**	**17.6331**

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					0.1140	0.0000	0.1140	0.0434	0.0000	0.0434	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0492	0.9516	1.1494	2.0100e-003		0.0379	0.0379		0.0379	0.0379	0.0000	186.2915	186.2915	0.0571	0.0000	187.4901
Total	**0.0492**	**0.9516**	**1.1494**	**2.0100e-003**	**0.1140**	**0.0379**	**0.1519**	**0.0434**	**0.0379**	**0.0813**	**0.0000**	**186.2915**	**186.2915**	**0.0571**	**0.0000**	**187.4901**

3.3 Grading - 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	3.1700e-003	0.0502	0.0396	1.4000e-004	3.2100e-003	7.4000e-004	3.9500e-003	8.8000e-004	6.8000e-004	1.5600e-003	0.0000	12.4363	12.4363	9.0000e-005	0.0000	12.4381
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	1.8900e-003	2.7900e-003	0.0290	7.0000e-005	5.7600e-003	5.0000e-005	5.8100e-003	1.5300e-003	4.0000e-005	1.5700e-003	0.0000	5.1893	5.1893	2.7000e-004	0.0000	5.1949
Total	**5.0600e-003**	**0.0530**	**0.0686**	**2.1000e-004**	**8.9700e-003**	**7.9000e-004**	**9.7600e-003**	**2.4100e-003**	**7.2000e-004**	**3.1300e-003**	**0.0000**	**17.6255**	**17.6255**	**3.6000e-004**	**0.0000**	**17.6331**

3.4 Building Construction - 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	0.3302	2.8509	1.9371	2.8700e-003		0.1910	0.1910		0.1791	0.1791	0.0000	256.8521	256.8521	0.0643	0.0000	258.2016
Total	**0.3302**	**2.8509**	**1.9371**	**2.8700e-003**		**0.1910**	**0.1910**		**0.1791**	**0.1791**	**0.0000**	**256.8521**	**256.8521**	**0.0643**	**0.0000**	**258.2016**

3.4 Building Construction - 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	0.0797	0.8097	1.0823	2.1300e-003	0.0603	0.0124	0.0727	0.0172	0.0114	0.0286	0.0000	190.1746	190.1746	1.3600e-003	0.0000	190.2032
Worker	0.0898	0.1329	1.3816	3.3700e-003	0.2743	2.2500e-003	0.2765	0.0728	2.0700e-003	0.0749	0.0000	247.1092	247.1092	0.0128	0.0000	247.3773
Total	**0.1695**	**0.9426**	**2.4640**	**5.5000e-003**	**0.3346**	**0.0146**	**0.3492**	**0.0901**	**0.0135**	**0.1035**	**0.0000**	**437.2838**	**437.2838**	**0.0141**	**0.0000**	**437.5805**

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	0.3302	2.8509	1.9371	2.8700e-003		0.1910	0.1910		0.1791	0.1791	0.0000	256.8518	256.8518	0.0643	0.0000	258.2013
Total	**0.3302**	**2.8509**	**1.9371**	**2.8700e-003**		**0.1910**	**0.1910**		**0.1791**	**0.1791**	**0.0000**	**256.8518**	**256.8518**	**0.0643**	**0.0000**	**258.2013**

3.4 Building Construction - 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	0.0797	0.8097	1.0823	2.1300e-003	0.0603	0.0124	0.0727	0.0172	0.0114	0.0286	0.0000	190.1746	190.1746	1.3600e-003	0.0000	190.2032
Worker	0.0898	0.1329	1.3816	3.3700e-003	0.2743	2.2500e-003	0.2765	0.0728	2.0700e-003	0.0749	0.0000	247.1092	247.1092	0.0128	0.0000	247.3773
Total	**0.1695**	**0.9426**	**2.4640**	**5.5000e-003**	**0.3346**	**0.0146**	**0.3492**	**0.0901**	**0.0135**	**0.1035**	**0.0000**	**437.2838**	**437.2838**	**0.0141**	**0.0000**	**437.5805**

3.4 Building Construction - 2018

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	0.1419	1.2541	0.9359	1.4300e-003		0.0800	0.0800		0.0751	0.0751	0.0000	126.9258	126.9258	0.0316	0.0000	127.5900
Total	**0.1419**	**1.2541**	**0.9359**	**1.4300e-003**		**0.0800**	**0.0800**		**0.0751**	**0.0751**	**0.0000**	**126.9258**	**126.9258**	**0.0316**	**0.0000**	**127.5900**

3.4 Building Construction - 2018

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	0.0373	0.3716	0.5185	1.0600e-003	0.0302	5.8400e-003	0.0360	8.6100e-003	5.3700e-003	0.0140	0.0000	93.4921	93.4921	6.8000e-004	0.0000	93.5063
Worker	0.0403	0.0603	0.6256	1.6800e-003	0.1371	1.0900e-003	0.1382	0.0364	1.0100e-003	0.0374	0.0000	118.9429	118.9429	5.9200e-003	0.0000	119.0673
Total	**0.0776**	**0.4319**	**1.1441**	**2.7400e-003**	**0.1673**	**6.9300e-003**	**0.1742**	**0.0450**	**6.3800e-003**	**0.0514**	**0.0000**	**212.4349**	**212.4349**	**6.6000e-003**	**0.0000**	**212.5736**

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	0.1419	1.2541	0.9359	1.4300e-003		0.0800	0.0800		0.0751	0.0751	0.0000	126.9256	126.9256	0.0316	0.0000	127.5898
Total	**0.1419**	**1.2541**	**0.9359**	**1.4300e-003**		**0.0800**	**0.0800**		**0.0751**	**0.0751**	**0.0000**	**126.9256**	**126.9256**	**0.0316**	**0.0000**	**127.5898**

3.4 Building Construction - 2018

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	0.0373	0.3716	0.5185	1.0600e-003	0.0302	5.8400e-003	0.0360	8.6100e-003	5.3700e-003	0.0140	0.0000	93.4921	93.4921	6.8000e-004	0.0000	93.5063
Worker	0.0403	0.0603	0.6256	1.6800e-003	0.1371	1.0900e-003	0.1382	0.0364	1.0100e-003	0.0374	0.0000	118.9429	118.9429	5.9200e-003	0.0000	119.0673
Total	**0.0776**	**0.4319**	**1.1441**	**2.7400e-003**	**0.1673**	**6.9300e-003**	**0.1742**	**0.0450**	**6.3800e-003**	**0.0514**	**0.0000**	**212.4349**	**212.4349**	**6.6000e-003**	**0.0000**	**212.5736**

3.5 Paving - 2018

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	0.0161	0.1716	0.1449	2.2000e-004		9.3900e-003	9.3900e-003		8.6400e-003	8.6400e-003	0.0000	20.3687	20.3687	6.3400e-003	0.0000	20.5019
Paving	0.0123					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0284**	**0.1716**	**0.1449**	**2.2000e-004**		**9.3900e-003**	**9.3900e-003**		**8.6400e-003**	**8.6400e-003**	**0.0000**	**20.3687**	**20.3687**	**6.3400e-003**	**0.0000**	**20.5019**

3.5 Paving - 2018

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	7.2000e-004	7.5100e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4273	1.4273	7.0000e-005	0.0000	1.4288
Total	**4.8000e-004**	**7.2000e-004**	**7.5100e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.4273**	**1.4273**	**7.0000e-005**	**0.0000**	**1.4288**

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	0.0161	0.1716	0.1449	2.2000e-004		9.3900e-003	9.3900e-003		8.6400e-003	8.6400e-003	0.0000	20.3687	20.3687	6.3400e-003	0.0000	20.5019
Paving	0.0123					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0284**	**0.1716**	**0.1449**	**2.2000e-004**		**9.3900e-003**	**9.3900e-003**		**8.6400e-003**	**8.6400e-003**	**0.0000**	**20.3687**	**20.3687**	**6.3400e-003**	**0.0000**	**20.5019**

3.5 Paving - 2018

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	7.2000e-004	7.5100e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4273	1.4273	7.0000e-005	0.0000	1.4288
Total	**4.8000e-004**	**7.2000e-004**	**7.5100e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.4273**	**1.4273**	**7.0000e-005**	**0.0000**	**1.4288**

3.6 Architectural Coating - 2018

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	0.2980					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0352	0.2699	0.2837	4.5000e-004		0.0176	0.0176		0.0175	0.0175	0.0000	39.3012	39.3012	6.3400e-003	0.0000	39.4344
Total	**0.3332**	**0.2699**	**0.2837**	**4.5000e-004**		**0.0176**	**0.0176**		**0.0175**	**0.0175**	**0.0000**	**39.3012**	**39.3012**	**6.3400e-003**	**0.0000**	**39.4344**

3.6 Architectural Coating - 2018

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	3.2300e-003	4.8200e-003	0.0501	1.3000e-004	0.0110	9.0000e-005	0.0111	2.9100e-003	8.0000e-005	2.9900e-003	0.0000	9.5154	9.5154	4.7000e-004	0.0000	9.5254
Total	**3.2300e-003**	**4.8200e-003**	**0.0501**	**1.3000e-004**	**0.0110**	**9.0000e-005**	**0.0111**	**2.9100e-003**	**8.0000e-005**	**2.9900e-003**	**0.0000**	**9.5154**	**9.5154**	**4.7000e-004**	**0.0000**	**9.5254**

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	0.2980					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0352	0.2699	0.2837	4.5000e-004		0.0176	0.0176		0.0175	0.0175	0.0000	39.3012	39.3012	6.3400e-003	0.0000	39.4344
Total	**0.3332**	**0.2699**	**0.2837**	**4.5000e-004**		**0.0176**	**0.0176**		**0.0175**	**0.0175**	**0.0000**	**39.3012**	**39.3012**	**6.3400e-003**	**0.0000**	**39.4344**

3.6 Architectural Coating - 2018

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	3.2300e-003	4.8200e-003	0.0501	1.3000e-004	0.0110	9.0000e-005	0.0111	2.9100e-003	8.0000e-005	2.9900e-003	0.0000	9.5154	9.5154	4.7000e-004	0.0000	9.5254
Total	**3.2300e-003**	**4.8200e-003**	**0.0501**	**1.3000e-004**	**0.0110**	**9.0000e-005**	**0.0111**	**2.9100e-003**	**8.0000e-005**	**2.9900e-003**	**0.0000**	**9.5154**	**9.5154**	**4.7000e-004**	**0.0000**	**9.5254**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	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

	Miles			Trip %			Trip Purpose %		
Land Use	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
Manufacturing	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

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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 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					
Unrefrigerated Warehouse-No Rail	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
Manufacturing	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
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		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 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					
Unrefrigerated Warehouse-No Rail	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
Manufacturing	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
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		**0.0000**	**0.0000**	**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			
Manufacturing	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**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	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	1.0000e-005	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	9.0000e-005
Unmitigated	1.0000e-005	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	9.0000e-005

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	1.0000e-005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	9.0000e-005
Total	**1.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.0000**	**9.0000e-005**

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	1.0000e-005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	9.0000e-005
Total	**1.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.0000**	**9.0000e-005**

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			
Manufacturing	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			
Manufacturing	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			
Manufacturing	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			
Manufacturing	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

10.0 Vegetation

High Cube- Trucks

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	357.08	1000sqft	8.20	357,080.00	0
Parking Lot	298.00	Space	2.68	119,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	497.64	**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 - Total lot acreage: 19.6437; 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 - Operation run only

Off-road Equipment - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Trucks only

Vechicle Emission Factors - Trucks only

Vechicle 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)

Area Mitigation - Based on updated Rule 1113- All flat, nonflat, and default coatings shall be no more than 50 g/L low VOC level

Energy Mitigation - PV system to serve office area (80% of total project kWh)

Water Mitigation -

Operational Off-Road Equipment - All yard trucks shall be non-diesel

Mobile Land Use Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	50
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	0.45	0.35
tblEnergyUse	T24NG	2.11	1.76
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	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperLoadFactor	0.37	0.37
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	497.64
tblProjectCharacteristics	OperationalYear	2014	2018
tblVehicleEF	HHD	0.03	0.60
tblVehicleEF	HHD	0.03	0.60
tblVehicleEF	HHD	0.03	0.60
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.22
tblVehicleEF	LHD1	0.04	0.22
tblVehicleEF	LHD1	0.04	0.22
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00

tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MHD	0.02	0.18
tblVehicleEF	MHD	0.02	0.18
tblVehicleEF	MHD	0.02	0.18
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	61.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	2.59	0.64
tblVehicleTrips	SU_TR	2.59	0.64
tblVehicleTrips	WD_TR	2.59	0.64

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					
2017	0.0000	0.0000	0.0000	0.0000	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**

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					
2017	0.0000	0.0000	0.0000	0.0000	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**

	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	N20	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**

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	2.1398	8.0000e-005	8.4800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Energy	3.4500e-003	0.0313	0.0263	1.9000e-004		2.3800e-003	2.3800e-003		2.3800e-003	2.3800e-003	0.0000	293.1447	293.1447	0.0158	3.7500e-003	294.6374
Mobile	1.2397	21.9104	11.8822	0.0722	2.1522	0.3674	2.5196	0.5968	0.3380	0.9348	0.0000	6,379.3688	6,379.3688	0.0536	0.0000	6,380.4934
Offroad	0.0614	0.8207	0.2946	1.1500e-003		0.0265	0.0265		0.0244	0.0244	0.0000	105.3329	105.3329	0.0328	0.0000	106.0216
Waste						0.0000	0.0000		0.0000	0.0000	68.1360	0.0000	68.1360	4.0267	0.0000	152.6971
Water						0.0000	0.0000		0.0000	0.0000	26.1972	242.7016	268.8988	2.7048	0.0665	346.3029
Total	**3.4444**	**22.7625**	**12.2116**	**0.0735**	**2.1522**	**0.3963**	**2.5485**	**0.5968**	**0.3648**	**0.9616**	**94.3331**	**7,020.5643**	**7,114.8974**	**6.8337**	**0.0702**	**7,280.1695**

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	1.8054	8.0000e-005	8.4800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Energy	3.2800e-003	0.0298	0.0250	1.8000e-004		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	261.1012	261.1012	0.0140	3.3500e-003	262.4331
Mobile	1.2188	21.4840	11.7176	0.0708	2.1091	0.3601	2.4692	0.5849	0.3313	0.9162	0.0000	6,252.5924	6,252.5924	0.0525	0.0000	6,253.6953
Offroad	0.0614	0.8207	0.2946	1.1500e-003		0.0265	0.0265		0.0244	0.0244	0.0000	105.3329	105.3329	0.0328	0.0000	106.0216
Waste						0.0000	0.0000		0.0000	0.0000	68.1360	0.0000	68.1360	4.0267	0.0000	152.6971
Water						0.0000	0.0000		0.0000	0.0000	20.9577	187.4223	208.3800	2.1635	0.0531	270.2699
Total	**3.0889**	**22.3345**	**12.0458**	**0.0721**	**2.1091**	**0.3888**	**2.4980**	**0.5849**	**0.3579**	**0.9428**	**89.0937**	**6,806.4651**	**6,895.5587**	**6.2895**	**0.0564**	**7,045.1341**

	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	N20	CO2e
Percent Reduction	**12.10**	**5.49**	**3.77**	**3.54**	**2.00**	**8.56**	**3.02**	**2.00**	**8.56**	**4.49**	**5.55**	**4.55**	**4.56**	**8.44**	**19.61**	**4.68**

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	1/1/2017	1/2/2017	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	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	0.0000	0.0000	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**

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	0.0000	0.0000	0.0000	0.0000	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**

3.2 Demolition - 2017

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	1.2397	21.9104	11.8822	0.0722	2.1522	0.3674	2.5196	0.5968	0.3380	0.9348	0.0000	6,379.3688	6,379.3688	0.0536	0.0000	6,380.4934
Mitigated	1.2188	21.4840	11.7176	0.0708	2.1091	0.3601	2.4692	0.5849	0.3313	0.9162	0.0000	6,252.5924	6,252.5924	0.0525	0.0000	6,253.6953

