HELIX Environmental Planning

Ramona-Indian Warehouse Project

Air Quality and Greenhouse Gas Emissions Technical Report

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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
amsl	above mean sea level
APN	Assessor's Parcel Number
AQMP	Air Quality Management Plan
C_2F_6	hexafluoroethane
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards Code
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CF_4	tetraflouromethane
CFC	chlorofluorocarbon
CH_4	methane
City	City of Perris
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
DPM	diesel particulate matter
EO	Executive Order
EV	electric vehicle
GHG	greenhouse gas
GWP	global warming potential
HFC	hydrofluorocarbon
I-	Interstate
IPCC	Intergovernmental Panel on Climate Change
kW	kilowatts
kWhr	kilowatts-hours
LCFS	Low Carbon Fuel Standard
LOS	Level of Service
LST	localized significance threshold

ACRONYMS AND ABBREVIATIONS (cont.)

mg/m^3	milligrams per cubic meter
MMT	million metric tons
mpg	miles per gallon
mph	miles per hour
MT	metric tons
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NASA	National Aeronautics and Space Administration
NHTSA	National Highway Traffic Safety Administration
NO	nitrogen oxide
NO_2	nitrogen dioxide
NO_X	nitrogen oxides
O_3	ozone
Pb	lead
PFC	perfluorocarbon
PM_{10}	particulate matter less than 10 microns or less in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns or less in diameter
ppm	parts per million
PVCCSP	Perris Valley Commercial Center Specific Plan
ROG	reactive organic gas
RTP	Regional Transportation Plan
SB	Senate Bill
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCS	Sustainable Communities Strategy
SF	Square feet/foot
SF_6	hexafluoride
SIP	State Implementation Plan
SO_2	sulfur dioxide
SO_X	sulfur oxides
SRA	source receptor area
TACs	toxic air contaminants
USEPA	U.S. Environmental Protection Agency

ACRONYMS AND ABBREVIATIONS (cont.)

VMT	vehicle miles traveled
VOC	volatile organic compound
WRCOG	Western Riverside Council of Governments

EXECUTIVE SUMMARY

This report presents an assessment of potential air quality and greenhouse gas (GHG) emissions impacts resulting from implementation of the Ramona-Indian Warehouse Project (project) located in the City of Perris (City). The project would develop light industrial uses and commercial uses in two phases. Phase 1 would develop a 232,575 square-foot (SF) multi-tenant distribution building (warehouse) and associated internal office space, parking lots, storm water improvements, landscaping, and street access/ driveways. Phase 2 would develop a commercial pad on the 1.61 acres in the northeastern portion of the project site with a 125-room hotel. The project would be located within the Perris Valley Commercial Center Specific Plan (PVCCSP) area.

The project applicant proposes an amendment to the PVCCSP to replace the Commercial land use designation with a Light Industrial land use for approximately 13 acres of the project site. Because average employment densities for light industrial use are lower than those for commercial uses, the project contribution to regional employment growth would be accounted for in regional planning documents (e.g., general plans, Regional Transportation Plan/Sustainable Communities Strategy) used to develop control measures in the South Coast Air Quality Management District's (SCAQMD) Air Quality Management Plan (AQMP). The project would not conflict with the 2016 AQMP.

The project would result in emissions of criteria air pollutants during construction and operation. In accordance with SCAQMD Rule 403 and applicable mitigation from the PVCCSP Environmental Impact Report (EIR), fugitive dust control measures would be required. Project emissions of criteria pollutants and precursors during construction or operation would not exceed the SCAQMD emissions thresholds. Impacts related to cumulatively considerable net increases of criteria pollutants in the region would be less than significant with mitigation incorporated. Implementation of applicable mitigation measures from the PVCCSP EIR would be required.

Project-generated traffic would not result in a carbon monoxide hot spot. Construction and operation of the project would not result in exposure of sensitive receptors to significant quantities of toxic air contaminants or substantial localized criteria pollutant and precursor concentrations. A health risk assessment (HRA) was conducted to evaluate potential community health risks from exposure to diesel particulate matter emitted by trucks related to operation of the proposed warehouse. Community cancer risk, chronic health risk, or cancer burden would not exceed the SCAQMDs thresholds. Impacts related to exposure of sensitive receptors to substantial pollutant concentrations would be less than significant. Implementation of applicable mitigation measures from the PVCCSP EIR would be required.

The project would not generate other emissions (such as those leading to odors) that would affect a substantial number of people.

GHG emissions resulting from construction and operation of the project would not exceed the SCAQMD's screening threshold for industrial facilities. The project would not conflict with the City of Perris Climate Action Plan (CAP) or other regional and stage GHG reduction plans. Impacts related to GHG emissions and conflicts with GHG reduction plans and policies would be less than significant. Implementation of applicable mitigation measures from the PVCCSP EIR would be required.

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1.0 INTRODUCTION

This report presents an assessment of potential air quality and greenhouse gas (GHG) emissions impacts resulting from construction and operation of the proposed Ramona-Indian Warehouse Project (project). The project site is located within the Perris Valley Commerce Center Specific Plan (PVCCSP) planning area. In November 2011, the City of Perris Council certified an Environmental Impact Report (EIR; State Clearinghouse Number 2009081086) for the PVCCSP. This report summarizes the impact conclusions related air quality and GHG emissions in the EIR and identifies mitigation measures from the EIR that would be applicable to the project.

1.1 PROJECT LOCATION

The project site is located at the northeast corner of the intersection of Ramona Expressway and Indian Avenue, in the City of Perris (City) in western Riverside County, California. The project site includes approximately 15 acres and is located approximately 1.4 miles east of Interstate (I-) 215 and approximately 6.5 miles south of State Route (SR-) 60. The project site is within the western Riverside County portion of the South Coast Air Basin (SCAB). Air quality in the project area is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). See Figure 1, *Regional Location* and Figure 2, *Aerial Photo*.

1.2 PROJECT DESCRIPTION

The project would develop light industrial uses and commercial uses in two phases. Phase 1 would develop a 232,575-square-foot (SF) multi-tenant distribution building (warehouse) that includes 10,000 SF of internal office space, parking areas and driveways, a pad for future commercial development, storm drains and a water quality management retention basin, all on approximately 15 acres at the northeast corner of Indian Avenue and Ramona Expressway. The warehouse would include 39 loading docks. The parking area would include 215 auto/light truck stalls, and 52 truck/trailer stalls. The storm drain system would include construction of the storm drain Line E within the project site. See Figure 3, Site Plan. The project would include roadway improvements for Ramona Expressway, Indian Avenue, and Perris Boulevard. Additional improvements would include landscaping, screen walls and fencing, and lighting.

Phase 2 would develop a commercial pad on the 1.61 acres in the northeastern portion of the project site. Development of the commercial pad is not proposed as part of the project application; however, development of a 125-room hotel has been assumed as part of this environmental analysis. Until development of the commercial pad occurs, temporary staging activities may occur in this area to support construction of the light industrial uses described above.

1.3 CONSTRUCTION ACTIVITIES AND PHASING

Project construction of Phase 1 (the multi-tenant distribution building) is assumed to occur over an approximately 1-year, 6-month period starting in October 2022 and completing in March 2024. Construction activities would include site preparation, grading, installation of underground utilities, (including storm drain Line E), building construction, paving, and architectural coating (e.g., painting). The project would not require demolition, as the site is currently vacant and undeveloped. Grading

would result in approximately 28,823 cubic yards (CY) of cut and 12,981 CY of fill, resulting in 15,842 CY of total soil import required.

The timeline for development of the commercial pad has not been established as of the time of this analysis. This analysis assumes Phase 2 (the 125-room hotel) would commence construction in July 2024, immediately following completion of Phase 1, and would be complete in approximately 10 months.

Project construction would be required to implement all applicable fugitive dust best available control measures specified in Table 1 of the SCAQMD Rule 403, *Fugitive Dust* (SCAQMD 2005), including, but not limited to: the use of an on-site water truck to wet down exposed areas at least twice daily, maintaining a 12 percent moisture content to unpaved roads, and limiting vehicle speeds to 15 miles per hour (mph). Project construction would also be required to comply with applicable air quality mitigation measures identified in the PVCCSP EIR, as discussed in Section 5.2, below.

2.0 REGULATORY SETTING

2.1 AIR QUALITY

The project site is located within the SCAB. Air quality in the SCAB is regulated by the U.S. Environmental Protection Agency (USEPA) at the federal level, by the California Air Resources Board (CARB) at the state level, and by the SCAQMD at the regional level.

2.1.1 Air Pollutants of Concern

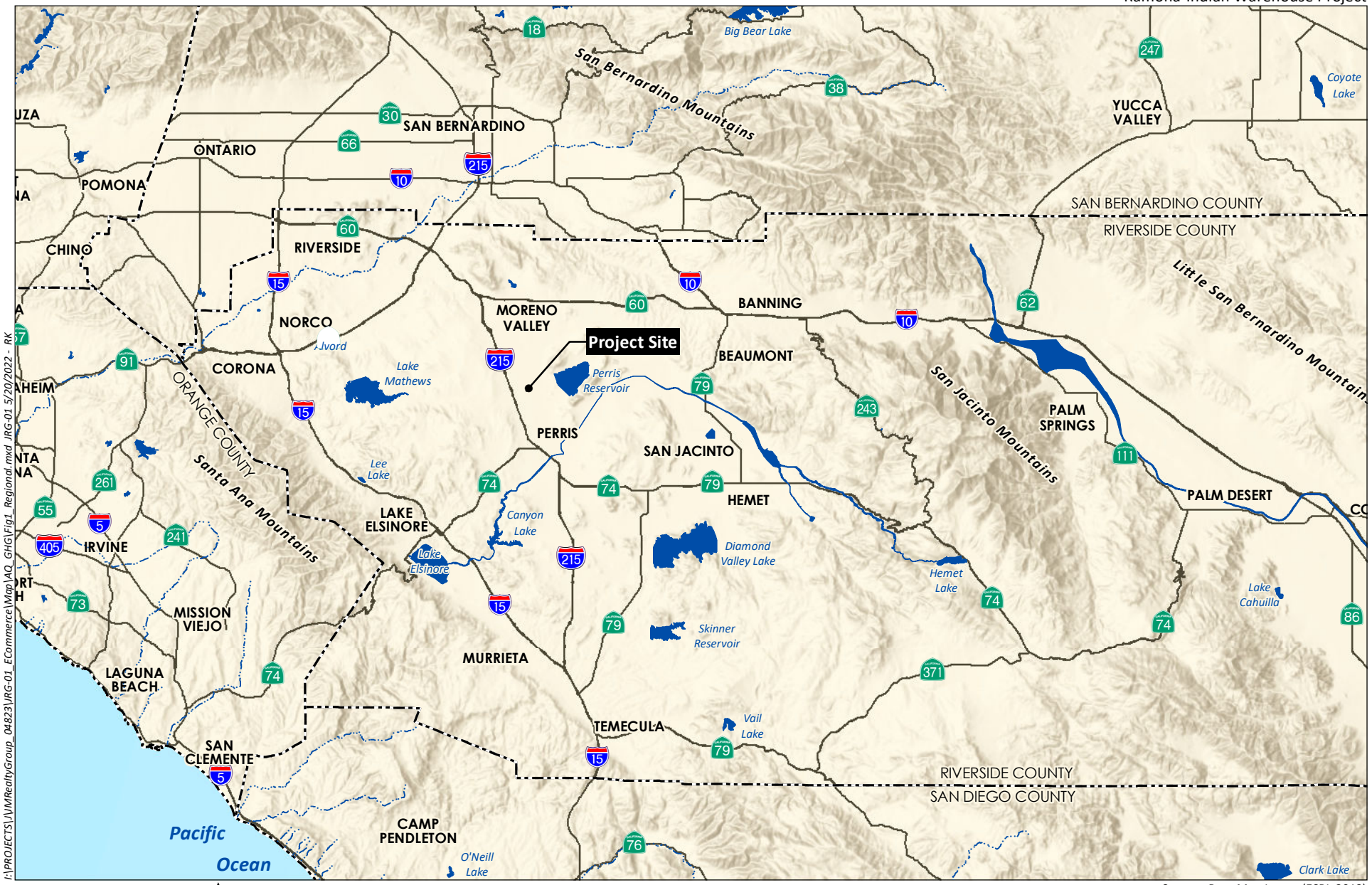
2.1.1.1 Criteria Pollutants

Criteria pollutants are defined by state and federal law as a risk to the health and welfare of the general public. In general, criteria air pollutants include the following compounds:

- Ozone (O_3)
- Carbon monoxide (CO)
- Nitrogen dioxide (NO_2)
- Particulate matter (PM), which is further subdivided:
  - Coarse PM, 10 microns or less in diameter (PM_{10})
  - Fine PM, 2.5 microns or less in diameter ($PM_{2.5}$)
- Sulfur dioxide (SO_2)
- Lead (Pb)

Criteria pollutants can be emitted directly from sources (primary pollutants; e.g., CO, SO_2, PM_{10}, $PM_{2.5}$, and lead), or they may be formed through chemical and photochemical reactions of precursor pollutants in the atmosphere (secondary pollutants; e.g., ozone, NO_2, PM_{10}, and $PM_{2.5}$). PM_{10} and $PM_{2.5}$ can be both primary and secondary pollutants. The principal precursor pollutants of concern are reactive organic gases ([ROGs] also known as volatile organic compounds [VOCs])[1] and nitrogen oxides (NO_X).

[1] CARB defines and uses the term ROGs while the USEPA defines and uses the term VOCs. The compounds included in the lists of ROGs and VOCs and the methods of calculation are slightly different. However, for the purposes of estimating criteria pollutant precursor emissions, the two terms are often used interchangeably.



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Source: Base Map Layers (ESRI, 2013)

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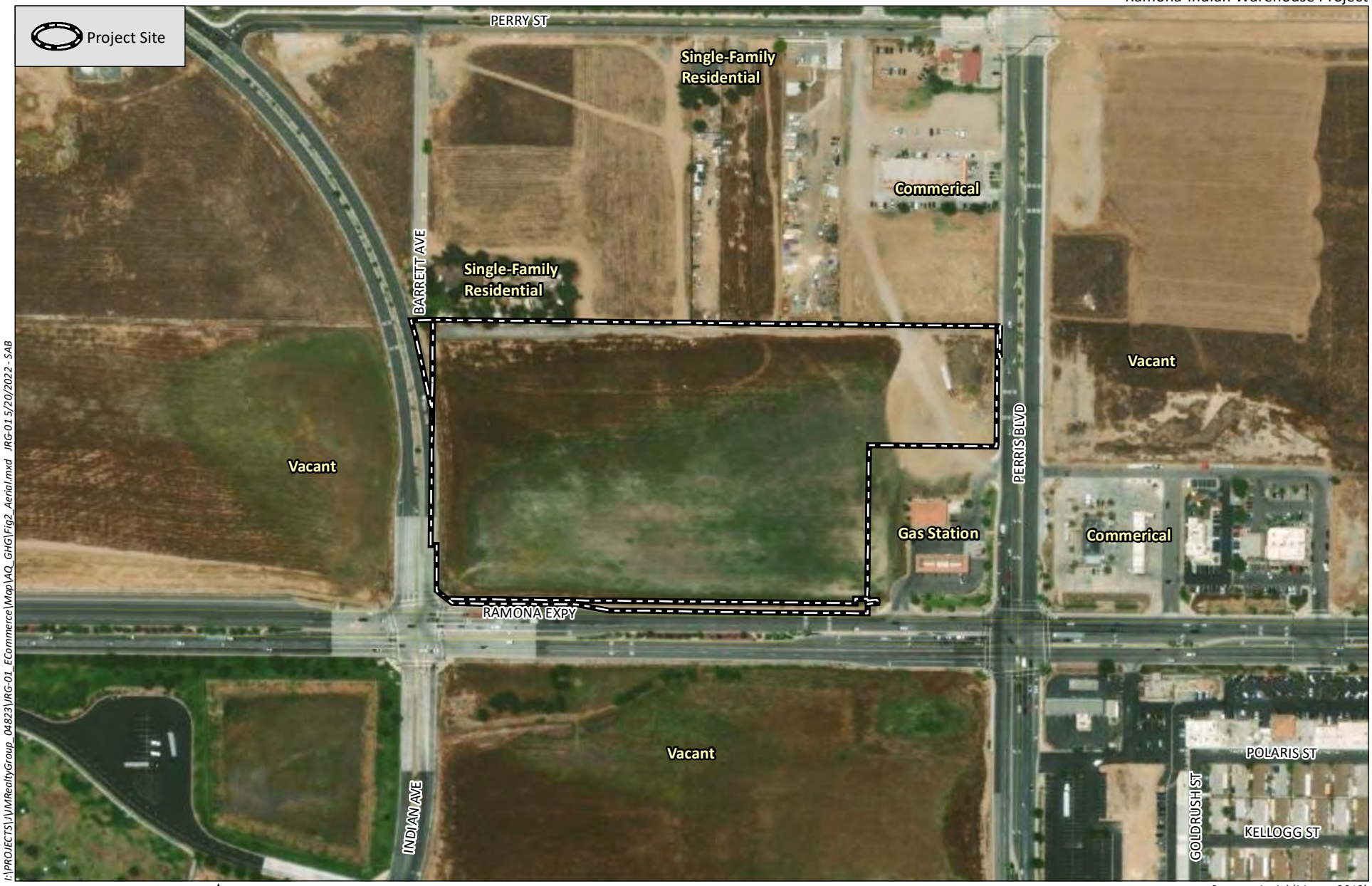
Regional Location

Figure 1



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Source: Aerial (Maxar, 2019)

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Aerial Photo

Figure 2

NOTE: LINE OF SIGHT TAKEN FROM 6' 0" ABOVE FINISH GRADE

SHELL BUILDING
TYPE III-B FULLY SPRINKLERED
B / S1 / F1 OCCUPANCY
36'-0" CLEAR
59.30 F.F.
58.7 PAD

39 DOCK POSITIONS

961'-1 3/4"
NEW 8'-0" HIGH TUBE STEEL FENCE

N89°57'32"W 1240.67'

14'-0" HIGH CONCRETE SCREEN WALL

TRASH

GUARDSHACK

GATE
TRUCK TRAFFIC

NO TRUCK TRAFFIC

FULL ACCESS DRIVE-WAY

ELECTRICAL ROOM

PRIMARY OFFICE AREA

MONUMENT SIGNS

AUTO TRAFFIC

RIGHT-IN / RIGHT-OUT

RP-UP

FH

GRADE BREAK

AUC ZONE C1
AFZ II / AUC ZONE B2

POSSIBLE AVIATION LINE LOCATION

FUTURE COMMERCIAL
1.61 AC

229'-9 1/2"
NEW 8'-0" HIGH TUBE STEEL FENCE

N00°03'00"E 264.24'

N89°56'40"W 280.10'

NOT A PART

327'-1 1/2"
NEW 8'-0" HIGH TUBE STEEL FENCE

N00°03'42"E 348.24'

INDIAN AVENUE

PERRIS BOULEVARD

RAMONA EXPRESS WAY

Δ=04°15'47"
R=1200.00'
L=133.38'

595'-9"

805'-0"

530'-2"

460'-6 7/8"

271'-0"

136.5'

225'-0"

0' 10' 20' 50' 100'

Source: RGA 2022

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Site Plan

Figure 3

The descriptions of sources and general health effects for each of the criteria air pollutants are shown in Table 1, *Summary of Common Sources and Human Health Effects of Criteria Air Pollutants*, based on information provided by the California Air Pollution Control Officers Association ([CAPCOA] 2021a). Specific adverse health effects on individuals or population groups induced by criteria pollutant emissions are highly dependent on a multitude of interconnected variables such as cumulative concentrations, local meteorology and atmospheric conditions, and the number and characteristics of exposed individuals (e.g., age, gender). Criteria pollutant precursors (ROG and NO_X) affect air quality on a regional scale, typically after significant delay and distance from the pollutant source emissions. Health effects related to ozone and NO_2 are, therefore, the product of emissions generated by numerous sources throughout a region. Emissions of criteria pollutants from vehicles traveling to or from the project site (mobile emissions) are distributed nonuniformly in location and time throughout the region, wherever the vehicles may travel. As such, specific health effects from these criteria pollutant emissions cannot be meaningfully correlated to the incremental contribution from the project.

Table 1
SUMMARY OF COMMON SOURCES AND HUMAN HEALTH EFFECTS OF CRITERIA AIR POLLUTANTS

Pollutant	Major Man-Made Sources	Human Health Effects
Carbon Monoxide (CO)	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
Nitrogen Dioxide (NO_2)	A reddish-brown gas formed during fuel combustion for motor vehicles and industrial sources. Sources include motor vehicles, electric utilities, and other sources that burn fuel.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Contributes to climate change and nutrient overloading, which deteriorates water quality. Causes brown discoloration of the atmosphere.
Ozone (O_3)	Formed by a chemical reaction between reactive organic gases (ROGs) and nitrogen oxides (NO_X) in the presence of sunlight. Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, gasoline storage and transport, solvents, paints, and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing, and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield. Damages rubber, some textiles and dyes.
Particulate Matter (PM_{10} and $PM_{2.5}$)	Produced by power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles, and other sources.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze).
Sulfur Dioxide (SO_2)	A colorless, nonflammable gas formed when fuel containing sulfur is burned, when gasoline is extracted from oil, or when metal is extracted from ore. Examples are petroleum refineries, cement manufacturing, metal processing facilities, locomotives, and ships.	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid, which can damage marble, iron, and steel. Damages crops and natural vegetation. Impairs visibility. Precursor to acid rain.

Pollutant	Major Man-Made Sources	Human Health Effects
Lead	Metallic element emitted from metal refineries, smelters, battery manufacturers, iron and steel producers, use of leaded fuels by racing and aircraft industries.	Anemia, high blood pressure, brain and kidney damage, neurological disorders, cancer, lowered IQ. Affects animals, plants, and aquatic ecosystems.

Source: CAPCOA 2021a

2.1.1.2 Toxic Air Contaminants

The Health and Safety Code (§39655, subd. (a).) defines a toxic air contaminant (TAC) as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." A substance that is listed as a hazardous air pollutant pursuant to subsection (b) of Section 112 of the Federal Clean Air Act (CAA) (42 United States Code Section 7412[b]) is a TAC. Under State law, the California Environmental Protection Agency (CalEPA), acting through CARB, is authorized to identify a substance as a TAC if it determines the substance is an air pollutant that may cause or contribute to an increase in mortality or an increase in serious illness, or that may pose a present or potential hazard to human health.

Diesel engines emit a complex mixture of air pollutants, including both gaseous and solid material. The solid material in diesel exhaust is referred to as diesel particulate matter (DPM). Almost all DPM is 10 microns or less in diameter, and 90 percent of DPM is less than 2.5 microns in diameter (CARB 2021a). Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung. In 1998, CARB identified DPM as a TAC based on published evidence of a relationship between diesel exhaust exposure and lung cancer and other adverse health effects. DPM has a notable effect on California's population—it is estimated that about 70 percent of total known cancer risk related to air toxics in California is attributable to DPM (CARB 2021a).

2.1.2 Federal Air Quality Regulations

2.1.2.1 Federal Clean Air Act

Air quality is defined by ambient air concentrations of specific pollutants identified by the USEPA to be of concern with respect to health and welfare of the general public. The USEPA is responsible for enforcing the CAA of 1970 and its 1977 and 1990 Amendments. The CAA required the USEPA to establish National Ambient Air Quality Standards (NAAQS), which identify concentrations of pollutants in the ambient air below which no adverse effects on the public health and welfare are anticipated. In response, the USEPA established both primary and secondary standards for several criteria pollutants. Table 2, *Ambient Air Quality Standards*, shows the federal and state ambient air quality standards for these pollutants.

Table 2
AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards	Federal Standards Primary[1]	Federal Standards Secondary[2]
O_3	1 Hour	0.09 ppm (180 µg/m^3)	–	–
	8 Hour	0.070 ppm (137 µg/m^3)	0.070 ppm (137 µg/m^3)	Same as Primary
PM_{10}	24 Hour	50 µg/m^3	150 µg/m^3	Same as Primary
	AAM	20 µg/m^3	–	Same as Primary
$PM_{2.5}$	24 Hour	–	35 µg/m^3	Same as Primary
	AAM	12 µg/m^3	12.0 µg/m^3	15.0 µg/m^3
CO	1 Hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	–
	8 Hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	–
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)	–	–
NO_2	1 Hour	0.18 ppm (339 µg/m^3)	0.100 ppm (188 µg/m^3)	–
	AAM	0.030 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)	Same as Primary
SO_2	1 Hour	0.25 ppm (655 µg/m^3)	0.075 ppm (196 µg/m^3)	–
	3 Hour	–	–	0.5 ppm (1,300 µg/m^3)
	24 Hour	0.04 ppm (105 µg/m^3)	–	–
Lead	30-day Avg.	1.5 µg/m^3	–	–
	Calendar Quarter	–	1.5 µg/m^3	Same as Primary
	Rolling 3-month Avg.	–	0.15 µg/m^3	Same as Primary
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per km – visibility ≥ 10 miles (0.07 per km – ≥30 miles for Lake Tahoe)	No Federal Standards	No Federal Standards
Sulfates	24 Hour	25 µg/m^3	No Federal Standards	No Federal Standards
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	No Federal Standards	No Federal Standards
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m^3)	No Federal Standards	No Federal Standards

Source: CARB 2016

[1] National Primary Standards: The levels of air quality necessary, within an adequate margin of safety, to protect the public health.

[2] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

O_3 = ozone; ppm: parts per million; µg/m^3 = micrograms per cubic meter; PM_{10} = particulate matter 10 microns or less in diameter; AAM = Annual Arithmetic Mean; $PM_{2.5}$ = fine particulate matter 2.5 microns or less in diameter; CO = carbon monoxide; mg/m^3 = milligrams per cubic meter; NO_2 = nitrogen dioxide; SO_2 = sulfur dioxide; km = kilometer; – = No Standard

The USEPA has classified air basins (or portions thereof) as being in "attainment," "nonattainment," "maintenance," or "unclassified" for each criteria air pollutant, based on whether or not the NAAQS have been achieved. Upon attainment of a standard for which an area was previously designated nonattainment, the area will be classified as a maintenance area. If an area is designated unclassified, it

is because inadequate air quality data were available as a basis for a nonattainment or attainment designation. The project site is located within the Riverside County portion of the SCAB and, as such, is in an area designated as a nonattainment area for certain pollutants that are regulated under the CAA. Table 3, *South Coast Air Basin Attainment Status*, lists the federal and state attainment status of the SCAB for the criteria pollutants. With respect to federal air quality standards, the USEPA classifies the SCAB as in attainment for PM_{10}, CO, NO_2, SO_2, and lead, and in nonattainment for 8-hour ozone and $PM_{2.5}$.

Table 3
SOUTH COAST AIR BASIN ATTAINMENT STATUS
(RIVERSIDE COUNTY PORTION)

Criteria Pollutant	Federal Designation	State Designation
Ozone (O_3) (1-hour)	(No federal standard)	Nonattainment
Ozone (O_3) (8-hour)	Extreme Nonattainment	Nonattainment
CO (Carbon Monoxide (CO)	Attainment (Maintenance)	Attainment
Respirable Particulate Matter (PM_{10})	Attainment (Maintenance)	Nonattainment
Fine Particulate Matter ($PM_{2.5}$)	Serious Nonattainment	Nonattainment
Nitrogen Dioxide (NO_2)	Attainment (Maintenance)	Attainment
Sulfur Dioxide (SO_2)	Unclassifiable/Attainment	Unclassifiable/Attainment
Lead	Attainment	Attainment
Sulfates	(No federal standard)	Attainment
Hydrogen Sulfide	(No federal standard)	Attainment
Visibility	(No federal standard)	Attainment

Source: SCAQMD 2016a

2.1.3 California Air Quality Regulations

2.1.3.1 California Clean Air Act

The federal CAA allows states to adopt ambient air quality standards and other regulations provided that they are at least as stringent as federal standards. CARB, a part of the CalEPA, is responsible for the coordination and administration of both federal and state air pollution control programs within California, including setting the California Ambient Air Quality Standards (CAAQS). CARB also conducts research, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

In addition to primary and secondary AAQS, the state has established a set of episode criteria for ozone, CO, NO_2, SO_2, and PM. These criteria refer to episode levels representing periods of short-term exposure to air pollutants that actually threaten public health. Table 3, above, lists the state attainment status of the SCAB for the criteria pollutants. Under state designation, the SCAB is currently in attainment for CO, NO_2, SO_2, and lead; and in nonattainment for ozone, PM_{10}, and $PM_{2.5}$.

2.1.3.2 State Implementation Plan

The CAA requires areas with unhealthy levels of ozone, inhalable particulate matter, carbon monoxide, nitrogen dioxide, and sulfur dioxide to develop plans, known as State Implementation Plans (SIPs). SIPs

are comprehensive plans that describe how an area will attain the NAAQS. The 1990 amendments to the CAA set deadlines for attainment based on the severity of an area's air pollution problem.

SIPs are not single documents—they are a compilation of new and previously submitted plans, programs (e.g., monitoring, modeling, permitting), district rules, state regulations and federal controls. Many of California's SIPs rely on a core set of control strategies, including emission standards for cars and heavy trucks, fuel regulations and limits on emissions from consumer products. State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB forwards the SIP revisions to the USEPA for approval and publication in the Federal Register. The Code of Federal Regulations (CFR) Title 40, Chapter I, Part 52, Subpart F, Section 52.220 lists all of the items that are included in the California SIP (CARB 2009). At any one time, several California submittals are pending USEPA approval.

2.1.3.3 California Energy Code

California Code of Regulations (CCR) Title 24 Part 6, California's Energy Efficiency Standards for Residential and Nonresidential Buildings, were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. Energy-efficient buildings require less electricity, natural gas, and other fuels. Electricity production from fossil fuels and on-site fuel combustion (typically for space and water heating) results primarily in GHG emissions. The California Energy Code is discussed in further detail in Section 2.2.4, below.

2.1.4 Local Regulations

2.1.4.1 South Coast Air Quality Management District

Air quality in the non-desert portion of Riverside County is regulated by the SCAQMD. As a regional agency, the SCAQMD works directly with the Southern California Association of Governments (SCAG), County transportation commissions, and local governments and cooperates actively with all federal and state government agencies. The SCAQMD develops rules and regulations; establishes permitting requirements for stationary sources; inspects emissions sources; and enforces such measures through educational programs or fines, when necessary.

Air Quality Management Plan

The SCAQMD is directly responsible for reducing emissions from stationary (area and point), mobile, and indirect sources. It has responded to this requirement by preparing a sequence of Air Quality Management Plans (AQMP).

On March 3, 2017, the SCAQMD adopted the 2016 AQMP, which is a regional and multi-agency effort (SCAQMD, CARB, SCAG, and USEPA). The 2016 AQMP represents a comprehensive analysis of emissions, meteorology, atmospheric chemistry, regional growth projections, and the impact of existing control measures. The plan seeks to achieve multiple goals in partnership with other entities promoting reductions in criteria pollutant, GHGs, and toxic risk, as well as efficiencies in energy use, transportation, and goods movement (SCAQMD 2017).

The AQMP, in combination with those from all other California nonattainment areas with serious (or worse) air quality problems, is submitted to CARB, which develops the California SIP. The SIP relies on the same information from SCAG to develop emission inventories and emission reduction strategies that

are included in the attainment demonstration for the air basin. The current federal and state attainment status for the SCAB is presented above, in Table 3.

Rules and Regulations

The following rules promulgated by the SCAQMD would be applicable to construction and/or operation of the project.

Rule 401 – Visible Emissions: Limits the allowable opacity of air contaminant emissions from any single source (SCAQMD 2001).

Rule 402 – Nuisance: Prohibits the discharge of air contaminants, including odors, which cause injury, detriment, nuisance, or annoyance to any considerable number of persons (SCAQMD 1976).

Rule 403 – Fugitive Dust: Requires actions to prevent, reduce or mitigate anthropogenic fugitive dust emissions, including emissions from construction activities. Project construction would be required to implement all applicable fugitive dust best available control measures specified in Table 1 in the rule (SCAQMD 2005).

Rule 1113 – Architectural Coating: Establishes VOC limits for architectural coatings (e.g., paints, stains, preservatives). Effective January 1, 2019, building interior and exterior paint is limited to a maximum VOC content of 50 grams per liter (SCAQMD 2016b).

Rule 2305 – Warehouse Indirect Source Rule: Requires owners and operators of warehouses with 100,000 SF or more of indoor floor space in a single building to directly reduce NO_X and PM emissions, or to otherwise facilitate emission and exposure reductions of these pollutants in nearby communities (SCAQMD 2021a).

2.2 GREENHOUSE GASES

2.2.1 Climate Change Overview

Global climate change refers to changes in average climatic conditions on Earth including temperature, wind patterns, precipitation, and storms. Global temperatures are moderated by atmospheric gases. These gases are commonly referred to as GHGs because they function like a greenhouse by letting sunlight in but preventing heat from escaping, thus warming the Earth's atmosphere.

GHGs are emitted by natural processes and human (anthropogenic) activities. Anthropogenic GHG emissions are primarily associated with: (1) the burning of fossil fuels during motorized transport, electricity generation, natural gas consumption, industrial activity, manufacturing, and other activities; (2) deforestation; (3) agricultural activity; and (4) solid waste decomposition.

The temperature record shows a decades-long trend of warming, with 2016 global surface temperatures ranking as the warmest year on record since 1880. The newest release in long-term warming trends announced 2020 ranked as tied with 2016 for the warmest year on record with an increase of 1.84 degrees Fahrenheit compared to the 1951-1980 average (National Aeronautics and Space Administration [NASA] 2021). GHG emissions from human activities are the most significant driver of observed climate change since the mid-20th century (United Nations Intergovernmental Panel on Climate Change [IPCC] 2013). The IPCC constructed several emission trajectories of GHGs needed to

stabilize global temperatures and climate change impacts. The statistical models show a "high confidence" that temperature increase caused by anthropogenic GHG emissions could be kept to less than two degrees Celsius relative to pre-industrial levels if atmospheric concentrations are stabilized at about 450 parts per million (ppm) carbon dioxide equivalent (Co_oke) by the year 2100 (IPCC 2014).

2.2.2 Types of Greenhouse Gases

The GHGs defined under California's AB 32 include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6).

Carbon Dioxide. CO_2 is the most important and common anthropogenic GHG. CO_2 is an odorless, colorless GHG. Natural sources include the decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungi; evaporation from oceans; and volcanic outgassing. Anthropogenic sources of CO_2 include burning fuels, such as coal, oil, natural gas, and wood. Data from ice cores indicate that CO_2 concentrations remained steady prior to the current period for approximately 10,000 years. The atmospheric CO_2 concentration in 2010 was 390 ppm, 39 percent above the concentration at the start of the Industrial Revolution (approximately 280 ppm in 1750). In February 2021, the CO_2 concentration was 416 ppm, a 48 percent increase since 1750 (National Oceanic and Atmospheric Administration [NOAA] 2021).

Methane. CH_4 is the main component of natural gas used in homes. A natural source of methane is from the decay of organic matter. Geological deposits known as natural gas fields contain methane, which is extracted for fuel. Other sources are from decay of organic material in landfills, fermentation of manure, and cattle digestion.

Nitrous Oxide. N_2O is produced by both natural and human-related sources. N_2O is emitted during agricultural and industrial activities, as well as during the combustion of fossil fuels and solid waste. Primary human-related sources of N_2O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic (fatty) acid production, and nitric acid production.

Hydrofluorocarbons. Fluorocarbons are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. Chlorofluorocarbons (CFCs) are nontoxic, nonflammable, insoluble, and chemically nonreactive in the troposphere (the level of air at Earth's surface). CFCs were first synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone; therefore, their production was stopped as required by the 1989 Montreal Protocol.

Sulfur Hexafluoride. SF_6 is an inorganic, odorless, colorless, nontoxic, nonflammable gas. SF_6 is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semi-conductor manufacturing, and as a tracer gas for leak detection.

GHGs have long atmospheric lifetimes that range from one year to several thousand years. Long atmospheric lifetimes allow for GHG emissions to disperse around the globe. Because GHG emissions vary widely in the power of their climatic effects, climate scientists have established a unit called global warming potential (GWP). The GWP of a gas is a measure of both potency and lifespan in the atmosphere as compared to CO_2. For example, a gas with a GWP of 10 is 10 times more potent than CO_2 over 100 years. CO_2e is a quantity that enables all GHG emissions to be considered as a group despite their varying GWP. The GWP of each GHG is multiplied by the prevalence of that gas to produce CO_2e.

Historically, GHG emission inventories have been calculated using the GWPs from the IPCC's Second Assessment Report (SAR). In 2007, IPCC updated the GWP values based on the latest science at the time in its Fourth Assessment Report (AR4). The updated GWPs in the IPCC AR4 have begun to be used in recent GHG emissions inventories. In 2013, IPCC again updated the GWP values based on the latest science in its Fifth Assessment Report (AR5) (IPCC 2013). However, United Nations Framework Convention on Climate Change (UNFCCC) reporting guidelines for national inventories require the use of GWP values from the AR4. To comply with international reporting standards under the UNFCCC, official emission estimates for California and the U.S. are reported using AR4 GWP values, and statewide and national GHG inventories have not yet updated their GWP values to the AR5 values. Project GHG emissions in this analysis are reported using the AR4 GWP values.

By applying the GWP ratios, project-related CO_2e emissions can be tabulated in metric tons per year. Typically, the GWP ratio corresponding to the warming potential of CO_2 over a 100-year period is used as a baseline. The atmospheric lifetime and GWP of selected GHGs are summarized in Table 4, *Global Warming Potentials and Atmospheric Lifetimes*.

Table 4
GLOBAL WARMING POTENTIALS AND ATMOSPHERIC LIFETIMES

Greenhouse Gas	Atmospheric Lifetime (years)	IPCC SAR GWP	IPCC AR4 GWP	IPCC AR5 GWP
Carbon Dioxide (CO_2)	50-200	1	1	1
Methane (CH_4)	12	21	25	28
Nitrous Oxide (N_2O)	114	310	298	265
HFC-134a	14	1,300	1,430	1,300
PFC: Tetraflouromethane (CF_4)	50,000	6,500	7,390	6,630
PFC: Hexafluoroethane (C_2F_6)	10,000	9,200	12,200	11,100
Sulfur Hexafluoride (SF_6)	3,200	23,900	22,800	23,500

Source: IPCC 2007
IPCC = Intergovernmental Panel on Climate Change; GWP = global warming potential; HFC = hydrofluorocarbon; PFC = perfluorocarbon

2.2.3 Federal Greenhouse Gas Regulations

2.2.3.1 Federal Clean Air Act

The U.S. Supreme Court ruled on April 2, 2007, in *Massachusetts v. U.S. Environmental Protection Agency* that CO_2 is an air pollutant, as defined under the CAA, and that the USEPA has the authority to regulate emissions of GHGs. The USEPA announced that GHGs (including CO_2, CH_4, N_2O, HFC, PFC, and SF_6) threaten the public health and welfare of the American people (USEPA 2021). This action was a prerequisite to finalizing the USEPA's GHG emissions standards for light-duty vehicles, which were jointly proposed by the USEPA and the United States Department of Transportation's National Highway Traffic Safety Administration (NHTSA).