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	228.53	228.53	228.53	5,074,307	4,972,821
Total	228.53	228.53	228.53	5,074,307	4,972,821

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Unrefrigerated Warehouse-No	61.00	8.40	6.90	100.00	0.00	0.00	100	0	0

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

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	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	3.4500e-003	0.0313	0.0263	1.9000e-004		2.3800e-003	2.3800e-003		2.3800e-003	2.3800e-003	0.0000	34.1087	34.1087	6.5000e-004	6.3000e-004	34.3163
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	228.6693	228.6693	0.0133	2.7600e-003	229.8039
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	259.0360	259.0360	0.0151	3.1200e-003	260.3211
NaturalGas Mitigated	3.2800e-003	0.0298	0.0250	1.8000e-004		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	32.4319	32.4319	6.2000e-004	5.9000e-004	32.6292

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					
Unrefrigerated Warehouse-No Rail	639173	3.4500e-003	0.0313	0.0263	1.9000e-004		2.3800e-003	2.3800e-003		2.3800e-003	2.3800e-003	0.0000	34.1087	34.1087	6.5000e-004	6.3000e-004	34.3163
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		**3.4500e-003**	**0.0313**	**0.0263**	**1.9000e-004**		**2.3800e-003**	**2.3800e-003**		**2.3800e-003**	**2.3800e-003**	**0.0000**	**34.1087**	**34.1087**	**6.5000e-004**	**6.3000e-004**	**34.3163**

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					
Unrefrigerated Warehouse-No Rail	607750	3.2800e-003	0.0298	0.0250	1.8000e-004		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	32.4319	32.4319	6.2000e-004	5.9000e-004	32.6292
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		**3.2800e-003**	**0.0298**	**0.0250**	**1.8000e-004**		**2.2600e-003**	**2.2600e-003**		**2.2600e-003**	**2.2600e-003**	**0.0000**	**32.4319**	**32.4319**	**6.2000e-004**	**5.9000e-004**	**32.6292**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	104896	23.6777	1.3800e-003	2.9000e-004	23.7952
Unrefrigerated Warehouse-No Rail	1.04267e+006	235.3582	0.0137	2.8400e-003	236.5260
Total		**259.0360**	**0.0151**	**3.1300e-003**	**260.3212**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	40756	9.1997	5.4000e-004	1.1000e-004	9.2453
Unrefrigerated Warehouse-No Rail	972285	219.4697	0.0128	2.6500e-003	220.5585
Total		**228.6693**	**0.0133**	**2.7600e-003**	**229.8039**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	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	2.1398	8.0000e-005	8.4800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Mitigated	1.8054	8.0000e-005	8.4800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172

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	0.4179					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7210					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.1000e-004	8.0000e-005	8.4800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Total	**2.1398**	**8.0000e-005**	**8.4800e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0163**	**0.0163**	**4.0000e-005**	**0.0000**	**0.0172**

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	0.0836					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7210					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.1000e-004	8.0000e-005	8.4800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Total	**1.8054**	**8.0000e-005**	**8.4800e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0163**	**0.0163**	**4.0000e-005**	**0.0000**	**0.0172**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	268.8988	2.7048	0.0665	346.3029
Mitigated	208.3800	2.1635	0.0531	270.2699

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
Unrefrigerated Warehouse-No Rail	82.5747 / 0	268.8988	2.7048	0.0665	346.3029
Total		**268.8988**	**2.7048**	**0.0665**	**346.3029**

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
Unrefrigerated Warehouse-No Rail	66.0598 / 0	208.3800	2.1635	0.0531	270.2699
Total		**208.3800**	**2.1635**	**0.0531**	**270.2699**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	68.1360	4.0267	0.0000	152.6971
Unmitigated	68.1360	4.0267	0.0000	152.6971

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
Unrefrigerated Warehouse-No Rail	335.66	68.1360	4.0267	0.0000	152.6971
Total		**68.1360**	**4.0267**	**0.0000**	**152.6971**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	335.66	68.1360	4.0267	0.0000	152.6971
Total		**68.1360**	**4.0267**	**0.0000**	**152.6971**

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	CNG

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	0.0614	0.8207	0.2946	1.1500e-003		0.0265	0.0265		0.0244	0.0244	0.0000	105.3329	105.3329	0.0328	0.0000	106.0216
Total	**0.0614**	**0.8207**	**0.2946**	**1.1500e-003**		**0.0265**	**0.0265**		**0.0244**	**0.0244**	**0.0000**	**105.3329**	**105.3329**	**0.0328**	**0.0000**	**106.0216**

10.0 Vegetation

High Cube- Passenger Cars

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	357.08	1000sqft	8.20	357,080.00	0
Parking Lot	298.00	Space	2.68	119,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	497.64	**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 - Total lot acreage: 19.6437; 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 - Operation run only

Off-road Equipment - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Passenger Cars Only

Vechicle Emission Factors - Passenger Cars Only

Vechicle 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)

Area Mitigation - Based on updated Rule 1113- All flat, nonflat, and default coatings shall be no more than 50 g/L low VOC level

Operational Off-Road Equipment - All yard trucks shall be non-diesel

Mobile Land Use Mitigation -

Energy Mitigation - PV system to serve office area (80% of total project kWh)

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	50
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	0.45	0.35
tblEnergyUse	T24NG	2.11	1.76
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	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperLoadFactor	0.37	0.37
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	497.64
tblProjectCharacteristics	OperationalYear	2014	2018
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00

tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	2.59	1.04
tblVehicleTrips	SU_TR	2.59	1.04
tblVehicleTrips	WD_TR	2.59	1.04

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					
2017	0.0000	0.0000	0.0000	0.0000	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**

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					
2017	0.0000	0.0000	0.0000	0.0000	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**

	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**	**N20**	**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**

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	2.1398	8.0000e-005	8.4800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Energy	3.4500e-003	0.0313	0.0263	1.9000e-004		2.3800e-003	2.3800e-003		2.3800e-003	2.3800e-003	0.0000	293.1447	293.1447	0.0158	3.7500e-003	294.6374
Mobile	0.1349	0.2177	2.4619	9.0200e-003	0.8366	5.1500e-003	0.8418	0.2221	4.7600e-003	0.2269	0.0000	616.6264	616.6264	0.0258	0.0000	617.1675
Offroad	0.0614	0.8207	0.2946	1.1500e-003		0.0265	0.0265		0.0244	0.0244	0.0000	105.3329	105.3329	0.0328	0.0000	106.0216
Waste						0.0000	0.0000		0.0000	0.0000	68.1360	0.0000	68.1360	4.0267	0.0000	152.6971
Water						0.0000	0.0000		0.0000	0.0000	26.1972	242.7016	268.8988	2.7048	0.0665	346.3029
Total	**2.3395**	**1.0698**	**2.7913**	**0.0104**	**0.8366**	**0.0340**	**0.8707**	**0.2221**	**0.0315**	**0.2536**	**94.3331**	**1,257.8219**	**1,352.1550**	**6.8059**	**0.0702**	**1,516.8436**

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	1.8054	8.0000e-005	8.4800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Energy	3.2800e-003	0.0298	0.0250	1.8000e-004		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	261.1012	261.1012	0.0140	3.3500e-003	262.4331
Mobile	0.1339	0.2137	2.4177	8.8400e-003	0.8199	5.0500e-003	0.8249	0.2177	4.6700e-003	0.2223	0.0000	604.4494	604.4494	0.0253	0.0000	604.9801
Offroad	0.0614	0.8207	0.2946	1.1500e-003		0.0265	0.0265		0.0244	0.0244	0.0000	105.3329	105.3329	0.0328	0.0000	106.0216
Waste						0.0000	0.0000		0.0000	0.0000	68.1360	0.0000	68.1360	4.0267	0.0000	152.6971
Water						0.0000	0.0000		0.0000	0.0000	20.9577	187.4223	208.3800	2.1635	0.0531	270.2699
Total	**2.0040**	**1.0643**	**2.7458**	**0.0102**	**0.8199**	**0.0338**	**0.8537**	**0.2177**	**0.0313**	**0.2490**	**89.0937**	**1,158.3221**	**1,247.4157**	**6.2623**	**0.0564**	**1,396.4188**

	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	N20	CO2e
Percent Reduction	**16.96**	**77.23**	**12.19**	**12.93**	**2.00**	**78.44**	**4.99**	**2.00**	**77.93**	**11.44**	**5.55**	**16.28**	**15.54**	**8.47**	**19.61**	**14.93**

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	1/1/2017	1/2/2017	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	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	0.0000	0.0000	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**

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	0.0000	0.0000	0.0000	0.0000	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**

3.2 Demolition - 2017

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	0.1349	0.2177	2.4619	9.0200e-003	0.8366	5.1500e-003	0.8418	0.2221	4.7600e-003	0.2269	0.0000	616.6264	616.6264	0.0258	0.0000	617.1675
Mitigated	0.1339	0.2137	2.4177	8.8400e-003	0.8199	5.0500e-003	0.8249	0.2177	4.6700e-003	0.2223	0.0000	604.4494	604.4494	0.0253	0.0000	604.9801

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	371.36	371.36	371.36	2,243,925	2,199,046
Total	371.36	371.36	371.36	2,243,925	2,199,046

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Unrefrigerated Warehouse-No	16.60	8.40	6.90	100.00	0.00	0.00	100	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

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	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	3.4500e-003	0.0313	0.0263	1.9000e-004		2.3800e-003	2.3800e-003		2.3800e-003	2.3800e-003	0.0000	34.1087	34.1087	6.5000e-004	6.3000e-004	34.3163
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	228.6693	228.6693	0.0133	2.7600e-003	229.8039
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	259.0360	259.0360	0.0151	3.1200e-003	260.3211
NaturalGas Mitigated	3.2800e-003	0.0298	0.0250	1.8000e-004		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	32.4319	32.4319	6.2000e-004	5.9000e-004	32.6292

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					
Unrefrigerated Warehouse-No Rail	639173	3.4500e-003	0.0313	0.0263	1.9000e-004		2.3800e-003	2.3800e-003		2.3800e-003	2.3800e-003	0.0000	34.1087	34.1087	6.5000e-004	6.3000e-004	34.3163
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		**3.4500e-003**	**0.0313**	**0.0263**	**1.9000e-004**		**2.3800e-003**	**2.3800e-003**		**2.3800e-003**	**2.3800e-003**	**0.0000**	**34.1087**	**34.1087**	**6.5000e-004**	**6.3000e-004**	**34.3163**

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					
Unrefrigerated Warehouse-No Rail	607750	3.2800e-003	0.0298	0.0250	1.8000e-004		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	32.4319	32.4319	6.2000e-004	5.9000e-004	32.6292
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		**3.2800e-003**	**0.0298**	**0.0250**	**1.8000e-004**		**2.2600e-003**	**2.2600e-003**		**2.2600e-003**	**2.2600e-003**	**0.0000**	**32.4319**	**32.4319**	**6.2000e-004**	**5.9000e-004**	**32.6292**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	104896	23.6777	1.3800e-003	2.9000e-004	23.7952
Unrefrigerated Warehouse-No Rail	1.04267e+006	235.3582	0.0137	2.8400e-003	236.5260
Total		**259.0360**	**0.0151**	**3.1300e-003**	**260.3212**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	40756	9.1997	5.4000e-004	1.1000e-004	9.2453
Unrefrigerated Warehouse-No Rail	972285	219.4697	0.0128	2.6500e-003	220.5585
Total		**228.6693**	**0.0133**	**2.7600e-003**	**229.8039**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	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	2.1398	8.0000e-005	8.4800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Mitigated	1.8054	8.0000e-005	8.4800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172

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	0.4179					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7210					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.1000e-004	8.0000e-005	8.4800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Total	**2.1398**	**8.0000e-005**	**8.4800e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0163**	**0.0163**	**4.0000e-005**	**0.0000**	**0.0172**

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	0.0836					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7210					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.1000e-004	8.0000e-005	8.4800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Total	**1.8054**	**8.0000e-005**	**8.4800e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0163**	**0.0163**	**4.0000e-005**	**0.0000**	**0.0172**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	268.8988	2.7048	0.0665	346.3029
Mitigated	208.3800	2.1635	0.0531	270.2699

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
Unrefrigerated Warehouse-No Rail	82.5747 / 0	268.8988	2.7048	0.0665	346.3029
Total		**268.8988**	**2.7048**	**0.0665**	**346.3029**

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
Unrefrigerated Warehouse-No Rail	66.0598 / 0	208.3800	2.1635	0.0531	270.2699
Total		**208.3800**	**2.1635**	**0.0531**	**270.2699**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	68.1360	4.0267	0.0000	152.6971
Unmitigated	68.1360	4.0267	0.0000	152.6971

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
Unrefrigerated Warehouse-No Rail	335.66	68.1360	4.0267	0.0000	152.6971
Total		**68.1360**	**4.0267**	**0.0000**	**152.6971**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	335.66	68.1360	4.0267	0.0000	152.6971
Total		**68.1360**	**4.0267**	**0.0000**	**152.6971**

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	CNG

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	0.0614	0.8207	0.2946	1.1500e-003		0.0265	0.0265		0.0244	0.0244	0.0000	105.3329	105.3329	0.0328	0.0000	106.0216
Total	**0.0614**	**0.8207**	**0.2946**	**1.1500e-003**		**0.0265**	**0.0265**		**0.0244**	**0.0244**	**0.0000**	**105.3329**	**105.3329**	**0.0328**	**0.0000**	**106.0216**

10.0 Vegetation

Warehouse- Trucks

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	89.27	1000sqft	2.05	89,270.00	0
Parking Lot	74.00	Space	0.67	29,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	497.64	**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 - 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 - Operation run only

Off-road Equipment - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Trucks only

Vechicle Emission Factors - Trucks only

Vechicle 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)

Area Mitigation - Based on updated Rule 1113- all flat, nonflat, default coatings shall have 50 g/L low VOC levels

Energy Mitigation - PV system to serve office areas (20% of total project kWh)

Mobile Land Use Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	50
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	2.69	2.10
tblEnergyUse	T24NG	16.16	13.45
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	497.64
tblProjectCharacteristics	OperationalYear	2014	2018
tblTripsAndVMT	WorkerTripNumber	8.00	0.00

tblVehicleEF	HHD	0.03	0.51
tblVehicleEF	HHD	0.03	0.51
tblVehicleEF	HHD	0.03	0.51
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.16
tblVehicleEF	LHD1	0.04	0.16
tblVehicleEF	LHD1	0.04	0.16
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MHD	0.02	0.33

tblVehicleEF	MHD	0.02	0.33
tblVehicleEF	MHD	0.02	0.33
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-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	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.49	1.48
tblVehicleTrips	SU_TR	0.62	1.48
tblVehicleTrips	WD_TR	3.82	1.48

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					
2017	4.8000e-004	4.5700e-003	3.5900e-003	0.0000	0.0000	3.4000e-004	3.4000e-004	0.0000	3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**	**0.0000**	**3.4000e-004**	**3.4000e-004**	**0.0000**	**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

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					
2017	4.8000e-004	4.5700e-003	3.5900e-003	0.0000	0.0000	3.4000e-004	3.4000e-004	0.0000	3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**	**0.0000**	**3.4000e-004**	**3.4000e-004**	**0.0000**	**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

	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**	**N20**	**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**