On June 30, 2022, the U.S. Supreme Court decision published in *West Virginia v. U.S. Environmental Protection Agency* overturned the USEPA's Clean Power Plan rule which cited Section 111(d) of the CAA for authority to set limits on CO_2 emissions from existing coal- and natural-gas-fired power plants. The June 30, 2022 decision does not overturn the April 2, 2007 decision; however, it may limit the USEPA's authority to develop rules limiting GHG emissions without clear congressional authorization

2.2.3.2 Light-Duty Vehicle Greenhouse Gas Emissions Standards and Corporate Average Fuel Economy Standards

The USEPA and the NHTSA worked together on developing a national program of regulations to reduce GHG emissions and to improve fuel economy of light-duty vehicles. The USEPA established the first-ever national GHG emissions standards under the CAA, and the NHTSA established CAFE standards under the Energy Policy and Conservation Act. On April 1, 2010, the USEPA and NHTSA announced a joint Final Rulemaking that established standards for 2012 through 2016 model year vehicles. This was followed up on October 15, 2012, when the agencies issued a Final Rulemaking with standards for model years 2017 through 2025.

2.2.4 California Greenhouse Gas Regulations

2.2.4.1 California Code of Regulations, Title 24, Part 6

CCR Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. Energy-efficient buildings require less electricity, natural gas, and other fuels. Electricity production from fossil fuels and on-site fuel combustion (typically for space or water heating) results in GHG emissions.

The Title 24 standards are updated approximately every three years to allow consideration and possible incorporation of new energy efficiency technologies and methods. The 2019 Title 24 standards went into effect on January 1, 2020. The 2019 update to the Building Energy Efficiency Standards focuses on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings (California Energy Commission [CEC] 2019).

The standards are divided into three basic sets. First, there is a basic set of mandatory requirements that apply to all buildings. Second, there is a set of performance standards – the energy budgets – that vary by climate zone (of which there are 16 in California) and building type; thus, the standards are tailored to local conditions. Finally, the third set constitutes an alternative to the performance standards, which is a set of prescriptive packages that are basically a recipe or a checklist compliance approach.

2.2.4.2 California Green Building Standards Code

The California Green Building Standards Code (CALGreen; CCR Title 24, Part 11) is a code with mandatory requirements for all nonresidential buildings (including industrial buildings) and residential buildings for which no other state agency has authority to adopt green building standards. The current 2019 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings went into effect on January 1, 2020 (California Building Standards Commission [CBSC] 2019).

The development of CALGreen is intended to (1) cause a reduction in GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the Governor. In short, the code is established to reduce construction waste; make buildings more efficient in the use of materials and energy; and reduce environmental impact during and after construction.

CALGreen contains requirements for storm water control during construction; construction waste reduction; indoor water use reduction; material selection; natural resource conservation; site irrigation

conservation; and more. The code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The code also requires building commissioning, which is a process for the verification that all building systems, like heating and cooling equipment and lighting systems, are functioning at their maximum efficiency.

2.2.4.3 Executive Order S-3-05

On June 1, 2005, Executive Order (EO) S-3-05 proclaimed that California is vulnerable to climate change impacts. It declared that increased temperatures could reduce snowpack in the Sierra Nevada, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To avoid or reduce climate change impacts, EO S-3-05 calls for a reduction in GHG emissions to the year 2000 level by 2010, to year 1990 levels by 2020, and to 80 percent below 1990 levels by 2050.

2.2.4.4 Assembly Bill 32 – Global Warming Solution Act of 2006

The California Global Warming Solutions Act of 2006, widely known as AB 32, requires that CARB develop and enforce regulations for the reporting and verification of statewide GHG emissions. CARB is directed by AB 32 to set a GHG emission limit, based on 1990 levels, to be achieved by 2020. The bill requires CARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG emission reductions.

2.2.4.5 Executive Order B-30-15

On April 29, 2015, EO B-30-15 established a California GHG emission reduction target of 40 percent below 1990 levels by 2030. The EO aligns California's GHG emission reduction targets with those of leading international governments, including the 28 nation European Union. California is on track to meet or exceed the target of reducing GHGs emissions to 1990 levels by 2020, as established in AB 32. California's new emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the goal established by EO S-3-05 of reducing emissions 80 percent under 1990 levels by 2050.

2.2.4.6 Senate Bill 32

Senate Bill (SB) 32 (Amendments to the California Global Warming Solutions Action of 2006) extends California's GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include Section 38566, which contains language to authorize CARB to achieve a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. SB 32 codified the targets established by EO B-30-15 for 2030, which set the next interim step in the State's continuing efforts to pursue the long-term target expressed in EO B-30-15 of 80 percent below 1990 emissions levels by 2050.

2.2.4.7 Assembly Bill 197

A condition of approval for SB 32 was the passage of AB 197. AB 197 requires that CARB consider the social costs of GHG emissions and prioritize direct reductions in GHG emissions at mobile sources and large stationary sources. AB 197 also gives the California legislature more oversight over CARB through the addition of two legislatively appointed members to the CARB Board and the establishment a legislative committee to make recommendations about CARB programs to the legislature.

2.2.4.8 Assembly Bill 1493 – Vehicular Emissions of Greenhouse Gases

AB 1493 (Pavley) requires that CARB develop and adopt regulations that achieve "the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty truck and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the State." On September 24, 2009, CARB adopted amendments to the Pavley regulations that intend to reduce GHG emissions in new passenger vehicles from 2009 through 2016. The amendments bind California's enforcement of AB 1493 (starting in 2009), while providing vehicle manufacturers with new compliance flexibility. In January 2012, CARB approved a new emissions-control program for model years 2017 through 2025. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of zero-emission vehicles into a single packet of standards called Advanced Clean Cars (CARB 2021b).

2.2.4.9 Assembly Bill 341

The state legislature enacted AB 341 (California Public Resource Code Section 42649.2), increasing the diversion target to 75 percent statewide. AB 341 requires all businesses and public entities that generate 4 cubic yards or more of waste per week to have a recycling program in place. The final regulation was approved by the Office of Administrative Law on May 7, 2012 and went into effect on July 1, 2012.

2.2.4.10 Executive Order S-01-07

This EO, signed by Governor Schwarzenegger on January 18, 2007, directs that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by the year 2020. It orders that a Low Carbon Fuel Standard (LCFS) for transportation fuels be established for California and directs CARB to determine whether a LCFS can be adopted as a discrete early action measure pursuant to AB 32. CARB approved the LCFS as a discrete early action item with a regulation adopted and implemented in April 2010. Although challenged in 2011, the Ninth Circuit reversed the District Court's opinion and rejected arguments that implementing LCFS violates the interstate commerce clause in September 2013. CARB is therefore continuing to implement the LCFS statewide.

2.2.4.11 Senate Bill 350

Approved by Governor Brown on October 7, 2015, SB 350 increases California's renewable electricity procurement goal from 33 percent by 2020 to 50 percent by 2030. This will increase the use of Renewables Portfolio Standard eligible resources, including solar, wind, biomass, and geothermal. In addition, large utilities are required to develop and submit Integrated Resource Plans to detail how each entity will meet their customers resource needs, reduce GHG emissions, and increase the use of clean energy.

2.2.4.12 Senate Bill 375

SB 375, the Sustainable Communities and Climate Protection Act of 2008, supports the State's climate action goals to reduce GHG emissions through coordinated transportation and land use planning with the goal of more sustainable communities.

Under the Sustainable Communities Act, CARB sets regional targets for GHG emissions reductions from passenger vehicle use. In 2010, CARB established these targets for 2020 and 2035 for each region

covered by one of the State's metropolitan planning organizations (MPOs). CARB periodically reviews and updates the targets, as needed.

Each of California's MPOs must prepare a Sustainable Communities Strategy (SCS) as an integral part of its regional transportation plan (RTP). The SCS contains land use, housing, and transportation strategies that, if implemented, would allow the region to meet its GHG emission reduction targets. Once adopted by the MPO, the RTP/SCS guides the transportation policies and investments for the region. CARB must review the adopted SCS to confirm and accept the MPO's determination that the SCS, if implemented, would meet the regional GHG targets. If the combination of measures in the SCS would not meet the regional targets, the MPO must prepare a separate alternative planning strategy (APS) to meet the targets. The APS is not a part of the RTP. Qualified projects consistent with an approved SCS or Alternative Planning Strategy categorized as "transit priority projects" would receive incentives to streamline CEQA processing.

2.2.4.13 Senate Bill 100

Approved by Governor Brown on September 10, 2018, SB 100 extends the renewable electricity procurement goals and requirements of SB 350. SB 100 requires that all retail sale of electricity to California end-use customers be procured from 100 percent eligible renewable energy resources and zero-carbon resources by the end of 2045.

2.2.4.14 California Air Resources Board: Scoping Plan

On December 11, 2008, the CARB adopted the Scoping Plan (CARB 2008) as directed by AB 32. The Scoping Plan proposes a set of actions designed to reduce overall GHG emissions in California to the levels required by AB 32. Measures applicable to development projects include those related to energy-efficiency building and appliance standards, the use of renewable sources for electricity generation, regional transportation targets, and green building strategy. Relative to transportation, the Scoping Plan includes nine measures or recommended actions related to reducing VMT and vehicle GHGs through fuel and efficiency measures. These measures would be implemented statewide rather than on a project-by-project basis.

In response to EO B-30-15 and SB 32, all state agencies with jurisdiction over sources of GHG emissions were directed to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 targets. CARB was directed to update the Scoping Plan to reflect the 2030 target and, therefore, is moving forward with the update process (CARB 2014). The mid-term target is critical to help frame the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure needed to continue driving down emissions. CARB is moving forward with a second update to the Scoping Plan to reflect the 2030 target set by EO B-30-15 and codified by SB 32. The 2017 Climate Change Scoping Plan Update, Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target, was adopted in December 2017. The Scoping Plan Update establishes a proposed framework for California to meet a 40 percent reduction in GHGs by 2030 compared to 1990 levels (CARB 2017).

2.2.5 Regional GHG Policies and Plans

2.2.5.1 Southern California Association of Governments

SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties, and addresses regional issues relating to transportation, the economy, community

development and the environment. SCAG coordinates with various air quality and transportation stakeholders in Southern California to ensure compliance with the federal and state air quality requirements. Pursuant to California Health and Safety Code Section 40460, SCAG has the responsibility of preparing and approving the portions of the AQMP relating to the regional demographic projections and integrated regional land use, housing, employment, and transportation programs, measures, and strategies. SCAG is required by law to ensure that transportation activities "conform" to, and are supportive of, the goals of regional and state air quality plans to attain the NAAQS. The RTP/SCS includes transportation programs, measures, and strategies generally designed to reduce vehicle miles traveled (VMT), which are contained in the AQMP. The SCAQMD combines its portion of the AQMP with those prepared by SCAG. The RTP/SCS and Transportation Control Measures, included as Appendix IV-C of the 2016 AQMP for the Air Basin, are based on SCAG's 2016-2040 RTP/SCS.

2.2.5.2 Western Riverside Council of Governments

In September 2014, the Western Riverside Council of Governments (WRCOG) completed the Subregional Climate Action Plan (Subregional CAP). The Subregional CAP is a joint effort by twelve cities in the subregion which establishes emissions reduction targets, emissions reduction measures, and action steps to assist each community to demonstrate consistency AB 32 (WRCOG 2014). The City was a participating agency in developing the Subregional CAP and has adopted a local CAP based on the Subregional CAP (see below).

2.2.5.3 City of Perris

The City of Perris Climate Action Plan (CAP) was adopted by the City Council on February 23, 2016. The CAP was developed to address global climate change through the reduction of GHG emissions at the community level, and as part of California's mandated statewide GHG emissions reduction goals under AB 32. The CAP, including the GHG inventories and forecasts contained within, is based on the Subregional CAP. The City CAP utilized the analyses in the Subregional CAP of existing GHG reduction programs and policies that have already been implemented in the subregion and applicable best practices from other regions to assist in meeting the 2020 subregional reduction target. The CAP contains community wide GHG emissions reduction targets of 15 percent below 2010 levels by 2020, and 47.5 percent below 2010 levels by 2035 (City 2016).

3.0 EXISTING CONDITIONS

The project site is generally characterized as disturbed vacant land that was previously used for agricultural purposes. The project site is generally flat with an elevation between 1,450 and 1,460 feet above mean sea level (amsl). The southern portion of the project site includes a surface-level drainage swale that is owned and maintained by the Riverside County Flood Control and Water Conservation District and runs in an east-west direction. Surrounding land uses include: three single family residences (on parcels with commercial and industrial land use designations), undeveloped area, and commercial development (beyond and undeveloped area to the north; a retail gasoline station abutting the project site to the east; commercial development and undeveloped land to the east across Perris Boulevard; commercial development with residential areas beyond to the southeast across Ramona Expressway and Perris Boulevard; industrial development (beyond undeveloped areas) to the south across Ramona Expressway; industrial development to the southwest (beyond retention basins) across Ramona Expressway and Indian Avenue; and undeveloped land to the east across Indian Avenue. See Figure 2.

3.1 CLIMATE AND METEOROLOGY

The project site is in the SCAB, which consists of all or part of four counties: Los Angeles, San Bernardino, Riverside, and Orange. The distinctive climate of the SCAB is determined by its terrain and geographic location. The SCAB is a coastal plain with connecting broad valleys and low hills. It is bound by the Pacific Ocean to the southwest and high mountains around the rest of its perimeter. The general region lies in the semi-permanent high-pressure zone of the eastern Pacific, resulting in a mild climate tempered by cool sea breezes with light, average wind speeds.

The usually mild climatological pattern is interrupted occasionally by periods of extremely hot weather, winter storms, or Santa Ana winds. Winds in the project area are usually driven by the dominant land/ sea breeze circulation system. Regional wind patterns are dominated by daytime onshore sea breezes. At night, the wind generally slows and reverses direction traveling toward the sea. Local canyons can also alter wind direction, with wind tending to flow parallel to the canyons. The vertical dispersion of air pollutants in the SCAB is hampered by the presence of persistent temperature inversions. High pressure systems, such as the semi-permanent high-pressure zone in which the SCAB is located, are characterized by an upper layer of dry air that warms as it descends, restricting the mobility of cooler marine-influenced air near the ground surface, and resulting in the formation of subsidence inversions. Such inversions restrict the vertical dispersion of air pollutants released into the marine layer and, together with strong sunlight, can produce worst-case conditions for the formation of photochemical smog. The basin-wide occurrence of inversions at 3,500 feet above mean sea level or less averages 191 days per year (SCAQMD 1993).

The predominant wind direction in the vicinity of the project site is from the northwest and the average wind speed is approximately 4.9 mph, as measured at the March Air Force Base, approximately 3 miles northwest of the project site (Iowa Environmental Mesonet [IEM] 2021). The annual average maximum temperature in the project area, as measured at the Riverside Fire Station 3 climatic station, approximately 13.5 miles northwest of the project site, is approximately 79.5 degrees Fahrenheit (°F), and the annual average minimum temperature is approximately 48.6°F. Total precipitation in the project area averages approximately 10.2 inches annually. Precipitation occurs mostly during the winter and relatively infrequently during the summer (Western Regional Climate Center [WRCC] 2017).

3.2 SENSITIVE RECEPTORS

CARB and the Office of Environmental Health Hazard Assessment (OEHHA) have identified the following groups of individuals as the most likely to be affected by air pollution: adults over 65, children under 14, infants (including in utero in the third trimester of pregnancy), and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis (CARB 2005; OEHHA 2015). Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved and are referred to as sensitive receptor locations. Examples of these sensitive receptor locations are residences, schools, hospitals, and daycare centers. For health risk assessments, the health impacts are analyzed for individual residents assumed to be standing in their primary outdoor spaces closest to the source of TACs, for students assumed to be standing outside of the school buildings or in outdoor recreation areas closest to the source of TACs, and for individual off-site workers assumed to be standing outside of a commercial or industrial building.

The closest existing sensitive receptor locations to the project site are located at three single-family residences on parcels abutting the project site to the north. Even though these parcels are not zoned for

residential uses, they are still considered locations where sensitive receptors may be located for extended periods. There are reports that the closest single-family residence to the project site (adjacent to the project northwest corner) has been demolished. However, persons may still be residing at this location in recreational vehicles. To be conservative (health protective) in this analysis, this location is considered a residential site and a sensitive receptor location. Additional residential sensitive receptors are located southeast of the project site, across Ramona Expressway and North Perris Boulevard, behind a row of commercial buildings.

3.3 EXISTING AIR QUALITY

3.3.1 Criteria Pollutants

3.3.1.1 Attainment Designations

Attainment designations are discussed in Section 2.1 and Table 2. The SCAB is a federal and state nonattainment area for 8-hour ozone and $PM_{2.5}$. The SCAB is also a state nonattainment area for 1-hour ozone and PM_{10}.

3.3.1.2 Monitored Air Quality

The SCAQMD maintains monitoring stations to measure ambient concentrations of pollutants in the SCAB. The nearest monitoring station, approximately 4 miles south project site, is the Perris monitoring station. The closest monitoring station with data for $PM_{2.5}$ and NO_2 is the Riverside-Rubidoux monitoring station, approximately 15 miles northwest of the project site. Table 5, *Air Quality Monitoring Data*, presents a summary of the ambient pollutant concentrations monitored at the two air quality monitoring stations during the most recent three years (2018 through 2020) for which the SCAQMD has reported data.

Table 5
AIR QUALITY MONITORING DATA

Pollutant Standard	2018	2019	2020
Ozone (O_3) – Perris Station			
Maximum concentration 1-hour period (ppm)	0.117	0.118	0.125
Maximum concentration 8-hour period (ppm)	0.103	0.095	0.106
Days above 1-hour state standard (>0.09 ppm)	31	28	34
Days above 8-hour state/federal standard (>0.070 ppm)	67	64	74
Coarse Particulate Matter (PM_{10}) – Perris Station			
Maximum 24-hour concentration (µg/m^3)	64.4	97.0	92.3
Measured Days above 24-hr state standard (>50 µg/m^3)	2	4	6
Measured Days above 24-hr federal standard (>150 µg/m^3)	0	0	0
Annual average (µg/m^3)	28.9	24.4	*
Exceed state annual standard (20 µg/m^3)	Yes	Yes	*
Fine Particulate Matter ($PM_{2.5}$) – Riverside-Rubidoux Station			
Maximum 24-hour concentration (µg/m^3)	66.3	55.7	59.9
Measured Days above 24-hour federal standard (>35 µg/m^3)	3	5	12
Annual average (µg/m^3)	12.6	11.2	14.1
Exceed state and federal annual standard (12 µg/m^3)	Yes	No	Yes

Pollutant Standard	2018	2019	2020
Nitrogen Dioxide (NO_2) – Riverside-Rubidoux Station			
Maximum 1-hour concentration (ppm)	0.055	0.056	0.062
Days above state 1-hour standard (0.18 ppm)	0	0	0
Days above federal 1-hour standard (0.100 ppm)	0	0	0
Annual average (ppm)	0.014	0.014	0.014
Exceed annual federal standard (0.053 ppm)	No	No	No
Exceed annual state standard (0.030 ppm)	No	No	No

Source: CARB 2021c
ppb = parts per billion; ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter, * = insufficient data available.

As shown in Table 5, the 1- and 8-hour ozone, PM_{10}, and $PM_{2.5}$ standards were exceeded numerous times in each of the sample years. Data for NO_2 showed no exceedances.

3.3.2 Greenhouse Gases

In 2014, total GHG emissions worldwide were estimated at 48,892 million metric tons (MMT) of CO_2e emissions (World Resource Institute [WRI] 2020). The U.S. contributed the second largest portion (13 percent) of global GHG emissions in 2014. The total U.S. GHG emissions was 6,319 MMT CO_2e in 2019, of which 82 percent was CO_2 emission (WRI 2020). On a national level, approximately 27 percent of GHG emissions were associated with transportation and about 38 percent were associated with electricity generation (WRI 2020).

CARB performed statewide inventories for the years 1990 to 2019, as shown in Table 6, *California Greenhouse Gas Emissions by Sector*. The inventory is divided into five broad sectors of economic activity: agriculture, commercial and residential, electricity generation, industrial, and transportation. Emissions are quantified in MMT CO_2e.

Table 6
CALIFORNIA GREENHOUSE GAS EMISSIONS BY SECTOR

Sector	Emissions (MMT CO_2e) 1990	Emissions (MMT CO_2e) 2000	Emissions (MMT CO_2e) 2010	Emissions (MMT CO_2e) 2019
Agriculture and Forestry	18.9 (4%)	31.0 (7%)	33.7 (8%)	31.8 (8%)
Commercial and Residential	44.1 (10%)	45.8 (10%)	52.2 (12%)	43.8 (10%)
Electricity Generation	110.5 (26%)	105.4 (22%)	90.6 (20%)	58.8 (14%)
Industrial	105.3 (24%)	105.8 (22%)	101.8 (23%)	88.2 (21%)
Transportation	150.6 (35%)	183.2 (39%)	170.2 (38%)	166.1 (40%)
Unspecified Remaining	1.3 (<1%)	0.0 (0%)	0.0 (0%)	29.5 (7%)
Total	**430.7**	**471.1**	**448.5**	**418.2**

Source: CARB 2007 and CARB 2021d
MMT = million metric tons; CO_2e = carbon dioxide equivalent

As shown in Table 6, statewide GHG source emissions totaled 431 MMT CO_2e in 1990, 471 MMT CO_2e in 2000, 449 MMT CO_2e in 2010, and 418 MMT CO_2e in 2019. Transportation-related emissions consistently contribute the most GHG emissions, followed by electricity generation and industrial emissions (CARB 2007 and CARB 2021d).

A community GHG emissions inventory was prepared as part of the Subregional CAP and used in the City CAP. The 2010 emissions inventory for the community is shown below in Table 7, *Perris Greenhouse Gas Emissions by Sector*. The sectors included in this inventory are somewhat different from those in the statewide inventory. Similar to the statewide emissions, transportation related GHG emissions contributed the most in Perris with 60 percent of the total.

Table 7
PERRIS GREENHOUSE GAS EMISSIONS BY SECTOR (MT CO_2E)

Sector	2010
Residential	73,879 (19.5%)
Commercial/Industrial	57,528 (15.2%)
Transportation	228,578 (60.5%)
Solid Waste and other	18,114 (4.8%)
Total	**378,099**

Source: City 2016
MT = metric tons; CO_2e = carbon dioxide equivalent

4.0 METHODOLOGY AND SIGNIFICANCE CRITERIA

4.1 METHODOLOGY

Criteria pollutant and GHG emissions were calculated using the California Emissions Estimator Model (CalEEMod), Version 2020.4.0 CalEEMod is a computer model used to estimate air emissions resulting from land development projects throughout the state of California. CalEEMod was developed by CAPCOA in collaboration with the California air quality management and pollution control districts, primarily the SCAQMD. The calculation methodology, source of emission factors used, and default data is described in the CalEEMod User's Guide, and Appendices A, D, and E (CAPCOA 2021b).

In brief, CalEEMod is a computer model that estimates criteria air pollutant and greenhouse gas emissions from mobile (i.e., vehicular) sources, area sources (fireplaces, woodstoves, and landscape maintenance equipment), energy use (electricity and natural gas used in space heating, ventilation, and cooling; lighting; and plug-in appliances), water use and wastewater generation, and solid waste disposal. Emissions are estimated based on land use information input to the model by the user.

In the first module, the user defines the specific land uses that will occur at the project site. The user also selects the appropriate land use setting (urban or rural), operational year, location, climate zone, and utility provider. The input land uses, size features, and population are used throughout CalEEMod in determining default parameters and calculations in each of the subsequent modules. The input land use information consists of land use subtypes (such as the residential subtypes of single-family residential and multi-family medium-rise residential) and their unit or square footage quantities.

Subsequent modules include construction (including off-road vehicle emissions), mobile (on-road vehicle emissions), area sources (architectural coatings [painting], consumer products [cleansers, aerosols, solvents]), water and wastewater, and solid waste. Each module comprises multiple components including an associated mitigation module to account for further reductions in the reported baseline calculations. Other inputs include trip generation rates, trip lengths, vehicle fleet mix (percentage autos,

trucks, etc.), trip distribution (percent work to home, etc.), duration of construction phases, construction equipment usage, grading areas, season, and ambient temperature, as well as other parameters.

In various places the user can input additional information and/or override the default assumptions to account for project- or location-specific parameters. For this assessment, the default parameters were not changed unless otherwise noted. The CalEEMod output files are included in Appendix A to this report.

4.1.1 Construction Emissions

CalEEMod has the capability to calculate reductions in construction emissions from the effects of dust control, diesel-engine classifications, and other selected emissions reduction measures. In compliance with SCAQMD Rule 403, fugitive dust emissions calculations assume application of water on exposed surface a minimum of two times per day. Based on CalEEMod, Version 2020.4.0 defaults, the control efficiency for watering two times per day is 55 percent.

CalEEMod estimates construction emissions for each year of construction activity based on the annual construction equipment profile and other factors determined as needed to complete all phases of construction by the target completion year. As such, each year of construction activity has varying quantities of GHG emissions. Per SCAQMD guidance, total construction GHG emissions resulting from the project are amortized over 30 years (the anticipated period before the project building would require replacement or significant renovation) and added to operational GHG emissions.

4.1.1.1 Construction Activities

Construction emissions were estimated based on the timeline provided by the project applicant, which assumes construction would commence with site preparation in October 2022. Construction of Line E is anticipated to start concurrent with grading and finish concurrent with the first two months of building construction. Line E construction is included in the underground utilities activity. Architectural coatings (e.g., painting) for the hotel are assumed to occur concurrent with the last two months of building construction. The quantity, duration, and intensity of construction activity influence the amount of construction emissions and related pollutant concentrations that occur at any one time. As such, the emission forecasts provided herein reflect a specific set of conservative assumptions based on the expected construction scenario wherein a relatively large amount of construction activity is occurring in a relatively intensive manner. Because of this conservative assumption, actual emissions could be less than those forecasted. If construction is delayed or occurs over a longer time period, emissions could be reduced because of: (1) a more modern and cleaner-burning construction equipment fleet mix than assumed in CalEEMod; and/or (2) a less intensive buildout schedule (i.e., fewer daily emissions occurring over a longer time interval).

Construction activities for Phase 1 would include site preparation, grading, installation of underground utilities and Line E, building construction, paving internal streets, and architectural coatings. Construction activities for Phase 2 would include site preparation, grading, building construction, architectural coatings, and paving. Off-site improvements to city streets in the project vicinity are included in the grading and paving activities. Construction is assumed to occur five days per week with equipment operating up to eight hours per day. The construction schedule assumed in the modeling is shown in Table 8, *Anticipated Construction Schedule*.

Table 8
ANTICIPATED CONSTRUCTION SCHEDULE

Construction Activity	Construction Period Start	Construction Period End	Number of Working Days
Phase 1 Site Preparation	10/1/2022	10/14/2022	10
Phase 1 Grading	10/15/2022	11/14/2022	21
Phase 1 Underground Utilities/Line E	10/15/2022	2/14/2023	87
Phase 1 Building Construction	12/12/2022	2/2/2024	300
Phase 1 Paving	2/3/2024	3/1/2024	20
Phase 1 Architectural Coatings	3/2/2024	3/29/2024	20
Phase 2 Site Preparation	7/1/2024	7/2/2024	2
Phase 2 Grading	7/3/2024	7/8/2024	4
Phase 2 Building Construction	7/9/2024	4/14/2025	200
Phase 2 Architectural Coatings	2/15/2025	4/14/2025	41
Phase 2 Paving	4/15/2025	4/28/2025	10

Source: JM Realty; CalEEMod (complete data is provided in Appendix A)

4.1.1.2 Construction Off-Road Equipment

Construction would require the use of heavy off-road equipment. Construction equipment estimates for other activities estimates are based on default values in CalEEMod, with additional equipment added for excavation for underground utilities (based on assumptions used for similar projects). Table 9, *Construction Equipment Assumptions*, presents a summary of the assumed equipment that would be involved in each stage of construction.

Table 9
CONSTRUCTION EQUIPMENT ASSUMPTIONS

Equipment	Horsepower	Number	Hours/Day
Phase 1 Site Preparation			
Rubber Tired Dozers	247	3	8
Tractors/Loaders/Backhoes	97	4	8
Water Trucks	402	1	8
Phase 1 Grading			
Excavators	158	2	8
Graders	187	1	8
Rubber Tired Dozers	247	1	8
Scrapers	367	2	8
Tractors/Loaders/Backhoes	97	2	8
Phase 1 Underground Utilities/Line E			
Cranes	231	1	2
Excavators	158	1	8
Rubber Tired Loaders	203	1	8
Tractors/Loaders/Backhoes	97	1	1
Water Trucks	402	1	8

Equipment	Horsepower	Number	Hours/Day
Phase 1 Building Construction			
Cranes	231	1	7
Forklifts	89	3	8
Generator Sets	84	1	8
Tractors/Loaders/Backhoes	97	3	7
Welders	46	1	8
Water Trucks	402	1	8
Phase 1 Architectural Coating			
Air Compressors	78	1	6
Phase 1 Paving			
Pavers	130	2	8
Paving Equipment	132	2	8
Rollers	80	2	8
Phase 2 Site Preparation			
Graders	187	1	8
Rubber Tired Dozers	247	1	8
Tractors/Loaders/Backhoes	97	1	8
Water Trucks	402	1	4
Phase 2 Grading			
Graders	187	1	8
Rubber Tired Dozers	247	1	8
Tractors/Loaders/Backhoes	97	2	7
Water Trucks	402	1	4
Phase 2 Building Construction			
Cranes	231	1	6
Forklifts	89	1	6
Generator Sets	84	1	8
Tractors/Loaders/Backhoes	97	1	6
Welders	46	3	8
Water Trucks	402	1	4
Phase 2 Architectural Coating			
Air Compressors	78	1	6
Phase 2 Paving			
Cement and Mortar Mixers	9	1	6
Pavers	130	1	6
Paving Equipment	132	1	8
Rollers	80	1	7
Tractors/Loaders/Backhoes	97	1	8

Source: CalEEMod (complete data is provided in Appendix A)

4.1.1.3 Construction On-Road Trips

Worker commute trips and vendor delivery trips were modeled based on CalEEMod defaults. Worker trips are anticipated to vary between 15 and 209 trips per day, depending on construction activity. Vendor delivery trips would be 82 per day during building construction. Based on the model default of 16 CY per load, import of soil would require 990 loads (1,980 trips). Based on the paved areas shown on the site plan, approximately 310 loads (620 trips) of aggregate/asphalt would be imported to the project site during Phase 1 paving and 43 loads (86 trips) of aggregate/asphalt would be imported to the project

site during Phase 2 paving. The CalEEMod default worker, vendor and haul trip distances were used in the model.

4.1.2 Operation Emissions

Operational impacts were estimated using CalEEMod. Operational sources of emissions include area, energy, transportation, water use, and solid waste. Per the project applicant, all warehouse space was modeled in CalEEMod with a land use of Unrefrigerated Warehouse – No Railroad. Operational emissions are calculated for the earliest anticipated full year of operation: 2025 for Phase 1 and 2026 for Phase 2.

4.1.2.1 Area Source Emissions

Area sources include emissions from landscaping equipment, the use of consumer products, the reapplication of architectural coatings for maintenance, and hearths. Emissions associated with area sources were estimated using the CalEEMod default values and SCAQMD Rule 1113 architectural coatings VOC limits.

4.1.2.2 Energy Emissions

Development within the project would use electricity for lighting, heating, and cooling. Direct emissions from the burning of natural gas may result from furnaces, hot water heaters, and appliances. Electricity generation typically entails the combustion of fossil fuels, including natural gas and coal, which is then transmitted to end users. A building's electricity use is thus associated with the off-site or indirect emission of GHGs at the source of electricity generation (power plant). The project's energy use was modeled using CalEEMod defaults.

The project would include electric vehicle (EV) charging infrastructure. Including EV infrastructure in a development project is generally accepted as a GHG reduction measure. Adding EV charging infrastructure to a development project would not result in increased GHG emissions in the region. Without the project including EV infrastructure, EV owners would either charge their vehicles somewhere else, resulting in similar electricity use, or they would choose to use conventional vehicles, resulting in higher GHG emissions. Therefore, project electricity use for EV charging is not included in this analysis.

4.1.2.3 Vehicular (Mobile) Sources

Operational emissions from mobile source emissions are associated with project-related vehicle trip generation and trip length. Based on the trip generation rate from the Traffic Analysis prepared for the project, the light industrial building in Phase 1 would generate 402 average daily trips (260 passenger car trips and 142 truck trips; Urban Crossroads 2022a). Passenger car trip purposes and distances were modeled using CalEEMod defaults. The Traffic Analysis reported that project truck trips would consist of 24 two-axle trucks, 30 three-axle trucks, and 88 four or more axle trucks (142 total truck ADT; Urban Crossroads 2022a). Two-axle trucks were assumed to be light-heavy duty (LHDT2; 10,000 to 14,000 pounds gross vehicle weight [GVW]). Three-axle trucks were assumed to be medium-heavy duty (MHDT; 14,000 to 33,000 GVR). Four or more axle trucks were assumed to be heavy-heavy duty (HHDT; greater than 33,000 GVR). The fleet mix for project truck trips was set in CalEEMod to match the Traffic Analysis truck mix. All truck trips were assumed to be primary (no diverted or pass-by trip reductions). Truck trip distances were modeled using the SCAQMD recommended distance of 40 miles for warehouse projects,

assuming that only the local portion of each trip (local delivery or highway access) would result in new VMT to the region (SCAQMD 2021b). The hotel envisioned for Phase 2 would generate approximately 1,000 ADT (Urban Crossroads 2022a).

4.1.2.4 Solid Waste Sources

The disposal of solid waste produces GHG emissions from anaerobic decomposition in landfills, incineration, and transportation of waste. CalEEMod determines the GHG emissions associated with disposal of solid waste into landfills. Portions of these emissions are biogenic. CalEEMod methods for quantifying GHG emissions from solid waste are based on the IPCC method using the degradable organic content of waste. A conservative 25 percent solid waste diversion rate was applied in CalEEMod to account for mandatory compliance with AB 341 which is not included in the model defaults.

4.1.2.5 Water Sources

Water-related GHG emissions are from the conveyance and treatment of water. CalEEMod uses the CEC's 2006 *Refining Estimates of Water-Related Energy Use in California* to establish default water-related emission factors. Modeling was conducted using these defaults and a 20 percent reduction in potable water use and wastewater generation in accordance with 2019 CALGreen requirements not accounted for in the model defaults.

4.1.3 Localized Significance Threshold Methodology

As part of the SCAQMD's environmental justice program, more attention has been focused on localized air quality effects. Also, while regional impact analysis is based on attaining or maintaining regional emissions standards, localized impact analysis compares the concentration of a pollutant at a receptor site to a health-based standard.

SCAQMD has developed a localized significance threshold (LST) methodology and mass rate look-up tables by source receptor area (SRA) that can be used by public agencies to determine whether a project may generate significant adverse localized air quality impacts. LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard; they are developed based on the ambient concentrations of that pollutant for each SRA (SCAQMD 2009). The LST methodology translates the concentration standards into emissions thresholds that are a function of project site area, source to receptor distance, and the location within the SCAB. The LST methodology is recommended to be limited to projects of 5 acres or less and to avoid the need for complex dispersion modeling. For projects that exceed 5 acres, such as the proposed project, the 5-acre LST look-up values can be used as a screening tool to determine which pollutants require detailed analysis. This approach is conservative as it assumes that all on-site emissions would occur within a 5-acre area and over-predicts potential localized impacts (i.e., more pollutant emissions occurring within a smaller area and within closer proximity to potential sensitive receptors). If a project exceeds the LST look up values, then the SCAQMD recommends that project-specific localized air quality modeling be performed.

The proposed project is within SRA 24, Perris Valley. The closest sensitive receptor is a single-family residence adjacent to the northwest corner of the project site. Therefore, the LSTs in SRA 24 for project sites of 5 acres with receptors located within 82 feet (25 meters) are used in this analysis.

4.2 SIGNIFICANCE CRITERIA

4.2.1 Air Quality

Thresholds used to evaluate potential air quality and odor impacts are based on applicable criteria in the State's California Environmental Quality Act (CEQA) Guidelines Appendix G. A significant air quality and/or odor impact could occur if the implementation of the proposed project would:

1. Conflict with or obstruct implementation of the SCAQMD Air Quality Management Plan, or applicable portions of the SIP; or

2. Result in a cumulatively considerable net increase of any criteria pollutant for which the SCAB is non-attainment under an applicable NAAQS or CAAQS; or

3. Expose sensitive receptors to substantial pollutant concentrations; or

4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Appendix G of the State CEQA Guidelines states that the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the above determinations. The SCAQMD has established significance thresholds to assess the regional and localized impacts of project-related air pollutant emissions. The significance thresholds are updated, as needed, to appropriately represent the most current technical information and attainment status in the SCAB. Table 10, *SCAQMD Thresholds of Significance*, presents the most current significance thresholds, including regional daily thresholds for short-term construction and long-term operational emissions; maximum incremental cancer risk and hazard indices for TACs; and maximum ambient concentrations for exposure of sensitive receptors to localized pollutants. A project with daily emission rates, risk values, or concentrations below these thresholds is generally considered to have a less than significant effect on air quality.