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	0.5342	2.0000e-005	2.1100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2900e-003
Energy	0.0147	0.1338	0.1124	8.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	362.7339	362.7339	0.0154	5.2900e-003	364.6974
Mobile	0.6862	12.1463	6.4182	0.0407	1.2667	0.2161	1.4828	0.3558	0.1988	0.5546	0.0000	3,598.1480	3,598.1480	0.0275	0.0000	3,598.7262
Waste						0.0000	0.0000		0.0000	0.0000	22.4691	0.0000	22.4691	1.3279	0.0000	50.3546
Water						0.0000	0.0000		0.0000	0.0000	6.5493	60.6754	67.2247	0.6762	0.0166	86.5757
Total	**1.2351**	**12.2801**	**6.5327**	**0.0415**	**1.2667**	**0.2263**	**1.4930**	**0.3558**	**0.2090**	**0.5648**	**29.0184**	**4,021.5613**	**4,050.5797**	**2.0471**	**0.0219**	**4,100.3583**

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	0.4506	2.0000e-005	2.1100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2900e-003
Energy	0.0144	0.1309	0.1099	7.9000e-004		9.9500e-003	9.9500e-003		9.9500e-003	9.9500e-003	0.0000	350.1754	350.1754	0.0148	5.1200e-003	352.0730
Mobile	0.6747	11.9105	6.3292	0.0399	1.2413	0.2118	1.4532	0.3487	0.1949	0.5436	0.0000	3,526.6931	3,526.6931	0.0270	0.0000	3,527.2602
Waste						0.0000	0.0000		0.0000	0.0000	22.4691	0.0000	22.4691	1.3279	0.0000	50.3546
Water						0.0000	0.0000		0.0000	0.0000	5.2394	46.8556	52.0950	0.5409	0.0133	67.5675
Total	**1.1397**	**12.0414**	**6.4412**	**0.0407**	**1.2413**	**0.2218**	**1.4631**	**0.3487**	**0.2048**	**0.5535**	**27.7085**	**3,923.7281**	**3,951.4366**	**1.9106**	**0.0184**	**3,997.2596**

	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	N20	CO2e
Percent Reduction	**7.73**	**1.94**	**1.40**	**1.95**	**2.00**	**2.00**	**2.00**	**2.00**	**2.00**	**2.00**	**4.51**	**2.43**	**2.45**	**6.67**	**16.03**	**2.51**

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	1/1/2017	1/2/2017	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
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37

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	3	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	4.8000e-004	4.5700e-003	3.5900e-003	0.0000		3.4000e-004	3.4000e-004		3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**		**3.4000e-004**	**3.4000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

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	0.0000	0.0000	0.0000	0.0000	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**

3.2 Demolition - 2017

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	4.8000e-004	4.5700e-003	3.5900e-003	0.0000		3.4000e-004	3.4000e-004		3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**		**3.4000e-004**	**3.4000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

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					
Mitigated	0.6747	11.9105	6.3292	0.0399	1.2413	0.2118	1.4532	0.3487	0.1949	0.5436	0.0000	3,526.6931	3,526.6931	0.0270	0.0000	3,527.2602
Unmitigated	0.6862	12.1463	6.4182	0.0407	1.2667	0.2161	1.4828	0.3558	0.1988	0.5546	0.0000	3,598.1480	3,598.1480	0.0275	0.0000	3,598.7262

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	132.12	132.12	132.12	2,933,584	2,874,912
Parking Lot	0.00	0.00	0.00		
Total	132.12	132.12	132.12	2,933,584	2,874,912

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Manufacturing	61.00	8.40	6.90	100.00	0.00	0.00	100	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	0.157600	0.000000	0.328200	0.514200	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

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	207.7025	207.7025	0.0121	2.5000e-003	208.7330
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	217.0573	217.0573	0.0127	2.6200e-003	218.1342
NaturalGas Mitigated	0.0144	0.1309	0.1099	7.9000e-004		9.9500e-003	9.9500e-003		9.9500e-003	9.9500e-003	0.0000	142.4730	142.4730	2.7300e-003	2.6100e-003	143.3400
NaturalGas Unmitigated	0.0147	0.1338	0.1124	8.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	145.6766	145.6766	2.7900e-003	2.6700e-003	146.5632

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					
Manufacturing	2.72988e+006	0.0147	0.1338	0.1124	8.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	145.6766	145.6766	2.7900e-003	2.6700e-003	146.5632
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		**0.0147**	**0.1338**	**0.1124**	**8.0000e-004**		**0.0102**	**0.0102**		**0.0102**	**0.0102**	**0.0000**	**145.6766**	**145.6766**	**2.7900e-003**	**2.6700e-003**	**146.5632**

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					
Manufacturing	2.66984e+006	0.0144	0.1309	0.1099	7.9000e-004		9.9500e-003	9.9500e-003		9.9500e-003	9.9500e-003	0.0000	142.4730	142.4730	2.7300e-003	2.6100e-003	143.3400
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		**0.0144**	**0.1309**	**0.1099**	**7.9000e-004**		**9.9500e-003**	**9.9500e-003**		**9.9500e-003**	**9.9500e-003**	**0.0000**	**142.4730**	**142.4730**	**2.7300e-003**	**2.6100e-003**	**143.3400**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	935550	211.1776	0.0123	2.5500e-003	212.2253
Parking Lot	26048	5.8797	3.4000e-004	7.0000e-005	5.9089
Total		**217.0573**	**0.0127**	**2.6200e-003**	**218.1342**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	910141	205.4423	0.0120	2.4800e-003	206.4616
Parking Lot	10013	2.2602	1.3000e-004	3.0000e-005	2.2714
Total		**207.7025**	**0.0121**	**2.5100e-003**	**208.7330**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	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	0.4506	2.0000e-005	2.1100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2900e-003
Unmitigated	0.5342	2.0000e-005	2.1100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2900e-003

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	0.1045					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4295					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-004	2.0000e-005	2.1100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2900e-003
Total	**0.5342**	**2.0000e-005**	**2.1100e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.0500e-003**	**4.0500e-003**	**1.0000e-005**	**0.0000**	**4.2900e-003**

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	0.0209					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4295					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-004	2.0000e-005	2.1100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2900e-003
Total	**0.4506**	**2.0000e-005**	**2.1100e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.0500e-003**	**4.0500e-003**	**1.0000e-005**	**0.0000**	**4.2900e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	52.0950	0.5409	0.0133	67.5675
Unmitigated	67.2247	0.6762	0.0166	86.5757

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	20.6437 / 0	67.2247	0.6762	0.0166	86.5757
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**67.2247**	**0.6762**	**0.0166**	**86.5757**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	16.5149 / 0	52.0950	0.5409	0.0133	67.5675
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**52.0950**	**0.5409**	**0.0133**	**67.5675**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Unmitigated	22.4691	1.3279	0.0000	50.3546
Mitigated	22.4691	1.3279	0.0000	50.3546

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	110.69	22.4691	1.3279	0.0000	50.3546
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**22.4691**	**1.3279**	**0.0000**	**50.3546**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	110.69	22.4691	1.3279	0.0000	50.3546
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**22.4691**	**1.3279**	**0.0000**	**50.3546**

9.0 Operational Offroad

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

10.0 Vegetation

Warehouse- Passenger Cars

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	89.27	1000sqft	2.05	89,270.00	0
Parking Lot	74.00	Space	0.67	29,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	497.64	**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 - A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking= 3.27 parking spaces. Parking represents ratio of total parking

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Passenger Cars Only

Vechicle Emission Factors - Passenger Cars Only

Vechicle 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)

Area Mitigation - Based on updated Rule 1113- all flat, nonflat, default coatings shall have 50 g/L low VOC levels

Mobile Land Use Mitigation -

Energy Mitigation - PV system to serve office areas (20% of total project kWh)

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	50
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	2.69	2.10
tblEnergyUse	T24NG	16.16	13.45
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	497.64
tblProjectCharacteristics	OperationalYear	2014	2018
tblTripsAndVMT	WorkerTripNumber	8.00	0.00

tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MHD	0.02	0.00

tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-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	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.49	2.34
tblVehicleTrips	SU_TR	0.62	2.34
tblVehicleTrips	WD_TR	3.82	2.34

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					
2017	4.8000e-004	4.5700e-003	3.5900e-003	0.0000	0.0000	3.4000e-004	3.4000e-004	0.0000	3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**	**0.0000**	**3.4000e-004**	**3.4000e-004**	**0.0000**	**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

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					
2017	4.8000e-004	4.5700e-003	3.5900e-003	0.0000	0.0000	3.4000e-004	3.4000e-004	0.0000	3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**	**0.0000**	**3.4000e-004**	**3.4000e-004**	**0.0000**	**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

	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**	**N20**	**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**

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	0.5342	2.0000e-005	2.1100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2900e-003
Energy	0.0147	0.1338	0.1124	8.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	362.7339	362.7339	0.0154	5.2900e-003	364.6974
Mobile	0.0759	0.1225	1.3848	5.0700e-003	0.4706	2.9000e-003	0.4735	0.1249	2.6800e-003	0.1276	0.0000	346.8524	346.8524	0.0145	0.0000	347.1567
Waste						0.0000	0.0000		0.0000	0.0000	22.4691	0.0000	22.4691	1.3279	0.0000	50.3546
Water						0.0000	0.0000		0.0000	0.0000	6.5493	60.6754	67.2247	0.6762	0.0166	86.5757
Total	**0.6248**	**0.2563**	**1.4993**	**5.8700e-003**	**0.4706**	**0.0131**	**0.4837**	**0.1249**	**0.0129**	**0.1378**	**29.0184**	**770.2657**	**799.2841**	**2.0340**	**0.0219**	**848.7888**

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	0.4506	2.0000e-005	2.1100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2900e-003
Energy	0.0144	0.1309	0.1099	7.9000e-004		9.9500e-003	9.9500e-003		9.9500e-003	9.9500e-003	0.0000	350.1754	350.1754	0.0148	5.1200e-003	352.0730
Mobile	0.0753	0.1202	1.3599	4.9700e-003	0.4612	2.8400e-003	0.4640	0.1224	2.6300e-003	0.1251	0.0000	340.0028	340.0028	0.0142	0.0000	340.3013
Waste						0.0000	0.0000		0.0000	0.0000	22.4691	0.0000	22.4691	1.3279	0.0000	50.3546
Water						0.0000	0.0000		0.0000	0.0000	5.2394	46.8556	52.0950	0.5409	0.0133	67.5675
Total	**0.5404**	**0.2511**	**1.4720**	**5.7600e-003**	**0.4612**	**0.0128**	**0.4740**	**0.1224**	**0.0126**	**0.1350**	**27.7085**	**737.0379**	**764.7464**	**1.8978**	**0.0184**	**810.3007**

	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	N20	CO2e
Percent Reduction	**13.52**	**2.04**	**1.83**	**1.87**	**2.00**	**2.14**	**2.00**	**1.99**	**2.10**	**2.00**	**4.51**	**4.31**	**4.32**	**6.70**	**16.03**	**4.53**

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	1/1/2017	1/2/2017	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
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37

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	3	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	4.8000e-004	4.5700e-003	3.5900e-003	0.0000		3.4000e-004	3.4000e-004		3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**		**3.4000e-004**	**3.4000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

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	0.0000	0.0000	0.0000	0.0000	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**

3.2 Demolition - 2017

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	4.8000e-004	4.5700e-003	3.5900e-003	0.0000		3.4000e-004	3.4000e-004		3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**		**3.4000e-004**	**3.4000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

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					
Mitigated	0.0753	0.1202	1.3599	4.9700e-003	0.4612	2.8400e-003	0.4640	0.1224	2.6300e-003	0.1251	0.0000	340.0028	340.0028	0.0142	0.0000	340.3013
Unmitigated	0.0759	0.1225	1.3848	5.0700e-003	0.4706	2.9000e-003	0.4735	0.1249	2.6800e-003	0.1276	0.0000	346.8524	346.8524	0.0145	0.0000	347.1567

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	208.89	208.89	208.89	1,262,208	1,236,964
Parking Lot	0.00	0.00	0.00		
Total	208.89	208.89	208.89	1,262,208	1,236,964

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Manufacturing	16.60	8.40	6.90	100.00	0.00	0.00	100	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

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	207.7025	207.7025	0.0121	2.5000e-003	208.7330
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	217.0573	217.0573	0.0127	2.6200e-003	218.1342
NaturalGas Mitigated	0.0144	0.1309	0.1099	7.9000e-004		9.9500e-003	9.9500e-003		9.9500e-003	9.9500e-003	0.0000	142.4730	142.4730	2.7300e-003	2.6100e-003	143.3400
NaturalGas Unmitigated	0.0147	0.1338	0.1124	8.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	145.6766	145.6766	2.7900e-003	2.6700e-003	146.5632

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					
Manufacturing	2.72988e+006	0.0147	0.1338	0.1124	8.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	145.6766	145.6766	2.7900e-003	2.6700e-003	146.5632
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		**0.0147**	**0.1338**	**0.1124**	**8.0000e-004**		**0.0102**	**0.0102**		**0.0102**	**0.0102**	**0.0000**	**145.6766**	**145.6766**	**2.7900e-003**	**2.6700e-003**	**146.5632**

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					
Manufacturing	2.66984e+006	0.0144	0.1309	0.1099	7.9000e-004		9.9500e-003	9.9500e-003		9.9500e-003	9.9500e-003	0.0000	142.4730	142.4730	2.7300e-003	2.6100e-003	143.3400
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		**0.0144**	**0.1309**	**0.1099**	**7.9000e-004**		**9.9500e-003**	**9.9500e-003**		**9.9500e-003**	**9.9500e-003**	**0.0000**	**142.4730**	**142.4730**	**2.7300e-003**	**2.6100e-003**	**143.3400**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	935550	211.1776	0.0123	2.5500e-003	212.2253
Parking Lot	26048	5.8797	3.4000e-004	7.0000e-005	5.9089
Total		**217.0573**	**0.0127**	**2.6200e-003**	**218.1342**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	910141	205.4423	0.0120	2.4800e-003	206.4616
Parking Lot	10013	2.2602	1.3000e-004	3.0000e-005	2.2714
Total		**207.7025**	**0.0121**	**2.5100e-003**	**208.7330**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	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	0.4506	2.0000e-005	2.1100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2900e-003
Unmitigated	0.5342	2.0000e-005	2.1100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2900e-003

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	0.1045					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4295					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-004	2.0000e-005	2.1100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2900e-003
Total	**0.5342**	**2.0000e-005**	**2.1100e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.0500e-003**	**4.0500e-003**	**1.0000e-005**	**0.0000**	**4.2900e-003**

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	0.0209					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4295					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-004	2.0000e-005	2.1100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2900e-003
Total	**0.4506**	**2.0000e-005**	**2.1100e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.0500e-003**	**4.0500e-003**	**1.0000e-005**	**0.0000**	**4.2900e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	52.0950	0.5409	0.0133	67.5675
Unmitigated	67.2247	0.6762	0.0166	86.5757

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	20.6437 / 0	67.2247	0.6762	0.0166	86.5757
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**67.2247**	**0.6762**	**0.0166**	**86.5757**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	16.5149 / 0	52.0950	0.5409	0.0133	67.5675
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**52.0950**	**0.5409**	**0.0133**	**67.5675**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Unmitigated	22.4691	1.3279	0.0000	50.3546
Mitigated	22.4691	1.3279	0.0000	50.3546

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	110.69	22.4691	1.3279	0.0000	50.3546
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**22.4691**	**1.3279**	**0.0000**	**50.3546**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	110.69	22.4691	1.3279	0.0000	50.3546
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**22.4691**	**1.3279**	**0.0000**	**50.3546**

9.0 Operational Offroad

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

10.0 Vegetation

2005 BAU High Cube- Trucks

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	357.08	1000sqft	8.20	357,080.00	0
Parking Lot	298.00	Space	2.68	119,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2005
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 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 - Operation run only

Off-road Equipment - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Trucks only

Vechicle Emission Factors - Trucks only

Vechicle Emission Factors - Trucks only

Area Coating -

Energy Use - Using historical data

Water And Wastewater -

Solid Waste -

Area Mitigation -

Operational Off-Road Equipment - All yard trucks shall be non-diesel

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	1.00
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	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	OperationalYear	2014	2005
tblVehicleEF	HHD	0.02	0.60

tblVehicleEF	HHD	0.02	0.60
tblVehicleEF	HHD	0.02	0.60
tblVehicleEF	LDA	0.50	0.00
tblVehicleEF	LDA	0.50	0.00
tblVehicleEF	LDA	0.50	0.00
tblVehicleEF	LDT1	0.08	0.00
tblVehicleEF	LDT1	0.08	0.00
tblVehicleEF	LDT1	0.08	0.00
tblVehicleEF	LDT2	0.23	0.00
tblVehicleEF	LDT2	0.23	0.00
tblVehicleEF	LDT2	0.23	0.00
tblVehicleEF	LHD1	0.02	0.22
tblVehicleEF	LHD1	0.02	0.22
tblVehicleEF	LHD1	0.02	0.22
tblVehicleEF	LHD2	6.7800e-003	0.00
tblVehicleEF	LHD2	6.7800e-003	0.00
tblVehicleEF	LHD2	6.7800e-003	0.00
tblVehicleEF	MCY	5.6020e-003	0.00
tblVehicleEF	MCY	5.6020e-003	0.00
tblVehicleEF	MCY	5.6020e-003	0.00
tblVehicleEF	MDV	0.11	0.00
tblVehicleEF	MDV	0.11	0.00
tblVehicleEF	MDV	0.11	0.00
tblVehicleEF	MH	2.3120e-003	0.00
tblVehicleEF	MH	2.3120e-003	0.00
tblVehicleEF	MH	2.3120e-003	0.00
tblVehicleEF	MHD	0.02	0.18
tblVehicleEF	MHD	0.02	0.18

tblVehicleEF	MHD	0.02	0.18
tblVehicleEF	OBUS	1.1540e-003	0.00
tblVehicleEF	OBUS	1.1540e-003	0.00
tblVehicleEF	OBUS	1.1540e-003	0.00
tblVehicleEF	SBUS	7.9800e-004	0.00
tblVehicleEF	SBUS	7.9800e-004	0.00
tblVehicleEF	SBUS	7.9800e-004	0.00
tblVehicleEF	UBUS	1.5680e-003	0.00
tblVehicleEF	UBUS	1.5680e-003	0.00
tblVehicleEF	UBUS	1.5680e-003	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	61.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	2.59	0.64
tblVehicleTrips	SU_TR	2.59	0.64
tblVehicleTrips	WD_TR	2.59	0.64

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					
2017	0.0000	0.0000	0.0000	0.0000	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**

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					
2017	0.0000	0.0000	0.0000	0.0000	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**

	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**	**N20**	**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**

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	2.1403	1.3000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0163	0.0163	8.0000e-005	0.0000	0.0179
Energy	4.8300e-003	0.0439	0.0369	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003	0.0000	402.7928	402.7928	0.0172	4.2500e-003	404.4731
Mobile	7.3437	84.1308	50.9845	0.5872	1.8547	3.7116	5.5663	0.4843	3.4201	3.9044	0.0000	7,431.9734	7,431.9734	0.3373	0.0000	7,439.0564
Offroad	0.1570	1.7104	0.4225	0.0136		0.0610	0.0610		0.0610	0.0610	0.0000	122.7983	122.7983	0.0128	0.0000	123.0660
Waste						0.0000	0.0000		0.0000	0.0000	68.1360	0.0000	68.1360	4.0267	0.0000	152.6971
Water						0.0000	0.0000		0.0000	0.0000	26.1972	307.6883	333.8855	2.7048	0.0665	411.2896
Total	**9.6459**	**85.8853**	**51.4546**	**0.6011**	**1.8547**	**3.7760**	**5.6306**	**0.4843**	**3.4844**	**3.9688**	**94.3331**	**8,265.2691**	**8,359.6022**	**7.0989**	**0.0707**	**8,530.5999**

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	2.1403	1.3000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0163	0.0163	8.0000e-005	0.0000	0.0179
Energy	4.8300e-003	0.0439	0.0369	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003	0.0000	402.7928	402.7928	0.0172	4.2500e-003	404.4731
Mobile	7.3437	84.1308	50.9845	0.5872	1.8547	3.7116	5.5663	0.4843	3.4201	3.9044	0.0000	7,431.9734	7,431.9734	0.3373	0.0000	7,439.0564
Offroad	0.1570	1.7104	0.4225	0.0136		0.0610	0.0610		0.0610	0.0610	0.0000	122.7983	122.7983	0.0128	0.0000	123.0660
Waste						0.0000	0.0000		0.0000	0.0000	68.1360	0.0000	68.1360	4.0267	0.0000	152.6971
Water						0.0000	0.0000		0.0000	0.0000	26.1972	307.6883	333.8855	2.7044	0.0664	411.2478
Total	**9.6459**	**85.8853**	**51.4546**	**0.6011**	**1.8547**	**3.7760**	**5.6306**	**0.4843**	**3.4844**	**3.9688**	**94.3331**	**8,265.2691**	**8,359.6022**	**7.0984**	**0.0706**	**8,530.5581**

	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	N20	CO2e
Percent Reduction	**1.63**	**1.99**	**0.82**	**2.26**	**0.00**	**1.61**	**1.08**	**0.00**	**1.75**	**1.54**	**0.00**	**1.49**	**1.47**	**0.19**	**0.14**	**1.44**

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	1/1/2017	1/2/2017	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	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	0.0000	0.0000	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**

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	0.0000	0.0000	0.0000	0.0000	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**

3.2 Demolition - 2017

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

	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	7.3437	84.1308	50.9845	0.5872	1.8547	3.7116	5.5663	0.4843	3.4201	3.9044	0.0000	7,431.9734	7,431.9734	0.3373	0.0000	7,439.0564
Mitigated	7.3437	84.1308	50.9845	0.5872	1.8547	3.7116	5.5663	0.4843	3.4201	3.9044	0.0000	7,431.9734	7,431.9734	0.3373	0.0000	7,439.0564

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	228.53	228.53	228.53	5,074,307	5,074,307
Total	228.53	228.53	228.53	5,074,307	5,074,307

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Unrefrigerated Warehouse-No	61.00	8.40	6.90	100.00	0.00	0.00	100	0	0

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

Historical Energy Use: Y

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	4.8300e-003	0.0439	0.0369	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003	0.0000	47.8284	47.8284	9.2000e-004	8.8000e-004	48.1195
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	354.9644	354.9644	0.0163	3.3800e-003	356.3536
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	354.9644	354.9644	0.0163	3.3800e-003	356.3536
NaturalGas Mitigated	4.8300e-003	0.0439	0.0369	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003	0.0000	47.8284	47.8284	9.2000e-004	8.8000e-004	48.1195

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					
Unrefrigerated Warehouse-No Rail	896271	4.8300e-003	0.0439	0.0369	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003	0.0000	47.8284	47.8284	9.2000e-004	8.8000e-004	48.1195
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		**4.8300e-003**	**0.0439**	**0.0369**	**2.6000e-004**		**3.3400e-003**	**3.3400e-003**		**3.3400e-003**	**3.3400e-003**	**0.0000**	**47.8284**	**47.8284**	**9.2000e-004**	**8.8000e-004**	**48.1195**

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					
Unrefrigerated Warehouse-No Rail	896271	4.8300e-003	0.0439	0.0369	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003	0.0000	47.8284	47.8284	9.2000e-004	8.8000e-004	48.1195
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		**4.8300e-003**	**0.0439**	**0.0369**	**2.6000e-004**		**3.3400e-003**	**3.3400e-003**		**3.3400e-003**	**3.3400e-003**	**0.0000**	**47.8284**	**47.8284**	**9.2000e-004**	**8.8000e-004**	**48.1195**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	104896	30.0178	1.3800e-003	2.9000e-004	30.1352
Unrefrigerated Warehouse-No Rail	1.13551e+006	324.9466	0.0149	3.0900e-003	326.2183
Total		**354.9644**	**0.0163**	**3.3800e-003**	**356.3536**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	104896	30.0178	1.3800e-003	2.9000e-004	30.1352
Unrefrigerated Warehouse-No Rail	1.13551e+006	324.9466	0.0149	3.0900e-003	326.2183
Total		**354.9644**	**0.0163**	**3.3800e-003**	**356.3536**

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	2.1403	1.3000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0163	0.0163	8.0000e-005	0.0000	0.0179
Mitigated	2.1403	1.3000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0163	0.0163	8.0000e-005	0.0000	0.0179

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	0.4179					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7210					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3800e-003	1.3000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0163	0.0163	8.0000e-005	0.0000	0.0179
Total	**2.1403**	**1.3000e-004**	**0.0106**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0163**	**0.0163**	**8.0000e-005**	**0.0000**	**0.0179**

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	0.4179					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7210					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3800e-003	1.3000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0163	0.0163	8.0000e-005	0.0000	0.0179
Total	**2.1403**	**1.3000e-004**	**0.0106**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0163**	**0.0163**	**8.0000e-005**	**0.0000**	**0.0179**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	333.8855	2.7048	0.0665	411.2896
Mitigated	333.8855	2.7044	0.0664	411.2478

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
Unrefrigerated Warehouse-No Rail	82.5747 / 0	333.8855	2.7048	0.0665	411.2896
Total		**333.8855**	**2.7048**	**0.0665**	**411.2896**

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
Unrefrigerated Warehouse-No Rail	82.5747 / 0	333.8855	2.7044	0.0664	411.2478
Total		**333.8855**	**2.7044**	**0.0664**	**411.2478**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	68.1360	4.0267	0.0000	152.6971
Unmitigated	68.1360	4.0267	0.0000	152.6971

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
Unrefrigerated Warehouse-No Rail	335.66	68.1360	4.0267	0.0000	152.6971
Total		**68.1360**	**4.0267**	**0.0000**	**152.6971**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	335.66	68.1360	4.0267	0.0000	152.6971
Total		**68.1360**	**4.0267**	**0.0000**	**152.6971**

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	CNG

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	0.1570	1.7104	0.4225	0.0136		0.0610	0.0610		0.0610	0.0610	0.0000	122.7983	122.7983	0.0128	0.0000	123.0660
Total	**0.1570**	**1.7104**	**0.4225**	**0.0136**		**0.0610**	**0.0610**		**0.0610**	**0.0610**	**0.0000**	**122.7983**	**122.7983**	**0.0128**	**0.0000**	**123.0660**

10.0 Vegetation

2005 BAU High Cube- Passenger Cars

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	357.08	1000sqft	8.20	357,080.00	0
Parking Lot	298.00	Space	2.68	119,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2005
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 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 - Operation run only

Off-road Equipment - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Passenger Cars Only

Vechicle Emission Factors - Passenger Cars Only

Vechicle Emission Factors - Passenger Cars Only

Area Coating -

Energy Use - Using historical data

Water And Wastewater -

Solid Waste -

Area Mitigation -

Operational Off-Road Equipment - All yard trucks shall be non-diesel

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	1.00
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	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	OperationalYear	2014	2005
tblVehicleEF	HHD	0.02	0.00
tblVehicleEF	HHD	0.02	0.00

tblVehicleEF	HHD	0.02	0.00
tblVehicleEF	LDA	0.50	1.00
tblVehicleEF	LDA	0.50	1.00
tblVehicleEF	LDA	0.50	1.00
tblVehicleEF	LDT1	0.08	0.00
tblVehicleEF	LDT1	0.08	0.00
tblVehicleEF	LDT1	0.08	0.00
tblVehicleEF	LDT2	0.23	0.00
tblVehicleEF	LDT2	0.23	0.00
tblVehicleEF	LDT2	0.23	0.00
tblVehicleEF	LHD1	0.02	0.00
tblVehicleEF	LHD1	0.02	0.00
tblVehicleEF	LHD1	0.02	0.00
tblVehicleEF	LHD2	6.7800e-003	0.00
tblVehicleEF	LHD2	6.7800e-003	0.00
tblVehicleEF	LHD2	6.7800e-003	0.00
tblVehicleEF	MCY	5.6020e-003	0.00
tblVehicleEF	MCY	5.6020e-003	0.00
tblVehicleEF	MCY	5.6020e-003	0.00
tblVehicleEF	MDV	0.11	0.00
tblVehicleEF	MDV	0.11	0.00
tblVehicleEF	MDV	0.11	0.00
tblVehicleEF	MH	2.3120e-003	0.00
tblVehicleEF	MH	2.3120e-003	0.00
tblVehicleEF	MH	2.3120e-003	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00

tblVehicleEF	OBUS	1.1540e-003	0.00
tblVehicleEF	OBUS	1.1540e-003	0.00
tblVehicleEF	OBUS	1.1540e-003	0.00
tblVehicleEF	SBUS	7.9800e-004	0.00
tblVehicleEF	SBUS	7.9800e-004	0.00
tblVehicleEF	SBUS	7.9800e-004	0.00
tblVehicleEF	UBUS	1.5680e-003	0.00
tblVehicleEF	UBUS	1.5680e-003	0.00
tblVehicleEF	UBUS	1.5680e-003	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	2.59	1.04
tblVehicleTrips	SU_TR	2.59	1.04
tblVehicleTrips	WD_TR	2.59	1.04

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					
2017	0.0000	0.0000	0.0000	0.0000	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**

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					
2017	0.0000	0.0000	0.0000	0.0000	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**

	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**	**N20**	**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**

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	2.1403	1.3000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0163	0.0163	8.0000e-005	0.0000	0.0179
Energy	4.8300e-003	0.0439	0.0369	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003	0.0000	402.7928	402.7928	0.0172	4.2500e-003	404.4731
Mobile	0.7865	1.0132	11.3949	0.0100	0.7705	0.0256	0.7961	0.1965	0.0255	0.2220	0.0000	914.0059	914.0059	0.0951	0.0000	916.0020
Offroad	0.1570	1.7104	0.4225	0.0136		0.0610	0.0610		0.0610	0.0610	0.0000	122.7983	122.7983	0.0128	0.0000	123.0660
Waste						0.0000	0.0000		0.0000	0.0000	68.1360	0.0000	68.1360	4.0267	0.0000	152.6971
Water						0.0000	0.0000		0.0000	0.0000	26.1972	307.6883	333.8855	2.7048	0.0665	411.2896
Total	**3.0886**	**2.7677**	**11.8650**	**0.0239**	**0.7705**	**0.0900**	**0.8604**	**0.1965**	**0.0899**	**0.2864**	**94.3331**	**1,747.3016**	**1,841.6347**	**6.8567**	**0.0707**	**2,007.5455**

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	2.1403	1.3000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0163	0.0163	8.0000e-005	0.0000	0.0179
Energy	4.8300e-003	0.0439	0.0369	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003	0.0000	402.7928	402.7928	0.0172	4.2500e-003	404.4731
Mobile	0.7865	1.0132	11.3949	0.0100	0.7705	0.0256	0.7961	0.1965	0.0255	0.2220	0.0000	914.0059	914.0059	0.0951	0.0000	916.0020
Offroad	0.1570	1.7104	0.4225	0.0136		0.0610	0.0610		0.0610	0.0610	0.0000	122.7983	122.7983	0.0128	0.0000	123.0660
Waste						0.0000	0.0000		0.0000	0.0000	68.1360	0.0000	68.1360	4.0267	0.0000	152.6971
Water						0.0000	0.0000		0.0000	0.0000	26.1972	307.6883	333.8855	2.7044	0.0664	411.2478
Total	**3.0886**	**2.7677**	**11.8650**	**0.0239**	**0.7705**	**0.0900**	**0.8604**	**0.1965**	**0.0899**	**0.2864**	**94.3331**	**1,747.3016**	**1,841.6347**	**6.8562**	**0.0706**	**2,007.5037**