Table 10
SCAQMD THRESHOLDS OF SIGNIFICANCE

Pollutant	Construction	Operation
Mass Daily Thresholds (pounds per day)		
VOC	75	55
NO_X	100	55
CO	550	550
PM_{10}	150	150
$PM_{2.5}$	55	55
SO_X	150	150
Lead	3	3
Toxic Air Contaminants		
TACs	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic & Acute Hazard Index ≥ 1.0 (project increment)	

Ambient Air Quality for Criteria Pollutants	
NO_2	1-hour average ≥ 0.18 ppm Annual average ≥ 0.03 ppm
CO	1-hour average ≥ 20.0 ppm (state) 8-hour average ≥ 9.0 ppm (state/federal)
PM_{10}	24-hour average ≥ 10.4 µg/m^3 (construction) 24-hour average ≥ 2.5 µg/m^3 (operation) Annual average ≥ 1.0 µg/m^3
$PM_{2.5}$	24-hour average ≥ 10.4 µg/m^3 (construction) 24-hour average ≥ 2.5 µg/m^3 (operation)
SO_2	1-hour average ≥ 0.075 ppm 24-hour average ≥ 0.04 ppm

Source: SCAQMD 2019
lbs/day = pounds per day; VOC = volatile organic compound; NO_X = nitrogen oxides; CO = carbon monoxide; PM_{10} = respirable particulate matter with a diameter of 10 microns or less; $PM_{2.5}$ = fine particulate matter with a diameter of 2.5 microns or less; SO_X = sulfur oxides; TACs = toxic air contaminants; GHG = greenhouse gas emissions; MT/yr = metric tons per year; CO_2e = carbon dioxide equivalent; NO_2 = nitrogen dioxide; ppm = parts per million; µg/m^3 = micrograms per cubic meter

4.2.2 Greenhouse Gases

Given the relatively small levels of emissions generated by a typical development in relationship to the total amount of GHG emissions generated on a national or global basis, individual development projects are not expected to result in significant, direct impacts with respect to climate change. However, given the magnitude of the impact of GHG emissions on the global climate, GHG emissions from new development could result in significant, cumulative impacts with respect to climate change. Therefore, the potential for a significant GHG impact is limited to cumulative impacts.

According to Appendix G of the CEQA Guidelines, a project would have a significant environmental impact if it would:

(1) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or

(2) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

The determination of significance is governed by CEQA Guidelines 15064.4, entitled "Determining the Significance of Impacts from Greenhouse Gas Emissions." CEQA Guidelines Section 15064.4(a) states, "[t]he determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in Section 15064. A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to … [use a quantitative model or qualitative model]" (emphasis added). In turn, CEQA Guidelines Section 15064.4(b) clarifies that a lead agency should consider "Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project." Therefore, consistent with CEQA Guidelines Section 15064.4, the GHG analysis for the project appropriately relies upon a threshold based on the exercise of careful judgement and believed to be appropriate in the context of this particular project.

On December 5, 2008, the SCAQMD Governing Board adopted their Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans for projects where the SCAQMD is the lead agency. The SCAQMD's interim GHG significance threshold uses a tiered approach to determining significance. Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA. Tier 2 consists of determining whether or not the project is consistent with a GHG reduction plan that may be part of a local general plan, for example. Tier 3 establishes a screening significance threshold level to determine significance using a 90 percent emission capture rate approach, which corresponds to 10,000 MT CO_2e emissions per year for stationary sources at industrial facilities. Tier 4, to be based on performance standards, is yet to be developed. Under Tier 5 the project proponent would allow offsets to reduce GHG emission impacts to less than the proposed screening level.

The SCAQMD has continued to consider adoption of significance thresholds for residential and general development projects. The most recent proposal issued in September 2010 uses the following tiered approach to evaluate potential GHG impacts from various uses. Under option 1, separate screening thresholds are proposed for residential projects (3,500 MT CO_2e/year), commercial projects (1,400 MT CO_2e/year), and mixed-use projects (3,000 MT CO_2e/year). Under option 2 a single numerical screening threshold of 3,000 MT CO_2e/year would be used for all non-industrial projects. These thresholds have not been adopted by the SCAQMD or distributed for widespread public review and comment, and the working group tasked with developing the thresholds has not met since September 2010. The future schedule and likelihood of threshold adoption is uncertain.

If the CARB adopts statewide significance thresholds, SCAQMD staff plans to report back to the SCAQMD Governing Board regarding any recommended changes or additions to the SCAQMD's interim threshold.

As the City does not currently have any approved quantitative thresholds related to GHG emissions, the quantitative analysis provided herein relies upon the SCAQMD adopted screening threshold for industrial facility projects of 10,000 MT CO_2e (SCAQMD 2008). Although the proposed project includes both an industrial use as well as a commercial use, it is not considered to be a mixed-use project, which is generally defined as a kind of urban development that blends multiple uses, such as residential, commercial, cultural, institutional, or entertainment into one space, where those functions are to some degree physically and functionally integrated, and that provides pedestrian connections. The City's use of the 10,000 MT CO_2e threshold is also considered to be conservative for the proposed project since it is being applied to all of the GHG emissions generated by the proposed project (i.e., area sources, energy sources, vehicular sources, solid waste sources, and water sources) whereas the SCAQMD's 10,000 MT CO_2e threshold applies only to the new stationary sources generated at industrial facilities.

5.0 AIR QUALITY IMPACT ANALYSIS

This section evaluates potential direct impacts of the proposed project related to the air pollutant emissions. Project-level air quality modeling was completed as part of this analysis. Complete modeling results are included as Appendix A of this report.

5.1 ISSUE 1: CONFLICTS WITH AIR QUALITY PLANS

5.1.1 Analysis in the Specific Plan EIR

Impacts related emissions of conflicts with the air quality plans resulting from implementation of development within the PVCCSP Area were analyzed in the EIR which concluded that the

implementation of the PVCCSP and its subsequent implementing development and infrastructure projects will not conflict with or obstruct implementation of the AQMP, and the impact would be less than significant. No mitigation would be required (City 2011 pp. 4.2-32, 4.2-4.2-33).

5.1.2 Impacts

SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties, and addresses regional issues relating to transportation, economy, community development, and environment. With regard to air quality planning, SCAG has prepared the RTP/SCS, a long-range transportation plan that uses growth forecasts to project trends out over a 20-year period to identify regional transportation strategies to address mobility needs. These growth forecasts form the basis for the land use and transportation control portions of the AQMP. These documents are utilized in the preparation of the air quality forecasts and consistency analysis included in the AQMP. Both the RTP/SCS and AQMP are based, in part, on regional population and employment growth projections originating with County and City General Plans.[2]

Projects that are consistent with the land use designation for their project site are generally consistent with the population and growth assumptions used in the AQMP. The project does not have a residential component and would not result in regional population growth. The PVCCSP designates the project site as a Commercial land use. The project applicant proposes an amendment to the PVCCSP to replace the Commercial land use designation with a Light Industrial land use for approximately 13 acres of the project site. Land use designations for the remaining two acres in the northeastern of the project site would not be modified as part of the project and would continue to be designated Commercial. According to data presented in the SCAG's Employment Density Summary Report, average employment densities for commercial uses in the region range from a high of 175.49 employees per acre (high-rise office) to a low of 19.71 employees per acre (regional retail). Average employment densities for light industrial uses are 17.83 employees per acre for light manufacturing and 11.4 employees per acre for warehouse (SCAG 2001). Therefore, changing the land use designation from Commercial to Light Industrial for the warehouse portion of the project would not result in employment growth exceeding the assumptions used to develop the AQMP. As such, employment growth in the City as a result of the project, and the related changes in regional emissions, are accounted for in the AQMP, which is crafted to bring the basin into attainment for all criteria pollutants. Therefore, the proposed project would not conflict with or obstruct implementation of the AQMP.

5.1.3 Significance of Impacts

Implementation of the project would not conflict with or obstruct implementation of the SCAQMD's AQMP, and the impact would be less than significant.

5.1.4 Mitigation Framework

Impacts would be less than significant; therefore, no mitigation measures are required.

[2] SCAG serves as the federally designated metropolitan planning organization for the southern California region.

5.1.5 Significance After Mitigation

Impacts related to conflicts with the applicable air quality plan would be less than significant.

5.2 ISSUE 2: CUMULATIVELY CONSIDERABLE NET INCREASE OF NONATTAINMENT CRITERIA POLLUTANTS

By its very nature, air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development within the SCAB. The region is a federal and/or state nonattainment area for ozone, PM_{10} and $PM_{2.5}$. In accordance with CEQA Guidelines Section 15064(h)(3), the SCAQMD's approach for assessing cumulative impacts is based on the AQMP forecasts of attainment of ambient air quality standards in accordance with the requirements of the federal and State Clean Air Acts. If a project conflicts with the AQMP, which is intended to bring the SCAB into attainment for all criteria pollutants, that project can be considered cumulatively considerable. Additionally, if the mass regional emissions calculated for a project exceed the applicable SCAQMD daily significance thresholds that are designed to assist the region in attaining the applicable state and national ambient air quality standards, that project can be considered cumulatively considerable. As discussed in Issue 1, above, the project would not conflict with or obstruct implementation of the AQMP. A comparison of the project mass regional emissions with the applicable SCAQMD daily significance thresholds is provided below.

5.2.1 Analysis in the Specific Plan EIR

Impacts related emissions of criteria pollutants resulting from implementation of development within the PVCCSP Area were analyzed in the EIR which concluded that short-term construction and long-term operation would result in emissions of criteria pollutants and precursors exceed the SCAQMD thresholds and impacts would be potentially significant (City 2011 pp. 4.2-33 through 4.2-4.2-38). Implementation of the following mitigation measures would reduce air quality impacts; however, construction and operational air quality impacts associated with overall development under the PVCCSP was determined to be significant and unavoidable:

MM Air 1 To identify potential implementing development project-specific impacts resulting from construction activities, proposed development projects that are subject to CEQA shall have construction related air quality impacts analyzed using the latest available URBEMIS model, or other analytical method determined in conjunction with the SCAQMD. The results of the construction-related air quality impacts analysis shall be included in the development project's CEQA documentation. To address potential localized impacts, the air quality analysis may incorporate SCAQMD's Localized Significance Threshold analysis or other appropriate analyses as determined in conjunction with SCAQMD. If such analyses identify potentially significant regional or local air quality impacts, the City shall require the incorporation of appropriate mitigation to reduce such impacts.

MM Air 2 Each individual implementing development project shall submit a traffic control plan prior to the issuance of a grading permit. The traffic control plan shall describe in detail safe detours and provide temporary traffic control during construction activities for that project. To reduce traffic congestion, the plan shall include, as necessary, appropriate, and practicable, the following: temporary traffic controls such as a flag person during all

phases of construction to maintain smooth traffic flow, dedicated turn lanes for movement of construction trucks and equipment on- and off-site, scheduling of construction activities that affect traffic flow on the arterial system to off-peak hour, consolidating truck deliveries, rerouting of construction trucks away from congested streets or sensitive receptors, and/or signal synchronization to improve traffic flow.

MM Air 3 To reduce fugitive dust emissions, the development of each individual implementing development project shall comply with SCAQMD Rule 403. The developer of each implementing project shall provide the City of Perris with the SCAQMD-approved dust control plan, or other sufficient proof of compliance with Rule 403, prior to grading permit issuance. Dust control measures shall include, but are not limited to:

- requiring the application of non-toxic soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 20 days or more, assuming no rain),
- keeping disturbed/loose soil moist at all times,
- requiring trucks entering or leaving the site hauling dirt, sand, or soil, or other loose materials on public roads to be covered,
- installation of wheel washers or gravel construction entrances where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip,
- posting and enforcement of traffic speed limits of 15 miles per hour or less on all unpaved potions of the project site,
- suspending all excavating and grading operations when wind gusts (as instantaneous gust) exceed 25 miles per hour,
- appointment of a construction relations officer to act as a community liaison concerning on-site construction activity including resolution of issues related to PM-10 generation,
- sweeping streets at the end of the day if visible soil material is carried onto adjacent paved public roads and use of SCAQMD Rule 1186 and 1186.1 certified street sweepers or roadway washing trucks when sweeping streets to remove visible soil materials,
- replacement of ground cover in disturbed areas as quickly as possible.

MM Air 4 Building and grading permits shall include a restriction that limits idling of construction equipment on site to no more than five minutes.

MM Air 5 Electricity from power poles shall be used instead of temporary diesel or gasoline-powered generators to reduce the associated emissions. Approval will be required by the City of Perris' Building Division prior to issuance of grading permits.

MM Air 6 The developer of each implementing development project shall require, by contract specifications, the use of alternative fueled off-road construction equipment, the use of construction equipment that demonstrates early compliance with off-road equipment with the CARB in-use off-road diesel vehicle regulation (SCAQMD Rule 2449) and/or meets or exceeds Tier 3 standards with available CARB verified or US EPA certified technologies. Diesel equipment shall use water emulsified diesel fuel such as PuriNOx unless it is unavailable in Riverside County at the time of project construction activities. Contract specifications shall be included in project construction documents, which shall be reviewed by the City of Perris' Building Division prior to issuance of a grading permit.

MM Air 7 During construction, ozone precursor emissions from mobile construction equipment shall be controlled by maintaining equipment engines in good condition and in proper tune per manufacturers' specifications to the satisfaction of the City of Perris' Building Division. Equipment maintenance records and equipment design specification data sheets shall be kept on-site during construction. Compliance with this measure shall be subject to periodic inspections by the City of Perris' Building Division.

MM Air 8 Each individual implementing development project shall apply paints using either high volume low pressure (HVLP) spray equipment with a minimum transfer efficiency of at least 50 percent or other application techniques with equivalent or higher transfer efficiency.

MM Air 9 To reduce VOC emissions associated with architectural coating, the project designer and contractor shall reduce the use of paints and solvents by utilizing pre-coated materials (e.g., bathroom stall dividers, metal awnings), materials that do not require painting, and require coatings and solvents with a VOC content lower than required under Rule 1113 to be utilized. The construction contractor shall be required to utilize "Super-Compliant" VOC paints, which are defined in SCAQMD's Rule 1113. Construction specifications shall be included in building specifications that assure these requirements are implemented. The specifications for each implementing development project shall be reviewed by the City of Perris' Building Division for compliance with this mitigation measure prior to issuance of a building permit for that project.

MM Air 10 To identify potential implementing development project-specific impacts resulting from operational activities, proposed development projects that are subject to CEQA shall have long-term operational-related air quality impacts analyzed using the latest available URBEMIS model, or other analytical method determined by the City of Perris as lead agency in conjunction with the SCAQMD. The results of the operational-related air quality impacts analysis shall be included in the development project's CEQA documentation. To address potential localized impacts, the air quality analysis may incorporate SCAQMD's Localized Significance Threshold analysis, CO Hot Spot analysis, or other appropriate analyses as determined by the City of Perris in conjunction with SCAQMD. If such analyses identify potentially significant regional or local air quality impacts, the City shall require the incorporation of appropriate mitigation to reduce such impacts.

MM Air 11 Signage shall be posted at loading docks and all entrances to loading areas prohibiting all on-site truck idling in excess of five minutes.

MM Air 13 In order to promote alternative fuels, and help support "clean" truck fleets, the developers/successor-of-interest of each implementing development project shall provide building occupants and businesses with information related to SCAQMD's Carl Moyer Program, or other state programs that restrict operations to "clean" trucks, such as 2007 or newer model year or 2010 compliant vehicles.

MM Air 14 Each implementing development project shall designate parking spaces for high-occupancy vehicles and provide larger parking spaces to accommodate vans used for ride sharing. Proof of compliance will be required prior to issuance of occupancy permits.

MM Air 18 Prior to the approval of each implementing development project, the Riverside Transit Agency (RTA) shall be contacted to determine if the RTA has plans for the future provision of bus routing within any street that is adjacent to the implementing development project that would require bus stops at the project access points. If the RTA has future plans for the establishment of a bus route that will serve the implementing development project, road improvements adjacent to the project site shall be designed to accommodate future bus turnouts at locations established through consultation with the RTA. RTA shall be responsible for the construction and maintenance of the bus stop facilities. The area set aside for bus turnouts shall conform to RTA design standards, including the design of the contact between sidewalks and curb and gutter at bus stops and the use of ADA-compliant paths to the major building entrances in the project.

MM Air 20 Each implementing development project shall implement, at a minimum, an increase in building energy efficiency 15 percent beyond Title 24, and reduce water use by 25 percent. All requirements will be documented through a checklist to be submitted prior to issuance of building permits for the implementing development project with building plans and calculations.

By preparing this Air Quality and Greenhouse Gas Emissions Technical Report, the project has complied with PVCCSP EIR mitigation measures MM Air 1 and MM Air 10. Since the PVCCSP EIR was certified, CalEEMod has replaced URBEMIS as the recommended model for analysis of a project's mass emissions of criteria pollutants and precursors.

5.2.2 Impacts

The project would generate criteria pollutants and precursors in the short-term during construction and the long-term during operation. To determine whether a project would result in cumulatively considerable emissions that would violate an air quality standard or contribute substantially to an existing or projected air quality violation, a project's emissions are evaluated based on the quantitative emission thresholds established by the SCAQMD (as shown in Table 10).

5.2.2.1 Construction

The project's construction emissions were estimated using the CalEEMod model as described in Section 4.1.1. Additional details of phasing, selection of construction equipment, and other input parameters, including CalEEMod data, are included in Appendix A.

The results of the calculations for project Phase 1 and Phase 2 construction are shown in Table 11, *Maximum Daily Construction Emissions*. The data are presented as the maximum anticipated daily emissions for comparison with the SCAQMD thresholds.

Table 11
MAXIMUM DAILY CONSTRUCTION EMISSIONS

Activity	ROG (lbs/day)	NO_X (lbs/day)	CO (lbs/day)	SO_X (lbs/day)	PM_{10} (lbs/day)	$PM_{2.5}$ (lbs/day)
Phase 1 Site Preparation	3.8	37.2	23.7	<0.1	10.8	6.2
Phase 1 Grading	4.0	51.6	32.4	0.1	7.8	3.8
Phase 1 Underground Utilities/Line E	1.2	10.1	9.3	<0.1	0.5	0.4
Phase 1 Building Construction	3.1	23.7	27.6	<0.1	3.8	1.7
Phase 1 Paving	1.9	20.0	15.9	<0.1	1.2	0.7
Phase 1 Architectural Coatings	55.6	1.3	2.9	<0.1	0.5	0.2
Phase 1 Concurrent Grading Underground Utilities	5.2	61.7	41.8	<0.1	8.4	4.2
Phase 1 Concurrent Underground Utilities and Building Construction	4.3	33.8	36.9	<0.1	4.4	2.1
Phase 1 Maximum Daily Emissions	**55.6**	**61.7**	**41.8**	**0.1**	**10.8**	**6.2**
SCAQMD Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Phase 1 Significant Impact?	***No***	***No***	***No***	***No***	***No***	***No***
Phase 2 Site Preparation	1.4	1.5	8.35	<0.1	3.5	1.9
Phase 2 Grading	1.6	15.5	10.7	<0.1	4.0	2.2
Phase 2 Building Construction	2.0	13.2	16.7	<0.1	1.6	0.8
Phase 2 Architectural Coatings	20.9	1.2	2.2	<0.1	0.2	0.1
Phase 2 Paving	0.8	6.3	9.4	<0.1	0.6	0.3
Phase 2 Concurrent Building Construction and Architectural Coating	22.8	14.4	19.0	<0.1	1.9	0.9
Phase 2 Maximum Daily Emissions	**22.8**	**14.4**	**19.0**	**<0.1**	**4.0**	**2.2**
SCAQMD Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Phase 2 Significant Impact?	***No***	***No***	***No***	***No***	***No***	***No***

Source: CalEEMod (output data is provided in Appendix A)
lbs/day = pounds per day; ROG = reactive organic gas; NO_X = nitrogen oxides; CO = carbon monoxide; SO_X = sulfur oxides; PM_{10} = particulate matter 10 microns or less in diameter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

As shown in Table 11, Phase 1 and Phase 2 construction period emissions of criteria pollutants and precursors would not exceed the SCAQMD significance thresholds.

5.2.2.2 Operation

The project's operational emissions were estimated using the CalEEMod model as described in Section 4.1.2. Model outputs are provided in Appendix A. Table 12, *Maximum Concurrent Phase 1 Operational and Phase 2 Construction Emissions*, presents the summary of operational and construction emissions that would occur when Phase 1 (warehouse) is operational and Phase 2 (hotel) is still under construction. The data are presented as the maximum anticipated daily emissions for comparison with the SCAQMD thresholds.

Table 12
MAXIMUM CONCURRENT PHASE 1 OPERATIONAL AND PHASE 2 CONSTRUCTION EMISSIONS

Category	ROG (lbs/day)	NO_X (lbs/day)	CO (lbs/day)	SO_X (lbs/day)	PM_{10} (lbs/day)	$PM_{2.5}$ (lbs/day)
Phase 1 Area	5.0	<0.1	<0.1	<0.1	<0.1	<0.1
Phase 1 Energy	0.1	0.1	0.1	<0.1	<0.1	<0.1
Phase 1 Mobile	1.0	22.6	11.0	0.1	7.2	2.2
Phase 1 Total[1]	**6.1**	**22.7**	**11.2**	**0.1**	**7.2**	**2.2**
Phase 2 Construction	22.8	14.4	19.0	<0.1	4.0	2.2
Total Maximum Daily Emissions[1]	**28.6**	**36.5**	**29.9**	**0.1**	**11.2**	**4.4**
SCAQMD Thresholds	*55*	*55*	*550*	*150*	*150*	*55*
Significant Impact?	***No***	***No***	***No***	***No***	***No***	***No***

Source: CalEEMod (output data is provided in Appendix A)
[1] Totals may not sum due to rounding.
lbs/day = pounds per day; ROG = reactive organic gas; NO_X = nitrogen oxides; CO = carbon monoxide; SO_2 = sulfur dioxide; PM_{10} = particulate matter 10 microns or less in diameter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

As shown in Table 12, concurrent emissions during Phase 1 operation and Phase 2 construction would not exceed the daily thresholds set by the SCAQMD. Table 13, *Phase 1 and Phase 2 Operational Daily Emissions*, shows the combined operation emissions of Phase 1 and Phase 2.

Table 13
PHASE 1 AND PHASE 2 OPERATIONAL DAILY EMISSIONS

Category	ROG (lbs/day)	NO_X (lbs/day)	CO (lbs/day)	SO_X (lbs/day)	PM_{10} (lbs/day)	$PM_{2.5}$ (lbs/day)
Phase 1 Area	5.0	<0.1	<0.1	<0.1	<0.1	<0.1
Phase 1 Energy	<0.1	0.1	0.1	<0.1	<0.1	<0.1
Phase 1 Mobile	1.0	22.5	11.0	0.1	7.2	2.2
Phase 1 Total[1]	**6.1**	**22.7**	**11.2**	**0.1**	**7.2**	**2.2**
Phase 2 Area	4.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phase 2 Energy	0.3	2.9	2.4	<0.1	0.2	0.2
Phase 2 Mobile	2.1	2.9	18.8	<0.1	5.1	1.4
Phase 2 Total[1]	**6.5**	**5.8**	**21.2**	**<0.1**	**5.3**	**1.6**
Total Maximum Daily Emissions[1]	**12.6**	**28.5**	**32.4**	**0.1**	**12.5**	**3.8**
SCAQMD Thresholds	*55*	*55*	*550*	*150*	*150*	*55*
Significant Impact?	***No***	***No***	***No***	***No***	***No***	***No***

Source: CalEEMod (output data is provided in Appendix A)
[1] Totals may not sum due to rounding.
lbs/day = pounds per day; ROG = reactive organic gas; NO_X = nitrogen oxides; CO = carbon monoxide; SO_2 = sulfur dioxide; PM_{10} = particulate matter 10 microns or less in diameter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

As shown ion Table 13, the combined operation of project Phase 1 and Phase 2 would not exceed the daily thresholds set by the SCAQMD.

5.2.3 Significance of Impacts

Short-term construction and long-term operation of the project would not result in criteria pollutant and precursor pollutant emissions that would exceed the SCAQMD significance thresholds, and the impact would be less than significant.

5.2.4 Mitigation Framework

Although project emissions would not exceed the SCAQMD thresholds, the project would be required to implement mitigation measures MM Air 2, MM Air 3, MM Air 4, MM Air 5, MM Air 6, MM Air 7, MM Air 8, MM Air 9, MM Air 11, MM Air 13, MM Air 14, MM Air 18, and MM Air 20 from the PVCCSP EIR (see Section 5.2.1).No further project-specific mitigation measures would be required.

5.2.5 Significance After Mitigation

The project would not result in a cumulatively considerable net increase of any criteria pollutant for which the SCAB is non-attainment, and the impact would less than significant.

5.3 ISSUE 3: IMPACTS TO SENSITIVE RECEPTORS

5.3.1 Analysis in the Specific Plan EIR

Impacts to sensitive receptors resulting from long-term operation of development within the PVCCSP Area were analyzed in the EIR which concluded that, implementation of the PVCCSP would not expose sensitive receptors to substantial pollutant concentrations and the impacts would be less than significant (City 2011 pp. 4.2-48 through 4.2-50). Implementation of PVCCSP EIR mitigation measures MM Air 1, MM Air 10, MM Air 11, MM Air 12, and MM Air 13 identified previously along with the following mitigation measures would further reduce impacts to sensitive receptors.

MM Air 15 To identify potential implementing development project-specific impacts resulting from the use of diesel trucks, proposed implementing development projects that include in excess of 10 dock doors for a single building, a minimum of 100 truck trips per day, 40 truck trips with TRUs per day, or TRU operations exceeding 300 hours per week, and that are subject to CEQA and are located adjacent to sensitive land uses; shall have a facility-specific Health Risk Assessment performed to assess the diesel particulate matter impacts from mobile-source traffic generated by the that implementing development project. The results of the Health Risk Assessment shall be included in the CEQA documentation for each implementing development project.

MM Air 16 New sensitive land uses such as a hospital, medical offices, day care facilities, and fire stations to be located within the PVCC shall not be located closer than 500 feet to the I-215 freeway, pursuant to the recommendations set forth in the CARB Air Quality and Land Use Handbook. If new sensitive land uses cannot meet this setback, they will be designed and conditioned to include mechanical ventilation systems with fresh air filtration. For operable windows or other sources of ambient air filtration, installation of a central HVAC (heating, ventilation, and air conditioning) system that includes high efficiency filters for particulates (MERV-13 or higher) or other similarly effective systems shall be required.

MM Air 17 New sensitive land uses such as residential, a hospital, medical offices, day care facilities, and fire stations shall not be located closer than 1,000 feet from any existing or proposed distribution center/warehouse facility which generates a minimum of 100 truck trips per day, or 40 truck trips with TRUs per day, or TRU operations exceeding 300 hours per week, pursuant to the recommendations set forth in the CARB Air Quality

and Land Use Handbook. If new sensitive land uses cannot meet this setback, they will be designed and conditioned to include mechanical ventilation systems with fresh air filtration. For operable windows or other sources of ambient air filtration, installation of a central HVAC (heating, ventilation, and air conditioning) system that includes high efficiency filters for particulates (MERV-13 or higher) or other similarly effective systems shall be required.

By preparing this Air Quality and Greenhouse Gas Emissions Technical Report, the project has complied with PVCCSP EIR mitigation measure MM Air 15. Mitigation measure Air 16 is not applicable to the proposed project since the project site is not located within 500 feet of the I-215 freeway. Mitigation measure MM Air 17 would affect the development of sensitive uses (proposed hotel) within the commercial lot at the project site.

5.3.2 Impacts

5.3.2.1 Construction Activities

Criteria Pollutants

The localized effects from the on-site portion of daily construction emissions were evaluated at sensitive receptor locations potentially impacted by the project according to the SCAQMD's LST method, described above. The proposed project is within SRA 24, Perris Valley. Consistent with the LST guidelines, when quantifying mass emissions for localized analysis, only emissions that occur on site are considered. Emissions related to off-site delivery/haul truck activity and construction worker trips are not considered in the evaluation of construction-related localized impacts, as these do not contribute to emissions generated on a project site. The closest sensitive receptor is the single-family residence adjacent to the northwest corner of the project site. Therefore, the LSTs in SRA 24 for receptors located less than 82 feet (25 meters) are used for project sites greater than 5 acres. Table 14, *Maximum Localized Daily Construction Emissions*, shows the localized construction emissions.

Table 14
MAXIMUM LOCALIZED DAILY CONSTRUCTION EMISSIONS

Activity	NO_X (lbs/day)	CO (lbs/day)	PM_{10} (lbs/day)	$PM_{2.5}$ (lbs/day)
Phase 1 Site Preparation	37.1	23.1	10.6	6.2
Phase 1 Grading	38.8	29.0	5.8	3.2
Phase 1 Underground Utilities/Line E	10.1	8.9	0.4	0.4
Phase 1 Building Construction	19.6	19.7	1.0	0.9
Phase 1 Paving	9.5	14.6	0.5	0.4
Phase 1 Architectural Coatings	1.2	1.8	0.1	0.1
Phase 1 Concurrent Grading and Underground Utilities	48.9	37.9	6.2	3.5
Phase 1 Concurrent Underground Utilities and Building Construction	26.7	28.6	1.3	1.3
Phase 2 Site Preparation	13.5	8.3	3.4	1.9
Phase 2 Grading	15.5	10.3	3.8	2.1
Phase 2 Building Construction	12.7	14.1	0.4	0.4
Phase 2 Architectural Coatings	1.1	1.8	0.1	0.1
Phase 2 Paving	5.3	8.8	0.2	0.2

Activity	NO_X (lbs/day)	CO (lbs/day)	PM_{10} (lbs/day)	$PM_{2.5}$ (lbs/day)
Phase 2 Concurrent Building Construction and Architectural Coating	13.0	15.8	0.5	0.5
Maximum Daily Emissions	**48.9**	**37.9**	**10.6**	**6.2**
SCAQMD LST Thresholds (25 meters)	*270*	*1,577*	*13*	*8*
Exceed LST (25 meters)?	***No***	***No***	***No***	***No***

Source: CalEEMod (output data is provided in Appendix A)
lbs/day = pounds per day; NO_X = nitrogen oxides; CO = carbon monoxide; PM_{10} = particulate matter 10 microns or less in diameter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

As shown in Table 14, localized emissions for all criteria pollutants would remain below their respective SCAQMD LSTs at 82 feet (25 meters). Therefore, construction of the project would not result in exposure of sensitive receptors to substantial localized concentrations of criteria pollutants and precursors.

Toxic Air Contaminants

Implementation of the project would result in the use of heavy-duty construction equipment, haul trucks, on-site generators, and construction worker vehicles. These vehicles and equipment could generate the TAC DPM. Generation of DPM from construction projects typically occurs in a localized area (e.g., at the project site) for a short period of time. Because construction activities and subsequent emissions vary depending on the phase of construction (e.g., grading, building construction), the construction-related emissions to which nearby receptors are exposed to would also vary throughout the construction period. During some equipment-intensive phases such as grading, construction-related emissions would be higher than other less equipment-intensive phases such as building construction. Concentrations of mobile-source DPM emissions are typically reduced by 70 percent at approximately 500 feet (CARB 2005).

The dose (of TAC) to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance in the environment and the extent of exposure a person has with the substance; a longer exposure period to a fixed quantity of emissions would result in higher health risks. Current models and methodologies for conducting cancer health risk assessments are associated with longer-term exposure periods (typically 30 years for individual residents based on guidance from OEHHA) and are best suited for evaluation of long duration TAC emissions with predictable schedules and locations. These assessment models and methodologies do not correlate well with the temporary and highly variable nature of construction activities. Cancer potency factors are based on animal lifetime studies or worker studies where there is consistent long-term exposure to the carcinogenic agent. There is considerable uncertainty in trying to evaluate the cancer risk from projects that will only last a small fraction of a lifetime (OEHHA 2015). Considering this information, the highly dispersive nature of DPM, and the fact that construction activities would occur at various locations and varying intensities throughout the project site, it is not anticipated that construction of the project would expose sensitive receptors to substantial DPM concentrations.

5.3.2.2 Operational Activities

Criteria Pollutants

As discussed in Section 4.1.3, SCAQMD has developed a localized significance threshold (LST) methodology that can be used by public agencies to determine whether a project may generate

significant adverse localized air quality impacts from on-site emissions of NO_X, CO, PM_{10} and $PM_{2.5}$. For project operational activities, emissions of NO_X and CO are associated with truck and passenger vehicle emissions which primarily occur off-site. The portion of truck and passenger vehicle emissions which occur on-site are limited to low-speed circulation and idling and would be a small portion of the project operational emissions of 28 pounds per day of NO_X and 32 pounds per day of CO, far below the applicable LST thresholds of 270 pounds per day NO_X and 1,577 pounds per day CO. Operational PM_{10} and $PM_{2.5}$ emissions from areas sources (primarily landscape equipment exhaust) and energy sources (natural gas combustion exhaust) would be negligible—less than 0.01 pounds per day (see Appendix A). The only remaining on-site operational source of PM emissions would be low-speed circulation and idling exhaust emissions from trucks. The total exhaust PM emissions produced on or near the project site by project-related truck trips would be approximately 0.54 pounds per year (0.001 pounds per day) of PM_{10} and $PM_{2.5}$ (see Appendix B). Total PM_{10} or $PM_{2.5}$ produced on the project site would be less than 0.01 pounds per day, far below the LST threshold of 4 pounds per day for PM_{10} and 2 pounds per day for $PM_{2.5}$. Therefore, operation of the project would not result in exposure of sensitive receptors to substantial localized concentrations of NO_X or CO. Impacts related to exposure of sensitive receptors to project operational emissions of PM (primarily DPM) are discussed and evaluated below.

CO Hotspots

Vehicle exhaust is the primary source of CO. In an urban setting, the highest CO concentrations are generally found within close proximity to congested intersections. Under typical meteorological conditions, CO concentrations tend to decrease as distance from the emissions source (i.e., congested intersection) increase. Project-generated traffic has the potential of contributing to localized "hot spots" of CO off-site. Because CO is a byproduct of incomplete combustion, exhaust emissions are worse when fossil-fueled vehicles are operated inefficiently, such as in stop-and-go traffic or through heavily congested intersections, where the level of service (LOS) is severely degraded.

CARB recommends evaluation of the potential for the formation of locally high concentrations of CO, known as CO hot spots. A CO hot spot is a localized concentration of CO that is above the state or national 1-hour or 8-hour CO ambient air standards. To verify that the project would not cause or contribute to a violation of the 1-hour and 8-hour CO standards, an evaluation of the potential for CO hot spots at nearby intersections was conducted. In accordance with the Transportation Project-Level Carbon Monoxide Protocol, CO hot spots are typically evaluated when: (a) the LOS of an intersection decreases to a LOS E or worse because of the project; (b) signalization and/or channelization is added to an intersection; and (c) sensitive receptors such as residences, schools, hospitals, etc., are located in the vicinity of the affected intersection or roadway segment (California Department of Transportation [Caltrans] 1998).

According to the intersection analysis contained in the Traffic Analysis, no project-affected intersection would operate at LOS E or worse under existing or existing plus project conditions. Under cumulative conditions (2022) the intersections of Ramona Expressway/Indian Avenue and Ramona Expressway/Perris Boulevard would operate at LOS F during the afternoon peak hour. The addition of project traffic would increase intersection delays by up to 5 seconds but would not change the LOS (Urban Crossroads 2022a). There are no sensitive receptors located in proximity to either intersection. The closest sensitive receptors would be the mobile home park, located approximately 420 feet southwest of the Ramona Expressway/Perris Boulevard intersection. Therefore, implementation of the project would not expose sensitive receptors to substantial localized concentrations of CO.

Operational DPM Emissions

Implementation of the project would result in emissions of DPM from operation of a warehouse facility. To evaluate potential impacts to sensitive receptors from the operational DPM emissions, a health risk analysis (HRA) was completed. The results of the HRA are summarized here, the complete HRA report is included as Appendix B to this report.

Long-term operation of the project would result in emissions of DPM from diesel-powered trucks traveling to and from the project site, circulating on the project site, and parked while idling at the project site. Truck DPM emissions were calculated using truck emissions and VMT data from CARB's EMFAC2021 version 1.0.01 online database. All trucks were assumed to idle at the loading docks for the maximum allowable 5 minutes (per California Code of Regulations [CCR] Title 13, Section 2485). In addition, 25 percent of trucks were assumed to stage in the truck/trailer parking area before or after unloading/loading and idle for an additional 5 minutes. Truck idling emissions were assumed to be approximately equivalent to truck emissions at 5 mph reported in the EMFAC2021 database.

Localized concentrations of DPM were modeled using Lakes AERMOD View version 10.2.0. The Lakes program utilizes the USEPA's AERMOD gaussian air dispersion model version 19191. Plot files from AERMOD using unitized emissions (one gram per second) for each DPM source were imported into CARB's Hotspots Analysis and Reporting Program (HARP), Air Dispersion Modeling and Risk Tool (ADMRT) version 21081. The ADMRT calculated ground-level concentrations of DPM utilizing the imported plot files and the calculated annual and hourly emissions.

Health risks resulting from localized concentration of DPM were estimated using the ADMRT. The latest cancer slope factors and chronic Reference Exposure Limits (RELs), and exposure paths for all TACs designated by CARB are included in ADMRT. For the residential cancer risk, an exposure duration of 30 years was selected in accordance with the OEHHA (2015) guidelines. The model conservatively assumes that residents would be standing and breathing outdoors at the location of the property line closest to the gas station every day between 17 and 21 hours per day (depending on the age group, starting with infants in utero in the third trimester of pregnancy) for 30 years. The Risk Management Policy (RMP) using the derived method for the intake rate percentile was selected in accordance with the SCAQMD guide recommendations (SCAQMD 2021c). For off-site worker cancer risk, an exposure duration of 25 years was selected with an assumption of 8 hours per day, 5 days per week of exposure while standing outside with moderate intensity breathing rates, in accordance with the OEHHA guidelines. Because DPM only has an inhalation cancer slope factor and an inhalation chronic REL, only the cancer risk and chronic risk from exposure to DPM was evaluated, and only the inhalations pathway was evaluated.

The incremental excess cancer risk is an estimate of the chance a person exposed to a specific source of a TAC may have of developing cancer from that exposure beyond the individual's risk of developing cancer from existing background levels of TACs in the ambient air. For context, the average cancer risk from TACs in the ambient air for an individual living in an urban area of California is 830 in 1 million (CARB 2015). Cancer risk estimates do not mean, and should not be interpreted to mean, that a person will develop cancer from estimated exposures to toxic air pollutants.

The maximum estimated community incremental excess cancer risks due to exposure to the Proposed Project TAC emissions from long term operation of the warehouse facility are presented in Table 15,

Maximum Incremental Cancer Health Risk. These estimates are conservative (health protective) and assume that the student, resident, or worker is outdoors for the entire exposure period.

Table 15
MAXIMUM INCREMENTAL CANCER HEALTH RISK

	Maximally Exposed Individual Resident Cancer Risk (per million)	Maximally Exposed Individual Worker Cancer Risk (per million)
Results	1.1	<0.1
Threshold	10	10
Exceed Threshold?	No	No

Source: Lakes AERMOD View and CARB ADMRT. See Appendix B for the complete HRA report.

As shown in Table 15, the project's incremental increased cancer risk would not exceed the SCAQMD's threshold of 10 in 1 million. The chronic health risk hazard index for all receptors would be less than 0.01 and would not exceed the SCAQMD's threshold of 1.

Cancer burden evaluates an overall population's increased cancer risk and is defined as the increases in cancer cases in the population due exposure to TACs from a project. Cancer burden is calculated differently from individual risk. Per OEHHA, cancer burden uses a 70-year exposure to evaluate population-wide cancer risk, and the cancer burden only evaluates residential exposure (not worksites). Cancer burden is calculated by multiplying the number of residents exposed to an incremental excess cancer risk of 1 in 1 million or greater by the estimated incremental excess cancer risk of the maximum exposed individual resident (MEIR). Only the residence adjacent to the northwest corner of the project site would be within or touching the 1 in 1 million isopleth (geographic lines of equal risk). Assuming up to 10 residents per residence, the cancer burden resulting from long-term operation of the project would be 0.00001, below the SCAQMD threshold of 0.5.

5.3.3 Significance of Impacts

Construction of the project would not result in significant localized concentrations of criteria pollutants or TACs. Long-term operation of the project would not result in significant localized concentrations of CO. Long-term operation of the project would result in cancer risk, chronic health risk, and cancer burden below the respective SCAQMD thresholds. Therefore, implementation of the project could expose sensitive receptors to substantial pollutant concentrations, and the impact less than significant.

5.3.4 Mitigation Framework

Although project emissions would not exceed the SCAQMD thresholds for community health risks, or result in substantial localized pollutant concentrations, the project would be required to implement mitigation measures MM Air 11 and MM Air 13 from the PVCCSP EIR (see Section 5.3.1). The requirements of mitigation measure MM Air 15 from the PVCCSP EIR are satisfied by the project specific HRA completed and included as Appendix B to this report. Mitigation measures MM Air 16 and MM Air 17 concern the siting of new sensitive receptors and would not apply to the project. No additional project specific mitigation measures would be required to reduce the severity of impacts related to the exposure of sensitive receptors to substantial pollutant concentrations.

5.3.5 Significance After Mitigation

Implementation of the project would not expose sensitive receptors to substantial pollutant concentrations, and the impact would be less than significant.

5.4 ISSUE 4: OTHER EMISSIONS (SUCH AS THOSE LEADING TO ODORS)

5.4.1 Analysis in the Specific Plan EIR

Impacts related to emissions leading to odors resulting from construction and operation of implementing development and infrastructure projects within the PVCCSP were analyzed in the EIR which concluded that development and infrastructure projects would not create objectionable odors affecting a substantial number of people and the impact would be less than significant. No mitigation would be required (City 2011 pp. 4.2-51, 4.2-4.2-52).

5.4.2 Impacts

According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting activities, refineries, landfills, dairies, and fiberglass molding operations (SCAQMD 1993). The project, involving a warehouse facility development and hotel, would not include any of these uses nor are there any of these land uses in the project vicinity.

Emissions from construction equipment, such as diesel exhaust, and VOCs from architectural coatings and paving activities may generate odors; however, these odors would be temporary, intermittent, and not expected to affect a substantial number of people. Additionally, noxious odors would be confined to the immediate vicinity of construction equipment. Furthermore, short-term construction-related odors are expected to cease upon the drying or hardening of the odor-producing materials. Long-term operation of the project would not be a substantial source of objectionable odors. Therefore, the project would not create objectionable odors affecting a substantial number of people, and the impact would be less than significant.

5.4.3 Significance of Impacts

Implementation of the project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people, and the impact would be less than significant.

5.4.4 Mitigation Framework

Impacts would be less than significant; therefore, no mitigation measures are required.

5.4.5 Significance After Mitigation

Implementation of the project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people, and the impact would be less than significant.

6.0 GREENHOUSE GAS IMPACT ANALYSIS

This section evaluates potential impacts of the proposed project related to the generation of GHG emissions. Complete modeling results are included as Appendix A of this report.

6.1 ISSUE 1: GREENHOUSE GAS EMISSIONS

6.1.1 Analysis in the Specific Plan EIR

Impacts related to GHG emissions resulting from construction and operation of implementing development and infrastructure projects within the PVCCSP were analyzed in the EIR which concluded that, because construction emissions of criteria pollutants and precursors could exceed the daily emissions threshold, GHG emissions from construction activities would be cumulative considerable. The EIR concluded that long-term operational GHG emissions resulting from implementation of the PVCCSP would be less than cumulatively considerable. The EIR concluded that the following mitigation measures would be required to reduce GHG emission from both construction and operation (City 2011 pp. 4.2-38 through 4.2-41):

MM Air 19 In order to reduce energy consumption from the individual implementing development projects, applicable plans (e.g., electrical plans, improvement maps) submitted to the City shall include the installation of energy-efficient street lighting throughout the project site. These plans shall be reviewed and approved by the applicable City Department (e.g., City of Perris' Building Division) prior to conveyance of applicable streets.

MM Air 20 Each implementing development project shall implement, at a minimum, an increase in each building's energy efficiency 15 percent beyond Title 24, and reduce indoor water use by 25 percent. All requirements will be documented through a checklist to be submitted prior to issuance of building permits for the implementing development project with building plans and calculations.

MM Air 21 Each implementing development project shall implement, at a minimum, use of water conserving appliances and fixtures (low-flush toilets, and low-flow shower heads and faucets) within all new residential developments.

6.1.2 Construction Emissions

Project construction GHG emissions were estimated using the CalEEMod model as described in Section 4.1. Project-specific input was based on general information provided in Section 1.0 and default model settings to estimate reasonably conservative conditions. Additional details of phasing, selection of construction equipment, and other input parameters, including CalEEMod data, are included in Appendix A.

Emissions of GHGs related to the construction of the project would be temporary. As shown in Table 16, *Estimated Construction GHG Emissions*, total GHG emissions associated with construction of the project are estimated at 1,289 MT CO_2e for Phase 1 and 393 MT CO_2e for Phase 2. For construction emissions, SCAQMD guidance recommends that the emissions be amortized (i.e., averaged) over 30 years and added to operational emissions. Averaged over 30 years, the proposed construction activities would

contribute approximately 43.0 MT CO_2e emissions per year for Phase 1 and 13.1 MT CO_2e emissions per year for Phase 2.

Table 16
ESTIMATED CONSTRUCTION GHG EMISSIONS

Year	Emissions (MT CO_2e)
Phase 1 2022	259.0
Phase 1 2023	903.0
Phase 1 2024	126.4
Phase 1 Total[1]	**1,289.4**
Phase 1 Amortized Construction Emissions[2]	*43.0*
Phase 2 2024	240.8
Phase 2 2025	152.6
Phase 2 Total[1]	**393.4**
Phase 2 Amortized Construction Emissions[2]	*13.1*

Source: CalEEMod (output data is provided in Appendix A)
[1] Totals may not sum due to rounding.
[2] Construction emissions are amortized over 30 years in accordance with SCAQMD guidance.
GHG = greenhouse gas; MT = metric tons; CO_2e = carbon dioxide equivalent

6.1.3 Operational Emissions

The project's operational GHG emissions were estimated using the CalEEMod model as described in Section 4.1. Calculated total annual emissions for the project, including amortized annual construction emissions, are shown in Table 17, *Total Estimated Operational GHG Emissions*. Appendix A contains the CalEEMod output files for the project.

Table 17
TOTAL ESTIMATED OPERATIONAL GHG EMISSIONS

Emission Sources	2024 Emissions (MT CO_2e)
Phase 1 Area Sources	<0.1
Phase 1 Energy Sources	132.7
Phase 1 Vehicular (Mobile) Sources	2,578.2
Phase 1 Solid Waste Sources	82.4
Phase 1 Water Sources	158.6
Phase 1 Subtotal[1]	**2,951.9**
Phase 1 Construction (Annualized over 30 years)	43.0
Phase 1 Total[1]	**2,994.94**
Phase 2 Area Sources	**<0.1**
Phase 2 Energy Sources	**1,145.5**
Phase 2 Vehicular (Mobile) Sources	**756.4**
Phase 2 Solid Waste Sources	**25.8**
Phase 2 Water Sources	**9.9**
Phase 2 Subtotal[1]	**1,937.6**

Emission Sources	2024 Emissions (MT CO_2e)
Phase 2 Construction (Annualized over 30 years)	**13.1**
Phase 2 Total[1]	**1,950.7**
Project Total[1]	**4,945.6**
SCAQMD Screening Threshold	**10,000**
Exceed Threshold?	**No**

Source: CalEEMod (output data is provided in Appendix A)
[1] Totals may not sum due to rounding.
[2] Emission per capita is the project total emissions divided by the project population (2,301.3/690).
GHG = greenhouse gas; MT = metric tons; CO_2e = carbon dioxide equivalent

As shown in Table 17, the project emissions, including amortized construction emissions, would total 4,946 MT CO_2e per year and would not exceed the industrial facility SCAQMD GHG screening threshold of 10,000 MT CO_2e per year.

6.1.4 Significance of Impacts

Project GHG emissions, including amortized construction emissions would not exceed the SCAQMD industrial screening threshold, and the impact would be less than significant.

6.1.5 Mitigation Framework

Although project GHG emissions would not exceed the SCAQMD threshold, the project would be required to implement mitigation measures MM AIR 19, MM AIR 20, and MM AIR 21 from the PVCCSP EIR (see Section 6.1.1). No further project-specific mitigation measures would be required.

6.1.6 Significance After Mitigation

Implementation of the project would not generate GHG emissions that may have a significant impact on the environment, and the impact would be less than significant.

6.2 ISSUE 2: CONFLICT WITH APPLICABLE PLANS ADOPTED FOR THE PURPOSE OF REDUCING GHG EMISSIONS

6.2.1 Impacts

There are numerous State plans, policies, and regulations adopted for the purpose of reducing GHG emissions. The principal overall State plan and policy is AB 32, the California Global Warming Solutions Act of 2006. The quantitative goal of AB 32 is to reduce GHG emissions to 1990 levels by 2020. SB 32 would require further reductions of 40 percent below 1990 levels by 2030. Because the project's operational year is post-2020, the project aims to reach the quantitative goals set by SB 32. Statewide plans and regulations such as GHG emissions standards for vehicles (AB 1493), the LCFS, and regulations requiring an increasing fraction of electricity to be generated from renewable sources are being implemented at the statewide level; as such, compliance at the project level is not addressed. Therefore, the proposed project would not conflict with those plans and regulations.

The project does not have a residential component and would not result in regional population growth. The project would seek a change in land use designation from commercial to light industrial for an

approximately 13-acre portion of the project site. As discussed in the air quality plan consistency analysis (Section 5.1), the average employment density for a warehouse or light industrial land use is lower than that for a commercial land use and the project would be consistent with the employment growth assumptions used to develop the SCAG's RTP/SCS. As shown in Section 3.3, transportation-related emissions consistently contribute the most GHG emissions in California (40 percent in 2019). According to the VMT screening evaluation, the project is located in an area with higher employee per capita than the City average. However, in accordance with City guidelines, projects that generate less than 500 average daily trips would not cause a substantial increase in the total citywide or regional VMT and are therefore presumed to have a less than significant impact on VMT. The project warehouse land use would result in 402 trips per day, below the 500 average daily trip thresholds. The proposed hotel component of the project would be considered a local serving land use which leads to shortened trips lengths and reduced VMT (Urban Crossroads 2022b). Therefore, the project would not conflict with or obstruct implementation of the SCAG's RTP/SCS.

As discussed in Section 2.2.5, the City adopted a CAP in 2016. The CAP contains state, regional, and local GHG reduction measures to achieve the GHG Perris community wide GHG reductions mandated by AB 32. Local GHG reduction measures contained in the CAP include:

E-1 Energy Action Plan
T-1 Bicycle Infrastructure Improvements
T-2 Bicycle Parking
T-3 End of Trip Facilities
T-4 Transit Frequency Expansion
T-5 Traffic Signal Coordination
T-6 Density
T-7 Mixed Use Development
T-8 Design/Stie Planning
T-9 Pedestrian Only Areas
T-10 Limited Parking Requirements for New Development
T-11 Voluntary Transportation Demand Management
T-12 Accelerated Bike Plan Implementation
SW-1 Yard Waste Collection
SW-2 Food Scrap and Paper Diversion

In accordance with City zoning regulations and PVCCSP design standards and guidelines, the project would support applicable measures by providing, bicycle parking, sidewalks, and transit demand management (commute trip reduction, ridesharing programs). In addition, the project would be constructed in accordance with the energy-efficiency standards, water reduction goals, and other standards required by the 2019 Title 24 Part 6 Building Energy Efficiency Standards and Part 11 (CALGreen) Building Standards. Therefore, the project would not conflict with or obstruct implementation of the City CAP.

6.2.2 Significance of Impacts

The project would not conflict with applicable GHG reduction plans including the SCAG's RTP/SCS and the City's CAP, and the impact would be less than significant.

6.2.3 Mitigation Framework

Impacts would be less than significant, and no mitigation would be required.

6.2.4 Significance After Mitigation

The project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and the impact would be less than.

7.0 LIST OF PREPARERS

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Appendix A

CalEEMod Output

The following section contains content that was obtained from a third party and may not achieve the same level of Americans with Disabilities Act (ADA) and Section 508 accessibility as other parts of this document.

JM Realty Perris Development, Phase 1 - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

JM Realty Perris Development, Phase 1

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	10.00	1000sqft	0.23	10,000.00	0
Unrefrigerated Warehouse-No Rail	222.58	1000sqft	5.11	222,580.00	0
Parking Lot	266.89	1000sqft	6.13	266,890.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Run 3 - Warehoue land use changed back to unrefrigerated, construction start bumped to Oct 1 2022.

Land Use - General Office Builing = office space internal to the warehouse building.
Parking lot includes auto parking, tuck trailer parking, loading docks, driveways, sidewalks, and street improvements.

Construction Phase - Site vacant, no demolition.
Construction schedule per project applicant and defaults.

Off-road Equipment -

Off-road Equipment - Off-Highway Truck = water truck.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Off-Highway Truck = water truck.

JM Realty Perris Development, Phase 1 - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Off-road Equipment - Equipment for excavation/installation of underground utilites and Line E storm drain.
Off-Highway Truck = water truck.

Off-road Equipment - Off-road Equipment - Equipment for excavation/installation of underground utilites and Line E storm drain.
Off-Highway Truck = water truck.

Trips and VMT - 310 loads (620 trips) ashpalt/aggregate imported during paving.

Grading - 15,842 CY soil import during grading

Architectural Coating - 50 g/L maximum VOC content for exterior and interior flat coatings per SCAQMD Rule 1113.

Vehicle Trips - Trip generation per Traffic Report.
Passender car/light truck trips asigned to office space, truck trips assigned to warehouse.
Truck trips assumed to be 100% primary and 100% C-NW.
40 mile warehouse truck trip distasnce per SCAQMD recommendations

Area Coating - 50 g/L maximum VOC content for exterior and interior flat coatings per SCAQMD Rule 1113.

Construction Off-road Equipment Mitigation - Dust miitigation to comply with SCAQMD Rule 403.

Area Mitigation - 50 g/L maximum VOC content for exterior and interior flat coatings per SCAQMD Rule 1113.

Water Mitigation - 20% water conservation per 2019 CalGreen not accounted for in model defaults.

Waste Mitigation - 25% solid waste diversion per AB 341 not accounted for in model defaults

Fleet Mix - Truck fleet mix per Traffic Report.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	116,290.00	111,290.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	348,870.00	333,870.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_Nonresidential_Exterior	116290	111290
tblAreaCoating	Area_Nonresidential_Interior	348870	333870
tblConstructionPhase	NumDays	30.00	21.00
tblFleetMix	HHD	0.02	0.62
tblFleetMix	LDA	0.54	0.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.17	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	7.0740e-003	0.17
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.14	0.00
tblFleetMix	MH	4.9320e-003	0.00
tblFleetMix	MHD	0.01	0.21
tblFleetMix	OBUS	6.1000e-004	0.00
tblFleetMix	SBUS	1.0940e-003	0.00
tblFleetMix	UBUS	3.0400e-004	0.00
tblGrading	MaterialImported	0.00	15,842.00
tblTripsAndVMT	HaulingTripNumber	0.00	620.00
tblVehicleTrips	CNW_TL	6.90	40.00
tblVehicleTrips	CNW_TTP	41.00	100.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	2.21	26.00
tblVehicleTrips	ST_TR	1.74	0.64
tblVehicleTrips	SU_TR	0.70	26.00
tblVehicleTrips	SU_TR	1.74	0.64
tblVehicleTrips	WD_TR	9.74	26.00
tblVehicleTrips	WD_TR	1.74	0.64

2.0 Emissions Summary

JM Realty Perris Development, Phase 1 - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
2022	0.1164	1.1842	0.9265	2.8300e-003	0.2415	0.0458	0.2872	0.1014	0.0423	0.1437	0.0000	254.9535	254.9535	0.0548	0.0108	259.5474
2023	0.3875	2.9078	3.6827	0.0100	0.3683	0.1177	0.4860	0.0993	0.1103	0.2096	0.0000	897.6846	897.6846	0.1401	0.0326	910.9000
2024	0.6087	0.3918	0.5228	1.3800e-003	0.0468	0.0153	0.0621	0.0126	0.0143	0.0269	0.0000	125.0620	125.0620	0.0192	5.7200e-003	127.2474
Maximum	**0.6087**	**2.9078**	**3.6827**	**0.0100**	**0.3683**	**0.1177**	**0.4860**	**0.1014**	**0.1103**	**0.2096**	**0.0000**	**897.6846**	**897.6846**	**0.1401**	**0.0326**	**910.9000**

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					
2022	0.1164	1.1842	0.9265	2.8300e-003	0.1337	0.0458	0.1795	0.0524	0.0423	0.0947	0.0000	254.9533	254.9533	0.0548	0.0108	259.5472
2023	0.3875	2.9078	3.6827	0.0100	0.3683	0.1177	0.4860	0.0993	0.1103	0.2096	0.0000	897.6840	897.6840	0.1401	0.0326	910.8994
2024	0.6087	0.3918	0.5228	1.3800e-003	0.0468	0.0153	0.0621	0.0126	0.0143	0.0269	0.0000	125.0619	125.0619	0.0192	5.7200e-003	127.2473
Maximum	**0.6087**	**2.9078**	**3.6827**	**0.0100**	**0.3683**	**0.1177**	**0.4860**	**0.0993**	**0.1103**	**0.2096**	**0.0000**	**897.6840**	**897.6840**	**0.1401**	**0.0326**	**910.8994**

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	ROG	NOx	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**	**16.41**	**0.00**	**12.90**	**22.95**	**0.00**	**12.88**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**10-1-2022**	**12-31-2022**	1.3271	1.3271
2	**1-1-2023**	**3-31-2023**	0.9383	0.9383
3	**4-1-2023**	**6-30-2023**	0.7812	0.7812
4	**7-1-2023**	**9-30-2023**	0.7897	0.7897
5	**10-1-2023**	**12-31-2023**	0.7938	0.7938
6	**1-1-2024**	**3-31-2024**	0.9850	0.9850
		Highest	1.3271	1.3271

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.9136	6.0000e-005	6.3600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0124	0.0124	3.0000e-005	0.0000	0.0132
Energy	2.6000e-003	0.0236	0.0198	1.4000e-004		1.7900e-003	1.7900e-003		1.7900e-003	1.7900e-003	0.0000	150.1474	150.1474	0.0110	1.7400e-003	150.9422
Mobile	0.1916	4.1164	2.0418	0.0258	1.2332	0.0497	1.2830	0.3435	0.0475	0.3910	0.0000	2,476.3232	2,476.3232	0.0414	0.3384	2,578.2028
Waste						0.0000	0.0000		0.0000	0.0000	44.3596	0.0000	44.3596	2.6216	0.0000	109.8991
Water						0.0000	0.0000		0.0000	0.0000	16.8934	125.1097	142.0031	1.7457	0.0423	198.2356
Total	**1.1078**	**4.1400**	**2.0680**	**0.0259**	**1.2332**	**0.0516**	**1.2848**	**0.3435**	**0.0494**	**0.3928**	**61.2531**	**2,751.5928**	**2,812.8458**	**4.4197**	**0.3824**	**3,037.2928**

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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	0.9136	6.0000e-005	6.3600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0124	0.0124	3.0000e-005	0.0000	0.0132
Energy	2.6000e-003	0.0236	0.0198	1.4000e-004		1.7900e-003	1.7900e-003		1.7900e-003	1.7900e-003	0.0000	150.1474	150.1474	0.0110	1.7400e-003	150.9422
Mobile	0.1916	4.1164	2.0418	0.0258	1.2332	0.0497	1.2830	0.3435	0.0475	0.3910	0.0000	2,476.3232	2,476.3232	0.0414	0.3384	2,578.2028
Waste						0.0000	0.0000		0.0000	0.0000	33.2697	0.0000	33.2697	1.9662	0.0000	82.4243
Water						0.0000	0.0000		0.0000	0.0000	13.5148	100.0878	113.6025	1.3965	0.0338	158.5884
Total	**1.1078**	**4.1400**	**2.0680**	**0.0259**	**1.2332**	**0.0516**	**1.2848**	**0.3435**	**0.0494**	**0.3928**	**46.7845**	**2,726.5708**	**2,773.3553**	**3.4152**	**0.3739**	**2,970.1710**

	ROG	NOx	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**	**23.62**	**0.91**	**1.40**	**22.73**	**2.21**	**2.21**

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	10/1/2022	10/14/2022	5	10	
2	Grading	Grading	10/15/2022	11/14/2022	5	21	
3	Underground Utilities	Trenching	10/15/2022	2/14/2023	5	87	

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4	Building Construction	Building Construction	12/12/2022	2/2/2024	5	300	
5	Paving	Paving	2/3/2024	3/1/2024	5	20	
6	Architectural Coating	Architectural Coating	3/2/2024	3/29/2024	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 63

Acres of Paving: 6.13

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 333,870; Non-Residential Outdoor: 111,290; Striped Parking Area: 16,013 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Off-Highway Trucks	1	8.00	402	0.38
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Underground Utilities	Cranes	1	2.00	231	0.29
Underground Utilities	Excavators	1	8.00	158	0.38
Underground Utilities	Off-Highway Trucks	1	8.00	402	0.38
Underground Utilities	Rubber Tired Loaders	1	8.00	203	0.36
Underground Utilities	Tractors/Loaders/Backhoes	1	1.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Off-Highway Trucks	1	8.00	402	0.38

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Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	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	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	1,980.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Underground Utilities	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	10	209.00	82.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	620.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	42.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2022

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					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0185	0.1855	0.1153	2.6000e-004		8.7900e-003	8.7900e-003		8.0900e-003	8.0900e-003	0.0000	22.5211	22.5211	7.2800e-003	0.0000	22.7032
Total	**0.0185**	**0.1855**	**0.1153**	**2.6000e-004**	**0.0983**	**8.7900e-003**	**0.1071**	**0.0505**	**8.0900e-003**	**0.0586**	**0.0000**	**22.5211**	**22.5211**	**7.2800e-003**	**0.0000**	**22.7032**

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	3.5000e-004	2.7000e-004	3.4000e-003	1.0000e-005	1.1000e-003	1.0000e-005	1.1000e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	0.8635	0.8635	2.0000e-005	2.0000e-005	0.8713
Total	**3.5000e-004**	**2.7000e-004**	**3.4000e-003**	**1.0000e-005**	**1.1000e-003**	**1.0000e-005**	**1.1000e-003**	**2.9000e-004**	**1.0000e-005**	**3.0000e-004**	**0.0000**	**0.8635**	**0.8635**	**2.0000e-005**	**2.0000e-005**	**0.8713**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2022

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					0.0442	0.0000	0.0442	0.0227	0.0000	0.0227	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0185	0.1855	0.1153	2.6000e-004		8.7900e-003	8.7900e-003		8.0900e-003	8.0900e-003	0.0000	22.5211	22.5211	7.2800e-003	0.0000	22.7031
Total	**0.0185**	**0.1855**	**0.1153**	**2.6000e-004**	**0.0442**	**8.7900e-003**	**0.0530**	**0.0227**	**8.0900e-003**	**0.0308**	**0.0000**	**22.5211**	**22.5211**	**7.2800e-003**	**0.0000**	**22.7031**

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	3.5000e-004	2.7000e-004	3.4000e-003	1.0000e-005	1.1000e-003	1.0000e-005	1.1000e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	0.8635	0.8635	2.0000e-005	2.0000e-005	0.8713
Total	**3.5000e-004**	**2.7000e-004**	**3.4000e-003**	**1.0000e-005**	**1.1000e-003**	**1.0000e-005**	**1.1000e-003**	**2.9000e-004**	**1.0000e-005**	**3.0000e-004**	**0.0000**	**0.8635**	**0.8635**	**2.0000e-005**	**2.0000e-005**	**0.8713**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2022

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					0.0976	0.0000	0.0976	0.0385	0.0000	0.0385	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0381	0.4079	0.3049	6.5000e-004		0.0172	0.0172		0.0158	0.0158	0.0000	57.2613	57.2613	0.0185	0.0000	57.7243
Total	**0.0381**	**0.4079**	**0.3049**	**6.5000e-004**	**0.0976**	**0.0172**	**0.1148**	**0.0385**	**0.0158**	**0.0543**	**0.0000**	**57.2613**	**57.2613**	**0.0185**	**0.0000**	**57.7243**

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	3.0700e-003	0.1333	0.0284	5.7000e-004	0.0171	1.4700e-003	0.0186	4.6900e-003	1.4100e-003	6.1000e-003	0.0000	55.1036	55.1036	7.4000e-004	8.6800e-003	57.7089
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.3000e-004	5.7000e-004	7.1400e-003	2.0000e-005	2.3100e-003	1.0000e-005	2.3200e-003	6.1000e-004	1.0000e-005	6.2000e-004	0.0000	1.8134	1.8134	5.0000e-005	5.0000e-005	1.8297
Total	**3.8000e-003**	**0.1339**	**0.0356**	**5.9000e-004**	**0.0194**	**1.4800e-003**	**0.0209**	**5.3000e-003**	**1.4200e-003**	**6.7200e-003**	**0.0000**	**56.9170**	**56.9170**	**7.9000e-004**	**8.7300e-003**	**59.5386**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2022

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					0.0439	0.0000	0.0439	0.0173	0.0000	0.0173	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0381	0.4079	0.3049	6.5000e-004		0.0172	0.0172		0.0158	0.0158	0.0000	57.2613	57.2613	0.0185	0.0000	57.7243
Total	**0.0381**	**0.4079**	**0.3049**	**6.5000e-004**	**0.0439**	**0.0172**	**0.0611**	**0.0173**	**0.0158**	**0.0331**	**0.0000**	**57.2613**	**57.2613**	**0.0185**	**0.0000**	**57.7243**

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	3.0700e-003	0.1333	0.0284	5.7000e-004	0.0171	1.4700e-003	0.0186	4.6900e-003	1.4100e-003	6.1000e-003	0.0000	55.1036	55.1036	7.4000e-004	8.6800e-003	57.7089
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.3000e-004	5.7000e-004	7.1400e-003	2.0000e-005	2.3100e-003	1.0000e-005	2.3200e-003	6.1000e-004	1.0000e-005	6.2000e-004	0.0000	1.8134	1.8134	5.0000e-005	5.0000e-005	1.8297
Total	**3.8000e-003**	**0.1339**	**0.0356**	**5.9000e-004**	**0.0194**	**1.4800e-003**	**0.0209**	**5.3000e-003**	**1.4200e-003**	**6.7200e-003**	**0.0000**	**56.9170**	**56.9170**	**7.9000e-004**	**8.7300e-003**	**59.5386**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Underground Utilities - 2022

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	0.0312	0.2770	0.2447	7.3000e-004		0.0107	0.0107		9.8200e-003	9.8200e-003	0.0000	63.9164	63.9164	0.0207	0.0000	64.4332
Total	**0.0312**	**0.2770**	**0.2447**	**7.3000e-004**		**0.0107**	**0.0107**		**9.8200e-003**	**9.8200e-003**	**0.0000**	**63.9164**	**63.9164**	**0.0207**	**0.0000**	**64.4332**

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	1.2500e-003	9.7000e-004	0.0122	3.0000e-005	3.9300e-003	2.0000e-005	3.9500e-003	1.0400e-003	2.0000e-005	1.0600e-003	0.0000	3.0871	3.0871	8.0000e-005	9.0000e-005	3.1148
Total	**1.2500e-003**	**9.7000e-004**	**0.0122**	**3.0000e-005**	**3.9300e-003**	**2.0000e-005**	**3.9500e-003**	**1.0400e-003**	**2.0000e-005**	**1.0600e-003**	**0.0000**	**3.0871**	**3.0871**	**8.0000e-005**	**9.0000e-005**	**3.1148**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Underground Utilities - 2022

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	0.0312	0.2770	0.2447	7.3000e-004		0.0107	0.0107		9.8200e-003	9.8200e-003	0.0000	63.9163	63.9163	0.0207	0.0000	64.4331
Total	**0.0312**	**0.2770**	**0.2447**	**7.3000e-004**		**0.0107**	**0.0107**		**9.8200e-003**	**9.8200e-003**	**0.0000**	**63.9163**	**63.9163**	**0.0207**	**0.0000**	**64.4331**

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	1.2500e-003	9.7000e-004	0.0122	3.0000e-005	3.9300e-003	2.0000e-005	3.9500e-003	1.0400e-003	2.0000e-005	1.0600e-003	0.0000	3.0871	3.0871	8.0000e-005	9.0000e-005	3.1148
Total	**1.2500e-003**	**9.7000e-004**	**0.0122**	**3.0000e-005**	**3.9300e-003**	**2.0000e-005**	**3.9500e-003**	**1.0400e-003**	**2.0000e-005**	**1.0600e-003**	**0.0000**	**3.0871**	**3.0871**	**8.0000e-005**	**9.0000e-005**	**3.1148**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Underground Utilities - 2023

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	0.0171	0.1427	0.1407	4.2000e-004		5.4900e-003	5.4900e-003		5.0500e-003	5.0500e-003	0.0000	37.2012	37.2012	0.0120	0.0000	37.5020
Total	**0.0171**	**0.1427**	**0.1407**	**4.2000e-004**		**5.4900e-003**	**5.4900e-003**		**5.0500e-003**	**5.0500e-003**	**0.0000**	**37.2012**	**37.2012**	**0.0120**	**0.0000**	**37.5020**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.7000e-004	5.0000e-004	6.5100e-003	2.0000e-005	2.2900e-003	1.0000e-005	2.3000e-003	6.1000e-004	1.0000e-005	6.2000e-004	0.0000	1.7386	1.7386	4.0000e-005	5.0000e-005	1.7534
Total	**6.7000e-004**	**5.0000e-004**	**6.5100e-003**	**2.0000e-005**	**2.2900e-003**	**1.0000e-005**	**2.3000e-003**	**6.1000e-004**	**1.0000e-005**	**6.2000e-004**	**0.0000**	**1.7386**	**1.7386**	**4.0000e-005**	**5.0000e-005**	**1.7534**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Underground Utilities - 2023

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	0.0171	0.1427	0.1407	4.2000e-004		5.4900e-003	5.4900e-003		5.0500e-003	5.0500e-003	0.0000	37.2012	37.2012	0.0120	0.0000	37.5020
Total	**0.0171**	**0.1427**	**0.1407**	**4.2000e-004**		**5.4900e-003**	**5.4900e-003**		**5.0500e-003**	**5.0500e-003**	**0.0000**	**37.2012**	**37.2012**	**0.0120**	**0.0000**	**37.5020**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.7000e-004	5.0000e-004	6.5100e-003	2.0000e-005	2.2900e-003	1.0000e-005	2.3000e-003	6.1000e-004	1.0000e-005	6.2000e-004	0.0000	1.7386	1.7386	4.0000e-005	5.0000e-005	1.7534
Total	**6.7000e-004**	**5.0000e-004**	**6.5100e-003**	**2.0000e-005**	**2.2900e-003**	**1.0000e-005**	**2.3000e-003**	**6.1000e-004**	**1.0000e-005**	**6.2000e-004**	**0.0000**	**1.7386**	**1.7386**	**4.0000e-005**	**5.0000e-005**	**1.7534**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2022

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	0.0168	0.1472	0.1479	3.0000e-004		7.1600e-003	7.1600e-003		6.7200e-003	6.7200e-003	0.0000	26.0815	26.0815	6.9800e-003	0.0000	26.2559
Total	**0.0168**	**0.1472**	**0.1479**	**3.0000e-004**		**7.1600e-003**	**7.1600e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**26.0815**	**26.0815**	**6.9800e-003**	**0.0000**	**26.2559**

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	9.8000e-004	0.0273	9.2000e-003	1.1000e-004	3.8900e-003	3.8000e-004	4.2600e-003	1.1200e-003	3.6000e-004	1.4800e-003	0.0000	10.7697	10.7697	1.1000e-004	1.6000e-003	11.2488
Worker	5.4800e-003	4.2700e-003	0.0533	1.5000e-004	0.0172	9.0000e-005	0.0173	4.5700e-003	8.0000e-005	4.6600e-003	0.0000	13.5359	13.5359	3.6000e-004	3.8000e-004	13.6573
Total	**6.4600e-003**	**0.0316**	**0.0625**	**2.6000e-004**	**0.0211**	**4.7000e-004**	**0.0216**	**5.6900e-003**	**4.4000e-004**	**6.1400e-003**	**0.0000**	**24.3056**	**24.3056**	**4.7000e-004**	**1.9800e-003**	**24.9061**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2022

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	0.0168	0.1472	0.1479	3.0000e-004		7.1600e-003	7.1600e-003		6.7200e-003	6.7200e-003	0.0000	26.0814	26.0814	6.9800e-003	0.0000	26.2559
Total	**0.0168**	**0.1472**	**0.1479**	**3.0000e-004**		**7.1600e-003**	**7.1600e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**26.0814**	**26.0814**	**6.9800e-003**	**0.0000**	**26.2559**

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	9.8000e-004	0.0273	9.2000e-003	1.1000e-004	3.8900e-003	3.8000e-004	4.2600e-003	1.1200e-003	3.6000e-004	1.4800e-003	0.0000	10.7697	10.7697	1.1000e-004	1.6000e-003	11.2488
Worker	5.4800e-003	4.2700e-003	0.0533	1.5000e-004	0.0172	9.0000e-005	0.0173	4.5700e-003	8.0000e-005	4.6600e-003	0.0000	13.5359	13.5359	3.6000e-004	3.8000e-004	13.6573
Total	**6.4600e-003**	**0.0316**	**0.0625**	**2.6000e-004**	**0.0211**	**4.7000e-004**	**0.0216**	**5.6900e-003**	**4.4000e-004**	**6.1400e-003**	**0.0000**	**24.3056**	**24.3056**	**4.7000e-004**	**1.9800e-003**	**24.9061**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2023

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	0.2700	2.3339	2.5392	5.2200e-003		0.1077	0.1077		0.1010	0.1010	0.0000	452.2886	452.2886	0.1205	0.0000	455.3012
Total	**0.2700**	**2.3339**	**2.5392**	**5.2200e-003**		**0.1077**	**0.1077**		**0.1010**	**0.1010**	**0.0000**	**452.2886**	**452.2886**	**0.1205**	**0.0000**	**455.3012**

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	0.0116	0.3655	0.1456	1.8600e-003	0.0673	3.0400e-003	0.0704	0.0194	2.9100e-003	0.0223	0.0000	179.3550	179.3550	1.8100e-003	0.0265	187.3035
Worker	0.0881	0.0653	0.8507	2.4800e-003	0.2986	1.4200e-003	0.3001	0.0793	1.3100e-003	0.0806	0.0000	227.1012	227.1012	5.6700e-003	6.0300e-003	229.0399
Total	**0.0997**	**0.4308**	**0.9963**	**4.3400e-003**	**0.3660**	**4.4600e-003**	**0.3704**	**0.0987**	**4.2200e-003**	**0.1030**	**0.0000**	**406.4563**	**406.4563**	**7.4800e-003**	**0.0326**	**416.3434**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2023

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	0.2700	2.3339	2.5392	5.2200e-003		0.1077	0.1077		0.1010	0.1010	0.0000	452.2880	452.2880	0.1205	0.0000	455.3006
Total	**0.2700**	**2.3339**	**2.5392**	**5.2200e-003**		**0.1077**	**0.1077**		**0.1010**	**0.1010**	**0.0000**	**452.2880**	**452.2880**	**0.1205**	**0.0000**	**455.3006**

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	0.0116	0.3655	0.1456	1.8600e-003	0.0673	3.0400e-003	0.0704	0.0194	2.9100e-003	0.0223	0.0000	179.3550	179.3550	1.8100e-003	0.0265	187.3035
Worker	0.0881	0.0653	0.8507	2.4800e-003	0.2986	1.4200e-003	0.3001	0.0793	1.3100e-003	0.0806	0.0000	227.1012	227.1012	5.6700e-003	6.0300e-003	229.0399
Total	**0.0997**	**0.4308**	**0.9963**	**4.3400e-003**	**0.3660**	**4.4600e-003**	**0.3704**	**0.0987**	**4.2200e-003**	**0.1030**	**0.0000**	**406.4563**	**406.4563**	**7.4800e-003**	**0.0326**	**416.3434**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

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	0.0246	0.2097	0.2427	5.0000e-004		9.1600e-003	9.1600e-003		8.5900e-003	8.5900e-003	0.0000	43.5001	43.5001	0.0116	0.0000	43.7888
Total	**0.0246**	**0.2097**	**0.2427**	**5.0000e-004**		**9.1600e-003**	**9.1600e-003**		**8.5900e-003**	**8.5900e-003**	**0.0000**	**43.5001**	**43.5001**	**0.0116**	**0.0000**	**43.7888**

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	1.0900e-003	0.0352	0.0138	1.8000e-004	6.4800e-003	2.9000e-004	6.7700e-003	1.8700e-003	2.8000e-004	2.1500e-003	0.0000	16.9800	16.9800	1.8000e-004	2.5100e-003	17.7316
Worker	7.9100e-003	5.5900e-003	0.0765	2.3000e-004	0.0287	1.3000e-004	0.0288	7.6200e-003	1.2000e-004	7.7400e-003	0.0000	21.1452	21.1452	4.9000e-004	5.4000e-004	21.3181
Total	**9.0000e-003**	**0.0407**	**0.0903**	**4.1000e-004**	**0.0352**	**4.2000e-004**	**0.0356**	**9.4900e-003**	**4.0000e-004**	**9.8900e-003**	**0.0000**	**38.1253**	**38.1253**	**6.7000e-004**	**3.0500e-003**	**39.0496**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

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	0.0246	0.2097	0.2427	5.0000e-004		9.1600e-003	9.1600e-003		8.5900e-003	8.5900e-003	0.0000	43.5000	43.5000	0.0116	0.0000	43.7887
Total	**0.0246**	**0.2097**	**0.2427**	**5.0000e-004**		**9.1600e-003**	**9.1600e-003**		**8.5900e-003**	**8.5900e-003**	**0.0000**	**43.5000**	**43.5000**	**0.0116**	**0.0000**	**43.7887**