	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	N20	CO2e
Percent Reduction	**5.08**	**61.80**	**3.56**	**56.92**	**0.00**	**67.79**	**7.09**	**0.00**	**67.85**	**21.29**	**0.00**	**7.03**	**6.67**	**0.19**	**0.14**	**6.13**

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	1/1/2017	1/2/2017	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	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	0.0000	0.0000	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**

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	0.0000	0.0000	0.0000	0.0000	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**

3.2 Demolition - 2017

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

	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	0.7865	1.0132	11.3949	0.0100	0.7705	0.0256	0.7961	0.1965	0.0255	0.2220	0.0000	914.0059	914.0059	0.0951	0.0000	916.0020
Mitigated	0.7865	1.0132	11.3949	0.0100	0.7705	0.0256	0.7961	0.1965	0.0255	0.2220	0.0000	914.0059	914.0059	0.0951	0.0000	916.0020

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	371.36	371.36	371.36	2,243,925	2,243,925
Total	371.36	371.36	371.36	2,243,925	2,243,925

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Unrefrigerated Warehouse-No	16.60	8.40	6.90	100.00	0.00	0.00	100	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

Historical Energy Use: Y

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	4.8300e-003	0.0439	0.0369	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003	0.0000	47.8284	47.8284	9.2000e-004	8.8000e-004	48.1195
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	354.9644	354.9644	0.0163	3.3800e-003	356.3536
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	354.9644	354.9644	0.0163	3.3800e-003	356.3536
NaturalGas Mitigated	4.8300e-003	0.0439	0.0369	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003	0.0000	47.8284	47.8284	9.2000e-004	8.8000e-004	48.1195

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					
Unrefrigerated Warehouse-No Rail	896271	4.8300e-003	0.0439	0.0369	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003	0.0000	47.8284	47.8284	9.2000e-004	8.8000e-004	48.1195
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		**4.8300e-003**	**0.0439**	**0.0369**	**2.6000e-004**		**3.3400e-003**	**3.3400e-003**		**3.3400e-003**	**3.3400e-003**	**0.0000**	**47.8284**	**47.8284**	**9.2000e-004**	**8.8000e-004**	**48.1195**

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					
Unrefrigerated Warehouse-No Rail	896271	4.8300e-003	0.0439	0.0369	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003	0.0000	47.8284	47.8284	9.2000e-004	8.8000e-004	48.1195
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		**4.8300e-003**	**0.0439**	**0.0369**	**2.6000e-004**		**3.3400e-003**	**3.3400e-003**		**3.3400e-003**	**3.3400e-003**	**0.0000**	**47.8284**	**47.8284**	**9.2000e-004**	**8.8000e-004**	**48.1195**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	104896	30.0178	1.3800e-003	2.9000e-004	30.1352
Unrefrigerated Warehouse-No Rail	1.13551e+006	324.9466	0.0149	3.0900e-003	326.2183
Total		**354.9644**	**0.0163**	**3.3800e-003**	**356.3536**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	104896	30.0178	1.3800e-003	2.9000e-004	30.1352
Unrefrigerated Warehouse-No Rail	1.13551e+006	324.9466	0.0149	3.0900e-003	326.2183
Total		**354.9644**	**0.0163**	**3.3800e-003**	**356.3536**

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	2.1403	1.3000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0163	0.0163	8.0000e-005	0.0000	0.0179
Mitigated	2.1403	1.3000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0163	0.0163	8.0000e-005	0.0000	0.0179

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	0.4179					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7210					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3800e-003	1.3000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0163	0.0163	8.0000e-005	0.0000	0.0179
Total	**2.1403**	**1.3000e-004**	**0.0106**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0163**	**0.0163**	**8.0000e-005**	**0.0000**	**0.0179**

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	0.4179					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7210					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3800e-003	1.3000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0163	0.0163	8.0000e-005	0.0000	0.0179
Total	**2.1403**	**1.3000e-004**	**0.0106**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0163**	**0.0163**	**8.0000e-005**	**0.0000**	**0.0179**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	333.8855	2.7048	0.0665	411.2896
Mitigated	333.8855	2.7044	0.0664	411.2478

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
Unrefrigerated Warehouse-No Rail	82.5747 / 0	333.8855	2.7048	0.0665	411.2896
Total		**333.8855**	**2.7048**	**0.0665**	**411.2896**

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
Unrefrigerated Warehouse-No Rail	82.5747 / 0	333.8855	2.7044	0.0664	411.2478
Total		**333.8855**	**2.7044**	**0.0664**	**411.2478**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	68.1360	4.0267	0.0000	152.6971
Unmitigated	68.1360	4.0267	0.0000	152.6971

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
Unrefrigerated Warehouse-No Rail	335.66	68.1360	4.0267	0.0000	152.6971
Total		**68.1360**	**4.0267**	**0.0000**	**152.6971**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	335.66	68.1360	4.0267	0.0000	152.6971
Total		**68.1360**	**4.0267**	**0.0000**	**152.6971**

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	CNG

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	0.1570	1.7104	0.4225	0.0136		0.0610	0.0610		0.0610	0.0610	0.0000	122.7983	122.7983	0.0128	0.0000	123.0660
Total	**0.1570**	**1.7104**	**0.4225**	**0.0136**		**0.0610**	**0.0610**		**0.0610**	**0.0610**	**0.0000**	**122.7983**	**122.7983**	**0.0128**	**0.0000**	**123.0660**

10.0 Vegetation

2005 BAU Warehouse- Trucks

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	89.27	1000sqft	2.05	89,270.00	0
Parking Lot	74.00	Space	0.67	29,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2005
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**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 - 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 - Operation run only

Off-road Equipment - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Trucks only

Vechicle Emission Factors - Trucks only

Vechicle Emission Factors - Trucks only

Area Coating -

Energy Use - Using historical data

Area Mitigation -

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	100	50
tblConstructionPhase	NumDays	20.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2005
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblVehicleEF	HHD	0.02	0.51
tblVehicleEF	HHD	0.02	0.51
tblVehicleEF	HHD	0.02	0.51
tblVehicleEF	LDA	0.50	0.00
tblVehicleEF	LDA	0.50	0.00
tblVehicleEF	LDA	0.50	0.00

tblVehicleEF	LDT1	0.08	0.00
tblVehicleEF	LDT1	0.08	0.00
tblVehicleEF	LDT1	0.08	0.00
tblVehicleEF	LDT2	0.23	0.00
tblVehicleEF	LDT2	0.23	0.00
tblVehicleEF	LDT2	0.23	0.00
tblVehicleEF	LHD1	0.02	0.16
tblVehicleEF	LHD1	0.02	0.16
tblVehicleEF	LHD1	0.02	0.16
tblVehicleEF	LHD2	6.7800e-003	0.00
tblVehicleEF	LHD2	6.7800e-003	0.00
tblVehicleEF	LHD2	6.7800e-003	0.00
tblVehicleEF	MCY	5.6020e-003	0.00
tblVehicleEF	MCY	5.6020e-003	0.00
tblVehicleEF	MCY	5.6020e-003	0.00
tblVehicleEF	MDV	0.11	0.00
tblVehicleEF	MDV	0.11	0.00
tblVehicleEF	MDV	0.11	0.00
tblVehicleEF	MH	2.3120e-003	0.00
tblVehicleEF	MH	2.3120e-003	0.00
tblVehicleEF	MH	2.3120e-003	0.00
tblVehicleEF	MHD	0.02	0.33
tblVehicleEF	MHD	0.02	0.33
tblVehicleEF	MHD	0.02	0.33
tblVehicleEF	OBUS	1.1540e-003	0.00
tblVehicleEF	OBUS	1.1540e-003	0.00
tblVehicleEF	OBUS	1.1540e-003	0.00
tblVehicleEF	SBUS	7.9800e-004	0.00

tblVehicleEF	SBUS	7.9800e-004	0.00
tblVehicleEF	SBUS	7.9800e-004	0.00
tblVehicleEF	UBUS	1.5680e-003	0.00
tblVehicleEF	UBUS	1.5680e-003	0.00
tblVehicleEF	UBUS	1.5680e-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	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.49	1.48
tblVehicleTrips	SU_TR	0.62	1.48
tblVehicleTrips	WD_TR	3.82	1.48

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					
2017	4.8000e-004	4.5700e-003	3.5900e-003	0.0000	0.0000	3.4000e-004	3.4000e-004	0.0000	3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**	**0.0000**	**3.4000e-004**	**3.4000e-004**	**0.0000**	**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

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					
2017	4.8000e-004	4.5700e-003	3.5900e-003	0.0000	0.0000	3.4000e-004	3.4000e-004	0.0000	3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**	**0.0000**	**3.4000e-004**	**3.4000e-004**	**0.0000**	**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

	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**	**N20**	**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**

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	0.5344	3.0000e-005	2.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	2.0000e-005	0.0000	4.4500e-003
Energy	0.0163	0.1483	0.1246	8.9000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	463.4456	463.4456	0.0170	5.8300e-003	465.6100
Mobile	3.7781	47.7302	27.2775	0.3459	1.0636	1.9662	3.0298	0.2771	1.8111	2.0881	0.0000	4,319.2479	4,319.2479	0.1728	0.0000	4,322.8759
Waste						0.0000	0.0000		0.0000	0.0000	22.4691	0.0000	22.4691	1.3279	0.0000	50.3546
Water						0.0000	0.0000		0.0000	0.0000	6.5493	76.9221	83.4714	0.6762	0.0166	102.8224
Total	**4.3288**	**47.8786**	**27.4047**	**0.3467**	**1.0636**	**1.9775**	**3.0411**	**0.2771**	**1.8223**	**2.0994**	**29.0184**	**4,859.6196**	**4,888.6379**	**2.1939**	**0.0224**	**4,941.6673**

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	0.5344	3.0000e-005	2.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	2.0000e-005	0.0000	4.4500e-003
Energy	0.0163	0.1483	0.1246	8.9000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	463.4456	463.4456	0.0170	5.8300e-003	465.6100
Mobile	3.7781	47.7302	27.2775	0.3459	1.0636	1.9662	3.0298	0.2771	1.8111	2.0881	0.0000	4,319.2479	4,319.2479	0.1728	0.0000	4,322.8759
Waste						0.0000	0.0000		0.0000	0.0000	22.4691	0.0000	22.4691	1.3279	0.0000	50.3546
Water						0.0000	0.0000		0.0000	0.0000	6.5493	76.9221	83.4714	0.6761	0.0166	102.8120
Total	**4.3288**	**47.8786**	**27.4047**	**0.3467**	**1.0636**	**1.9775**	**3.0411**	**0.2771**	**1.8223**	**2.0994**	**29.0184**	**4,859.6196**	**4,888.6379**	**2.1937**	**0.0224**	**4,941.6569**

	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	N20	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**	**0.01**	**0.09**	**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	Demolition	Demolition	1/1/2017	1/2/2017	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
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37

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	3	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	4.8000e-004	4.5700e-003	3.5900e-003	0.0000		3.4000e-004	3.4000e-004		3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**		**3.4000e-004**	**3.4000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

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	0.0000	0.0000	0.0000	0.0000	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**

3.2 Demolition - 2017

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	4.8000e-004	4.5700e-003	3.5900e-003	0.0000		3.4000e-004	3.4000e-004		3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**		**3.4000e-004**	**3.4000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

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

	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	3.7781	47.7302	27.2775	0.3459	1.0636	1.9662	3.0298	0.2771	1.8111	2.0881	0.0000	4,319.2479	4,319.2479	0.1728	0.0000	4,322.8759
Unmitigated	3.7781	47.7302	27.2775	0.3459	1.0636	1.9662	3.0298	0.2771	1.8111	2.0881	0.0000	4,319.2479	4,319.2479	0.1728	0.0000	4,322.8759

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	132.12	132.12	132.12	2,933,584	2,933,584
Parking Lot	0.00	0.00	0.00		
Total	132.12	132.12	132.12	2,933,584	2,933,584

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Manufacturing	61.00	8.40	6.90	100.00	0.00	0.00	100	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	0.157600	0.000000	0.328200	0.514200	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: Y

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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	302.0008	302.0008	0.0139	2.8700e-003	303.1827
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	302.0008	302.0008	0.0139	2.8700e-003	303.1827
NaturalGas Mitigated	0.0163	0.1483	0.1246	8.9000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	161.4448	161.4448	3.0900e-003	2.9600e-003	162.4273
NaturalGas Unmitigated	0.0163	0.1483	0.1246	8.9000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	161.4448	161.4448	3.0900e-003	2.9600e-003	162.4273

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					
Manufacturing	3.02536e+006	0.0163	0.1483	0.1246	8.9000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	161.4448	161.4448	3.0900e-003	2.9600e-003	162.4273
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		**0.0163**	**0.1483**	**0.1246**	**8.9000e-004**		**0.0113**	**0.0113**		**0.0113**	**0.0113**	**0.0000**	**161.4448**	**161.4448**	**3.0900e-003**	**2.9600e-003**	**162.4273**

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					
Manufacturing	3.02536e+006	0.0163	0.1483	0.1246	8.9000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	161.4448	161.4448	3.0900e-003	2.9600e-003	162.4273
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		**0.0163**	**0.1483**	**0.1246**	**8.9000e-004**		**0.0113**	**0.0113**		**0.0113**	**0.0113**	**0.0000**	**161.4448**	**161.4448**	**3.0900e-003**	**2.9600e-003**	**162.4273**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	1.02928e+006	294.5467	0.0135	2.8000e-003	295.6995
Parking Lot	26048	7.4541	3.4000e-004	7.0000e-005	7.4833
Total		**302.0008**	**0.0139**	**2.8700e-003**	**303.1827**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	1.02928e+006	294.5467	0.0135	2.8000e-003	295.6995
Parking Lot	26048	7.4541	3.4000e-004	7.0000e-005	7.4833
Total		**302.0008**	**0.0139**	**2.8700e-003**	**303.1827**

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	0.5344	3.0000e-005	2.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	2.0000e-005	0.0000	4.4500e-003
Unmitigated	0.5344	3.0000e-005	2.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	2.0000e-005	0.0000	4.4500e-003

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	0.1045					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4295					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.4000e-004	3.0000e-005	2.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	2.0000e-005	0.0000	4.4500e-003
Total	**0.5344**	**3.0000e-005**	**2.6500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.0500e-003**	**4.0500e-003**	**2.0000e-005**	**0.0000**	**4.4500e-003**

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	0.1045					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4295					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.4000e-004	3.0000e-005	2.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	2.0000e-005	0.0000	4.4500e-003
Total	**0.5344**	**3.0000e-005**	**2.6500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.0500e-003**	**4.0500e-003**	**2.0000e-005**	**0.0000**	**4.4500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	83.4714	0.6761	0.0166	102.8120
Unmitigated	83.4714	0.6762	0.0166	102.8224

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	20.6437 / 0	83.4714	0.6762	0.0166	102.8224
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**83.4714**	**0.6762**	**0.0166**	**102.8224**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	20.6437 / 0	83.4714	0.6761	0.0166	102.8120
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**83.4714**	**0.6761**	**0.0166**	**102.8120**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Unmitigated	22.4691	1.3279	0.0000	50.3546
Mitigated	22.4691	1.3279	0.0000	50.3546

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	110.69	22.4691	1.3279	0.0000	50.3546
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**22.4691**	**1.3279**	**0.0000**	**50.3546**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	110.69	22.4691	1.3279	0.0000	50.3546
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**22.4691**	**1.3279**	**0.0000**	**50.3546**

9.0 Operational Offroad

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

10.0 Vegetation

2005 BAU Manufacturing- Passenger Cars

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	89.27	1000sqft	2.05	89,270.00	0
Parking Lot	74.00	Space	0.67	29,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2005
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking= 3.27 parking spaces. Parking represents ratio of total parking