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	1.0900e-003	0.0352	0.0138	1.8000e-004	6.4800e-003	2.9000e-004	6.7700e-003	1.8700e-003	2.8000e-004	2.1500e-003	0.0000	16.9800	16.9800	1.8000e-004	2.5100e-003	17.7316
Worker	7.9100e-003	5.5900e-003	0.0765	2.3000e-004	0.0287	1.3000e-004	0.0288	7.6200e-003	1.2000e-004	7.7400e-003	0.0000	21.1452	21.1452	4.9000e-004	5.4000e-004	21.3181
Total	**9.0000e-003**	**0.0407**	**0.0903**	**4.1000e-004**	**0.0352**	**4.2000e-004**	**0.0356**	**9.4900e-003**	**4.0000e-004**	**9.8900e-003**	**0.0000**	**38.1253**	**38.1253**	**6.7000e-004**	**3.0500e-003**	**39.0496**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1885
Paving	8.0300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0179**	**0.0953**	**0.1463**	**2.3000e-004**		**4.6900e-003**	**4.6900e-003**		**4.3100e-003**	**4.3100e-003**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1885**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.5000e-004	0.0328	8.6800e-003	1.7000e-004	5.3500e-003	3.7000e-004	5.7200e-003	1.4700e-003	3.6000e-004	1.8200e-003	0.0000	16.2434	16.2434	2.5000e-004	2.5600e-003	17.0125
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	4.5000e-004	3.2000e-004	4.3900e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.4000e-004	0.0000	1.2141	1.2141	3.0000e-005	3.0000e-005	1.2240
Total	**1.1000e-003**	**0.0331**	**0.0131**	**1.8000e-004**	**7.0000e-003**	**3.8000e-004**	**7.3800e-003**	**1.9100e-003**	**3.7000e-004**	**2.2600e-003**	**0.0000**	**17.4575**	**17.4575**	**2.8000e-004**	**2.5900e-003**	**18.2365**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1884
Paving	8.0300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0179**	**0.0953**	**0.1463**	**2.3000e-004**		**4.6900e-003**	**4.6900e-003**		**4.3100e-003**	**4.3100e-003**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1884**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.5000e-004	0.0328	8.6800e-003	1.7000e-004	5.3500e-003	3.7000e-004	5.7200e-003	1.4700e-003	3.6000e-004	1.8200e-003	0.0000	16.2434	16.2434	2.5000e-004	2.5600e-003	17.0125
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	4.5000e-004	3.2000e-004	4.3900e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.4000e-004	0.0000	1.2141	1.2141	3.0000e-005	3.0000e-005	1.2240
Total	**1.1000e-003**	**0.0331**	**0.0131**	**1.8000e-004**	**7.0000e-003**	**3.8000e-004**	**7.3800e-003**	**1.9100e-003**	**3.7000e-004**	**2.2600e-003**	**0.0000**	**17.4575**	**17.4575**	**2.8000e-004**	**2.5900e-003**	**18.2365**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2024

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	0.5529					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5569
Total	**0.5548**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5569**

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	1.2700e-003	9.0000e-004	0.0123	4.0000e-005	4.6200e-003	2.0000e-005	4.6400e-003	1.2300e-003	2.0000e-005	1.2500e-003	0.0000	3.3994	3.3994	8.0000e-005	9.0000e-005	3.4272
Total	**1.2700e-003**	**9.0000e-004**	**0.0123**	**4.0000e-005**	**4.6200e-003**	**2.0000e-005**	**4.6400e-003**	**1.2300e-003**	**2.0000e-005**	**1.2500e-003**	**0.0000**	**3.3994**	**3.3994**	**8.0000e-005**	**9.0000e-005**	**3.4272**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2024

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	0.5529					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5568
Total	**0.5548**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5568**

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	1.2700e-003	9.0000e-004	0.0123	4.0000e-005	4.6200e-003	2.0000e-005	4.6400e-003	1.2300e-003	2.0000e-005	1.2500e-003	0.0000	3.3994	3.3994	8.0000e-005	9.0000e-005	3.4272
Total	**1.2700e-003**	**9.0000e-004**	**0.0123**	**4.0000e-005**	**4.6200e-003**	**2.0000e-005**	**4.6400e-003**	**1.2300e-003**	**2.0000e-005**	**1.2500e-003**	**0.0000**	**3.3994**	**3.3994**	**8.0000e-005**	**9.0000e-005**	**3.4272**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.1916	4.1164	2.0418	0.0258	1.2332	0.0497	1.2830	0.3435	0.0475	0.3910	0.0000	2,476.3232	2,476.3232	0.0414	0.3384	2,578.2028
Unmitigated	0.1916	4.1164	2.0418	0.0258	1.2332	0.0497	1.2830	0.3435	0.0475	0.3910	0.0000	2,476.3232	2,476.3232	0.0414	0.3384	2,578.2028

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	260.00	260.00	260.00	837,580	837,580
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	142.45	142.45	142.45	2,074,089	2,074,089
Total	402.45	402.45	402.45	2,911,669	2,911,669

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
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	16.60	8.40	40.00	0.00	0.00	100.00	100	0	0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.540541	0.056458	0.173793	0.136090	0.025268	0.007074	0.011525	0.018705	0.000610	0.000304	0.023606	0.001094	0.004932
Parking Lot	0.540541	0.056458	0.173793	0.136090	0.025268	0.007074	0.011525	0.018705	0.000610	0.000304	0.023606	0.001094	0.004932
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.170000	0.210000	0.620000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

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	124.4429	124.4429	0.0105	1.2700e-003	125.0848
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	124.4429	124.4429	0.0105	1.2700e-003	125.0848
NaturalGas Mitigated	2.6000e-003	0.0236	0.0198	1.4000e-004		1.7900e-003	1.7900e-003		1.7900e-003	1.7900e-003	0.0000	25.7046	25.7046	4.9000e-004	4.7000e-004	25.8573
NaturalGas Unmitigated	2.6000e-003	0.0236	0.0198	1.4000e-004		1.7900e-003	1.7900e-003		1.7900e-003	1.7900e-003	0.0000	25.7046	25.7046	4.9000e-004	4.7000e-004	25.8573

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	34300	1.8000e-004	1.6800e-003	1.4100e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.8304	1.8304	4.0000e-005	3.0000e-005	1.8413
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
Unrefrigerated Warehouse-No Rail	447386	2.4100e-003	0.0219	0.0184	1.3000e-004		1.6700e-003	1.6700e-003		1.6700e-003	1.6700e-003	0.0000	23.8742	23.8742	4.6000e-004	4.4000e-004	24.0161
Total		**2.5900e-003**	**0.0236**	**0.0198**	**1.4000e-004**		**1.8000e-003**	**1.8000e-003**		**1.8000e-003**	**1.8000e-003**	**0.0000**	**25.7046**	**25.7046**	**5.0000e-004**	**4.7000e-004**	**25.8573**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
General Office Building	34300	1.8000e-004	1.6800e-003	1.4100e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.8304	1.8304	4.0000e-005	3.0000e-005	1.8413
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
Unrefrigerated Warehouse-No Rail	447386	2.4100e-003	0.0219	0.0184	1.3000e-004		1.6700e-003	1.6700e-003		1.6700e-003	1.6700e-003	0.0000	23.8742	23.8742	4.6000e-004	4.4000e-004	24.0161
Total		**2.5900e-003**	**0.0236**	**0.0198**	**1.4000e-004**		**1.8000e-003**	**1.8000e-003**		**1.8000e-003**	**1.8000e-003**	**0.0000**	**25.7046**	**25.7046**	**5.0000e-004**	**4.7000e-004**	**25.8573**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	91900	16.2981	1.3800e-003	1.7000e-004	16.3821
Parking Lot	93411.5	16.5661	1.4000e-003	1.7000e-004	16.6516
Unrefrigerated Warehouse-No Rail	516386	91.5787	7.7300e-003	9.4000e-004	92.0511
Total		**124.4429**	**0.0105**	**1.2800e-003**	**125.0848**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	91900	16.2981	1.3800e-003	1.7000e-004	16.3821
Parking Lot	93411.5	16.5661	1.4000e-003	1.7000e-004	16.6516
Unrefrigerated Warehouse-No Rail	516386	91.5787	7.7300e-003	9.4000e-004	92.0511
Total		**124.4429**	**0.0105**	**1.2800e-003**	**125.0848**

6.0 Area Detail

6.1 Mitigation Measures Area

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.9136	6.0000e-005	6.3600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0124	0.0124	3.0000e-005	0.0000	0.0132
Unmitigated	0.9136	6.0000e-005	6.3600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0124	0.0124	3.0000e-005	0.0000	0.0132

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	0.0553					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8577					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.9000e-004	6.0000e-005	6.3600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0124	0.0124	3.0000e-005	0.0000	0.0132
Total	**0.9136**	**6.0000e-005**	**6.3600e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0124**	**0.0124**	**3.0000e-005**	**0.0000**	**0.0132**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.0553					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8577					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.9000e-004	6.0000e-005	6.3600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0124	0.0124	3.0000e-005	0.0000	0.0132
Total	**0.9136**	**6.0000e-005**	**6.3600e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0124**	**0.0124**	**3.0000e-005**	**0.0000**	**0.0132**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	113.6025	1.3965	0.0338	158.5884
Unmitigated	142.0031	1.7457	0.0423	198.2356

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	1.77734 / 1.08934	6.8145	0.0584	1.4300e-003	8.7021
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	51.4716 / 0	135.1887	1.6872	0.0408	189.5335
Total		**142.0031**	**1.7457**	**0.0423**	**198.2355**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	1.42187 / 0.871469	5.4516	0.0468	1.1500e-003	6.9617
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	41.1773 / 0	108.1510	1.3498	0.0327	151.6268
Total		**113.6025**	**1.3965**	**0.0338**	**158.5884**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	33.2697	1.9662	0.0000	82.4243
Unmitigated	44.3596	2.6216	0.0000	109.8991

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	9.3	1.8878	0.1116	0.0000	4.6770
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	209.23	42.4718	2.5100	0.0000	105.2221
Total		**44.3596**	**2.6216**	**0.0000**	**109.8991**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	6.975	1.4159	0.0837	0.0000	3.5077
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	156.922	31.8539	1.8825	0.0000	78.9166
Total		**33.2697**	**1.9662**	**0.0000**	**82.4243**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

11.0 Vegetation

JM Realty Perris Development, Phase 1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

JM Realty Perris Development, Phase 1

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	10.00	1000sqft	0.23	10,000.00	0
Unrefrigerated Warehouse-No Rail	222.58	1000sqft	5.11	222,580.00	0
Parking Lot	266.89	1000sqft	6.13	266,890.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Run 3 - Warehoue land use changed back to unrefrigerated, construction start bumped to Oct 1 2022.

Land Use - General Office Builing = office space internal to the warehouse building.
Parking lot includes auto parking, tuck trailer parking, loading docks, driveways, sidewalks, and street improvements.

Construction Phase - Site vacant, no demolition.
Construction schedule per project applicant and defaults.

Off-road Equipment -

Off-road Equipment - Off-Highway Truck = water truck.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Off-Highway Truck = water truck.

JM Realty Perris Development, Phase 1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Off-road Equipment - Equipment for excavation/installation of underground utilites and Line E storm drain.
Off-Highway Truck = water truck.

Off-road Equipment - Off-road Equipment - Equipment for excavation/installation of underground utilites and Line E storm drain.
Off-Highway Truck = water truck.

Trips and VMT - 310 loads (620 trips) ashpalt/aggregate imported during paving.

Grading - 15,842 CY soil import during grading

Architectural Coating - 50 g/L maximum VOC content for exterior and interior flat coatings per SCAQMD Rule 1113.

Vehicle Trips - Trip generation per Traffic Report.
Passender car/light truck trips asigned to office space, truck trips assigned to warehouse.
Truck trips assumed to be 100% primary and 100% C-NW.
40 mile warehouse truck trip distasnce per SCAQMD recommendations

Area Coating - 50 g/L maximum VOC content for exterior and interior flat coatings per SCAQMD Rule 1113.

Construction Off-road Equipment Mitigation - Dust miitigation to comply with SCAQMD Rule 403.

Area Mitigation - 50 g/L maximum VOC content for exterior and interior flat coatings per SCAQMD Rule 1113.

Water Mitigation - 20% water conservation per 2019 CalGreen not accounted for in model defaults.

Waste Mitigation - 25% solid waste diversion per AB 341 not accounted for in model defaults

Fleet Mix - Truck fleet mix per Traffic Report.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	116,290.00	111,290.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	348,870.00	333,870.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_Nonresidential_Exterior	116290	111290
tblAreaCoating	Area_Nonresidential_Interior	348870	333870
tblConstructionPhase	NumDays	30.00	21.00
tblFleetMix	HHD	0.02	0.62
tblFleetMix	LDA	0.54	0.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.17	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	7.0740e-003	0.17
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.14	0.00
tblFleetMix	MH	4.9320e-003	0.00
tblFleetMix	MHD	0.01	0.21
tblFleetMix	OBUS	6.1000e-004	0.00
tblFleetMix	SBUS	1.0940e-003	0.00
tblFleetMix	UBUS	3.0400e-004	0.00
tblGrading	MaterialImported	0.00	15,842.00
tblTripsAndVMT	HaulingTripNumber	0.00	620.00
tblVehicleTrips	CNW_TL	6.90	40.00
tblVehicleTrips	CNW_TTP	41.00	100.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	2.21	26.00
tblVehicleTrips	ST_TR	1.74	0.64
tblVehicleTrips	SU_TR	0.70	26.00
tblVehicleTrips	SU_TR	1.74	0.64
tblVehicleTrips	WD_TR	9.74	26.00
tblVehicleTrips	WD_TR	1.74	0.64

2.0 Emissions Summary

JM Realty Perris Development, Phase 1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2022	5.1663	61.7033	41.7554	0.1458	19.8806	2.1649	21.6402	10.1617	1.9969	11.7806	0.0000	14,667.8373	14,667.8373	2.8588	0.9203	15,013.5487
2023	3.9918	30.2306	36.0618	0.1008	3.0067	1.2068	4.2134	0.8093	1.1258	1.9351	0.0000	9,919.9882	9,919.9882	1.9167	0.2785	10,050.9127
2024	55.6091	20.0487	26.3515	0.0724	2.8613	0.7668	3.6281	0.7708	0.7190	1.4897	0.0000	7,157.9219	7,157.9219	1.0776	0.2858	7,264.7382
Maximum	**55.6091**	**61.7033**	**41.7554**	**0.1458**	**19.8806**	**2.1649**	**21.6402**	**10.1617**	**1.9969**	**11.7806**	**0.0000**	**14,667.8373**	**14,667.8373**	**2.8588**	**0.9203**	**15,013.5487**

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	lb/day										lb/day					
2022	5.1663	61.7033	41.7554	0.1458	9.0692	2.1649	10.8289	4.6054	1.9969	6.2243	0.0000	14,667.8373	14,667.8373	2.8588	0.9203	15,013.5487
2023	3.9918	30.2306	36.0618	0.1008	3.0067	1.2068	4.2134	0.8093	1.1258	1.9351	0.0000	9,919.9882	9,919.9882	1.9167	0.2785	10,050.9127
2024	55.6091	20.0487	26.3515	0.0724	2.8613	0.7668	3.6281	0.7708	0.7190	1.4897	0.0000	7,157.9219	7,157.9219	1.0776	0.2858	7,264.7382
Maximum	**55.6091**	**61.7033**	**41.7554**	**0.1458**	**9.0692**	**2.1649**	**10.8289**	**4.6054**	**1.9969**	**6.2243**	**0.0000**	**14,667.8373**	**14,667.8373**	**2.8588**	**0.9203**	**15,013.5487**

JM Realty Perris Development, Phase 1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	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	41.99	0.00	36.67	47.32	0.00	36.54	0.00	0.00	0.00	0.00	0.00	0.00

JM Realty Perris Development, Phase 1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Area	5.0073	4.6000e-004	0.0509	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		0.1093	0.1093	2.8000e-004		0.1164
Energy	0.0142	0.1294	0.1087	7.8000e-004		9.8300e-003	9.8300e-003		9.8300e-003	9.8300e-003		155.2573	155.2573	2.9800e-003	2.8500e-003	156.1799
Mobile	1.0362	22.5881	11.0484	0.1417	6.8775	0.2737	7.1512	1.9122	0.2616	2.1737		14,993.7668	14,993.7668	0.2507	2.0523	15,611.6206
Total	**6.0577**	**22.7180**	**11.2080**	**0.1425**	**6.8775**	**0.2837**	**7.1612**	**1.9122**	**0.2716**	**2.1838**		**15,149.1334**	**15,149.1334**	**0.2539**	**2.0552**	**15,767.9170**

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	lb/day										lb/day					
Area	5.0073	4.6000e-004	0.0509	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		0.1093	0.1093	2.8000e-004		0.1164
Energy	0.0142	0.1294	0.1087	7.8000e-004		9.8300e-003	9.8300e-003		9.8300e-003	9.8300e-003		155.2573	155.2573	2.9800e-003	2.8500e-003	156.1799
Mobile	1.0362	22.5881	11.0484	0.1417	6.8775	0.2737	7.1512	1.9122	0.2616	2.1737		14,993.7668	14,993.7668	0.2507	2.0523	15,611.6206
Total	**6.0577**	**22.7180**	**11.2080**	**0.1425**	**6.8775**	**0.2837**	**7.1612**	**1.9122**	**0.2716**	**2.1838**		**15,149.1334**	**15,149.1334**	**0.2539**	**2.0552**	**15,767.9170**

JM Realty Perris Development, Phase 1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	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	10/1/2022	10/14/2022	5	10	
2	Grading	Grading	10/15/2022	11/14/2022	5	21	
3	Underground Utilities	Trenching	10/15/2022	2/14/2023	5	87	
4	Building Construction	Building Construction	12/12/2022	2/2/2024	5	300	
5	Paving	Paving	2/3/2024	3/1/2024	5	20	
6	Architectural Coating	Architectural Coating	3/2/2024	3/29/2024	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 63

Acres of Paving: 6.13

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 333,870; Non-Residential Outdoor: 111,290; Striped Parking Area: 16,013 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Off-Highway Trucks	1	8.00	402	0.38
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41

JM Realty Perris Development, Phase 1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Underground Utilities	Cranes	1	2.00	231	0.29
Underground Utilities	Excavators	1	8.00	158	0.38
Underground Utilities	Off-Highway Trucks	1	8.00	402	0.38
Underground Utilities	Rubber Tired Loaders	1	8.00	203	0.36
Underground Utilities	Tractors/Loaders/Backhoes	1	1.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Off-Highway Trucks	1	8.00	402	0.38
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	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	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	1,980.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Underground Utilities	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	10	209.00	82.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	620.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	42.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

JM Realty Perris Development, Phase 1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2022

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	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.6986	37.0972	23.0565	0.0513		1.7585	1.7585		1.6179	1.6179		4,965.0472	4,965.0472	1.6058		5,005.1921
Total	**3.6986**	**37.0972**	**23.0565**	**0.0513**	**19.6570**	**1.7585**	**21.4155**	**10.1025**	**1.6179**	**11.7203**		**4,965.0472**	**4,965.0472**	**1.6058**		**5,005.1921**

JM Realty Perris Development, Phase 1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2022

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	lb/day										lb/day					
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
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
Worker	0.0736	0.0530	0.6453	1.8400e-003	0.2236	1.1100e-003	0.2247	0.0593	1.0200e-003	0.0603		186.0315	186.0315	5.0800e-003	5.2000e-003	187.7096
Total	**0.0736**	**0.0530**	**0.6453**	**1.8400e-003**	**0.2236**	**1.1100e-003**	**0.2247**	**0.0593**	**1.0200e-003**	**0.0603**		**186.0315**	**186.0315**	**5.0800e-003**	**5.2000e-003**	**187.7096**

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	lb/day										lb/day					
Fugitive Dust					8.8457	0.0000	8.8457	4.5461	0.0000	4.5461			0.0000			0.0000
Off-Road	3.6986	37.0972	23.0565	0.0513		1.7585	1.7585		1.6179	1.6179	0.0000	4,965.0471	4,965.0471	1.6058		5,005.1921
Total	**3.6986**	**37.0972**	**23.0565**	**0.0513**	**8.8457**	**1.7585**	**10.6042**	**4.5461**	**1.6179**	**6.1640**	**0.0000**	**4,965.0471**	**4,965.0471**	**1.6058**		**5,005.1921**

JM Realty Perris Development, Phase 1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2022

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	lb/day										lb/day					
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
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
Worker	0.0736	0.0530	0.6453	1.8400e-003	0.2236	1.1100e-003	0.2247	0.0593	1.0200e-003	0.0603		186.0315	186.0315	5.0800e-003	5.2000e-003	187.7096
Total	**0.0736**	**0.0530**	**0.6453**	**1.8400e-003**	**0.2236**	**1.1100e-003**	**0.2247**	**0.0593**	**1.0200e-003**	**0.0603**		**186.0315**	**186.0315**	**5.0800e-003**	**5.2000e-003**	**187.7096**

3.3 Grading - 2022

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	lb/day										lb/day					
Fugitive Dust					9.2991	0.0000	9.2991	3.6682	0.0000	3.6682			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**9.2991**	**1.6349**	**10.9340**	**3.6682**	**1.5041**	**5.1723**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

JM Realty Perris Development, Phase 1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2022

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	lb/day										lb/day					
Hauling	0.2840	12.7012	2.7513	0.0543	1.6503	0.1402	1.7904	0.4524	0.1341	0.5865		5,787.4474	5,787.4474	0.0775	0.9117	6,061.0694
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
Worker	0.0736	0.0530	0.6453	1.8400e-003	0.2236	1.1100e-003	0.2247	0.0593	1.0200e-003	0.0603		186.0315	186.0315	5.0800e-003	5.2000e-003	187.7096
Total	**0.3576**	**12.7542**	**3.3966**	**0.0561**	**1.8738**	**0.1413**	**2.0151**	**0.5117**	**0.1351**	**0.6468**		**5,973.4789**	**5,973.4789**	**0.0826**	**0.9169**	**6,248.7790**

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	lb/day										lb/day					
Fugitive Dust					4.1846	0.0000	4.1846	1.6507	0.0000	1.6507			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**4.1846**	**1.6349**	**5.8195**	**1.6507**	**1.5041**	**3.1548**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2022

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	lb/day										lb/day					
Hauling	0.2840	12.7012	2.7513	0.0543	1.6503	0.1402	1.7904	0.4524	0.1341	0.5865		5,787.4474	5,787.4474	0.0775	0.9117	6,061.0694
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
Worker	0.0736	0.0530	0.6453	1.8400e-003	0.2236	1.1100e-003	0.2247	0.0593	1.0200e-003	0.0603		186.0315	186.0315	5.0800e-003	5.2000e-003	187.7096
Total	**0.3576**	**12.7542**	**3.3966**	**0.0561**	**1.8738**	**0.1413**	**2.0151**	**0.5117**	**0.1351**	**0.6468**		**5,973.4789**	**5,973.4789**	**0.0826**	**0.9169**	**6,248.7790**

3.4 Underground Utilities - 2022

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	lb/day										lb/day					
Off-Road	1.1360	10.0712	8.8979	0.0265		0.3880	0.3880		0.3570	0.3570		2,562.0273	2,562.0273	0.8286		2,582.7426
Total	**1.1360**	**10.0712**	**8.8979**	**0.0265**		**0.3880**	**0.3880**		**0.3570**	**0.3570**		**2,562.0273**	**2,562.0273**	**0.8286**		**2,582.7426**

JM Realty Perris Development, Phase 1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Underground Utilities - 2022

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	lb/day										lb/day					
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
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
Worker	0.0478	0.0345	0.4194	1.2000e-003	0.1453	7.2000e-004	0.1460	0.0385	6.7000e-004	0.0392		120.9205	120.9205	3.3100e-003	3.3800e-003	122.0112
Total	**0.0478**	**0.0345**	**0.4194**	**1.2000e-003**	**0.1453**	**7.2000e-004**	**0.1460**	**0.0385**	**6.7000e-004**	**0.0392**		**120.9205**	**120.9205**	**3.3100e-003**	**3.3800e-003**	**122.0112**

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	lb/day										lb/day					
Off-Road	1.1360	10.0712	8.8979	0.0265		0.3880	0.3880		0.3570	0.3570	0.0000	2,562.0273	2,562.0273	0.8286		2,582.7426
Total	**1.1360**	**10.0712**	**8.8979**	**0.0265**		**0.3880**	**0.3880**		**0.3570**	**0.3570**	**0.0000**	**2,562.0273**	**2,562.0273**	**0.8286**		**2,582.7426**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Underground Utilities - 2022

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	lb/day										lb/day					
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
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
Worker	0.0478	0.0345	0.4194	1.2000e-003	0.1453	7.2000e-004	0.1460	0.0385	6.7000e-004	0.0392		120.9205	120.9205	3.3100e-003	3.3800e-003	122.0112
Total	**0.0478**	**0.0345**	**0.4194**	**1.2000e-003**	**0.1453**	**7.2000e-004**	**0.1460**	**0.0385**	**6.7000e-004**	**0.0392**		**120.9205**	**120.9205**	**3.3100e-003**	**3.3800e-003**	**122.0112**

3.4 Underground Utilities - 2023

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	lb/day										lb/day					
Off-Road	1.0698	8.9170	8.7936	0.0265		0.3430	0.3430		0.3156	0.3156		2,562.9572	2,562.9572	0.8289		2,583.6800
Total	**1.0698**	**8.9170**	**8.7936**	**0.0265**		**0.3430**	**0.3430**		**0.3156**	**0.3156**		**2,562.9572**	**2,562.9572**	**0.8289**		**2,583.6800**

JM Realty Perris Development, Phase 1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Underground Utilities - 2023

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	lb/day										lb/day					
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
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
Worker	0.0445	0.0304	0.3862	1.1600e-003	0.1453	6.8000e-004	0.1460	0.0385	6.3000e-004	0.0392		117.0551	117.0551	2.9800e-003	3.1200e-003	118.0596
Total	**0.0445**	**0.0304**	**0.3862**	**1.1600e-003**	**0.1453**	**6.8000e-004**	**0.1460**	**0.0385**	**6.3000e-004**	**0.0392**		**117.0551**	**117.0551**	**2.9800e-003**	**3.1200e-003**	**118.0596**

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	lb/day										lb/day					
Off-Road	1.0698	8.9170	8.7936	0.0265		0.3430	0.3430		0.3156	0.3156	0.0000	2,562.9572	2,562.9572	0.8289		2,583.6800
Total	**1.0698**	**8.9170**	**8.7936**	**0.0265**		**0.3430**	**0.3430**		**0.3156**	**0.3156**	**0.0000**	**2,562.9572**	**2,562.9572**	**0.8289**		**2,583.6800**

JM Realty Perris Development, Phase 1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Underground Utilities - 2023

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	lb/day										lb/day					
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
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
Worker	0.0445	0.0304	0.3862	1.1600e-003	0.1453	6.8000e-004	0.1460	0.0385	6.3000e-004	0.0392		117.0551	117.0551	2.9800e-003	3.1200e-003	118.0596
Total	**0.0445**	**0.0304**	**0.3862**	**1.1600e-003**	**0.1453**	**6.8000e-004**	**0.1460**	**0.0385**	**6.3000e-004**	**0.0392**		**117.0551**	**117.0551**	**2.9800e-003**	**3.1200e-003**	**118.0596**

3.5 Building Construction - 2022

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	lb/day										lb/day					
Off-Road	2.2347	19.6294	19.7221	0.0402		0.9550	0.9550		0.8954	0.8954		3,833.3189	3,833.3189	1.0256		3,858.9587
Total	**2.2347**	**19.6294**	**19.7221**	**0.0402**		**0.9550**	**0.9550**		**0.8954**	**0.8954**		**3,833.3189**	**3,833.3189**	**1.0256**		**3,858.9587**

JM Realty Perris Development, Phase 1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2022

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	lb/day										lb/day					
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
Vendor	0.1277	3.6530	1.2520	0.0149	0.5252	0.0501	0.5753	0.1512	0.0480	0.1992		1,583.8773	1,583.8773	0.0165	0.2351	1,654.3393
Worker	0.7692	0.5538	6.7431	0.0192	2.3361	0.0116	2.3478	0.6196	0.0107	0.6303		1,944.0291	1,944.0291	0.0531	0.0544	1,961.5653
Total	**0.8969**	**4.2069**	**7.9950**	**0.0342**	**2.8614**	**0.0617**	**2.9231**	**0.7708**	**0.0587**	**0.8294**		**3,527.9064**	**3,527.9064**	**0.0696**	**0.2895**	**3,615.9045**

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	lb/day										lb/day					
Off-Road	2.2347	19.6294	19.7221	0.0402		0.9550	0.9550		0.8954	0.8954	0.0000	3,833.3189	3,833.3189	1.0256		3,858.9587
Total	**2.2347**	**19.6294**	**19.7221**	**0.0402**		**0.9550**	**0.9550**		**0.8954**	**0.8954**	**0.0000**	**3,833.3189**	**3,833.3189**	**1.0256**		**3,858.9587**

JM Realty Perris Development, Phase 1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2022

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	lb/day										lb/day					
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
Vendor	0.1277	3.6530	1.2520	0.0149	0.5252	0.0501	0.5753	0.1512	0.0480	0.1992		1,583.8773	1,583.8773	0.0165	0.2351	1,654.3393
Worker	0.7692	0.5538	6.7431	0.0192	2.3361	0.0116	2.3478	0.6196	0.0107	0.6303		1,944.0291	1,944.0291	0.0531	0.0544	1,961.5653
Total	**0.8969**	**4.2069**	**7.9950**	**0.0342**	**2.8614**	**0.0617**	**2.9231**	**0.7708**	**0.0587**	**0.8294**		**3,527.9064**	**3,527.9064**	**0.0696**	**0.2895**	**3,615.9045**

3.5 Building Construction - 2023

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	lb/day										lb/day					
Off-Road	2.0766	17.9528	19.5325	0.0402		0.8287	0.8287		0.7771	0.7771		3,835.0984	3,835.0984	1.0218		3,860.6431
Total	**2.0766**	**17.9528**	**19.5325**	**0.0402**		**0.8287**	**0.8287**		**0.7771**	**0.7771**		**3,835.0984**	**3,835.0984**	**1.0218**		**3,860.6431**

JM Realty Perris Development, Phase 1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2023

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	lb/day										lb/day					
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
Vendor	0.0856	2.8411	1.1402	0.0144	0.5252	0.0234	0.5486	0.1512	0.0224	0.1736		1,522.9926	1,522.9926	0.0152	0.2252	1,590.4947
Worker	0.7153	0.4892	6.2093	0.0186	2.3361	0.0109	2.3471	0.6196	0.0101	0.6296		1,881.8850	1,881.8850	0.0479	0.0502	1,898.0353
Total	**0.8008**	**3.3304**	**7.3495**	**0.0330**	**2.8613**	**0.0343**	**2.8957**	**0.7708**	**0.0325**	**0.8032**		**3,404.8776**	**3,404.8776**	**0.0631**	**0.2754**	**3,488.5300**

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	lb/day										lb/day					
Off-Road	2.0766	17.9528	19.5325	0.0402		0.8287	0.8287		0.7771	0.7771	0.0000	3,835.0984	3,835.0984	1.0218		3,860.6431
Total	**2.0766**	**17.9528**	**19.5325**	**0.0402**		**0.8287**	**0.8287**		**0.7771**	**0.7771**	**0.0000**	**3,835.0984**	**3,835.0984**	**1.0218**		**3,860.6431**

JM Realty Perris Development, Phase 1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2023

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	lb/day										lb/day					
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
Vendor	0.0856	2.8411	1.1402	0.0144	0.5252	0.0234	0.5486	0.1512	0.0224	0.1736		1,522.9926	1,522.9926	0.0152	0.2252	1,590.4947
Worker	0.7153	0.4892	6.2093	0.0186	2.3361	0.0109	2.3471	0.6196	0.0101	0.6296		1,881.8850	1,881.8850	0.0479	0.0502	1,898.0353
Total	**0.8008**	**3.3304**	**7.3495**	**0.0330**	**2.8613**	**0.0343**	**2.8957**	**0.7708**	**0.0325**	**0.8032**		**3,404.8776**	**3,404.8776**	**0.0631**	**0.2754**	**3,488.5300**

3.5 Building Construction - 2024

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	lb/day										lb/day					
Off-Road	1.9686	16.7716	19.4170	0.0402		0.7331	0.7331		0.6871	0.6871		3,836.0493	3,836.0493	1.0184		3,861.5104
Total	**1.9686**	**16.7716**	**19.4170**	**0.0402**		**0.7331**	**0.7331**		**0.6871**	**0.6871**		**3,836.0493**	**3,836.0493**	**1.0184**		**3,861.5104**

JM Realty Perris Development, Phase 1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

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	lb/day										lb/day					
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
Vendor	0.0842	2.8415	1.1275	0.0141	0.5252	0.0233	0.5485	0.1512	0.0223	0.1735		1,499.5460	1,499.5460	0.0157	0.2214	1,565.9262
Worker	0.6686	0.4356	5.8070	0.0180	2.3361	0.0104	2.3466	0.6196	9.5900e-003	0.6291		1,822.3266	1,822.3266	0.0434	0.0466	1,837.3016
Total	**0.7528**	**3.2771**	**6.9345**	**0.0322**	**2.8613**	**0.0337**	**2.8950**	**0.7708**	**0.0318**	**0.8026**		**3,321.8725**	**3,321.8725**	**0.0592**	**0.2680**	**3,403.2278**

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	lb/day										lb/day					
Off-Road	1.9686	16.7716	19.4170	0.0402		0.7331	0.7331		0.6871	0.6871	0.0000	3,836.0493	3,836.0493	1.0184		3,861.5104
Total	**1.9686**	**16.7716**	**19.4170**	**0.0402**		**0.7331**	**0.7331**		**0.6871**	**0.6871**	**0.0000**	**3,836.0493**	**3,836.0493**	**1.0184**		**3,861.5104**

JM Realty Perris Development, Phase 1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

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	lb/day										lb/day					
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
Vendor	0.0842	2.8415	1.1275	0.0141	0.5252	0.0233	0.5485	0.1512	0.0223	0.1735		1,499.5460	1,499.5460	0.0157	0.2214	1,565.9262
Worker	0.6686	0.4356	5.8070	0.0180	2.3361	0.0104	2.3466	0.6196	9.5900e-003	0.6291		1,822.3266	1,822.3266	0.0434	0.0466	1,837.3016
Total	**0.7528**	**3.2771**	**6.9345**	**0.0322**	**2.8613**	**0.0337**	**2.8950**	**0.7708**	**0.0318**	**0.8026**		**3,321.8725**	**3,321.8725**	**0.0592**	**0.2680**	**3,403.2278**

3.6 Paving - 2024

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	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.8030					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7912**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

JM Realty Perris Development, Phase 1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2024

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	lb/day										lb/day					
Hauling	0.0622	3.2897	0.8786	0.0168	0.5425	0.0372	0.5797	0.1487	0.0356	0.1843		1,792.1576	1,792.1576	0.0270	0.2825	1,877.0055
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
Worker	0.0480	0.0313	0.4168	1.2900e-003	0.1677	7.5000e-004	0.1684	0.0445	6.9000e-004	0.0452		130.7890	130.7890	3.1200e-003	3.3500e-003	131.8638
Total	**0.1102**	**3.3210**	**1.2954**	**0.0181**	**0.7102**	**0.0380**	**0.7481**	**0.1932**	**0.0363**	**0.2295**		**1,922.9466**	**1,922.9466**	**0.0301**	**0.2858**	**2,008.8692**

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	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.8030					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7912**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

JM Realty Perris Development, Phase 1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2024

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	lb/day										lb/day					
Hauling	0.0622	3.2897	0.8786	0.0168	0.5425	0.0372	0.5797	0.1487	0.0356	0.1843		1,792.1576	1,792.1576	0.0270	0.2825	1,877.0055
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
Worker	0.0480	0.0313	0.4168	1.2900e-003	0.1677	7.5000e-004	0.1684	0.0445	6.9000e-004	0.0452		130.7890	130.7890	3.1200e-003	3.3500e-003	131.8638
Total	**0.1102**	**3.3210**	**1.2954**	**0.0181**	**0.7102**	**0.0380**	**0.7481**	**0.1932**	**0.0363**	**0.2295**		**1,922.9466**	**1,922.9466**	**0.0301**	**0.2858**	**2,008.8692**

3.7 Architectural Coating - 2024

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	lb/day										lb/day					
Archit. Coating	55.2939					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**55.4747**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

JM Realty Perris Development, Phase 1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2024

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	lb/day										lb/day					
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
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
Worker	0.1344	0.0875	1.1670	3.6200e-003	0.4695	2.0900e-003	0.4716	0.1245	1.9300e-003	0.1264		366.2092	366.2092	8.7300e-003	9.3700e-003	369.2185
Total	**0.1344**	**0.0875**	**1.1670**	**3.6200e-003**	**0.4695**	**2.0900e-003**	**0.4716**	**0.1245**	**1.9300e-003**	**0.1264**		**366.2092**	**366.2092**	**8.7300e-003**	**9.3700e-003**	**369.2185**

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	lb/day										lb/day					
Archit. Coating	55.2939					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**55.4747**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2024

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	lb/day										lb/day					
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
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
Worker	0.1344	0.0875	1.1670	3.6200e-003	0.4695	2.0900e-003	0.4716	0.1245	1.9300e-003	0.1264		366.2092	366.2092	8.7300e-003	9.3700e-003	369.2185
Total	**0.1344**	**0.0875**	**1.1670**	**3.6200e-003**	**0.4695**	**2.0900e-003**	**0.4716**	**0.1245**	**1.9300e-003**	**0.1264**		**366.2092**	**366.2092**	**8.7300e-003**	**9.3700e-003**	**369.2185**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

JM Realty Perris Development, Phase 1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0362	22.5881	11.0484	0.1417	6.8775	0.2737	7.1512	1.9122	0.2616	2.1737		14,993.7668	14,993.7668	0.2507	2.0523	15,611.6206
Unmitigated	1.0362	22.5881	11.0484	0.1417	6.8775	0.2737	7.1512	1.9122	0.2616	2.1737		14,993.7668	14,993.7668	0.2507	2.0523	15,611.6206

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	260.00	260.00	260.00	837,580	837,580
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	142.45	142.45	142.45	2,074,089	2,074,089
Total	402.45	402.45	402.45	2,911,669	2,911,669

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
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	16.60	8.40	40.00	0.00	0.00	100.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.540541	0.056458	0.173793	0.136090	0.025268	0.007074	0.011525	0.018705	0.000610	0.000304	0.023606	0.001094	0.004932
Parking Lot	0.540541	0.056458	0.173793	0.136090	0.025268	0.007074	0.011525	0.018705	0.000610	0.000304	0.023606	0.001094	0.004932

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.170000	0.210000	0.620000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

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	lb/day										lb/day					
NaturalGas Mitigated	0.0142	0.1294	0.1087	7.8000e-004		9.8300e-003	9.8300e-003		9.8300e-003	9.8300e-003		155.2573	155.2573	2.9800e-003	2.8500e-003	156.1799
NaturalGas Unmitigated	0.0142	0.1294	0.1087	7.8000e-004		9.8300e-003	9.8300e-003		9.8300e-003	9.8300e-003		155.2573	155.2573	2.9800e-003	2.8500e-003	156.1799

JM Realty Perris Development, Phase 1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
General Office Building	93.9726	1.0100e-003	9.2100e-003	7.7400e-003	6.0000e-005		7.0000e-004	7.0000e-004		7.0000e-004	7.0000e-004		11.0556	11.0556	2.1000e-004	2.0000e-004	11.1213
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
Unrefrigerated Warehouse-No Rail	1225.71	0.0132	0.1202	0.1009	7.2000e-004		9.1300e-003	9.1300e-003		9.1300e-003	9.1300e-003		144.2017	144.2017	2.7600e-003	2.6400e-003	145.0586
Total		**0.0142**	**0.1294**	**0.1087**	**7.8000e-004**		**9.8300e-003**	**9.8300e-003**		**9.8300e-003**	**9.8300e-003**		**155.2573**	**155.2573**	**2.9700e-003**	**2.8400e-003**	**156.1799**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
General Office Building	0.0939726	1.0100e-003	9.2100e-003	7.7400e-003	6.0000e-005		7.0000e-004	7.0000e-004		7.0000e-004	7.0000e-004		11.0556	11.0556	2.1000e-004	2.0000e-004	11.1213
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
Unrefrigerated Warehouse-No Rail	1.22571	0.0132	0.1202	0.1009	7.2000e-004		9.1300e-003	9.1300e-003		9.1300e-003	9.1300e-003		144.2017	144.2017	2.7600e-003	2.6400e-003	145.0586
Total		**0.0142**	**0.1294**	**0.1087**	**7.8000e-004**		**9.8300e-003**	**9.8300e-003**		**9.8300e-003**	**9.8300e-003**		**155.2573**	**155.2573**	**2.9700e-003**	**2.8400e-003**	**156.1799**

6.0 Area Detail

6.1 Mitigation Measures Area

JM Realty Perris Development, Phase 1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.0073	4.6000e-004	0.0509	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		0.1093	0.1093	2.8000e-004		0.1164
Unmitigated	5.0073	4.6000e-004	0.0509	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		0.1093	0.1093	2.8000e-004		0.1164

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	lb/day										lb/day					
Architectural Coating	0.3030					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.6996					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.6800e-003	4.6000e-004	0.0509	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		0.1093	0.1093	2.8000e-004		0.1164
Total	**5.0073**	**4.6000e-004**	**0.0509**	**0.0000**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**		**0.1093**	**0.1093**	**2.8000e-004**		**0.1164**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Architectural Coating	0.3030					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.6996					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.6800e-003	4.6000e-004	0.0509	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		0.1093	0.1093	2.8000e-004		0.1164
Total	**5.0073**	**4.6000e-004**	**0.0509**	**0.0000**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**		**0.1093**	**0.1093**	**2.8000e-004**		**0.1164**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

JM Realty Perris Development, Phase 1 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

JM Realty Perris Development, Phase 2 - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

JM Realty Perris Development, Phase 2

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	24.80	1000sqft	0.57	24,800.00	0
Hotel	125.00	Room	1.04	181,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2026
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Phase 2 - 125 room hotel.