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Passenger Cars Only

Vechicle Emission Factors - Passenger Cars Only

Vechicle Emission Factors - Passenger Cars Only

Area Coating -

Energy Use - Using Historical data

Area Mitigation - n

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2005
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblVehicleEF	HHD	0.02	0.00
tblVehicleEF	HHD	0.02	0.00
tblVehicleEF	HHD	0.02	0.00
tblVehicleEF	LDA	0.50	1.00
tblVehicleEF	LDA	0.50	1.00
tblVehicleEF	LDA	0.50	1.00
tblVehicleEF	LDT1	0.08	0.00
tblVehicleEF	LDT1	0.08	0.00
tblVehicleEF	LDT1	0.08	0.00
tblVehicleEF	LDT2	0.23	0.00

tblVehicleEF	LDT2	0.23	0.00
tblVehicleEF	LDT2	0.23	0.00
tblVehicleEF	LHD1	0.02	0.00
tblVehicleEF	LHD1	0.02	0.00
tblVehicleEF	LHD1	0.02	0.00
tblVehicleEF	LHD2	6.7800e-003	0.00
tblVehicleEF	LHD2	6.7800e-003	0.00
tblVehicleEF	LHD2	6.7800e-003	0.00
tblVehicleEF	MCY	5.6020e-003	0.00
tblVehicleEF	MCY	5.6020e-003	0.00
tblVehicleEF	MCY	5.6020e-003	0.00
tblVehicleEF	MDV	0.11	0.00
tblVehicleEF	MDV	0.11	0.00
tblVehicleEF	MDV	0.11	0.00
tblVehicleEF	MH	2.3120e-003	0.00
tblVehicleEF	MH	2.3120e-003	0.00
tblVehicleEF	MH	2.3120e-003	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	1.1540e-003	0.00
tblVehicleEF	OBUS	1.1540e-003	0.00
tblVehicleEF	OBUS	1.1540e-003	0.00
tblVehicleEF	SBUS	7.9800e-004	0.00
tblVehicleEF	SBUS	7.9800e-004	0.00
tblVehicleEF	SBUS	7.9800e-004	0.00
tblVehicleEF	UBUS	1.5680e-003	0.00
tblVehicleEF	UBUS	1.5680e-003	0.00

tblVehicleEF	UBUS	1.5680e-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	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.49	2.34
tblVehicleTrips	SU_TR	0.62	2.34
tblVehicleTrips	WD_TR	3.82	2.34

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					
2017	4.8000e-004	4.5700e-003	3.5900e-003	0.0000	0.0000	3.4000e-004	3.4000e-004	0.0000	3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**	**0.0000**	**3.4000e-004**	**3.4000e-004**	**0.0000**	**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

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					
2017	4.8000e-004	4.5700e-003	3.5900e-003	0.0000	0.0000	3.4000e-004	3.4000e-004	0.0000	3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**	**0.0000**	**3.4000e-004**	**3.4000e-004**	**0.0000**	**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

	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**	**N20**	**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**

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	0.5344	3.0000e-005	2.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	2.0000e-005	0.0000	4.4500e-003
Energy	0.0163	0.1483	0.1246	8.9000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	463.4456	463.4456	0.0170	5.8300e-003	465.6100
Mobile	0.4424	0.5699	6.4097	5.6300e-003	0.4334	0.0144	0.4478	0.1105	0.0144	0.1249	0.0000	514.1283	514.1283	0.0535	0.0000	515.2511
Waste						0.0000	0.0000		0.0000	0.0000	22.4691	0.0000	22.4691	1.3279	0.0000	50.3546
Water						0.0000	0.0000		0.0000	0.0000	6.5493	76.9221	83.4714	0.6762	0.0166	102.8224
Total	**0.9930**	**0.7183**	**6.5369**	**6.5200e-003**	**0.4334**	**0.0257**	**0.4591**	**0.1105**	**0.0256**	**0.1362**	**29.0184**	**1,054.5000**	**1,083.5184**	**2.0746**	**0.0224**	**1,134.0426**

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	0.5344	3.0000e-005	2.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	2.0000e-005	0.0000	4.4500e-003
Energy	0.0163	0.1483	0.1246	8.9000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	463.4456	463.4456	0.0170	5.8300e-003	465.6100
Mobile	0.4424	0.5699	6.4097	5.6300e-003	0.4334	0.0144	0.4478	0.1105	0.0144	0.1249	0.0000	514.1283	514.1283	0.0535	0.0000	515.2511
Waste						0.0000	0.0000		0.0000	0.0000	22.4691	0.0000	22.4691	1.3279	0.0000	50.3546
Water						0.0000	0.0000		0.0000	0.0000	6.5493	76.9221	83.4714	0.6761	0.0166	102.8120
Total	**0.9930**	**0.7183**	**6.5369**	**6.5200e-003**	**0.4334**	**0.0257**	**0.4591**	**0.1105**	**0.0256**	**0.1362**	**29.0184**	**1,054.5000**	**1,083.5184**	**2.0744**	**0.0224**	**1,134.0321**

	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	N20	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**	**0.01**	**0.09**	**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	Demolition	Demolition	1/1/2017	1/2/2017	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
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37

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	3	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	4.8000e-004	4.5700e-003	3.5900e-003	0.0000		3.4000e-004	3.4000e-004		3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**		**3.4000e-004**	**3.4000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

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	0.0000	0.0000	0.0000	0.0000	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**

3.2 Demolition - 2017

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	4.8000e-004	4.5700e-003	3.5900e-003	0.0000		3.4000e-004	3.4000e-004		3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**		**3.4000e-004**	**3.4000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

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

	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	0.4424	0.5699	6.4097	5.6300e-003	0.4334	0.0144	0.4478	0.1105	0.0144	0.1249	0.0000	514.1283	514.1283	0.0535	0.0000	515.2511
Unmitigated	0.4424	0.5699	6.4097	5.6300e-003	0.4334	0.0144	0.4478	0.1105	0.0144	0.1249	0.0000	514.1283	514.1283	0.0535	0.0000	515.2511

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	208.89	208.89	208.89	1,262,208	1,262,208
Parking Lot	0.00	0.00	0.00		
Total	208.89	208.89	208.89	1,262,208	1,262,208

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Manufacturing	16.60	8.40	6.90	100.00	0.00	0.00	100	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

Historical Energy Use: Y

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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	302.0008	302.0008	0.0139	2.8700e-003	303.1827
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	302.0008	302.0008	0.0139	2.8700e-003	303.1827
NaturalGas Mitigated	0.0163	0.1483	0.1246	8.9000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	161.4448	161.4448	3.0900e-003	2.9600e-003	162.4273
NaturalGas Unmitigated	0.0163	0.1483	0.1246	8.9000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	161.4448	161.4448	3.0900e-003	2.9600e-003	162.4273

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					
Manufacturing	3.02536e+006	0.0163	0.1483	0.1246	8.9000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	161.4448	161.4448	3.0900e-003	2.9600e-003	162.4273
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		**0.0163**	**0.1483**	**0.1246**	**8.9000e-004**		**0.0113**	**0.0113**		**0.0113**	**0.0113**	**0.0000**	**161.4448**	**161.4448**	**3.0900e-003**	**2.9600e-003**	**162.4273**

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					
Manufacturing	3.02536e+006	0.0163	0.1483	0.1246	8.9000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	161.4448	161.4448	3.0900e-003	2.9600e-003	162.4273
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		**0.0163**	**0.1483**	**0.1246**	**8.9000e-004**		**0.0113**	**0.0113**		**0.0113**	**0.0113**	**0.0000**	**161.4448**	**161.4448**	**3.0900e-003**	**2.9600e-003**	**162.4273**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	1.02928e+006	294.5467	0.0135	2.8000e-003	295.6995
Parking Lot	26048	7.4541	3.4000e-004	7.0000e-005	7.4833
Total		**302.0008**	**0.0139**	**2.8700e-003**	**303.1827**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	1.02928e+006	294.5467	0.0135	2.8000e-003	295.6995
Parking Lot	26048	7.4541	3.4000e-004	7.0000e-005	7.4833
Total		**302.0008**	**0.0139**	**2.8700e-003**	**303.1827**

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	0.5344	3.0000e-005	2.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	2.0000e-005	0.0000	4.4500e-003
Unmitigated	0.5344	3.0000e-005	2.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	2.0000e-005	0.0000	4.4500e-003

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	0.1045					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4295					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.4000e-004	3.0000e-005	2.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	2.0000e-005	0.0000	4.4500e-003
Total	**0.5344**	**3.0000e-005**	**2.6500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.0500e-003**	**4.0500e-003**	**2.0000e-005**	**0.0000**	**4.4500e-003**

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	0.1045					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4295					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.4000e-004	3.0000e-005	2.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	2.0000e-005	0.0000	4.4500e-003
Total	**0.5344**	**3.0000e-005**	**2.6500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.0500e-003**	**4.0500e-003**	**2.0000e-005**	**0.0000**	**4.4500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	83.4714	0.6761	0.0166	102.8120
Unmitigated	83.4714	0.6762	0.0166	102.8224

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	20.6437 / 0	83.4714	0.6762	0.0166	102.8224
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**83.4714**	**0.6762**	**0.0166**	**102.8224**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	20.6437 / 0	83.4714	0.6761	0.0166	102.8120
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**83.4714**	**0.6761**	**0.0166**	**102.8120**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Unmitigated	22.4691	1.3279	0.0000	50.3546
Mitigated	22.4691	1.3279	0.0000	50.3546

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	110.69	22.4691	1.3279	0.0000	50.3546
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**22.4691**	**1.3279**	**0.0000**	**50.3546**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	110.69	22.4691	1.3279	0.0000	50.3546
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**22.4691**	**1.3279**	**0.0000**	**50.3546**

9.0 Operational Offroad

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

10.0 Vegetation

2020 Project High Cube- Trucks

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	357.08	1000sqft	8.20	357,080.00	0
Parking Lot	298.00	Space	2.68	119,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
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 - 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 - Operation run only

Off-road Equipment - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Trucks only

Vechicle Emission Factors - Trucks only

Vechicle 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 -

Solid Waste -

Mobile Land Use Mitigation -

Area Mitigation - Based on updated Rule 1113- All flat, nonflat, default coatings shall be no more than 50 g/L low VOC level

Energy Mitigation - PV system to serve office area (80% of total project kWh)

Water Mitigation -

Operational Off-Road Equipment - All yard trucks shall be non-diesel

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	50
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	0.45	0.35
tblEnergyUse	T24NG	2.11	1.76
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	OperFuelType	Diesel	CNG
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
tblVehicleEF	HHD	0.03	0.60
tblVehicleEF	HHD	0.03	0.60
tblVehicleEF	HHD	0.03	0.60
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.22
tblVehicleEF	LHD1	0.04	0.22
tblVehicleEF	LHD1	0.04	0.22
tblVehicleEF	LHD2	6.6920e-003	0.00
tblVehicleEF	LHD2	6.6920e-003	0.00
tblVehicleEF	LHD2	6.6920e-003	0.00
tblVehicleEF	MCY	4.3920e-003	0.00
tblVehicleEF	MCY	4.3920e-003	0.00

tblVehicleEF	MCY	4.3920e-003	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MH	2.1400e-003	0.00
tblVehicleEF	MH	2.1400e-003	0.00
tblVehicleEF	MH	2.1400e-003	0.00
tblVehicleEF	MHD	0.02	0.18
tblVehicleEF	MHD	0.02	0.18
tblVehicleEF	MHD	0.02	0.18
tblVehicleEF	OBUS	1.9430e-003	0.00
tblVehicleEF	OBUS	1.9430e-003	0.00
tblVehicleEF	OBUS	1.9430e-003	0.00
tblVehicleEF	SBUS	5.7600e-004	0.00
tblVehicleEF	SBUS	5.7600e-004	0.00
tblVehicleEF	SBUS	5.7600e-004	0.00
tblVehicleEF	UBUS	2.4910e-003	0.00
tblVehicleEF	UBUS	2.4910e-003	0.00
tblVehicleEF	UBUS	2.4910e-003	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	61.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	2.59	0.64
tblVehicleTrips	SU_TR	2.59	0.64
tblVehicleTrips	WD_TR	2.59	0.64

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					
2017	0.0000	0.0000	0.0000	0.0000	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**

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					
2017	0.0000	0.0000	0.0000	0.0000	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**

	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	N20	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**

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	2.1397	8.0000e-005	8.4100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Energy	3.4500e-003	0.0313	0.0263	1.9000e-004		2.3800e-003	2.3800e-003		2.3800e-003	2.3800e-003	0.0000	277.1488	277.1488	0.0158	3.7500e-003	278.6416
Mobile	1.1583	17.8372	11.0863	0.0719	2.1526	0.3456	2.4982	0.5970	0.3180	0.9150	0.0000	6,112.5745	6,112.5745	0.0503	0.0000	6,113.6299
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	68.1360	0.0000	68.1360	4.0267	0.0000	152.6971
Water						0.0000	0.0000		0.0000	0.0000	26.1972	227.7144	253.9116	2.7048	0.0665	331.3157
Total	**3.3552**	**18.5207**	**11.4059**	**0.0732**	**2.1526**	**0.3694**	**2.5220**	**0.5970**	**0.3401**	**0.9371**	**94.3331**	**6,719.1196**	**6,813.4527**	**6.8305**	**0.0702**	**6,978.6575**

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	1.8054	8.0000e-005	8.4100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Energy	3.2800e-003	0.0298	0.0250	1.8000e-004		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	246.9805	246.9805	0.0140	3.3500e-003	248.3124
Mobile	1.1386	17.4912	10.9345	0.0704	2.1095	0.3387	2.4482	0.5851	0.3116	0.8967	0.0000	5,991.1028	5,991.1028	0.0493	0.0000	5,992.1378
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	68.1360	0.0000	68.1360	4.0267	0.0000	152.6971
Water						0.0000	0.0000		0.0000	0.0000	20.9577	175.8487	196.8064	2.1635	0.0531	258.6963
Total	**3.0009**	**18.1733**	**11.2528**	**0.0718**	**2.1095**	**0.3624**	**2.4719**	**0.5851**	**0.3336**	**0.9187**	**89.0937**	**6,515.6138**	**6,604.7075**	**6.2864**	**0.0564**	**6,754.2168**

	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	N20	CO2e
Percent Reduction	**12.16**	**5.40**	**3.84**	**3.54**	**2.00**	**7.69**	**2.83**	**2.00**	**7.69**	**4.06**	**5.55**	**4.54**	**4.56**	**8.45**	**19.61**	**4.68**

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	1/1/2017	1/2/2017	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	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	0.0000	0.0000	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**

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	0.0000	0.0000	0.0000	0.0000	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**

3.2 Demolition - 2017

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	1.1583	17.8372	11.0863	0.0719	2.1526	0.3456	2.4982	0.5970	0.3180	0.9150	0.0000	6,112.5745	6,112.5745	0.0503	0.0000	6,113.6299
Mitigated	1.1386	17.4912	10.9345	0.0704	2.1095	0.3387	2.4482	0.5851	0.3116	0.8967	0.0000	5,991.1028	5,991.1028	0.0493	0.0000	5,992.1378

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	228.53	228.53	228.53	5,074,307	4,972,821
Total	228.53	228.53	228.53	5,074,307	4,972,821

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Unrefrigerated Warehouse-No	61.00	8.40	6.90	100.00	0.00	0.00	100	0	0

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

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	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	3.4500e-003	0.0313	0.0263	1.9000e-004		2.3800e-003	2.3800e-003		2.3800e-003	2.3800e-003	0.0000	34.1087	34.1087	6.5000e-004	6.3000e-004	34.3163
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	214.5487	214.5487	0.0133	2.7600e-003	215.6832
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	243.0401	243.0401	0.0151	3.1200e-003	244.3253
NaturalGas Mitigated	3.2800e-003	0.0298	0.0250	1.8000e-004		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	32.4319	32.4319	6.2000e-004	5.9000e-004	32.6292

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					
Unrefrigerated Warehouse-No Rail	639173	3.4500e-003	0.0313	0.0263	1.9000e-004		2.3800e-003	2.3800e-003		2.3800e-003	2.3800e-003	0.0000	34.1087	34.1087	6.5000e-004	6.3000e-004	34.3163
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		**3.4500e-003**	**0.0313**	**0.0263**	**1.9000e-004**		**2.3800e-003**	**2.3800e-003**		**2.3800e-003**	**2.3800e-003**	**0.0000**	**34.1087**	**34.1087**	**6.5000e-004**	**6.3000e-004**	**34.3163**

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					
Unrefrigerated Warehouse-No Rail	607750	3.2800e-003	0.0298	0.0250	1.8000e-004		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	32.4319	32.4319	6.2000e-004	5.9000e-004	32.6292
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		**3.2800e-003**	**0.0298**	**0.0250**	**1.8000e-004**		**2.2600e-003**	**2.2600e-003**		**2.2600e-003**	**2.2600e-003**	**0.0000**	**32.4319**	**32.4319**	**6.2000e-004**	**5.9000e-004**	**32.6292**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	104896	22.2156	1.3800e-003	2.9000e-004	22.3331
Unrefrigerated Warehouse-No Rail	1.04267e+006	220.8245	0.0137	2.8400e-003	221.9922
Total		**243.0401**	**0.0151**	**3.1300e-003**	**244.3253**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	40756	8.6316	5.4000e-004	1.1000e-004	8.6772
Unrefrigerated Warehouse-No Rail	972285	205.9171	0.0128	2.6500e-003	207.0060
Total		**214.5487**	**0.0133**	**2.7600e-003**	**215.6832**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	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	2.1397	8.0000e-005	8.4100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Mitigated	1.8054	8.0000e-005	8.4100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172

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	0.4179					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7210					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.9000e-004	8.0000e-005	8.4100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Total	**2.1397**	**8.0000e-005**	**8.4100e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0163**	**0.0163**	**4.0000e-005**	**0.0000**	**0.0172**

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	0.0836					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7210					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.9000e-004	8.0000e-005	8.4100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Total	**1.8054**	**8.0000e-005**	**8.4100e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0163**	**0.0163**	**4.0000e-005**	**0.0000**	**0.0172**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	253.9116	2.7048	0.0665	331.3157
Mitigated	196.8064	2.1635	0.0531	258.6963

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
Unrefrigerated Warehouse-No Rail	82.5747 / 0	253.9116	2.7048	0.0665	331.3157
Total		**253.9116**	**2.7048**	**0.0665**	**331.3157**

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
Unrefrigerated Warehouse-No Rail	66.0598 / 0	196.8064	2.1635	0.0531	258.6963
Total		**196.8064**	**2.1635**	**0.0531**	**258.6963**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	68.1360	4.0267	0.0000	152.6971
Unmitigated	68.1360	4.0267	0.0000	152.6971

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
Unrefrigerated Warehouse-No Rail	335.66	68.1360	4.0267	0.0000	152.6971
Total		**68.1360**	**4.0267**	**0.0000**	**152.6971**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	335.66	68.1360	4.0267	0.0000	152.6971
Total		**68.1360**	**4.0267**	**0.0000**	**152.6971**

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	CNG

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

2020 Project High Cube- Passenger Cars

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	357.08	1000sqft	8.20	357,080.00	0
Parking Lot	298.00	Space	2.68	119,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
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 - 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 - Operation run only

Off-road Equipment - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Passenger Cars Only

Vechicle Emission Factors - Passenger Cars Only

Vechicle 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 -

Solid Waste -

Mobile Land Use Mitigation -

Area Mitigation - Based on updated Rule 1113- all flat, nonflat, default coatings shall be no more than 50 g/L low VOC level

Energy Mitigation - PV system to serve office areas (80% of total project kWh)

Water Mitigation -

Operational Off-Road Equipment - All yard trucks shall be non-diesel

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	50
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	0.45	0.35
tblEnergyUse	T24NG	2.11	1.76
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	OperFuelType	Diesel	CNG
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
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD2	6.6920e-003	0.00
tblVehicleEF	LHD2	6.6920e-003	0.00
tblVehicleEF	LHD2	6.6920e-003	0.00
tblVehicleEF	MCY	4.3920e-003	0.00
tblVehicleEF	MCY	4.3920e-003	0.00

tblVehicleEF	MCY	4.3920e-003	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MH	2.1400e-003	0.00
tblVehicleEF	MH	2.1400e-003	0.00
tblVehicleEF	MH	2.1400e-003	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	1.9430e-003	0.00
tblVehicleEF	OBUS	1.9430e-003	0.00
tblVehicleEF	OBUS	1.9430e-003	0.00
tblVehicleEF	SBUS	5.7600e-004	0.00
tblVehicleEF	SBUS	5.7600e-004	0.00
tblVehicleEF	SBUS	5.7600e-004	0.00
tblVehicleEF	UBUS	2.4910e-003	0.00
tblVehicleEF	UBUS	2.4910e-003	0.00
tblVehicleEF	UBUS	2.4910e-003	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	2.59	1.04
tblVehicleTrips	SU_TR	2.59	1.04
tblVehicleTrips	WD_TR	2.59	1.04

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					
2017	0.0000	0.0000	0.0000	0.0000	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**

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					
2017	0.0000	0.0000	0.0000	0.0000	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**

	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	N20	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**

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	2.1397	8.0000e-005	8.4100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Energy	3.4500e-003	0.0313	0.0263	1.9000e-004		2.3800e-003	2.3800e-003		2.3800e-003	2.3800e-003	0.0000	277.1488	277.1488	0.0158	3.7500e-003	278.6416
Mobile	0.1116	0.1890	2.1139	9.0000e-003	0.8366	5.2700e-003	0.8419	0.2221	4.8900e-003	0.2270	0.0000	564.5341	564.5341	0.0231	0.0000	565.0196
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	68.1360	0.0000	68.1360	4.0267	0.0000	152.6971
Water						0.0000	0.0000		0.0000	0.0000	26.1972	227.7144	253.9116	2.7048	0.0665	331.3157
Total	**2.3084**	**0.8725**	**2.4334**	**0.0104**	**0.8366**	**0.0291**	**0.8657**	**0.2221**	**0.0270**	**0.2491**	**94.3331**	**1,171.0792**	**1,265.4123**	**6.8034**	**0.0702**	**1,430.0472**

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	1.8054	8.0000e-005	8.4100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Energy	3.2800e-003	0.0298	0.0250	1.8000e-004		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	246.9805	246.9805	0.0140	3.3500e-003	248.3124
Mobile	0.1108	0.1854	2.0757	8.8200e-003	0.8199	5.1700e-003	0.8251	0.2177	4.8000e-003	0.2224	0.0000	553.3861	553.3861	0.0227	0.0000	553.8622
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	68.1360	0.0000	68.1360	4.0267	0.0000	152.6971
Water						0.0000	0.0000		0.0000	0.0000	20.9577	175.8487	196.8064	2.1635	0.0531	258.6963
Total	**1.9732**	**0.8675**	**2.3940**	**0.0102**	**0.8199**	**0.0289**	**0.8487**	**0.2177**	**0.0268**	**0.2444**	**89.0937**	**1,077.8971**	**1,166.9908**	**6.2597**	**0.0564**	**1,315.9412**

	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	N20	CO2e
Percent Reduction	**16.85**	**75.32**	**13.33**	**13.04**	**2.00**	**74.34**	**4.43**	**2.00**	**73.72**	**9.77**	**5.55**	**16.64**	**15.81**	**8.47**	**19.61**	**15.14**

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	1/1/2017	1/2/2017	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	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	0.0000	0.0000	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**

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	0.0000	0.0000	0.0000	0.0000	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**

3.2 Demolition - 2017

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	0.1116	0.1890	2.1139	9.0000e-003	0.8366	5.2700e-003	0.8419	0.2221	4.8900e-003	0.2270	0.0000	564.5341	564.5341	0.0231	0.0000	565.0196
Mitigated	0.1108	0.1854	2.0757	8.8200e-003	0.8199	5.1700e-003	0.8251	0.2177	4.8000e-003	0.2224	0.0000	553.3861	553.3861	0.0227	0.0000	553.8622

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	371.36	371.36	371.36	2,243,925	2,199,046
Total	371.36	371.36	371.36	2,243,925	2,199,046

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Unrefrigerated Warehouse-No	16.60	8.40	6.90	100.00	0.00	0.00	100	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

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	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	3.4500e-003	0.0313	0.0263	1.9000e-004		2.3800e-003	2.3800e-003		2.3800e-003	2.3800e-003	0.0000	34.1087	34.1087	6.5000e-004	6.3000e-004	34.3163
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	214.5487	214.5487	0.0133	2.7600e-003	215.6832
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	243.0401	243.0401	0.0151	3.1200e-003	244.3253
NaturalGas Mitigated	3.2800e-003	0.0298	0.0250	1.8000e-004		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	32.4319	32.4319	6.2000e-004	5.9000e-004	32.6292

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					
Unrefrigerated Warehouse-No Rail	639173	3.4500e-003	0.0313	0.0263	1.9000e-004		2.3800e-003	2.3800e-003		2.3800e-003	2.3800e-003	0.0000	34.1087	34.1087	6.5000e-004	6.3000e-004	34.3163
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		**3.4500e-003**	**0.0313**	**0.0263**	**1.9000e-004**		**2.3800e-003**	**2.3800e-003**		**2.3800e-003**	**2.3800e-003**	**0.0000**	**34.1087**	**34.1087**	**6.5000e-004**	**6.3000e-004**	**34.3163**

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					
Unrefrigerated Warehouse-No Rail	607750	3.2800e-003	0.0298	0.0250	1.8000e-004		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	32.4319	32.4319	6.2000e-004	5.9000e-004	32.6292
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		**3.2800e-003**	**0.0298**	**0.0250**	**1.8000e-004**		**2.2600e-003**	**2.2600e-003**		**2.2600e-003**	**2.2600e-003**	**0.0000**	**32.4319**	**32.4319**	**6.2000e-004**	**5.9000e-004**	**32.6292**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	104896	22.2156	1.3800e-003	2.9000e-004	22.3331
Unrefrigerated Warehouse-No Rail	1.04267e+006	220.8245	0.0137	2.8400e-003	221.9922
Total		**243.0401**	**0.0151**	**3.1300e-003**	**244.3253**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	40756	8.6316	5.4000e-004	1.1000e-004	8.6772
Unrefrigerated Warehouse-No Rail	972285	205.9171	0.0128	2.6500e-003	207.0060
Total		**214.5487**	**0.0133**	**2.7600e-003**	**215.6832**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	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	2.1397	8.0000e-005	8.4100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Mitigated	1.8054	8.0000e-005	8.4100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172

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	0.4179					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7210					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.9000e-004	8.0000e-005	8.4100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Total	**2.1397**	**8.0000e-005**	**8.4100e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0163**	**0.0163**	**4.0000e-005**	**0.0000**	**0.0172**

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	0.0836					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7210					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.9000e-004	8.0000e-005	8.4100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Total	**1.8054**	**8.0000e-005**	**8.4100e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0163**	**0.0163**	**4.0000e-005**	**0.0000**	**0.0172**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	253.9116	2.7048	0.0665	331.3157
Mitigated	196.8064	2.1635	0.0531	258.6963

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
Unrefrigerated Warehouse-No Rail	82.5747 / 0	253.9116	2.7048	0.0665	331.3157
Total		**253.9116**	**2.7048**	**0.0665**	**331.3157**

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
Unrefrigerated Warehouse-No Rail	66.0598 / 0	196.8064	2.1635	0.0531	258.6963
Total		**196.8064**	**2.1635**	**0.0531**	**258.6963**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	68.1360	4.0267	0.0000	152.6971
Unmitigated	68.1360	4.0267	0.0000	152.6971

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
Unrefrigerated Warehouse-No Rail	335.66	68.1360	4.0267	0.0000	152.6971
Total		**68.1360**	**4.0267**	**0.0000**	**152.6971**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	335.66	68.1360	4.0267	0.0000	152.6971
Total		**68.1360**	**4.0267**	**0.0000**	**152.6971**

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	CNG

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

Warehouse- Trucks

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	89.27	1000sqft	2.05	89,270.00	0
Parking Lot	74.00	Space	0.67	29,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
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 - Total lot acreage: 19.6437; 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 - Operation run only

Off-road Equipment - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Trucks only

Vechicle Emission Factors - Trucks only

Vechicle 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)

Area Mitigation - Based on updated Rule 1113- all flat, nonflat, default coatings shall have 50 g/L low VOC levels

Mobile Land Use Mitigation -

Energy Mitigation - PV system to serve office areas (20% of total project kWh)

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	50
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	2.69	2.10
tblEnergyUse	T24NG	16.16	13.45
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	466.91
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	WorkerTripNumber	8.00	0.00

tblVehicleEF	HHD	0.03	0.51
tblVehicleEF	HHD	0.03	0.51
tblVehicleEF	HHD	0.03	0.51
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.16
tblVehicleEF	LHD1	0.04	0.16
tblVehicleEF	LHD1	0.04	0.16
tblVehicleEF	LHD2	6.6920e-003	0.00
tblVehicleEF	LHD2	6.6920e-003	0.00
tblVehicleEF	LHD2	6.6920e-003	0.00
tblVehicleEF	MCY	4.3920e-003	0.00
tblVehicleEF	MCY	4.3920e-003	0.00
tblVehicleEF	MCY	4.3920e-003	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MH	2.1400e-003	0.00
tblVehicleEF	MH	2.1400e-003	0.00
tblVehicleEF	MH	2.1400e-003	0.00
tblVehicleEF	MHD	0.02	0.33

tblVehicleEF	MHD	0.02	0.33
tblVehicleEF	MHD	0.02	0.33
tblVehicleEF	OBUS	1.9430e-003	0.00
tblVehicleEF	OBUS	1.9430e-003	0.00
tblVehicleEF	OBUS	1.9430e-003	0.00
tblVehicleEF	SBUS	5.7600e-004	0.00
tblVehicleEF	SBUS	5.7600e-004	0.00
tblVehicleEF	SBUS	5.7600e-004	0.00
tblVehicleEF	UBUS	2.4910e-003	0.00
tblVehicleEF	UBUS	2.4910e-003	0.00
tblVehicleEF	UBUS	2.4910e-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	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.49	1.48
tblVehicleTrips	SU_TR	0.62	1.48
tblVehicleTrips	WD_TR	3.82	1.48

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					
2017	4.8000e-004	4.5700e-003	3.5900e-003	0.0000	0.0000	3.4000e-004	3.4000e-004	0.0000	3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**	**0.0000**	**3.4000e-004**	**3.4000e-004**	**0.0000**	**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

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					
2017	4.8000e-004	4.5700e-003	3.5900e-003	0.0000	0.0000	3.4000e-004	3.4000e-004	0.0000	3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**	**0.0000**	**3.4000e-004**	**3.4000e-004**	**0.0000**	**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

	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**	**N20**	**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**

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	0.5342	2.0000e-005	2.1000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2800e-003
Energy	0.0147	0.1338	0.1124	8.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	349.3303	349.3303	0.0154	5.2900e-003	351.2938
Mobile	0.6308	9.6937	5.9050	0.0405	1.2669	0.1947	1.4616	0.3559	0.1792	0.5350	0.0000	3,447.4656	3,447.4656	0.0256	0.0000	3,448.0041
Waste						0.0000	0.0000		0.0000	0.0000	22.4691	0.0000	22.4691	1.3279	0.0000	50.3546
Water						0.0000	0.0000		0.0000	0.0000	6.5493	56.9286	63.4779	0.6762	0.0166	82.8289
Total	**1.1797**	**9.8275**	**6.0195**	**0.0413**	**1.2669**	**0.2049**	**1.4718**	**0.3559**	**0.1893**	**0.5452**	**29.0184**	**3,853.7285**	**3,882.7469**	**2.0452**	**0.0219**	**3,932.4857**