Land Use - 125 room future hotel on 1.61 acres, assumed to be 4 story.
Remaining space assumed to be parking/paved/concrete.

Construction Phase - Site vacant, no demolition.
Architectural coating assumed to occur concurrently with the last 2 months of building construction.

Off-road Equipment -

Off-road Equipment - Off-Highway Truck = water truck.

Off-road Equipment - Off-Highway Truck = water truck.

Off-road Equipment -

Off-road Equipment - Off-Highway Truck = water truck.

Off-road Equipment - Equipment for excavation/installation of underground utilites and Line E storm drain.
Off-Highway Truck = water truck.

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Trips and VMT - 43 loads (86 trips) ashpalt/aggregate imported during paving.

Grading - Grading cut/fill balanced onsite.

Architectural Coating - 50 g/L maximum VOC content for exterior and interior flat coatings per SCAQMD Rule 1113.

Vehicle Trips - Trip generation per Traffic Report.

Area Coating - 50 g/L maximum VOC content for exterior and interior flat coatings per SCAQMD Rule 1113.

Construction Off-road Equipment Mitigation - Dust miitigation to comply with SCAQMD Rule 403.

Area Mitigation - 50 g/L maximum VOC content for exterior and interior flat coatings per SCAQMD Rule 1113.

Water Mitigation - 20% water conservation per 2019 CalGreen not accounted for in model defaults.

Waste Mitigation - 25% solid waste diversion per AB 341 not accounted for in model defaults

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblConstructionPhase	NumDays	10.00	41.00
tblConstructionPhase	PhaseEndDate	5/12/2025	4/14/2025
tblConstructionPhase	PhaseStartDate	4/29/2025	2/15/2025
tblLandUse	LotAcreage	4.17	1.04
tblTripsAndVMT	HaulingTripNumber	0.00	86.00
tblVehicleTrips	ST_TR	8.19	8.00
tblVehicleTrips	SU_TR	5.95	8.00
tblVehicleTrips	WD_TR	8.36	8.00

2.0 Emissions Summary

JM Realty Perris Development, Phase 2 - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
2024	0.1286	0.9316	1.1103	2.7400e-003	0.0946	0.0349	0.1295	0.0299	0.0334	0.0632	0.0000	238.0150	238.0150	0.0345	6.3800e-003	240.7783
2025	0.5007	0.5427	0.7173	1.7300e-003	0.0486	0.0193	0.0679	0.0131	0.0185	0.0316	0.0000	150.8862	150.8862	0.0210	4.0600e-003	152.6209
Maximum	**0.5007**	**0.9316**	**1.1103**	**2.7400e-003**	**0.0946**	**0.0349**	**0.1295**	**0.0299**	**0.0334**	**0.0632**	**0.0000**	**238.0150**	**238.0150**	**0.0345**	**6.3800e-003**	**240.7783**

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					
2024	0.1286	0.9316	1.1103	2.7400e-003	0.0834	0.0349	0.1182	0.0244	0.0334	0.0578	0.0000	238.0148	238.0148	0.0345	6.3800e-003	240.7782
2025	0.5007	0.5427	0.7173	1.7300e-003	0.0486	0.0193	0.0679	0.0131	0.0185	0.0316	0.0000	150.8860	150.8860	0.0210	4.0600e-003	152.6207
Maximum	**0.5007**	**0.9316**	**1.1103**	**2.7400e-003**	**0.0834**	**0.0349**	**0.1182**	**0.0244**	**0.0334**	**0.0578**	**0.0000**	**238.0148**	**238.0148**	**0.0345**	**6.3800e-003**	**240.7782**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	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**	**7.85**	**0.00**	**5.70**	**12.62**	**0.00**	**5.72**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**7-1-2024**	**9-30-2024**	0.5278	0.5278
2	**10-1-2024**	**12-31-2024**	0.5280	0.5280
3	**1-1-2025**	**3-31-2025**	0.8382	0.8382
4	**4-1-2025**	**6-30-2025**	0.2203	0.2203
		Highest	0.8382	0.8382

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	0.7421	2.0000e-005	1.9100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.7200e-003	3.7200e-003	1.0000e-005	0.0000	3.9600e-003
Energy	0.0582	0.5290	0.4444	3.1700e-003		0.0402	0.0402		0.0402	0.0402	0.0000	1,139.1254	1,139.1254	0.0586	0.0163	1,145.4533
Mobile	0.3825	0.5326	3.5120	8.0400e-003	0.9022	6.5100e-003	0.9087	0.2410	6.1000e-003	0.2471	0.0000	743.7267	743.7267	0.0421	0.0390	756.3997
Waste						0.0000	0.0000		0.0000	0.0000	13.8927	0.0000	13.8927	0.8210	0.0000	34.4186
Water						0.0000	0.0000		0.0000	0.0000	1.0060	8.0163	9.0223	0.1040	2.5200e-003	12.3737
Total	**1.1828**	**1.0617**	**3.9582**	**0.0112**	**0.9022**	**0.0467**	**0.9489**	**0.2410**	**0.0463**	**0.2873**	**14.8987**	**1,890.8722**	**1,905.7709**	**1.0258**	**0.0578**	**1,948.6493**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.7421	2.0000e-005	1.9100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.7200e-003	3.7200e-003	1.0000e-005	0.0000	3.9600e-003
Energy	0.0582	0.5290	0.4444	3.1700e-003		0.0402	0.0402		0.0402	0.0402	0.0000	1,139.1254	1,139.1254	0.0586	0.0163	1,145.4533
Mobile	0.3825	0.5326	3.5120	8.0400e-003	0.9022	6.5100e-003	0.9087	0.2410	6.1000e-003	0.2471	0.0000	743.7267	743.7267	0.0421	0.0390	756.3997
Waste						0.0000	0.0000		0.0000	0.0000	10.4195	0.0000	10.4195	0.6158	0.0000	25.8139
Water						0.0000	0.0000		0.0000	0.0000	0.8048	6.4131	7.2178	0.0832	2.0200e-003	9.8990
Total	**1.1828**	**1.0617**	**3.9582**	**0.0112**	**0.9022**	**0.0467**	**0.9489**	**0.2410**	**0.0463**	**0.2873**	**11.2243**	**1,889.2690**	**1,900.4933**	**0.7997**	**0.0573**	**1,937.5699**

	ROG	NOx	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**	**24.66**	**0.08**	**0.28**	**22.04**	**0.86**	**0.57**

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	7/1/2024	7/2/2024	5	2	
2	Grading	Grading	7/3/2024	7/8/2024	5	4	
3	Building Construction	Building Construction	7/9/2024	4/14/2025	5	200	

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4	Paving	Paving	4/15/2025	4/28/2025	5	10	
5	Architectural Coating	Architectural Coating	2/15/2025	4/14/2025	5	41	

Acres of Grading (Site Preparation Phase): 1.88

Acres of Grading (Grading Phase): 4

Acres of Paving: 0.57

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 272,250; Non-Residential Outdoor: 90,750; Striped Parking Area: 1,488 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Off-Highway Trucks	1	4.00	402	0.38
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Off-Highway Trucks	1	4.00	402	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Off-Highway Trucks	1	4.00	402	0.38
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	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
Site Preparation	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	87.00	34.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	17.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	86.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2024

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					6.2700e-003	0.0000	6.2700e-003	3.0000e-003	0.0000	3.0000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3600e-003	0.0135	8.2600e-003	2.0000e-005		5.4000e-004	5.4000e-004		5.0000e-004	5.0000e-004	0.0000	2.0920	2.0920	6.8000e-004	0.0000	2.1089
Total	**1.3600e-003**	**0.0135**	**8.2600e-003**	**2.0000e-005**	**6.2700e-003**	**5.4000e-004**	**6.8100e-003**	**3.0000e-003**	**5.0000e-004**	**3.5000e-003**	**0.0000**	**2.0920**	**2.0920**	**6.8000e-004**	**0.0000**	**2.1089**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2024

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	3.0000e-005	2.0000e-005	2.9000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0809	0.0809	0.0000	0.0000	0.0816
Total	**3.0000e-005**	**2.0000e-005**	**2.9000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0809**	**0.0809**	**0.0000**	**0.0000**	**0.0816**

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					2.8200e-003	0.0000	2.8200e-003	1.3500e-003	0.0000	1.3500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3600e-003	0.0135	8.2600e-003	2.0000e-005		5.4000e-004	5.4000e-004		5.0000e-004	5.0000e-004	0.0000	2.0920	2.0920	6.8000e-004	0.0000	2.1089
Total	**1.3600e-003**	**0.0135**	**8.2600e-003**	**2.0000e-005**	**2.8200e-003**	**5.4000e-004**	**3.3600e-003**	**1.3500e-003**	**5.0000e-004**	**1.8500e-003**	**0.0000**	**2.0920**	**2.0920**	**6.8000e-004**	**0.0000**	**2.1089**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2024

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	3.0000e-005	2.0000e-005	2.9000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0809	0.0809	0.0000	0.0000	0.0816
Total	**3.0000e-005**	**2.0000e-005**	**2.9000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0809**	**0.0809**	**0.0000**	**0.0000**	**0.0816**

3.3 Grading - 2024

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					0.0142	0.0000	0.0142	6.8500e-003	0.0000	6.8500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1000e-003	0.0310	0.0207	5.0000e-005		1.2600e-003	1.2600e-003		1.1600e-003	1.1600e-003	0.0000	4.7822	4.7822	1.5500e-003	0.0000	4.8209
Total	**3.1000e-003**	**0.0310**	**0.0207**	**5.0000e-005**	**0.0142**	**1.2600e-003**	**0.0154**	**6.8500e-003**	**1.1600e-003**	**8.0100e-003**	**0.0000**	**4.7822**	**4.7822**	**1.5500e-003**	**0.0000**	**4.8209**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2024

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	8.0000e-005	6.0000e-005	7.6000e-004	0.0000	2.9000e-004	0.0000	2.9000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2104	0.2104	0.0000	1.0000e-005	0.2122
Total	**8.0000e-005**	**6.0000e-005**	**7.6000e-004**	**0.0000**	**2.9000e-004**	**0.0000**	**2.9000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2104**	**0.2104**	**0.0000**	**1.0000e-005**	**0.2122**

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					6.3700e-003	0.0000	6.3700e-003	3.0800e-003	0.0000	3.0800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1000e-003	0.0310	0.0207	5.0000e-005		1.2600e-003	1.2600e-003		1.1600e-003	1.1600e-003	0.0000	4.7822	4.7822	1.5500e-003	0.0000	4.8209
Total	**3.1000e-003**	**0.0310**	**0.0207**	**5.0000e-005**	**6.3700e-003**	**1.2600e-003**	**7.6300e-003**	**3.0800e-003**	**1.1600e-003**	**4.2400e-003**	**0.0000**	**4.7822**	**4.7822**	**1.5500e-003**	**0.0000**	**4.8209**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2024

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	8.0000e-005	6.0000e-005	7.6000e-004	0.0000	2.9000e-004	0.0000	2.9000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2104	0.2104	0.0000	1.0000e-005	0.2122
Total	**8.0000e-005**	**6.0000e-005**	**7.6000e-004**	**0.0000**	**2.9000e-004**	**0.0000**	**2.9000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2104**	**0.2104**	**0.0000**	**1.0000e-005**	**0.2122**

3.4 Building Construction - 2024

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	0.1051	0.8019	0.8910	1.8100e-003		0.0322	0.0322		0.0309	0.0309	0.0000	151.0028	151.0028	0.0309	0.0000	151.7750
Total	**0.1051**	**0.8019**	**0.8910**	**1.8100e-003**		**0.0322**	**0.0322**		**0.0309**	**0.0309**	**0.0000**	**151.0028**	**151.0028**	**0.0309**	**0.0000**	**151.7750**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2024

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	2.2800e-003	0.0735	0.0289	3.7000e-004	0.0135	6.1000e-004	0.0141	3.9000e-003	5.8000e-004	4.4800e-003	0.0000	35.4841	35.4841	3.8000e-004	5.2400e-003	37.0547
Worker	0.0166	0.0117	0.1605	4.8000e-004	0.0602	2.7000e-004	0.0605	0.0160	2.5000e-004	0.0163	0.0000	44.3625	44.3625	1.0400e-003	1.1300e-003	44.7251
Total	**0.0189**	**0.0852**	**0.1894**	**8.5000e-004**	**0.0738**	**8.8000e-004**	**0.0747**	**0.0199**	**8.3000e-004**	**0.0207**	**0.0000**	**79.8466**	**79.8466**	**1.4200e-003**	**6.3700e-003**	**81.7798**

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	0.1051	0.8019	0.8910	1.8100e-003		0.0322	0.0322		0.0309	0.0309	0.0000	151.0026	151.0026	0.0309	0.0000	151.7748
Total	**0.1051**	**0.8019**	**0.8910**	**1.8100e-003**		**0.0322**	**0.0322**		**0.0309**	**0.0309**	**0.0000**	**151.0026**	**151.0026**	**0.0309**	**0.0000**	**151.7748**

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3.4 Building Construction - 2024

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	2.2800e-003	0.0735	0.0289	3.7000e-004	0.0135	6.1000e-004	0.0141	3.9000e-003	5.8000e-004	4.4800e-003	0.0000	35.4841	35.4841	3.8000e-004	5.2400e-003	37.0547
Worker	0.0166	0.0117	0.1605	4.8000e-004	0.0602	2.7000e-004	0.0605	0.0160	2.5000e-004	0.0163	0.0000	44.3625	44.3625	1.0400e-003	1.1300e-003	44.7251
Total	**0.0189**	**0.0852**	**0.1894**	**8.5000e-004**	**0.0738**	**8.8000e-004**	**0.0747**	**0.0199**	**8.3000e-004**	**0.0207**	**0.0000**	**79.8466**	**79.8466**	**1.4200e-003**	**6.3700e-003**	**81.7798**

3.4 Building Construction - 2025

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	0.0579	0.4383	0.5192	1.0600e-003		0.0164	0.0164		0.0158	0.0158	0.0000	88.6806	88.6806	0.0179	0.0000	89.1286
Total	**0.0579**	**0.4383**	**0.5192**	**1.0600e-003**		**0.0164**	**0.0164**		**0.0158**	**0.0158**	**0.0000**	**88.6806**	**88.6806**	**0.0179**	**0.0000**	**89.1286**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2025

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	1.3200e-003	0.0428	0.0168	2.1000e-004	7.9500e-003	3.6000e-004	8.3000e-003	2.2900e-003	3.4000e-004	2.6300e-003	0.0000	20.4726	20.4726	2.3000e-004	3.0200e-003	21.3773
Worker	9.1200e-003	6.1700e-003	0.0877	2.7000e-004	0.0354	1.5000e-004	0.0355	9.4000e-003	1.4000e-004	9.5400e-003	0.0000	25.1706	25.1706	5.5000e-004	6.2000e-004	25.3688
Total	**0.0104**	**0.0490**	**0.1045**	**4.8000e-004**	**0.0433**	**5.1000e-004**	**0.0438**	**0.0117**	**4.8000e-004**	**0.0122**	**0.0000**	**45.6432**	**45.6432**	**7.8000e-004**	**3.6400e-003**	**46.7460**

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	0.0579	0.4383	0.5192	1.0600e-003		0.0164	0.0164		0.0158	0.0158	0.0000	88.6805	88.6805	0.0179	0.0000	89.1285
Total	**0.0579**	**0.4383**	**0.5192**	**1.0600e-003**		**0.0164**	**0.0164**		**0.0158**	**0.0158**	**0.0000**	**88.6805**	**88.6805**	**0.0179**	**0.0000**	**89.1285**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2025

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	1.3200e-003	0.0428	0.0168	2.1000e-004	7.9500e-003	3.6000e-004	8.3000e-003	2.2900e-003	3.4000e-004	2.6300e-003	0.0000	20.4726	20.4726	2.3000e-004	3.0200e-003	21.3773
Worker	9.1200e-003	6.1700e-003	0.0877	2.7000e-004	0.0354	1.5000e-004	0.0355	9.4000e-003	1.4000e-004	9.5400e-003	0.0000	25.1706	25.1706	5.5000e-004	6.2000e-004	25.3688
Total	**0.0104**	**0.0490**	**0.1045**	**4.8000e-004**	**0.0433**	**5.1000e-004**	**0.0438**	**0.0117**	**4.8000e-004**	**0.0122**	**0.0000**	**45.6432**	**45.6432**	**7.8000e-004**	**3.6400e-003**	**46.7460**

3.5 Paving - 2025

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	2.8700e-003	0.0266	0.0440	7.0000e-005		1.2300e-003	1.2300e-003		1.1400e-003	1.1400e-003	0.0000	5.8868	5.8868	1.8700e-003	0.0000	5.9334
Paving	7.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.6200e-003**	**0.0266**	**0.0440**	**7.0000e-005**		**1.2300e-003**	**1.2300e-003**		**1.1400e-003**	**1.1400e-003**	**0.0000**	**5.8868**	**5.8868**	**1.8700e-003**	**0.0000**	**5.9334**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2025

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	9.0000e-005	4.5000e-003	1.2100e-003	2.0000e-005	7.4000e-004	5.0000e-005	7.9000e-004	2.0000e-004	5.0000e-005	2.5000e-004	0.0000	2.2081	2.2081	4.0000e-005	3.5000e-004	2.3128
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	1.8000e-004	1.2000e-004	1.7700e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5083	0.5083	1.0000e-005	1.0000e-005	0.5123
Total	**2.7000e-004**	**4.6200e-003**	**2.9800e-003**	**3.0000e-005**	**1.4500e-003**	**5.0000e-005**	**1.5100e-003**	**3.9000e-004**	**5.0000e-005**	**4.4000e-004**	**0.0000**	**2.7164**	**2.7164**	**5.0000e-005**	**3.6000e-004**	**2.8250**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8700e-003	0.0266	0.0440	7.0000e-005		1.2300e-003	1.2300e-003		1.1400e-003	1.1400e-003	0.0000	5.8868	5.8868	1.8700e-003	0.0000	5.9334
Paving	7.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.6200e-003**	**0.0266**	**0.0440**	**7.0000e-005**		**1.2300e-003**	**1.2300e-003**		**1.1400e-003**	**1.1400e-003**	**0.0000**	**5.8868**	**5.8868**	**1.8700e-003**	**0.0000**	**5.9334**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2025

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	9.0000e-005	4.5000e-003	1.2100e-003	2.0000e-005	7.4000e-004	5.0000e-005	7.9000e-004	2.0000e-004	5.0000e-005	2.5000e-004	0.0000	2.2081	2.2081	4.0000e-005	3.5000e-004	2.3128
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	1.8000e-004	1.2000e-004	1.7700e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5083	0.5083	1.0000e-005	1.0000e-005	0.5123
Total	**2.7000e-004**	**4.6200e-003**	**2.9800e-003**	**3.0000e-005**	**1.4500e-003**	**5.0000e-005**	**1.5100e-003**	**3.9000e-004**	**5.0000e-005**	**4.4000e-004**	**0.0000**	**2.7164**	**2.7164**	**5.0000e-005**	**3.6000e-004**	**2.8250**

3.6 Architectural Coating - 2025

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	0.4241					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5000e-003	0.0235	0.0371	6.0000e-005		1.0600e-003	1.0600e-003		1.0600e-003	1.0600e-003	0.0000	5.2342	5.2342	2.9000e-004	0.0000	5.2413
Total	**0.4276**	**0.0235**	**0.0371**	**6.0000e-005**		**1.0600e-003**	**1.0600e-003**		**1.0600e-003**	**1.0600e-003**	**0.0000**	**5.2342**	**5.2342**	**2.9000e-004**	**0.0000**	**5.2413**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2025

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	9.9000e-004	6.7000e-004	9.5000e-003	3.0000e-005	3.8300e-003	2.0000e-005	3.8500e-003	1.0200e-003	2.0000e-005	1.0300e-003	0.0000	2.7251	2.7251	6.0000e-005	7.0000e-005	2.7465
Total	**9.9000e-004**	**6.7000e-004**	**9.5000e-003**	**3.0000e-005**	**3.8300e-003**	**2.0000e-005**	**3.8500e-003**	**1.0200e-003**	**2.0000e-005**	**1.0300e-003**	**0.0000**	**2.7251**	**2.7251**	**6.0000e-005**	**7.0000e-005**	**2.7465**

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	0.4241					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5000e-003	0.0235	0.0371	6.0000e-005		1.0600e-003	1.0600e-003		1.0600e-003	1.0600e-003	0.0000	5.2342	5.2342	2.9000e-004	0.0000	5.2413
Total	**0.4276**	**0.0235**	**0.0371**	**6.0000e-005**		**1.0600e-003**	**1.0600e-003**		**1.0600e-003**	**1.0600e-003**	**0.0000**	**5.2342**	**5.2342**	**2.9000e-004**	**0.0000**	**5.2413**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2025

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	9.9000e-004	6.7000e-004	9.5000e-003	3.0000e-005	3.8300e-003	2.0000e-005	3.8500e-003	1.0200e-003	2.0000e-005	1.0300e-003	0.0000	2.7251	2.7251	6.0000e-005	7.0000e-005	2.7465
Total	**9.9000e-004**	**6.7000e-004**	**9.5000e-003**	**3.0000e-005**	**3.8300e-003**	**2.0000e-005**	**3.8500e-003**	**1.0200e-003**	**2.0000e-005**	**1.0300e-003**	**0.0000**	**2.7251**	**2.7251**	**6.0000e-005**	**7.0000e-005**	**2.7465**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.3825	0.5326	3.5120	8.0400e-003	0.9022	6.5100e-003	0.9087	0.2410	6.1000e-003	0.2471	0.0000	743.7267	743.7267	0.0421	0.0390	756.3997
Unmitigated	0.3825	0.5326	3.5120	8.0400e-003	0.9022	6.5100e-003	0.9087	0.2410	6.1000e-003	0.2471	0.0000	743.7267	743.7267	0.0421	0.0390	756.3997

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	1,000.00	1,000.00	1000.00	2,386,171	2,386,171
Parking Lot	0.00	0.00	0.00		
Total	1,000.00	1,000.00	1,000.00	2,386,171	2,386,171

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
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.542916	0.056689	0.174450	0.134041	0.024680	0.006960	0.011589	0.018600	0.000608	0.000298	0.023389	0.001091	0.004689
Parking Lot	0.542916	0.056689	0.174450	0.134041	0.024680	0.006960	0.011589	0.018600	0.000608	0.000298	0.023389	0.001091	0.004689

5.0 Energy Detail

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	563.2237	563.2237	0.0475	5.7600e-003	566.1293
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	563.2237	563.2237	0.0475	5.7600e-003	566.1293
NaturalGas Mitigated	0.0582	0.5290	0.4444	3.1700e-003		0.0402	0.0402		0.0402	0.0402	0.0000	575.9017	575.9017	0.0110	0.0106	579.3240
NaturalGas Unmitigated	0.0582	0.5290	0.4444	3.1700e-003		0.0402	0.0402		0.0402	0.0402	0.0000	575.9017	575.9017	0.0110	0.0106	579.3240

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
Hotel	1.0792e+007	0.0582	0.5290	0.4444	3.1700e-003		0.0402	0.0402		0.0402	0.0402	0.0000	575.9017	575.9017	0.0110	0.0106	579.3240
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		**0.0582**	**0.5290**	**0.4444**	**3.1700e-003**		**0.0402**	**0.0402**		**0.0402**	**0.0402**	**0.0000**	**575.9017**	**575.9017**	**0.0110**	**0.0106**	**579.3240**

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					
Hotel	1.0792e+007	0.0582	0.5290	0.4444	3.1700e-003		0.0402	0.0402		0.0402	0.0402	0.0000	575.9017	575.9017	0.0110	0.0106	579.3240
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		**0.0582**	**0.5290**	**0.4444**	**3.1700e-003**		**0.0402**	**0.0402**		**0.0402**	**0.0402**	**0.0000**	**575.9017**	**575.9017**	**0.0110**	**0.0106**	**579.3240**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	3.16718e+006	561.6844	0.0474	5.7500e-003	564.5820
Parking Lot	8680	1.5394	1.3000e-004	2.0000e-005	1.5473
Total		**563.2237**	**0.0475**	**5.7700e-003**	**566.1293**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	3.16718e+006	561.6844	0.0474	5.7500e-003	564.5820
Parking Lot	8680	1.5394	1.3000e-004	2.0000e-005	1.5473
Total		**563.2237**	**0.0475**	**5.7700e-003**	**566.1293**

6.0 Area Detail

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.7421	2.0000e-005	1.9100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.7200e-003	3.7200e-003	1.0000e-005	0.0000	3.9600e-003
Unmitigated	0.7421	2.0000e-005	1.9100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.7200e-003	3.7200e-003	1.0000e-005	0.0000	3.9600e-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	0.0845					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6575					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.8000e-004	2.0000e-005	1.9100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.7200e-003	3.7200e-003	1.0000e-005	0.0000	3.9600e-003
Total	**0.7421**	**2.0000e-005**	**1.9100e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.7200e-003**	**3.7200e-003**	**1.0000e-005**	**0.0000**	**3.9600e-003**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.0845					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6575					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.8000e-004	2.0000e-005	1.9100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.7200e-003	3.7200e-003	1.0000e-005	0.0000	3.9600e-003
Total	**0.7421**	**2.0000e-005**	**1.9100e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.7200e-003**	**3.7200e-003**	**1.0000e-005**	**0.0000**	**3.9600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	7.2178	0.0832	2.0200e-003	9.8990
Unmitigated	9.0223	0.1040	2.5200e-003	12.3737

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	3.17085 / 0.352316	9.0223	0.1040	2.5200e-003	12.3737
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**9.0223**	**0.1040**	**2.5200e-003**	**12.3737**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	2.53668 / 0.281853	7.2178	0.0832	2.0200e-003	9.8990
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**7.2178**	**0.0832**	**2.0200e-003**	**9.8990**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	10.4195	0.6158	0.0000	25.8139
Unmitigated	13.8927	0.8210	0.0000	34.4186

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	68.44	13.8927	0.8210	0.0000	34.4186
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**13.8927**	**0.8210**	**0.0000**	**34.4186**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	51.33	10.4195	0.6158	0.0000	25.8139
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**10.4195**	**0.6158**	**0.0000**	**25.8139**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

JM Realty Perris Development, Phase 2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

JM Realty Perris Development, Phase 2

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	24.80	1000sqft	0.57	24,800.00	0
Hotel	125.00	Room	1.04	181,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2026
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Phase 2 - 125 room hotel.

Land Use - 125 room future hotel on 1.61 acres, assumed to be 4 story.
Remaining space assumed to be parking/paved/concrete.

Construction Phase - Site vacant, no demolition.
Architectural coating assumed to occur concurrently with the last 2 months of building construction.

Off-road Equipment -

Off-road Equipment - Off-Highway Truck = water truck.

Off-road Equipment - Off-Highway Truck = water truck.

Off-road Equipment -

Off-road Equipment - Off-Highway Truck = water truck.

Off-road Equipment - Equipment for excavation/installation of underground utilites and Line E storm drain.
Off-Highway Truck = water truck.

JM Realty Perris Development, Phase 2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Trips and VMT - 43 loads (86 trips) ashpalt/aggregate imported during paving.

Grading - Grading cut/fill balanced onsite.

Architectural Coating - 50 g/L maximum VOC content for exterior and interior flat coatings per SCAQMD Rule 1113.

Vehicle Trips - Trip generation per Traffic Report.

Area Coating - 50 g/L maximum VOC content for exterior and interior flat coatings per SCAQMD Rule 1113.

Construction Off-road Equipment Mitigation - Dust miitigation to comply with SCAQMD Rule 403.

Area Mitigation - 50 g/L maximum VOC content for exterior and interior flat coatings per SCAQMD Rule 1113.

Water Mitigation - 20% water conservation per 2019 CalGreen not accounted for in model defaults.

Waste Mitigation - 25% solid waste diversion per AB 341 not accounted for in model defaults

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblConstructionPhase	NumDays	10.00	41.00
tblConstructionPhase	PhaseEndDate	5/12/2025	4/14/2025
tblConstructionPhase	PhaseStartDate	4/29/2025	2/15/2025
tblLandUse	LotAcreage	4.17	1.04
tblTripsAndVMT	HaulingTripNumber	0.00	86.00
tblVehicleTrips	ST_TR	8.19	8.00
tblVehicleTrips	SU_TR	5.95	8.00
tblVehicleTrips	WD_TR	8.36	8.00

2.0 Emissions Summary

JM Realty Perris Development, Phase 2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2024	1.9817	15.5088	17.0271	0.0420	7.2279	0.6328	7.8607	3.4633	0.5822	4.0455	0.0000	4,022.4357	4,022.4357	0.8552	0.1112	4,069.7038
2025	22.7670	14.3541	18.9943	0.0461	1.3802	0.5098	1.8900	0.3710	0.4909	0.8619	0.0000	4,410.3635	4,410.3635	0.5755	0.1117	4,458.0232
Maximum	**22.7670**	**15.5088**	**18.9943**	**0.0461**	**7.2279**	**0.6328**	**7.8607**	**3.4633**	**0.5822**	**4.0455**	**0.0000**	**4,410.3635**	**4,410.3635**	**0.8552**	**0.1117**	**4,458.0232**

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	lb/day										lb/day					
2024	1.9817	15.5088	17.0271	0.0420	3.3325	0.6328	3.9653	1.5797	0.5822	2.1618	0.0000	4,022.4357	4,022.4357	0.8552	0.1112	4,069.7038
2025	22.7670	14.3541	18.9943	0.0461	1.3802	0.5098	1.8900	0.3710	0.4909	0.8619	0.0000	4,410.3635	4,410.3635	0.5755	0.1117	4,458.0232
Maximum	**22.7670**	**15.5088**	**18.9943**	**0.0461**	**3.3325**	**0.6328**	**3.9653**	**1.5797**	**0.5822**	**2.1618**	**0.0000**	**4,410.3635**	**4,410.3635**	**0.8552**	**0.1117**	**4,458.0232**

JM Realty Perris Development, Phase 2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	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	45.25	0.00	39.95	49.13	0.00	38.38	0.00	0.00	0.00	0.00	0.00	0.00

JM Realty Perris Development, Phase 2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Area	4.0667	1.4000e-004	0.0153	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0328	0.0328	9.0000e-005		0.0349
Energy	0.3189	2.8987	2.4349	0.0174		0.2203	0.2203		0.2203	0.2203		3,478.4819	3,478.4819	0.0667	0.0638	3,499.1528
Mobile	2.0744	2.9206	18.7650	0.0435	5.0402	0.0358	5.0760	1.3444	0.0336	1.3780		4,436.1027	4,436.1027	0.2563	0.2353	4,512.6228
Total	**6.4600**	**5.8194**	**21.2152**	**0.0609**	**5.0402**	**0.2562**	**5.2964**	**1.3444**	**0.2539**	**1.5984**		**7,914.6173**	**7,914.6173**	**0.3230**	**0.2991**	**8,011.8105**

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	lb/day										lb/day					
Area	4.0667	1.4000e-004	0.0153	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0328	0.0328	9.0000e-005		0.0349
Energy	0.3189	2.8987	2.4349	0.0174		0.2203	0.2203		0.2203	0.2203		3,478.4819	3,478.4819	0.0667	0.0638	3,499.1528
Mobile	2.0744	2.9206	18.7650	0.0435	5.0402	0.0358	5.0760	1.3444	0.0336	1.3780		4,436.1027	4,436.1027	0.2563	0.2353	4,512.6228
Total	**6.4600**	**5.8194**	**21.2152**	**0.0609**	**5.0402**	**0.2562**	**5.2964**	**1.3444**	**0.2539**	**1.5984**		**7,914.6173**	**7,914.6173**	**0.3230**	**0.2991**	**8,011.8105**

JM Realty Perris Development, Phase 2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	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	7/1/2024	7/2/2024	5	2	
2	Grading	Grading	7/3/2024	7/8/2024	5	4	
3	Building Construction	Building Construction	7/9/2024	4/14/2025	5	200	
4	Paving	Paving	4/15/2025	4/28/2025	5	10	
5	Architectural Coating	Architectural Coating	2/15/2025	4/14/2025	5	41	

Acres of Grading (Site Preparation Phase): 1.88

Acres of Grading (Grading Phase): 4

Acres of Paving: 0.57

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 272,250; Non-Residential Outdoor: 90,750; Striped Parking Area: 1,488 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Off-Highway Trucks	1	4.00	402	0.38
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Off-Highway Trucks	1	4.00	402	0.38

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Off-Highway Trucks	1	4.00	402	0.38
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	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
Site Preparation	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	87.00	34.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	17.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	86.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

JM Realty Perris Development, Phase 2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2024

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	lb/day										lb/day					
Fugitive Dust					6.2662	0.0000	6.2662	3.0041	0.0000	3.0041			0.0000			0.0000
Off-Road	1.3552	13.5046	8.2569	0.0238		0.5422	0.5422		0.4988	0.4988		2,306.0578	2,306.0578	0.7458		2,324.7035
Total	**1.3552**	**13.5046**	**8.2569**	**0.0238**	**6.2662**	**0.5422**	**6.8084**	**3.0041**	**0.4988**	**3.5029**		**2,306.0578**	**2,306.0578**	**0.7458**		**2,324.7035**

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	lb/day										lb/day					
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
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
Worker	0.0320	0.0208	0.2779	8.6000e-004	0.1118	5.0000e-004	0.1123	0.0296	4.6000e-004	0.0301		87.1927	87.1927	2.0800e-003	2.2300e-003	87.9092
Total	**0.0320**	**0.0208**	**0.2779**	**8.6000e-004**	**0.1118**	**5.0000e-004**	**0.1123**	**0.0296**	**4.6000e-004**	**0.0301**		**87.1927**	**87.1927**	**2.0800e-003**	**2.2300e-003**	**87.9092**

JM Realty Perris Development, Phase 2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2024

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	lb/day										lb/day					
Fugitive Dust					2.8198	0.0000	2.8198	1.3518	0.0000	1.3518			0.0000			0.0000
Off-Road	1.3552	13.5046	8.2569	0.0238		0.5422	0.5422		0.4988	0.4988	0.0000	2,306.0578	2,306.0578	0.7458		2,324.7034
Total	**1.3552**	**13.5046**	**8.2569**	**0.0238**	**2.8198**	**0.5422**	**3.3620**	**1.3518**	**0.4988**	**1.8506**	**0.0000**	**2,306.0578**	**2,306.0578**	**0.7458**		**2,324.7034**

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	lb/day										lb/day					
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
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
Worker	0.0320	0.0208	0.2779	8.6000e-004	0.1118	5.0000e-004	0.1123	0.0296	4.6000e-004	0.0301		87.1927	87.1927	2.0800e-003	2.2300e-003	87.9092
Total	**0.0320**	**0.0208**	**0.2779**	**8.6000e-004**	**0.1118**	**5.0000e-004**	**0.1123**	**0.0296**	**4.6000e-004**	**0.0301**		**87.1927**	**87.1927**	**2.0800e-003**	**2.2300e-003**	**87.9092**