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	0.4506	2.0000e-005	2.1000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2800e-003
Energy	0.0144	0.1309	0.1099	7.9000e-004		9.9500e-003	9.9500e-003		9.9500e-003	9.9500e-003	0.0000	337.3495	337.3495	0.0148	5.1200e-003	339.2471
Mobile	0.6202	9.5063	5.8243	0.0397	1.2416	0.1909	1.4324	0.3488	0.1756	0.5244	0.0000	3,379.0052	3,379.0052	0.0252	0.0000	3,379.5333
Waste						0.0000	0.0000		0.0000	0.0000	22.4691	0.0000	22.4691	1.3279	0.0000	50.3546
Water						0.0000	0.0000		0.0000	0.0000	5.2394	43.9622	49.2016	0.5409	0.0133	64.6741
Total	**1.0852**	**9.6372**	**5.9363**	**0.0405**	**1.2416**	**0.2008**	**1.4424**	**0.3488**	**0.1856**	**0.5343**	**27.7085**	**3,760.3210**	**3,788.0295**	**1.9087**	**0.0184**	**3,833.8134**

	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	N20	CO2e
Percent Reduction	**8.01**	**1.94**	**1.38**	**1.98**	**2.00**	**2.01**	**2.00**	**2.00**	**2.00**	**2.00**	**4.51**	**2.42**	**2.44**	**6.67**	**16.03**	**2.51**

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	1/1/2017	1/2/2017	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
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37

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	3	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	4.8000e-004	4.5700e-003	3.5900e-003	0.0000		3.4000e-004	3.4000e-004		3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**		**3.4000e-004**	**3.4000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

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	0.0000	0.0000	0.0000	0.0000	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**

3.2 Demolition - 2017

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	4.8000e-004	4.5700e-003	3.5900e-003	0.0000		3.4000e-004	3.4000e-004		3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**		**3.4000e-004**	**3.4000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

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					
Mitigated	0.6202	9.5063	5.8243	0.0397	1.2416	0.1909	1.4324	0.3488	0.1756	0.5244	0.0000	3,379.0052	3,379.0052	0.0252	0.0000	3,379.5333
Unmitigated	0.6308	9.6937	5.9050	0.0405	1.2669	0.1947	1.4616	0.3559	0.1792	0.5350	0.0000	3,447.4656	3,447.4656	0.0256	0.0000	3,448.0041

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	132.12	132.12	132.12	2,933,584	2,874,912
Parking Lot	0.00	0.00	0.00		
Total	132.12	132.12	132.12	2,933,584	2,874,912

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Manufacturing	61.00	8.40	6.90	100.00	0.00	0.00	100	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	0.157600	0.000000	0.328200	0.514200	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

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	194.8765	194.8765	0.0121	2.5000e-003	195.9070
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	203.6537	203.6537	0.0127	2.6200e-003	204.7306
NaturalGas Mitigated	0.0144	0.1309	0.1099	7.9000e-004		9.9500e-003	9.9500e-003		9.9500e-003	9.9500e-003	0.0000	142.4730	142.4730	2.7300e-003	2.6100e-003	143.3400
NaturalGas Unmitigated	0.0147	0.1338	0.1124	8.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	145.6766	145.6766	2.7900e-003	2.6700e-003	146.5632

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					
Manufacturing	2.72988e+006	0.0147	0.1338	0.1124	8.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	145.6766	145.6766	2.7900e-003	2.6700e-003	146.5632
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		**0.0147**	**0.1338**	**0.1124**	**8.0000e-004**		**0.0102**	**0.0102**		**0.0102**	**0.0102**	**0.0000**	**145.6766**	**145.6766**	**2.7900e-003**	**2.6700e-003**	**146.5632**

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					
Manufacturing	2.66984e+006	0.0144	0.1309	0.1099	7.9000e-004		9.9500e-003	9.9500e-003		9.9500e-003	9.9500e-003	0.0000	142.4730	142.4730	2.7300e-003	2.6100e-003	143.3400
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		**0.0144**	**0.1309**	**0.1099**	**7.9000e-004**		**9.9500e-003**	**9.9500e-003**		**9.9500e-003**	**9.9500e-003**	**0.0000**	**142.4730**	**142.4730**	**2.7300e-003**	**2.6100e-003**	**143.3400**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	935550	198.1371	0.0123	2.5500e-003	199.1848
Parking Lot	26048	5.5166	3.4000e-004	7.0000e-005	5.5458
Total		**203.6537**	**0.0127**	**2.6200e-003**	**204.7306**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	910141	192.7559	0.0120	2.4800e-003	193.7752
Parking Lot	10013	2.1206	1.3000e-004	3.0000e-005	2.1318
Total		**194.8765**	**0.0121**	**2.5100e-003**	**195.9070**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	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	0.4506	2.0000e-005	2.1000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2800e-003
Unmitigated	0.5342	2.0000e-005	2.1000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2800e-003

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	0.1045					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4295					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-004	2.0000e-005	2.1000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2800e-003
Total	**0.5342**	**2.0000e-005**	**2.1000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.0500e-003**	**4.0500e-003**	**1.0000e-005**	**0.0000**	**4.2800e-003**

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	0.0209					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4295					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-004	2.0000e-005	2.1000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2800e-003
Total	**0.4506**	**2.0000e-005**	**2.1000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.0500e-003**	**4.0500e-003**	**1.0000e-005**	**0.0000**	**4.2800e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	49.2016	0.5409	0.0133	64.6741
Unmitigated	63.4779	0.6762	0.0166	82.8289

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	20.6437 / 0	63.4779	0.6762	0.0166	82.8289
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**63.4779**	**0.6762**	**0.0166**	**82.8289**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	16.5149 / 0	49.2016	0.5409	0.0133	64.6741
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**49.2016**	**0.5409**	**0.0133**	**64.6741**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Unmitigated	22.4691	1.3279	0.0000	50.3546
Mitigated	22.4691	1.3279	0.0000	50.3546

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	110.69	22.4691	1.3279	0.0000	50.3546
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**22.4691**	**1.3279**	**0.0000**	**50.3546**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	110.69	22.4691	1.3279	0.0000	50.3546
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**22.4691**	**1.3279**	**0.0000**	**50.3546**

9.0 Operational Offroad

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

10.0 Vegetation

Manufacturing- Passenger Cars

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	89.27	1000sqft	2.05	89,270.00	0
Parking Lot	74.00	Space	0.67	29,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
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 - A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking= 3.27 parking spaces. Parking represents ratio of total parking

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Passenger Cars Only

Vechicle Emission Factors - Passenger Cars Only

Vechicle 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)

Area Mitigation - Based on updated Rule 1113-all flat, nonflat, default coatings shall have 50 g/L low VOC levels

Energy Mitigation - PV system to serve office areas (20% of total project kWh)

Mobile Land Use Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	50
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	2.69	2.10
tblEnergyUse	T24NG	16.16	13.45
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	466.91
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	WorkerTripNumber	8.00	0.00

tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD2	6.6920e-003	0.00
tblVehicleEF	LHD2	6.6920e-003	0.00
tblVehicleEF	LHD2	6.6920e-003	0.00
tblVehicleEF	MCY	4.3920e-003	0.00
tblVehicleEF	MCY	4.3920e-003	0.00
tblVehicleEF	MCY	4.3920e-003	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MH	2.1400e-003	0.00
tblVehicleEF	MH	2.1400e-003	0.00
tblVehicleEF	MH	2.1400e-003	0.00
tblVehicleEF	MHD	0.02	0.00

tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	1.9430e-003	0.00
tblVehicleEF	OBUS	1.9430e-003	0.00
tblVehicleEF	OBUS	1.9430e-003	0.00
tblVehicleEF	SBUS	5.7600e-004	0.00
tblVehicleEF	SBUS	5.7600e-004	0.00
tblVehicleEF	SBUS	5.7600e-004	0.00
tblVehicleEF	UBUS	2.4910e-003	0.00
tblVehicleEF	UBUS	2.4910e-003	0.00
tblVehicleEF	UBUS	2.4910e-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	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.49	2.34
tblVehicleTrips	SU_TR	0.62	2.34
tblVehicleTrips	WD_TR	3.82	2.34

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					
2017	4.8000e-004	4.5700e-003	3.5900e-003	0.0000	0.0000	3.4000e-004	3.4000e-004	0.0000	3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**	**0.0000**	**3.4000e-004**	**3.4000e-004**	**0.0000**	**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

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					
2017	4.8000e-004	4.5700e-003	3.5900e-003	0.0000	0.0000	3.4000e-004	3.4000e-004	0.0000	3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**	**0.0000**	**3.4000e-004**	**3.4000e-004**	**0.0000**	**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

	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**	**N20**	**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**

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	0.5342	2.0000e-005	2.1000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2800e-003
Energy	0.0147	0.1338	0.1124	8.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	349.3303	349.3303	0.0154	5.2900e-003	351.2938
Mobile	0.0628	0.1063	1.1891	5.0600e-003	0.4706	2.9600e-003	0.4736	0.1249	2.7500e-003	0.1277	0.0000	317.5504	317.5504	0.0130	0.0000	317.8235
Waste						0.0000	0.0000		0.0000	0.0000	22.4691	0.0000	22.4691	1.3279	0.0000	50.3546
Water						0.0000	0.0000		0.0000	0.0000	6.5493	56.9286	63.4779	0.6762	0.0166	82.8289
Total	**0.6117**	**0.2401**	**1.3036**	**5.8600e-003**	**0.4706**	**0.0131**	**0.4837**	**0.1249**	**0.0129**	**0.1379**	**29.0184**	**723.8134**	**752.8317**	**2.0326**	**0.0219**	**802.3051**

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	0.4506	2.0000e-005	2.1000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2800e-003
Energy	0.0144	0.1309	0.1099	7.9000e-004		9.9500e-003	9.9500e-003		9.9500e-003	9.9500e-003	0.0000	337.3495	337.3495	0.0148	5.1200e-003	339.2471
Mobile	0.0623	0.1043	1.1676	4.9600e-003	0.4612	2.9100e-003	0.4641	0.1224	2.7000e-003	0.1251	0.0000	311.2797	311.2797	0.0128	0.0000	311.5475
Waste						0.0000	0.0000		0.0000	0.0000	22.4691	0.0000	22.4691	1.3279	0.0000	50.3546
Water						0.0000	0.0000		0.0000	0.0000	5.2394	43.9622	49.2016	0.5409	0.0133	64.6741
Total	**0.5274**	**0.2352**	**1.2796**	**5.7500e-003**	**0.4612**	**0.0129**	**0.4741**	**0.1224**	**0.0127**	**0.1351**	**27.7085**	**692.5954**	**720.3039**	**1.8963**	**0.0184**	**765.8275**

	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	N20	CO2e
Percent Reduction	**13.78**	**2.05**	**1.84**	**1.88**	**2.00**	**2.05**	**2.00**	**1.99**	**2.09**	**2.01**	**4.51**	**4.31**	**4.32**	**6.70**	**16.03**	**4.55**

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	1/1/2017	1/2/2017	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
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37

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	3	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	4.8000e-004	4.5700e-003	3.5900e-003	0.0000		3.4000e-004	3.4000e-004		3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**		**3.4000e-004**	**3.4000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

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	0.0000	0.0000	0.0000	0.0000	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**

3.2 Demolition - 2017

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	4.8000e-004	4.5700e-003	3.5900e-003	0.0000		3.4000e-004	3.4000e-004		3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**		**3.4000e-004**	**3.4000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

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					
Mitigated	0.0623	0.1043	1.1676	4.9600e-003	0.4612	2.9100e-003	0.4641	0.1224	2.7000e-003	0.1251	0.0000	311.2797	311.2797	0.0128	0.0000	311.5475
Unmitigated	0.0628	0.1063	1.1891	5.0600e-003	0.4706	2.9600e-003	0.4736	0.1249	2.7500e-003	0.1277	0.0000	317.5504	317.5504	0.0130	0.0000	317.8235

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	208.89	208.89	208.89	1,262,208	1,236,964
Parking Lot	0.00	0.00	0.00		
Total	208.89	208.89	208.89	1,262,208	1,236,964

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Manufacturing	16.60	8.40	6.90	100.00	0.00	0.00	100	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

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	194.8765	194.8765	0.0121	2.5000e-003	195.9070
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	203.6537	203.6537	0.0127	2.6200e-003	204.7306
NaturalGas Mitigated	0.0144	0.1309	0.1099	7.9000e-004		9.9500e-003	9.9500e-003		9.9500e-003	9.9500e-003	0.0000	142.4730	142.4730	2.7300e-003	2.6100e-003	143.3400
NaturalGas Unmitigated	0.0147	0.1338	0.1124	8.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	145.6766	145.6766	2.7900e-003	2.6700e-003	146.5632

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					
Manufacturing	2.72988e+006	0.0147	0.1338	0.1124	8.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	145.6766	145.6766	2.7900e-003	2.6700e-003	146.5632
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		**0.0147**	**0.1338**	**0.1124**	**8.0000e-004**		**0.0102**	**0.0102**		**0.0102**	**0.0102**	**0.0000**	**145.6766**	**145.6766**	**2.7900e-003**	**2.6700e-003**	**146.5632**

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					
Manufacturing	2.66984e+006	0.0144	0.1309	0.1099	7.9000e-004		9.9500e-003	9.9500e-003		9.9500e-003	9.9500e-003	0.0000	142.4730	142.4730	2.7300e-003	2.6100e-003	143.3400
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		**0.0144**	**0.1309**	**0.1099**	**7.9000e-004**		**9.9500e-003**	**9.9500e-003**		**9.9500e-003**	**9.9500e-003**	**0.0000**	**142.4730**	**142.4730**	**2.7300e-003**	**2.6100e-003**	**143.3400**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	935550	198.1371	0.0123	2.5500e-003	199.1848
Parking Lot	26048	5.5166	3.4000e-004	7.0000e-005	5.5458
Total		**203.6537**	**0.0127**	**2.6200e-003**	**204.7306**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	910141	192.7559	0.0120	2.4800e-003	193.7752
Parking Lot	10013	2.1206	1.3000e-004	3.0000e-005	2.1318
Total		**194.8765**	**0.0121**	**2.5100e-003**	**195.9070**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	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	0.4506	2.0000e-005	2.1000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2800e-003
Unmitigated	0.5342	2.0000e-005	2.1000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2800e-003

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	0.1045					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4295					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-004	2.0000e-005	2.1000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2800e-003
Total	**0.5342**	**2.0000e-005**	**2.1000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.0500e-003**	**4.0500e-003**	**1.0000e-005**	**0.0000**	**4.2800e-003**

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	0.0209					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4295					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-004	2.0000e-005	2.1000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2800e-003
Total	**0.4506**	**2.0000e-005**	**2.1000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.0500e-003**	**4.0500e-003**	**1.0000e-005**	**0.0000**	**4.2800e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	49.2016	0.5409	0.0133	64.6741
Unmitigated	63.4779	0.6762	0.0166	82.8289

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	20.6437 / 0	63.4779	0.6762	0.0166	82.8289
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**63.4779**	**0.6762**	**0.0166**	**82.8289**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	16.5149 / 0	49.2016	0.5409	0.0133	64.6741
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**49.2016**	**0.5409**	**0.0133**	**64.6741**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Unmitigated	22.4691	1.3279	0.0000	50.3546
Mitigated	22.4691	1.3279	0.0000	50.3546

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	110.69	22.4691	1.3279	0.0000	50.3546
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**22.4691**	**1.3279**	**0.0000**	**50.3546**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	110.69	22.4691	1.3279	0.0000	50.3546
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**22.4691**	**1.3279**	**0.0000**	**50.3546**

9.0 Operational Offroad

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

10.0 Vegetation

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