JM Realty Perris Development, Phase 2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2024

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	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5500	15.4817	10.3249	0.0272		0.6322	0.6322		0.5816	0.5816		2,635.7555	2,635.7555	0.8525		2,657.0669
Total	**1.5500**	**15.4817**	**10.3249**	**0.0272**	**7.0826**	**0.6322**	**7.7147**	**3.4247**	**0.5816**	**4.0063**		**2,635.7555**	**2,635.7555**	**0.8525**		**2,657.0669**

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	lb/day										lb/day					
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
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
Worker	0.0416	0.0271	0.3612	1.1200e-003	0.1453	6.5000e-004	0.1460	0.0385	6.0000e-004	0.0391		113.3505	113.3505	2.7000e-003	2.9000e-003	114.2819
Total	**0.0416**	**0.0271**	**0.3612**	**1.1200e-003**	**0.1453**	**6.5000e-004**	**0.1460**	**0.0385**	**6.0000e-004**	**0.0391**		**113.3505**	**113.3505**	**2.7000e-003**	**2.9000e-003**	**114.2819**

JM Realty Perris Development, Phase 2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2024

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	lb/day										lb/day					
Fugitive Dust					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	1.5500	15.4817	10.3249	0.0272		0.6322	0.6322		0.5816	0.5816	0.0000	2,635.7555	2,635.7555	0.8525		2,657.0669
Total	**1.5500**	**15.4817**	**10.3249**	**0.0272**	**3.1872**	**0.6322**	**3.8193**	**1.5411**	**0.5816**	**2.1227**	**0.0000**	**2,635.7555**	**2,635.7555**	**0.8525**		**2,657.0669**

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	lb/day										lb/day					
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
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
Worker	0.0416	0.0271	0.3612	1.1200e-003	0.1453	6.5000e-004	0.1460	0.0385	6.0000e-004	0.0391		113.3505	113.3505	2.7000e-003	2.9000e-003	114.2819
Total	**0.0416**	**0.0271**	**0.3612**	**1.1200e-003**	**0.1453**	**6.5000e-004**	**0.1460**	**0.0385**	**6.0000e-004**	**0.0391**		**113.3505**	**113.3505**	**2.7000e-003**	**2.9000e-003**	**114.2819**

JM Realty Perris Development, Phase 2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2024

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	lb/day										lb/day					
Off-Road	1.6685	12.7278	14.1423	0.0287		0.5105	0.5105		0.4899	0.4899		2,642.0967	2,642.0967	0.5404		2,655.6076
Total	**1.6685**	**12.7278**	**14.1423**	**0.0287**		**0.5105**	**0.5105**		**0.4899**	**0.4899**		**2,642.0967**	**2,642.0967**	**0.5404**		**2,655.6076**

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	lb/day										lb/day					
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
Vendor	0.0349	1.1782	0.4675	5.8600e-003	0.2178	9.6400e-003	0.2274	0.0627	9.2200e-003	0.0719		621.7630	621.7630	6.5200e-003	0.0918	649.2865
Worker	0.2783	0.1813	2.4173	7.5000e-003	0.9725	4.3400e-003	0.9768	0.2579	3.9900e-003	0.2619		758.5761	758.5761	0.0181	0.0194	764.8098
Total	**0.3132**	**1.3595**	**2.8848**	**0.0134**	**1.1902**	**0.0140**	**1.2042**	**0.3206**	**0.0132**	**0.3338**		**1,380.3391**	**1,380.3391**	**0.0246**	**0.1112**	**1,414.0962**

JM Realty Perris Development, Phase 2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2024

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	lb/day										lb/day					
Off-Road	1.6685	12.7278	14.1423	0.0287		0.5105	0.5105		0.4899	0.4899	0.0000	2,642.0967	2,642.0967	0.5404		2,655.6076
Total	**1.6685**	**12.7278**	**14.1423**	**0.0287**		**0.5105**	**0.5105**		**0.4899**	**0.4899**	**0.0000**	**2,642.0967**	**2,642.0967**	**0.5404**		**2,655.6076**

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	lb/day										lb/day					
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
Vendor	0.0349	1.1782	0.4675	5.8600e-003	0.2178	9.6400e-003	0.2274	0.0627	9.2200e-003	0.0719		621.7630	621.7630	6.5200e-003	0.0918	649.2865
Worker	0.2783	0.1813	2.4173	7.5000e-003	0.9725	4.3400e-003	0.9768	0.2579	3.9900e-003	0.2619		758.5761	758.5761	0.0181	0.0194	764.8098
Total	**0.3132**	**1.3595**	**2.8848**	**0.0134**	**1.1902**	**0.0140**	**1.2042**	**0.3206**	**0.0132**	**0.3338**		**1,380.3391**	**1,380.3391**	**0.0246**	**0.1112**	**1,414.0962**

JM Realty Perris Development, Phase 2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2025

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	lb/day										lb/day					
Off-Road	1.5634	11.8458	14.0321	0.0287		0.4437	0.4437		0.4257	0.4257		2,641.9902	2,641.9902	0.5338		2,655.3359
Total	**1.5634**	**11.8458**	**14.0321**	**0.0287**		**0.4437**	**0.4437**		**0.4257**	**0.4257**		**2,641.9902**	**2,641.9902**	**0.5338**		**2,655.3359**

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	lb/day										lb/day					
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
Vendor	0.0344	1.1685	0.4624	5.7600e-003	0.2178	9.6500e-003	0.2274	0.0627	9.2300e-003	0.0719		610.8118	610.8118	6.7700e-003	0.0900	637.8052
Worker	0.2608	0.1625	2.2509	7.2500e-003	0.9725	4.1200e-003	0.9766	0.2579	3.7900e-003	0.2617		732.9026	732.9026	0.0163	0.0181	738.7056
Total	**0.2952**	**1.3310**	**2.7133**	**0.0130**	**1.1902**	**0.0138**	**1.2040**	**0.3206**	**0.0130**	**0.3336**		**1,343.7144**	**1,343.7144**	**0.0231**	**0.1081**	**1,376.5107**

JM Realty Perris Development, Phase 2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2025

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	lb/day										lb/day					
Off-Road	1.5634	11.8458	14.0321	0.0287		0.4437	0.4437		0.4257	0.4257	0.0000	2,641.9902	2,641.9902	0.5338		2,655.3359
Total	**1.5634**	**11.8458**	**14.0321**	**0.0287**		**0.4437**	**0.4437**		**0.4257**	**0.4257**	**0.0000**	**2,641.9902**	**2,641.9902**	**0.5338**		**2,655.3359**

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	lb/day										lb/day					
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
Vendor	0.0344	1.1685	0.4624	5.7600e-003	0.2178	9.6500e-003	0.2274	0.0627	9.2300e-003	0.0719		610.8118	610.8118	6.7700e-003	0.0900	637.8052
Worker	0.2608	0.1625	2.2509	7.2500e-003	0.9725	4.1200e-003	0.9766	0.2579	3.7900e-003	0.2617		732.9026	732.9026	0.0163	0.0181	738.7056
Total	**0.2952**	**1.3310**	**2.7133**	**0.0130**	**1.1902**	**0.0138**	**1.2040**	**0.3206**	**0.0130**	**0.3336**		**1,343.7144**	**1,343.7144**	**0.0231**	**0.1081**	**1,376.5107**

JM Realty Perris Development, Phase 2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2025

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	lb/day										lb/day					
Off-Road	0.5732	5.3259	8.7951	0.0136		0.2465	0.2465		0.2276	0.2276		1,297.8096	1,297.8096	0.4114		1,308.0951
Paving	0.1493					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7225**	**5.3259**	**8.7951**	**0.0136**		**0.2465**	**0.2465**		**0.2276**	**0.2276**		**1,297.8096**	**1,297.8096**	**0.4114**		**1,308.0951**

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	lb/day										lb/day					
Hauling	0.0172	0.9038	0.2454	4.5600e-003	0.1505	0.0103	0.1608	0.0413	9.8600e-003	0.0511		487.2517	487.2517	7.9000e-003	0.0768	510.3396
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
Worker	0.0390	0.0243	0.3363	1.0800e-003	0.1453	6.2000e-004	0.1459	0.0385	5.7000e-004	0.0391		109.5142	109.5142	2.4400e-003	2.7000e-003	110.3813
Total	**0.0562**	**0.9281**	**0.5817**	**5.6400e-003**	**0.2958**	**0.0109**	**0.3067**	**0.0798**	**0.0104**	**0.0902**		**596.7659**	**596.7659**	**0.0103**	**0.0795**	**620.7209**

JM Realty Perris Development, Phase 2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2025

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	lb/day										lb/day					
Off-Road	0.5732	5.3259	8.7951	0.0136		0.2465	0.2465		0.2276	0.2276	0.0000	1,297.8096	1,297.8096	0.4114		1,308.0951
Paving	0.1493					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7225**	**5.3259**	**8.7951**	**0.0136**		**0.2465**	**0.2465**		**0.2276**	**0.2276**	**0.0000**	**1,297.8096**	**1,297.8096**	**0.4114**		**1,308.0951**

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	lb/day										lb/day					
Hauling	0.0172	0.9038	0.2454	4.5600e-003	0.1505	0.0103	0.1608	0.0413	9.8600e-003	0.0511		487.2517	487.2517	7.9000e-003	0.0768	510.3396
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
Worker	0.0390	0.0243	0.3363	1.0800e-003	0.1453	6.2000e-004	0.1459	0.0385	5.7000e-004	0.0391		109.5142	109.5142	2.4400e-003	2.7000e-003	110.3813
Total	**0.0562**	**0.9281**	**0.5817**	**5.6400e-003**	**0.2958**	**0.0109**	**0.3067**	**0.0798**	**0.0104**	**0.0902**		**596.7659**	**596.7659**	**0.0103**	**0.0795**	**620.7209**

JM Realty Perris Development, Phase 2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2025

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	lb/day										lb/day					
Archit. Coating	20.6866					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**20.8574**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	lb/day										lb/day					
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
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
Worker	0.0510	0.0318	0.4398	1.4200e-003	0.1900	8.0000e-004	0.1908	0.0504	7.4000e-004	0.0511		143.2109	143.2109	3.1900e-003	3.5400e-003	144.3448
Total	**0.0510**	**0.0318**	**0.4398**	**1.4200e-003**	**0.1900**	**8.0000e-004**	**0.1908**	**0.0504**	**7.4000e-004**	**0.0511**		**143.2109**	**143.2109**	**3.1900e-003**	**3.5400e-003**	**144.3448**

JM Realty Perris Development, Phase 2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2025

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	lb/day										lb/day					
Archit. Coating	20.6866					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**20.8574**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	lb/day										lb/day					
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
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
Worker	0.0510	0.0318	0.4398	1.4200e-003	0.1900	8.0000e-004	0.1908	0.0504	7.4000e-004	0.0511		143.2109	143.2109	3.1900e-003	3.5400e-003	144.3448
Total	**0.0510**	**0.0318**	**0.4398**	**1.4200e-003**	**0.1900**	**8.0000e-004**	**0.1908**	**0.0504**	**7.4000e-004**	**0.0511**		**143.2109**	**143.2109**	**3.1900e-003**	**3.5400e-003**	**144.3448**

JM Realty Perris Development, Phase 2 - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Mitigated	2.0744	2.9206	18.7650	0.0435	5.0402	0.0358	5.0760	1.3444	0.0336	1.3780		4,436.1027	4,436.1027	0.2563	0.2353	4,512.6228
Unmitigated	2.0744	2.9206	18.7650	0.0435	5.0402	0.0358	5.0760	1.3444	0.0336	1.3780		4,436.1027	4,436.1027	0.2563	0.2353	4,512.6228

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	1,000.00	1,000.00	1000.00	2,386,171	2,386,171
Parking Lot	0.00	0.00	0.00		
Total	1,000.00	1,000.00	1,000.00	2,386,171	2,386,171

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
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.542916	0.056689	0.174450	0.134041	0.024680	0.006960	0.011589	0.018600	0.000608	0.000298	0.023389	0.001091	0.004689
Parking Lot	0.542916	0.056689	0.174450	0.134041	0.024680	0.006960	0.011589	0.018600	0.000608	0.000298	0.023389	0.001091	0.004689

5.0 Energy Detail

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	lb/day										lb/day					
NaturalGas Mitigated	0.3189	2.8987	2.4349	0.0174		0.2203	0.2203		0.2203	0.2203		3,478.4819	3,478.4819	0.0667	0.0638	3,499.1528
NaturalGas Unmitigated	0.3189	2.8987	2.4349	0.0174		0.2203	0.2203		0.2203	0.2203		3,478.4819	3,478.4819	0.0667	0.0638	3,499.1528

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Hotel	29567.1	0.3189	2.8987	2.4349	0.0174		0.2203	0.2203		0.2203	0.2203		3,478.4819	3,478.4819	0.0667	0.0638	3,499.1528
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
Total		**0.3189**	**2.8987**	**2.4349**	**0.0174**		**0.2203**	**0.2203**		**0.2203**	**0.2203**		**3,478.4819**	**3,478.4819**	**0.0667**	**0.0638**	**3,499.1528**

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	lb/day										lb/day					
Hotel	29.5671	0.3189	2.8987	2.4349	0.0174		0.2203	0.2203		0.2203	0.2203		3,478.4819	3,478.4819	0.0667	0.0638	3,499.1528
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
Total		**0.3189**	**2.8987**	**2.4349**	**0.0174**		**0.2203**	**0.2203**		**0.2203**	**0.2203**		**3,478.4819**	**3,478.4819**	**0.0667**	**0.0638**	**3,499.1528**

6.0 Area Detail

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Mitigated	4.0667	1.4000e-004	0.0153	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0328	0.0328	9.0000e-005		0.0349
Unmitigated	4.0667	1.4000e-004	0.0153	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0328	0.0328	9.0000e-005		0.0349

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	lb/day										lb/day					
Architectural Coating	0.4629					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.6025					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4000e-003	1.4000e-004	0.0153	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0328	0.0328	9.0000e-005		0.0349
Total	**4.0667**	**1.4000e-004**	**0.0153**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**		**0.0328**	**0.0328**	**9.0000e-005**		**0.0349**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Architectural Coating	0.4629					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.6025					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4000e-003	1.4000e-004	0.0153	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0328	0.0328	9.0000e-005		0.0349
Total	**4.0667**	**1.4000e-004**	**0.0153**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**		**0.0328**	**0.0328**	**9.0000e-005**		**0.0349**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix B

Ramona-Indian Warehouse HRA

Ramona-Indian Warehouse Project

Warehouse Operations Health Risk Assessment

May 2022 | 04823.00001.001

Prepared for:

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ACRONYMS AND ABBREVIATIONS

ADMRT	Air Dispersion Modeling and Risk Tool
ADT	average daily trips
AERMAP	AERMOD terrain preprocessor
AERMOD	USEPA gaussian plume air dispersion model
amsl	above mean sea level
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
City	City of Perris
DPM	diesel particulate matter
EIR	Environmental Impact Report
°F	Fahrenheit
GVW	gross vehicle weight
HARP	Hotspots Analysis and Reporting Program
HHDT	heavy heavy-duty trucks with a maximum gross vehicle weight more than 33,000 pounds
HRA	health risk assessment
I-	Interstate
LHDT2	light heavy-duty trucks with a maximum gross vehicle weight of 10,000 to 14,000 pounds
m	meters
MHDT	medium heavy-duty trucks with a maximum gross vehicle weight of 14,000 to 33,000 pounds
MEIR	maximally exposed individual resident
mph	miles per hour
NED	National Elevation Dataset
OEHHA	Office of Environmental Health Hazard Assessment
PVCCSP	Perris Valley Commerce Center Specific Plan
REL	Reference Exposure Limit

ACRONYMS AND ABBREVIATIONS (cont.)

SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SF	square feet
SR-	State Route
T-BACT	Toxics Best Available Control Technology
TACs	toxic air contaminants
USEPA	U.S. Environmental Protection Agency
USGS	U.S. Geological Survey
UTM	Universal Transverse Mercator

EXECUTIVE SUMMARY

This report presents an assessment of the potential for increased cancer and chronic health risks resulting from long-term operation of a proposed warehouse facility included as a component of the Ramona-Indian Warehouse Project (project). The predominant toxic air contaminant (TAC) of concern emitted by the project would be diesel particulate matter (DPM). Future emissions of the TAC DPM were estimated using the trip generation data and truck route provided in the project Traffic Analysis. DPM emissions would result from trucks traveling on public roads and project driveways, truck circulating on the project site, trucks idling at the loading docks and truck/trailer parking area.

Air dispersion modeling was completed for the maximum anticipated truck trips related to project operation. A health risk analysis was completed for the closest existing residential and off-site worker receptors. The increased cancer risk, chronic hazard indices, and cancer burden for the exposed individual residents and off-site workers would be below their respective thresholds. Long-term operation of the proposed warehouse would not result in a significant impact related to the exposure of sensitive receptors to substantial TAC concentrations.

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1.0 INTRODUCTION

This report presents an assessment of the potential for increased cancer and chronic health risks resulting from long-term operation of a proposed warehouse facility included as a component of the Ramona-Indian Warehouse Project (project).

1.1 PROJECT LOCATION

The project site is located at the northeast corner of the intersection of Ramona Expressway and Indian Avenue, in the City of Perris (City) in western Riverside County, California. The project site includes approximately 15 acres and is located approximately 1.4 miles east of Interstate (I-) 215 and approximately 6.5 miles south of State Route (SR-) 60. The project site is within the western Riverside County portion of the South Coast Air Basin (SCAB). Air quality in the project area is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). See Figure 1, *Regional Location*. The project is located within the Perris Valley Commerce Center Specific Plan (PVCCSP) area.

1.1.1 Existing Site Conditions

The project site is generally characterized as disturbed vacant land that was previously used for agricultural purposes. The project site is generally flat with an elevation between 1,450 and 1,460 feet above mean sea level (amsl). The southern portion of the project site includes a surface-level drainage swale that is owned and maintained by the Riverside County Flood Control and Water Conservation District and runs in an east-west direction. Surrounding land uses include: three single family residences (on parcels with commercial and industrial land use designations), undeveloped area, and commercial development (beyond and undeveloped area to the north); a retail gasoline station abutting the project site to the east; commercial development and undeveloped land to the east across Perris Boulevard; commercial development with residential areas beyond to the southeast across Ramona Expressway and Perris Boulevard; industrial development (beyond undeveloped areas) to the south across Ramona Expressway; industrial development to the southwest (beyond retention basins) across Ramona Expressway and Indian Avenue; and undeveloped land to the east across Indian Avenue. See Figure 2, *Aerial Photo*.

1.2 PROJECT DESCRIPTION

The project would develop light industrial uses and commercial uses in two phases. Phase 1 would develop a 232,575 square feet (SF) multi-tenant distribution building (warehouse) that includes 10,000 SF of internal office space, parking areas and driveways, a pad for future commercial development, storm drains and a water quality management retention basin, all on approximately 15 acres at the northeast corner of Indian Avenue and Ramona Expressway. Development of the commercial pad is not a part of the project. The warehouse would include 39 loading docks. The parking area would include 410 auto/light truck stalls, and 52 truck/trailer stalls. The storm drain system would include construction of the storm drain Line E within the project site. See Figure 3, *Site Plan*. The project would include roadway improvements for Ramona Expressway, Indian Avenue, and Perris Boulevard. Additional improvements would include landscaping, screen walls and fencing, and lighting.

Phase 2 would develop a commercial pad on the 1.61 acres in the northeastern portion of the project site with a 125-room hotel. Until development of the commercial pad occurs, temporary staging

activities may occur in this area to support construction of the light industrial uses described above. Trucks traveling to and from the project hotel would utilize the different routes and entrance driveways than trucks traveling to and from the project warehouse. This HRA only analyzes operational DPM emissions from truck associated with operation of the project warehouse.

2.0 ENVIRONMENTAL SETTING

2.1 TOXIC AIR CONTAMINANTS

Toxic air contaminants (TACs) are a diverse group of air pollutants that may cause or contribute to an increase in deaths or in serious illness or that may pose a present or potential hazard to human health. TACs can cause long-term health effects such as cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage, or short-term acute effects such as eye watering, respiratory irritation (a cough), runny nose, throat pain, and headaches. TACs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For carcinogenic TACs, there is no level of exposure that is considered safe and impacts are evaluated in terms of overall relative risk expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

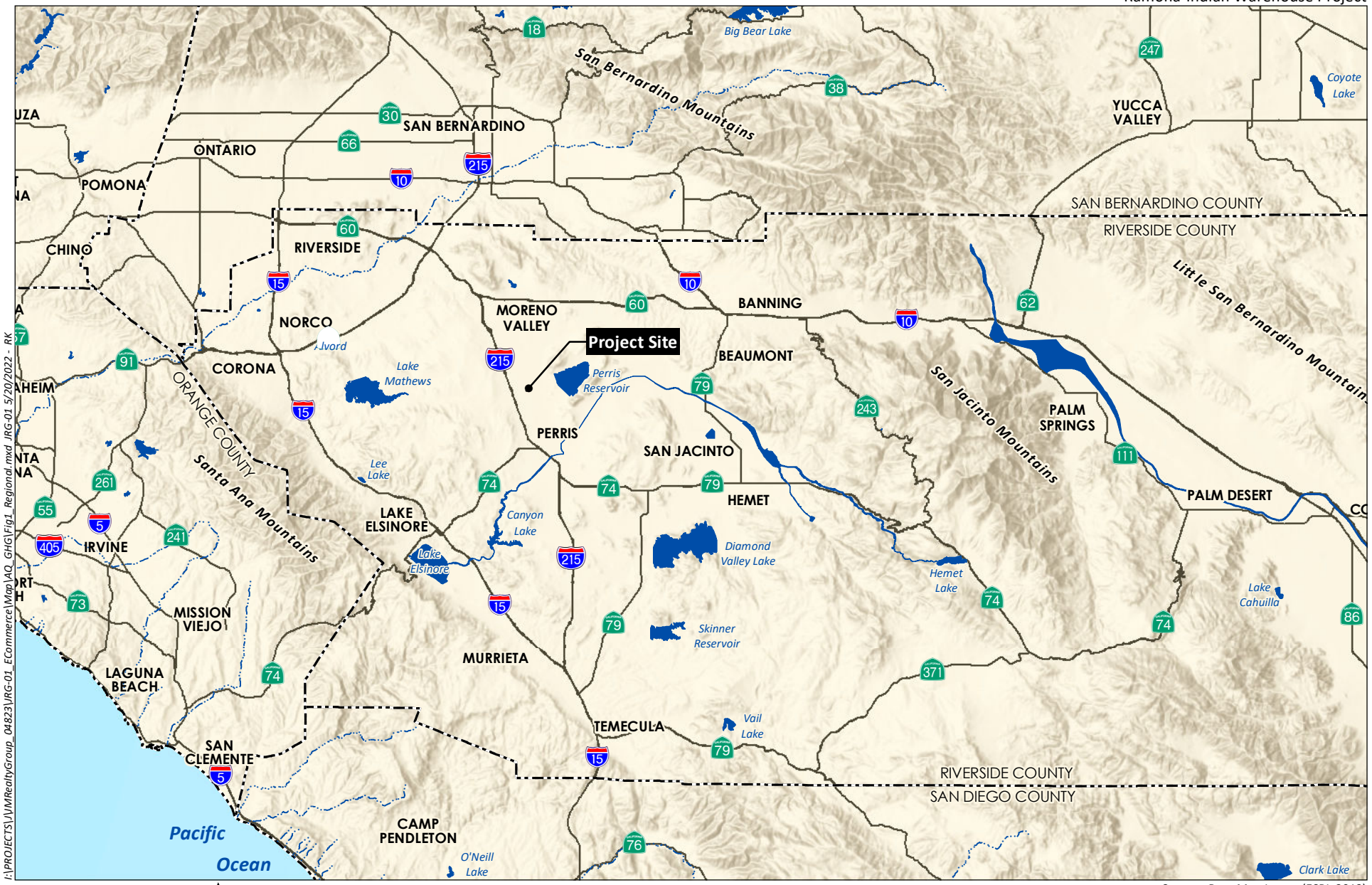
Diesel engines emit a complex mixture of air pollutants, including both gaseous and solid material. The solid material in diesel exhaust is referred to as diesel particulate matter (DPM). Almost all DPM is 10 microns or less in diameter, and 90 percent of DPM is less than 2.5 microns in diameter (California Air Resources Board [CARB] 2021a). Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung. In 1998, CARB identified DPM as a TAC based on published evidence of a relationship between diesel exhaust exposure and lung cancer and other adverse health effects. DPM has a notable effect on California's population—it is estimated that about 70 percent of total known cancer risk related to air toxics in California is attributable to DPM (CARB 2021a).

2.1.1 Toxics Best Available Control Technology

Diesel powered on-road (highway) trucks are a potential source of DPM. The Toxics Best Available Control Technology (T-BACT) for operation of diesel internal combustion engines is compliance with U.S. Environmental Protection Agency (USEPA) and CARB emissions standards. All heavy-duty diesel powered on-road vehicles manufactured since 2010 are required to meet USEPA emissions standards, including reductions of emissions of DPM by approximately 90 percent compared to unregulated engines (USEPA 2021).

2.2 SENSITIVE RECEPTORS

CARB and the Office of Environmental Health Hazard Assessment (OEHHA) have identified the following groups of individuals as the most likely to be affected by air pollution: adults over 65, children under 14, infants (including in utero in the third trimester of pregnancy), and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis (CARB 2005; OEHHA 2015). Some land uses are considered more sensitive to air pollution than others due to the types of population



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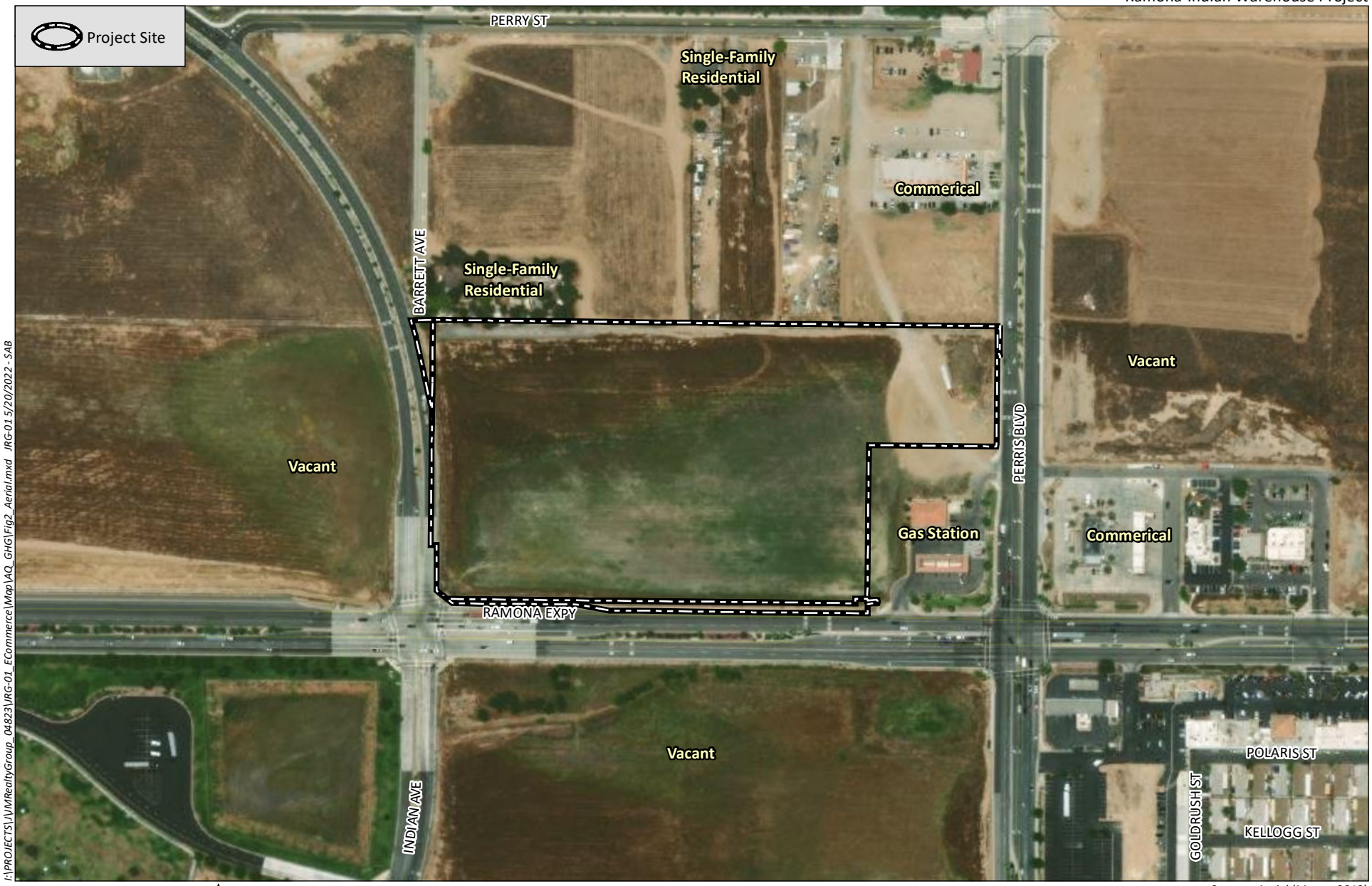
Source: Base Map Layers (ESRI, 2013)

HELIX Environmental Planning

Regional Location

Figure 1



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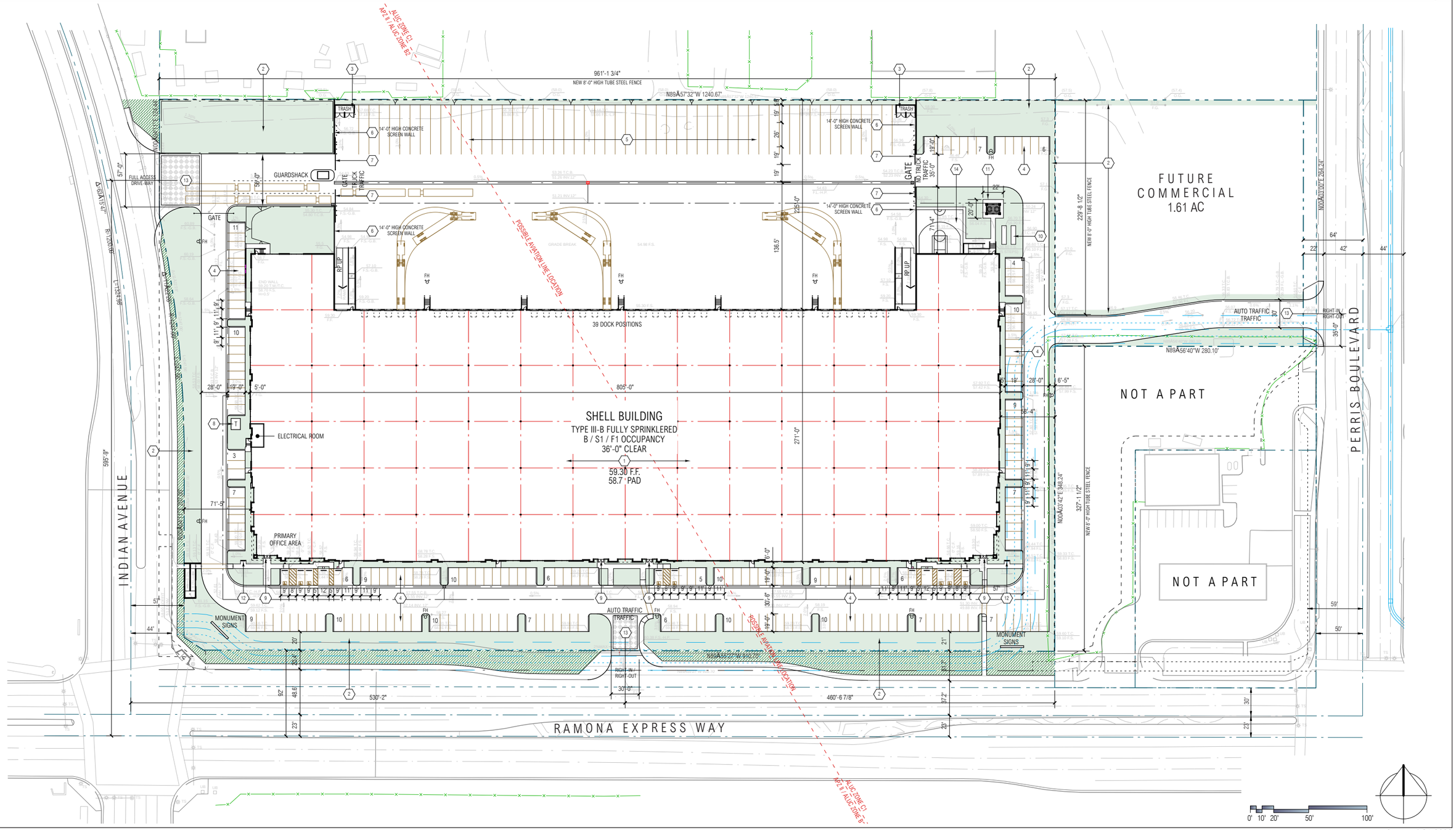
Source: Aerial (Maxar, 2019)

HELIX Environmental Planning

Aerial Photo

Figure 2



Source: RGA 2022

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HELIX Environmental Planning

Site Plan

Figure 3

groups or activities involved and are referred to as sensitive receptor locations. Examples of these sensitive receptor locations are residences, schools, hospitals, and daycare centers. For health risk assessments, the health impacts are analyzed for individual residents assumed to be standing in their primary outdoor spaces closest to the source of TACs, for students assumed to be standing outside of the school buildings or in outdoor recreation areas closest to the source of TACs, and for individual off-site workers assumed to be standing outside of a commercial or industrial building.

The closest existing sensitive receptor locations to the project site are located at three single-family residences on parcels abutting the project site to the north. Even though these parcels are not zoned for residential uses, they are still considered locations where sensitive receptors may be located for extended periods. There are reports that the closest single-family residence to the project site (adjacent to the project northwest corner) has been demolished. However, persons may still be residing at this location in recreational vehicles. To be conservative (health protective) in this analysis, this location is considered a residential site. Additional residential sensitive receptors are located southeast of the project site, across Ramona Expressway and North Perris Boulevard, behind a row of commercial buildings.

3.0 METHODOLOGY

Potential health risks to nearby sensitive receptors from the emission of TACs during operation of the proposed warehouse were analyzed in accordance with applicable portions of the OEHHA *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments* (OEHHA 2015), and applicable portions of the SCAQMD's *Modeling Guidance for AERMOD* (SCAQMD 2021).

3.1 TAC EMISSIONS

Calculations of DPM emissions were based on the project trip generation estimate (57 trucks entering the site per day) and the truck route (all trucks would use Indian Avenue north of Ramona Expressway) described in the project Traffic Analysis (Urban Crossroads 2021). Trucks on Indian Avenue were assumed be traveling at the posted speed limit of 40 miles pers hour (mph). Trucks entering and exiting the project driveway were assumed to be traveling at 15 mph. Trucks circulating within the project site were assumed to be traveling at 5 mph. All trucks were assumed to idle at the loading docks for the maximum allowable 5 minutes (per California Code of Regulations [CCR] Title 13, Section 2485). In addition, 25 percent of trucks were assumed to stage in the truck/trailer parking area before or after unloading/loading and idle for an additional 5 minutes. Truck idling emissions were assumed to be approximately equivalent to truck emissions at 5 mph.

Emissions of DPM from trucks were calculated using emission factors from CARB's EMFAC2021 version 1.0.1 online database (CARB 2021b). The truck fleet mix was estimated from the project Traffic Analysis which reported average daily trips (ADT; two trips per truck) of 24 two-axle trucks, 30 three-axle trucks, and 88 four or more axle trucks (142 total truck ADT; Urban Crossroads 2021). Two-axle trucks were assumed to be light-heavy duty (LHDT2; 10,000 to 14,000 pounds gross vehicle weight [GVW]). Three-axle trucks were assumed to be medium-heavy duty (MHDT; 14,000 to 33,000 GVR). Four or mor axle trucks were assumed to be heavy-heavy duty (HHDT; greater than 33,000 GVR). The DPM emissions for each source modeled is shown in Table 1, *DPM Emissions*. The complete emissions calculation sheets are included as Appendix A, *DPM Emissions Calculations*, to this report.

Table 1
DPM EMISSIONS

Source	DPM Emissions (pounds/year)	DPM Emissions (pounds/hour)
Trucks traveling northbound on Indian Avenue	0.0947	1.1228E-05
Trucks traveling southbound on Indian Avenue	0.0959	1.1375E-05
Trucks entering the project site	0.0469	5.5019E-06
Trucks exiting the project site	0.0396	4.6422E-06
Trucks circulating within the project site	0.2329	2.7265E-05
Trucks at the loading docks	0.0132	3.6587E-05
Trucks in the parking area	0.0132	3.6587E-05

Source: Emission factors from EMFAC2021 and OFFROAD2021 (CARB 2021b); emissions calculation sheets included in Appendix A.

3.2 DISPERSION MODELING

Localized concentrations of DPM were modeled using Lakes AERMOD View version 10.2.0. The Lakes program utilizes the USEPA's AERMOD gaussian air dispersion model version 19191. Plot files from AERMOD using unitized emissions (one gram per second) for each DPM source were imported into CARB's Hotspots Analysis and Reporting Program (HARP), Air Dispersion Modeling and Risk Tool (ADMRT) version 21118. The ADMRT calculated ground-level concentrations of DPM utilizing the imported plot files and the annual and hourly emissions inventory shown in Table 1. The modeling input and output are included in Appendix B, *HRA Modeling Output*, to this report.

3.2.1 Source Parameters

Trucks traveling on Indian Avenue, the project driveway, and within the project site were modeled as line volume sources following methodology/calculations recommended in the USEPA *Haul Road Workgroup Final Report*, using an average truck height of 4 meters (13.1 feet) and average truck width of 2.6 meters (8.5 feet; USEPA 2011). Trucks parked in the loading dock area and parking area were modeled as volume sources with a 25 meter (82 feet) wide base and a height of 4 meters (13.1 feet). To be conservative in capturing the highest reasonably foreseeable initial plume concentration, half of all trucks were assumed to use the docks on the west end of the dock area with the other half using docks at the east end. Similarly, half of parked trucks were assumed to be concentrated at the west end of the parking area (nearest to the closest sensitive receptor location) with the remaining at the east end. The complete model reports are included in Appendix B to this report.

Emissions of DPM would not be constant throughout the day. The volume of trucks entering and exiting the site would vary by hour of the day and day of the week. However, since the project is assumed to operate 24 hours per day, 7 days per week, the truck volume was assumed to be steady (at peak hour volume) throughout all hours of the day and week. This modeling assumption is generally conservative (health protective).

3.2.2 Meteorological Data

SCAQMD provides pre-processed meteorological data suitable for use with AERMOD (SCAQMD 2017). The available data set most representative of conditions in the project vicinity was from the Perris station, approximately 4 miles south of the project site. A wind rose for the Perris station shows an

average wind speed of 3.7 miles per hour from the northwest (SCAQMD 2017). The wind rose graphics are included in Appendix B to this report. The Perris station set includes 5 years of data collected between 2010 and 2016. Urban dispersion coefficients with a Riverside County population of 2,189,641 were selected in the model in accordance with SCAQMD modeling recommendations (SCAQMD 2021).

3.2.3 Terrain Data

United States Geological Survey (USGS) National Elevation Dataset (NED) files with a 30-meter resolution covering an area approximately one kilometer around the project site were used in the model to cover the analysis area. Terrain data was imported to the model using AERMAP, a terrain preprocessing program for AERMOD.

3.2.4 Receptor Modeling

To develop risk isopleths (linear contours showing equal level of risk), receptors were placed in a cartesian grid 780 meters by 580 meters (approximately 2,560 feet by 1,900 feet), centered on the project site with a grid spacing of 20 meters (66 feet) and a receptor height (flagpole height) of 1.2 meters (4 feet) above the ground. To ensure the area of maximum off-site impact was captured, receptors were placed along the project boundary at 20-meter (66 feet) intervals. Additional discrete receptors were placed at the closest primary outdoor spaces for 3 locations at the closest residence to the northwest, 1 location each for the two residences along Perry Steet to the north, 1 location for the mobile home park to the southeast, and 4 locations for the closest existing worker buildings. See Figure 4, *Receptor Locations*, for the modeled discrete receptor locations relative to the project site and modeled sources.

3.3 RISK DETERMINATION

Health risks resulting from localized concentration of DPM were estimated using the ADMRT. The latest cancer slope factors and chronic Reference Exposure Limits (RELs), and exposure paths for all TACs designated by CARB are included in ADMRT. For the residential cancer risk, an exposure duration of 30 years was selected in accordance with the OEHHA (2015) guidelines. The model conservatively assumes that residents would be standing and breathing outdoors at the location of the property line closest to the project every day between 17 and 21 hours per day (depending on the age group, starting with infants in utero in the third trimester of pregnancy) for 30 years. The Risk Management Policy (RMP) using the derived method for the intake rate percentile was selected in accordance with the SCAQMD guide recommendations (SCAQMD 2021). For off-site worker cancer risk, an exposure duration of 25 years was selected with an assumption of 8 hours per day, 5 days per week of exposure while standing outside with moderate intensity breathing rates, in accordance with the OEHHA guidelines. Because DPM only has an inhalation cancer slope factor and an inhalation chronic REL, only the cancer risk and chronic risk from exposure to DPM was evaluated, and only the inhalations pathway was evaluated. The modeling input and out is included in Appendix B to this report.

Cancer burden evaluates an overall population's increased cancer risk and is defined as the increases in cancer cases in the population due exposure to TACs from a project. Cancer burden is calculated differently from individual risk. Per OEHHA, cancer burden uses a 70-year exposure to evaluate population-wide cancer risk, and the cancer burden only evaluates residential exposure (not worksites). Cancer burden is calculated by multiplying the number of residents exposed to an incremental excess

cancer risk of 1 in 1 million or greater by the estimated incremental excess cancer risk of the maximally exposed individual resident (MEIR).

3.4 SIGNIFICANCE CRITERIA

For a Type A project (siting a new source of emissions), the SCAQMD recommends the following thresholds for the project's incremental contribution to community health risks (SCAQMD 2019):

Cancer Risk – An increased risk of 10 in 1 million for the maximally exposed individual to project emissions.

Cancer Burden – 0.5 excess cancer cases in areas exposed to 1 in 1 million or greater cancer risk from project emissions.

Chronic Health Risk – A Hazard Index of 1 for the maximally exposed individual to project emissions.

4.0 HEALTH RISK IMPACT ANALYSIS

4.1 ANALYSIS IN THE SPECIFIC PLAN EIR

The project is located within the PVCCSP area for which an EIR was certified in 2011. Impacts to sensitive receptors resulting from long-term operation of development within the PVCCSP area were analyzed in the EIR which concluded that, with implementation of mitigation measures, implementation of the PVCCSP would not expose sensitive receptors to substantial pollutant concentrations (EIR; City 2011 pp. 4.2-48 through 4.2-50). The following mitigation measures from the PVCCSP EIR would be applicable to the project and related to the exposure of sensitive receptors to substantial concentrations of DPM from warehouse operations.

MM Air 11: Signage shall be posted at loading docks and all entrances to loading areas prohibiting all on-site truck idling in excess of 5 minutes.

MM AIR 13: In order to promote alternative fuels, and help support "clean" truck fleets, the developer/successor-in-interest of each implementing development project shall provide building occupants information related to SCAQMD's Carl Moyer Program, or other state programs that restrict operations to "clean" trucks, such as 2007 or newer model year or 2010 compliant vehicles.

MM AIR 15: To identify potential implementing development project-specific impacts resulting from the use of diesel trucks, proposed implementing development projects that include in excess of 10 dock doors for a single building, a minimum of 100 truck trips per day, 40 truck trips with TRUs per day, or TRU operations exceeding 300 hours per week, and that are subject to CEQA and are located adjacent to sensitive land uses; shall have a facility-specific Health Risk Assessment performed to assess the diesel particulate matter impacts from mobile-source traffic generated by the that implementing development project. The results of the Health Risk Assessment shall be included in the CEQA documentation for each implementing development project.

This HRA constitutes compliance with MM AIR 15.

I:\PROJECTS\JVMRealtyGroup_04823\IRG-01_ECommerce\Map\AQ_GHG\Fig4_Receptors.mxd IRG-01 5/20/2022 - RK

Source: Aerial (Maxar, 2019)

HELIX Environmental Planning

Receptor Locations

Figure 4

4.2 PROJECT ANALYSIS

The incremental excess cancer risk is an estimate of the chance a person exposed to a specific source of a TAC may have of developing cancer from that exposure beyond the individual's risk of developing cancer from existing background levels of TACs in the ambient air. For context, the average cancer risk from TACs in the ambient air for an individual living in an urban area of California is 830 in 1 million (CARB 2015). Cancer risk estimates do not mean, and should not be interpreted to mean, that a person will develop cancer from estimated exposures to toxic air pollutants.

The maximum estimated community incremental excess cancer risks due to exposure to the project TAC emissions from long term operation are presented in Table 2, *Maximum Incremental Cancer Health Risk*. These estimates are conservative (health protective) and assume that the student, resident, or worker is outdoors for the entire exposure period.

Table 2
MAXIMUM INCREMENTAL CANCER HEALTH RISK

	Maximally Exposed Individual Resident Cancer Risk (per million)	Maximally Exposed Individual Worker Cancer Risk (per million)
Results	1.1	<0.1
Threshold	10	10
Exceed Threshold?	No	No

Source: Lakes AERMOD View version 10.2.0 and CARB ADMRT version 21081. See Appendix B for model inputs, outputs, and risk isopleths.

The estimated incremental excess cancer risk and chronic hazard index due to exposure to the project's TAC emissions for each receptor location (shown in Figure 4) are presented in Table 3, *Discrete Receptor Incremental Cancer and Chronic Health Risk*. The model inputs, outputs, and risk isopleth figures are available in Appendix A to this report.

Table 3
DISCRETE RECEPTOR INCREMENTAL CANCER AND CHRONIC HEALTH RISK

Receptor ID	Type	Location	Cancer Risk (per million)	Chronic Hazard Index
R1	Residential	4111 Barrett Avenue, west	0.7	<0.01
R2	Residential	4111 Barrett Avenue, southwest	0.9	<0.01
R3	Residential	4111 Barrett Avenue, southeast	1.1	<0.01
R4	Residential	111 Perry Street	0.1	<0.01
R5	Residential	91 Perry Street	0.1	<0.01
R6	Residential	Park Place Mobile Home Park, northwest corner	<0.1	<0.01
C1	Commercial	4040 Perris Boulevard, southwest corner	<0.1	<0.01
C2	Commercial	4040 Perris Boulevard, northeast corner	<0.1	<0.01
C3	Commercial	4164 Perris Boulevard	<0.1	<0.01
C4	Commercial	77 Perry Street	<0.1	<0.01

Source: Lakes AERMOD View version 10.2.0 and CARB ADMRT version 211118. See Appendix B for model inputs, outputs, and residential cancer risk isopleths.

For cancer burden, only the residence adjacent to the northwest corner of the project site is within or touching the 1 in 1 million isopleth. Assuming up to 10 residents per residence, the total exposed

population would be 10. The cancer burden would be 1.1 x 10^{-6} (risk at the MEIR using a 70-year exposure) times 10, or 0.00001, below the SCAQMD threshold of 0.5.

The point of maximum off-site impact would be on the project's north boundary at approximately Universal Transverse Mercator (UTM) coordinates Zone 11, 478782 meters East, 3745149 meters North. No students, residents or workers are anticipated to be at the point of maximum impact for prolonged periods. If residents were to be located at the point of maximum impact for 30 years, the estimated incremental excess cancer risk would be 1.5 in 1 million. The point of maximum impact is shown in Figure 4.

As shown in Table 2 and Table 3, the incremental increased cancer risks would not exceed the SCAQMD threshold of 10 in 1 million and the chronic health indices would not exceed the SCAQMD threshold of 1. The estimated incremental excess cancer risk for the MEIR would be 1.1 in 1 million. The residential incremental increased cancer risk isopleths and location of the MEIR are shown in Figure 4. Therefore, community health risks due to exposure to DPM emissions from long term operation of the proposed warehouse would not exceed the SCAQMD thresholds, and long-term operation of the project would not result in a significant impact related to the exposure of sensitive receptors to substantial TAC concentrations.

5.0 LIST OF PREPARERS

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Appendix A

DPM Emissions Calculations

The following section contains content that was obtained from a third party and may not achieve the same level of Americans with Disabilities Act (ADA) and Section 508 accessibility as other parts of this document.

Truck DPM Calculations

Southbound Indian Ave (40 mph)	Emission Factor (lb./mile)	Miles	Peak Hour Trips	ADT	Annual Trips	Max lb./hour	Annual lb./year
2 Axle (LHDT)	3.71326E-05	0.155	0.5	12	4380	2.8778E-06	2.5209E-02
3 Axle (MHDT)	1.08144E-05	0.155	0.5	15	5475	8.3812E-07	9.1774E-03
4 or more Axle (HHDT)	2.47070E-05	0.155	2	44	16060	7.6592E-06	6.1503E-02
Total			**3**	**71**		**1.1375E-05**	**9.5890E-02**

Northbound Indian Ave (40 mph)	Emission Factor (lb./mile)	Miles	Peak Hour Trips	ADT	Annual Trips	Max lb./hour	Annual lb./year
2 Axle (LHDT)	3.71326E-05	0.153	0.5	12	4380	2.8406E-06	2.4884E-02
3 Axle (MHDT)	1.08144E-05	0.153	0.5	15	5475	8.2730E-07	9.0590E-03
4 or more Axle (HHDT)	2.47070E-05	0.153	2	44	16060	7.5603E-06	6.0710E-02
Total			**3**	**71**		**1.1228E-05**	**9.4653E-02**

Entrance Drive (15 mph)	Emission Factor (lb./mile)	Miles	Peak Hour Trips	ADT	Annual Trips	Max lb./hour	Annual lb./year
2 Axle (LHDT)	7.95470E-05	0.064	0.5	12	4380	2.5455E-06	2.2299E-02
3 Axle (MHDT)	9.38922E-06	0.064	0.5	15	5475	3.0045E-07	3.2900E-03
4 or more Axle (HHDT)	2.07497E-05	0.064	2	44	16060	2.6560E-06	2.1327E-02
Total			**3**	**71**		**5.5019E-06**	**4.6916E-02**

Exit Drive (15 mph)	Emission Factor (lb./mile)	Miles	Peak Hour Trips	ADT	Annual Trips	Max lb./hour	Annual lb./year
2 Axle (LHDT)	7.95470E-05	0.054	0.5	12	4380	2.1478E-06	1.8814E-02
3 Axle (MHDT)	9.38922E-06	0.054	0.5	15	5475	2.5351E-07	2.7759E-03
4 or more Axle (HHDT)	2.07497E-05	0.054	2	44	16060	2.2410E-06	1.7995E-02
Total			**3**	**71**		**4.6422E-06**	**3.9585E-02**

Circulation (5 mph)	Emission Factor (lb./mile)	Miles	Peak Hour Trips	ADT	Annual Trips	Max lb./hour	Annual lb./year
2 Axle (LHDT)	1.29091E-04	0.207	0.5	12	4380	1.3361E-05	1.1704E-01
3 Axle (MHDT)	1.40972E-05	0.207	0.5	15	5475	1.4591E-06	1.5977E-02
4 or more Axle (HHDT)	3.00591E-05	0.207	2	44	16060	1.2444E-05	9.9929E-02
Total			**3**	**71**		**2.7265E-05**	**2.3295E-01**

Idling Dock Area 1, 2	Emission Factor (lb./min)	Minutes	Peak Hour Trips	ADT	Annual Trips	Max lb./hour	Annual lb./year
2 Axle (LHDT)	1.07576E-05	5	0.25	6	2190	1.3447E-05	1.1780E-01
3 Axle (MHDT)	1.17477E-06	5	0.25	7.5	2737.5	1.4685E-06	1.6080E-02
4 or more Axle (HHDT)	2.50493E-06	5	1	22	8030	1.2525E-05	1.0057E-01
Total			**1.5**	**35.5**		**1.8293E-05**	**6.6042E-03**

Idling Parking Area 1, 2	Emission Factor (lb./min)	Minutes	Peak Hour Trips	ADT	Annual Trips	Max lb./hour	Annual lb./year
2 Axle (LHDT)	1.07576E-05	5	0.0625	1.5	547.5	3.3618E-06	2.9449E-02
3 Axle (MHDT)	1.17477E-06	5	0.0625	1.9	693.5	3.6711E-07	4.0735E-03
4 or more Axle (HHDT)	2.50493E-06	5	0.25	5.5	2007.5	3.1312E-06	2.5143E-02
Total			**0.375**	**8.9**		**1.8293E-05**	**6.5917E-03**

Notes:
1. Exhaust PM10 emissions factor reported by EMFAC2021 in grams/mile.
2. 1 gram = 0.0022046 pounds.
3. Idling emissions calculated assuming idling emissions are approximately equal to 5 mph emissions.
4. 5 mph = 0.08333 miles per minute.

ADMRT Input

Source ID	Annual (lb/year)	Max Hour (lb/hr)
CIRC	2.32948E-01	2.72645E-05
DOCK1	6.60418E-03	1.82934E-05
DOCK2	6.60418E-03	1.82934E-05
ENTR	4.69160E-02	5.50192E-06
EXIT	3.95853E-02	4.64224E-06
INDN	9.46525E-02	1.12283E-05
INDS	9.58898E-02	1.13751E-05
PARK1	6.59165E-03	1.82934E-05
PARK2	6.59165E-03	1.82934E-05

Source: EMFAC2017 (v1.0.3) Emission Rates
Region Type: Sub-Area
Region: Riverside (SC)
Calendar Year: 2025
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, g/mile for RUNEX, mph for Speed

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	PM10_RUNEX
Riverside (SC)	2025	HHDT	Aggregate	5	Diesel	4359.75653	0.013634738
Riverside (SC)	2025	HHDT	Aggregate	15	Diesel	3476.70988	0.009411992
Riverside (SC)	2025	HHDT	Aggregate	40	Diesel	109406.185	0.011207014
Riverside (SC)	2025	LHDT2	Aggregate	5	Diesel	405.10861	0.058555466
Riverside (SC)	2025	LHDT2	Aggregate	15	Diesel	280.313151	0.036082299
Riverside (SC)	2025	LHDT2	Aggregate	40	Diesel	10842.413	0.01684325
Riverside (SC)	2025	MHDT	Aggregate	5	Diesel	1914.18008	0.006394443
Riverside (SC)	2025	MHDT	Aggregate	15	Diesel	1395.85207	0.00425892
Riverside (SC)	2025	MHDT	Aggregate	40	Diesel	44505.578	0.004905395

Appendix B

HRA Modeling Output

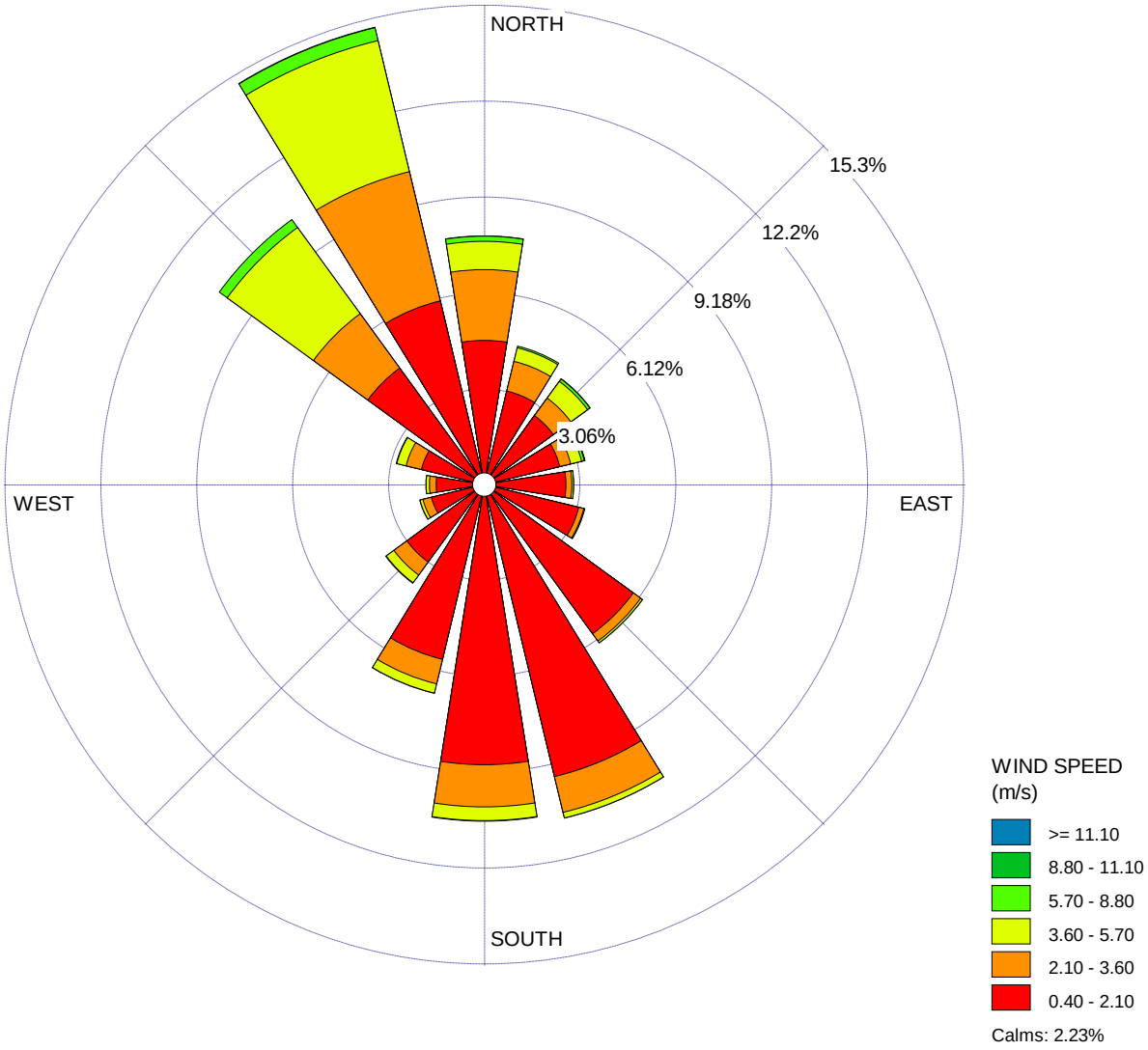
The following section contains content that was obtained from a third party and may not achieve the same level of Americans with Disabilities Act (ADA) and Section 508 accessibility as other parts of this document.

WIND ROSE PLOT:

Station #3171

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:	DATA PERIOD: **Start Date: 1/1/2010 - 00:00** **End Date: 12/31/2016 - 23:59**	COMPANY NAME: **South Coast Air Quality Management District**	
		MODELER: **Melissa Sheffer**	
	CALM WINDS: **2.23%**	TOTAL COUNT: **43476 hrs.**	
	AVG. WIND SPEED: **1.65 m/s**	DATE: **5/25/2017**	PROJECT NO.:

PROJECT TITLE:

Ramona-indina Warehouse
Residential Cancer Risk

PLOT FILE OF PERIOD VALUES FOR SOURCE GROUP: ALL ug/m^3

Max: 2.0 [ug/m^3] at (478780.00, 3745120.00)

1.0 2.0 5.0

COMMENTS: Chance per Million: 1 in 1 million isopleth	SOURCES: **9**	COMPANY NAME: **HELIX Environmenal Planning**	
	RECEPTORS: **1273**		
	OUTPUT TYPE: **Concentration**	SCALE: 1:6,730 0 0.2 km	
	MAX: **2.0 ug/m^3**	DATE: **5/20/2022**	PROJECT NO.:

PROJECT TITLE:

Ramona-indina Warehouse
Cancer Burden

PLOT FILE OF PERIOD VALUES FOR SOURCE GROUP: ALL ug/m^3

Max: 2.4 [ug/m^3] at (478780.00, 3745120.00)

1.0 10.0

COMMENTS: Chance per Million: 1 in 1 million isopleth	SOURCES: **9**	COMPANY NAME: **HELIX Environmenal Planning**	
	RECEPTORS: **1273**		
	OUTPUT TYPE: **Concentration**	SCALE: 1:6,711 0 0.2 km	
	MAX: **2.4 ug/m^3**	DATE: **5/20/2022**	PROJECT NO.:

Control Pathway

AERMOD

Dispersion Options

Titles

C:\Users\martinr\Desktop\Perris ECommerce HRA\Perris EComm\Perris EC

Dispersion Options

- [■] Regulatory Default
- [ ] Non-Default Options

Dispersion Coefficient

Urban

Population:
Name (Optional):
Roughness Length:

Output Type

- [■] Concentration
- [ ] Total Deposition (Dry & Wet)
- [ ] Dry Deposition
- [ ] Wet Deposition

Plume Depletion

- [ ] Dry Removal
- [ ] Wet Removal

Output Warnings

- [ ] No Output Warnings
- [ ] Non-fatal Warnings for Non-sequential Met Data

Pollutant / Averaging Time / Terrain Options

Pollutant Type

OTHER - DPM

Averaging Time Options

Hours

1	2	3	4	6	8	12	24
[■]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

- [ ] Month
- [■] Period
- [ ] Annual

Exponential Decay

Half-life of 4 hrs will be used

Terrain Height Options

- [ ] Flat
- [■] Elevated

SO: Meters
RE: Meters
TG: Meters

Flagpole Receptors

- [■] Yes
- [ ] No

Default Height = 1.20 m

Control Pathway

Optional Files

Re-Start File	Init File	Multi-Year Analyses	Event Input File	Error Listing File
☐	☐	☐	☐	■

Detailed Error Listing File

Filename: Perris EComm.err

Source Pathway - Source Inputs

Volume Sources

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dim. [m]	Initial Vertical Dim. [m]
VOLUME	DOCK1	478775.92 Dock Area 1	3745097.05	444.30	3.60	1.00000	25.00	Surface-Based	5.81	1.86
VOLUME	DOCK2	478907.00 Dock Area 2	3745096.97	444.15	3.60	1.00000	25.00	Surface-Based	5.81	1.86
VOLUME	PARK1	478774.46 Parking Area 1	3745133.84	444.61	3.60	1.00000	25.00	Surface-Based	5.81	1.86
VOLUME	PARK2	478906.71 Parking Area 2	3745133.62	444.45	3.60	1.00000	25.00	Surface-Based	5.81	1.86

Source Pathway - Source Inputs

Line Volume Sources

Source Type: LINE VOLUME

Source: CIRC (Truck Circulation)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
8.60	1.00000		478746.04	3745120.10	444.51	3.40
			478875.89	3745119.95	444.31	3.40
			478886.94	3745110.35	444.22	3.40
			478889.12	3745100.03	444.18	3.40
			478891.73	3745110.79	444.22	3.40
			478891.88	3745131.58	444.48	3.40
			478771.05	3745131.29	444.60	3.40
			478760.43	3745128.24	444.62	3.40
			478745.89	3745127.95	444.63	3.40

Source Type: LINE VOLUME

Source: ENTR (Entrance Drive)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
8.60	1.00000		478745.99	3745120.01	444.51	3.40
			478674.94	3745120.01	445.49	3.40
			478666.90	3745150.27	445.62	3.40

Source Type: LINE VOLUME

Source: EXIT (Exist Driveway)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
8.60	1.00000		478745.75	3745127.80	444.63	3.40
			478685.53	3745127.66	445.62	3.40
			478677.26	3745153.97	445.39	3.40

Source Pathway - Source Inputs

Source Type: LINE VOLUME
Source: INDN (Indian Avenue Northbound)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
8.60	1.00000		478677.33	3745153.99	445.39	3.40
			478656.87	3745206.97	445.59	3.40
			478622.25	3745262.58	445.69	3.40
			478584.48	3745304.55	445.92	3.40
			478552.48	3745333.40	445.90	3.40
			478532.02	3745346.51	446.15	3.40

Source Type: LINE VOLUME
Source: INDS (Indian Avenue Southbound)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
8.60	1.00000		478666.84	3745150.84	445.63	3.40
			478646.90	3745200.15	445.70	3.40
			478615.43	3745253.14	445.96	3.40
			478577.66	3745296.68	446.04	3.40
			478532.02	3745332.35	446.08	3.40
			478516.28	3745342.84	446.29	3.40

Source Pathway - Source Inputs

Volume Sources Generated from Line Sources

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
CIRC	L0000236	478750.34	3745120.09	444.52	3.40	0.02564	8.60		4.00	3.16
	L0000237	478758.94	3745120.08	444.51	3.40	0.02564	8.60		4.00	3.16
	L0000238	478767.54	3745120.07	444.50	3.40	0.02564	8.60		4.00	3.16
	L0000239	478776.14	3745120.06	444.49	3.40	0.02564	8.60		4.00	3.16
	L0000240	478784.74	3745120.05	444.48	3.40	0.02564	8.60		4.00	3.16
	L0000241	478793.34	3745120.04	444.47	3.40	0.02564	8.60		4.00	3.16
	L0000242	478801.94	3745120.03	444.45	3.40	0.02564	8.60		4.00	3.16
	L0000243	478810.54	3745120.02	444.44	3.40	0.02564	8.60		4.00	3.16
	L0000244	478819.14	3745120.01	444.43	3.40	0.02564	8.60		4.00	3.16
	L0000245	478827.74	3745120.00	444.42	3.40	0.02564	8.60		4.00	3.16
	L0000246	478836.34	3745119.99	444.41	3.40	0.02564	8.60		4.00	3.16
	L0000247	478844.94	3745119.98	444.40	3.40	0.02564	8.60		4.00	3.16
	L0000248	478853.54	3745119.97	444.40	3.40	0.02564	8.60		4.00	3.16
	L0000249	478862.14	3745119.97	444.39	3.40	0.02564	8.60		4.00	3.16
	L0000250	478870.74	3745119.96	444.38	3.40	0.02564	8.60		4.00	3.16
	L0000251	478878.49	3745117.69	444.35	3.40	0.02564	8.60		4.00	3.16
	L0000252	478884.98	3745112.05	444.29	3.40	0.02564	8.60		4.00	3.16
	L0000253	478888.18	3745104.47	444.21	3.40	0.02564	8.60		4.00	3.16
	L0000254	478890.08	3745103.98	444.21	3.40	0.02564	8.60		4.00	3.16
	L0000255	478891.75	3745112.38	444.29	3.40	0.02564	8.60		4.00	3.16
	L0000256	478891.81	3745120.98	444.37	3.40	0.02564	8.60		4.00	3.16
	L0000257	478891.87	3745129.58	444.45	3.40	0.02564	8.60		4.00	3.16
	L0000258	478885.28	3745131.57	444.48	3.40	0.02564	8.60		4.00	3.16
	L0000259	478876.68	3745131.55	444.48	3.40	0.02564	8.60		4.00	3.16

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
CIRC	L0000260	478868.08	3745131.52	444.49	3.40	0.02564	8.60		4.00	3.16
	L0000261	478859.48	3745131.50	444.50	3.40	0.02564	8.60		4.00	3.16
	L0000262	478850.88	3745131.48	444.51	3.40	0.02564	8.60		4.00	3.16
	L0000263	478842.28	3745131.46	444.52	3.40	0.02564	8.60		4.00	3.16
	L0000264	478833.68	3745131.44	444.52	3.40	0.02564	8.60		4.00	3.16
	L0000265	478825.08	3745131.42	444.53	3.40	0.02564	8.60		4.00	3.16
	L0000266	478816.48	3745131.40	444.54	3.40	0.02564	8.60		4.00	3.16
	L0000267	478807.88	3745131.38	444.55	3.40	0.02564	8.60		4.00	3.16
	L0000268	478799.28	3745131.36	444.56	3.40	0.02564	8.60		4.00	3.16
	L0000269	478790.68	3745131.34	444.57	3.40	0.02564	8.60		4.00	3.16
	L0000270	478782.08	3745131.32	444.59	3.40	0.02564	8.60		4.00	3.16
	L0000271	478773.48	3745131.30	444.60	3.40	0.02564	8.60		4.00	3.16
	L0000272	478765.12	3745129.59	444.59	3.40	0.02564	8.60		4.00	3.16
	L0000273	478756.72	3745128.16	444.59	3.40	0.02564	8.60		4.00	3.16
	L0000274	478748.12	3745127.99	444.60	3.40	0.02564	8.60		4.00	3.16

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
INDS	L0000275	478665.23	3745154.83	445.73	3.40	0.03448	8.60		4.00	3.16
	L0000276	478662.00	3745162.80	445.87	3.40	0.03448	8.60		4.00	3.16
	L0000277	478658.78	3745170.77	445.92	3.40	0.03448	8.60		4.00	3.16
	L0000278	478655.56	3745178.75	445.86	3.40	0.03448	8.60		4.00	3.16
	L0000279	478652.33	3745186.72	445.79	3.40	0.03448	8.60		4.00	3.16
	L0000280	478649.11	3745194.69	445.76	3.40	0.03448	8.60		4.00	3.16
	L0000281	478645.52	3745202.48	445.72	3.40	0.03448	8.60		4.00	3.16
	L0000282	478641.13	3745209.88	445.77	3.40	0.03448	8.60		4.00	3.16

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
INDS	L0000283	478636.73	3745217.27	445.91	3.40	0.03448	8.60		4.00	3.16
	L0000284	478632.34	3745224.66	446.15	3.40	0.03448	8.60		4.00	3.16
	L0000285	478627.95	3745232.06	445.94	3.40	0.03448	8.60		4.00	3.16
	L0000286	478623.56	3745239.45	445.83	3.40	0.03448	8.60		4.00	3.16
	L0000287	478619.16	3745246.85	445.83	3.40	0.03448	8.60		4.00	3.16
	L0000288	478614.59	3745254.11	445.96	3.40	0.03448	8.60		4.00	3.16
	L0000289	478608.95	3745260.60	446.05	3.40	0.03448	8.60		4.00	3.16
	L0000290	478603.31	3745267.10	445.96	3.40	0.03448	8.60		4.00	3.16
	L0000291	478597.68	3745273.59	445.86	3.40	0.03448	8.60		4.00	3.16
	L0000292	478592.04	3745280.09	445.90	3.40	0.03448	8.60		4.00	3.16
	L0000293	478586.41	3745286.59	446.08	3.40	0.03448	8.60		4.00	3.16
	L0000294	478580.77	3745293.08	446.14	3.40	0.03448	8.60		4.00	3.16
	L0000295	478574.63	3745299.04	446.04	3.40	0.03448	8.60		4.00	3.16
	L0000296	478567.85	3745304.34	446.04	3.40	0.03448	8.60		4.00	3.16
	L0000297	478561.08	3745309.64	446.15	3.40	0.03448	8.60		4.00	3.16
	L0000298	478554.30	3745314.93	446.34	3.40	0.03448	8.60		4.00	3.16
	L0000299	478547.53	3745320.23	446.26	3.40	0.03448	8.60		4.00	3.16
	L0000300	478540.75	3745325.52	446.13	3.40	0.03448	8.60		4.00	3.16
	L0000301	478533.97	3745330.82	446.09	3.40	0.03448	8.60		4.00	3.16
	L0000302	478526.93	3745335.74	446.13	3.40	0.03448	8.60		4.00	3.16
	L0000303	478519.77	3745340.51	446.21	3.40	0.03448	8.60		4.00	3.16

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
INDN	L0000304	478675.78	3745158.00	445.49	3.40	0.03448	8.60		4.00	3.16
	L0000305	478672.68	3745166.02	445.53	3.40	0.03448	8.60		4.00	3.16

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
INDN	L0000306	478669.58	3745174.04	445.57	3.40	0.03448	8.60		4.00	3.16
	L0000307	478666.49	3745182.07	445.61	3.40	0.03448	8.60		4.00	3.16
	L0000308	478663.39	3745190.09	445.65	3.40	0.03448	8.60		4.00	3.16
	L0000309	478660.29	3745198.11	445.65	3.40	0.03448	8.60		4.00	3.16
	L0000310	478657.19	3745206.14	445.57	3.40	0.03448	8.60		4.00	3.16
	L0000311	478652.80	3745213.51	445.52	3.40	0.03448	8.60		4.00	3.16
	L0000312	478648.25	3745220.81	445.57	3.40	0.03448	8.60		4.00	3.16
	L0000313	478643.71	3745228.11	445.67	3.40	0.03448	8.60		4.00	3.16
	L0000314	478639.16	3745235.41	445.70	3.40	0.03448	8.60		4.00	3.16
	L0000315	478634.62	3745242.71	445.70	3.40	0.03448	8.60		4.00	3.16
	L0000316	478630.07	3745250.01	445.65	3.40	0.03448	8.60		4.00	3.16
	L0000317	478625.52	3745257.31	445.65	3.40	0.03448	8.60		4.00	3.16
	L0000318	478620.64	3745264.36	445.67	3.40	0.03448	8.60		4.00	3.16
	L0000319	478614.89	3745270.75	445.71	3.40	0.03448	8.60		4.00	3.16
	L0000320	478609.14	3745277.15	445.74	3.40	0.03448	8.60		4.00	3.16
	L0000321	478603.38	3745283.54	445.74	3.40	0.03448	8.60		4.00	3.16
	L0000322	478597.63	3745289.93	445.79	3.40	0.03448	8.60		4.00	3.16
	L0000323	478591.88	3745296.32	445.85	3.40	0.03448	8.60		4.00	3.16
	L0000324	478586.12	3745302.72	445.90	3.40	0.03448	8.60		4.00	3.16
	L0000325	478579.92	3745308.66	445.96	3.40	0.03448	8.60		4.00	3.16
	L0000326	478573.53	3745314.41	446.01	3.40	0.03448	8.60		4.00	3.16
	L0000327	478567.14	3745320.17	446.08	3.40	0.03448	8.60		4.00	3.16
	L0000328	478560.76	3745325.93	446.06	3.40	0.03448	8.60		4.00	3.16
	L0000329	478554.37	3745331.69	446.01	3.40	0.03448	8.60		4.00	3.16
	L0000330	478547.38	3745336.66	445.94	3.40	0.03448	8.60		4.00	3.16

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
INDN	L0000331	478540.14	3745341.31	445.97	3.40	0.03448	8.60		4.00	3.16
	L0000332	478532.90	3745345.95	446.08	3.40	0.03448	8.60		4.00	3.16

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
ENTR	L0000333	478741.69	3745120.01	444.54	3.40	0.08333	8.60		4.00	3.16
	L0000334	478733.09	3745120.01	444.56	3.40	0.08333	8.60		4.00	3.16
	L0000335	478724.49	3745120.01	444.62	3.40	0.08333	8.60		4.00	3.16
	L0000336	478715.89	3745120.01	444.68	3.40	0.08333	8.60		4.00	3.16
	L0000337	478707.29	3745120.01	444.79	3.40	0.08333	8.60		4.00	3.16
	L0000338	478698.69	3745120.01	445.13	3.40	0.08333	8.60		4.00	3.16
	L0000339	478690.09	3745120.01	445.47	3.40	0.08333	8.60		4.00	3.16
	L0000340	478681.49	3745120.01	445.72	3.40	0.08333	8.60		4.00	3.16
	L0000341	478674.41	3745121.99	445.62	3.40	0.08333	8.60		4.00	3.16
	L0000342	478672.20	3745130.30	445.62	3.40	0.08333	8.60		4.00	3.16
	L0000343	478670.00	3745138.61	445.62	3.40	0.08333	8.60		4.00	3.16
	L0000344	478667.79	3745146.92	445.65	3.40	0.08333	8.60		4.00	3.16

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
EXIT	L0000345	478741.45	3745127.79	444.61	3.40	0.10000	8.60		4.00	3.16
	L0000346	478732.85	3745127.77	444.63	3.40	0.10000	8.60		4.00	3.16
	L0000347	478724.25	3745127.75	444.68	3.40	0.10000	8.60		4.00	3.16
	L0000348	478715.65	3745127.73	444.72	3.40	0.10000	8.60		4.00	3.16
	L0000349	478707.05	3745127.71	444.83	3.40	0.10000	8.60		4.00	3.16
	L0000350	478698.45	3745127.69	445.14	3.40	0.10000	8.60		4.00	3.16

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
EXIT	L0000351	478689.85	3745127.67	445.45	3.40	0.10000	8.60		4.00	3.16
	L0000352	478684.25	3745131.75	445.63	3.40	0.10000	8.60		4.00	3.16
	L0000353	478681.67	3745139.95	445.56	3.40	0.10000	8.60		4.00	3.16
	L0000354	478679.09	3745148.15	445.50	3.40	0.10000	8.60		4.00	3.16

Receptor Pathway

Receptor Networks

Note: Terrain Elavations and Flagpole Heights for Network Grids are in Page RE2 - 1 (If applicable)
Generated Discrete Receptors for Multi-Tier (Risk) Grid and Receptor Locations for Fenceline Grid are in Page RE3 - 1 (If applicable)

Uniform Cartesian Grid

Receptor Network ID	Grid Origin X Coordinate [m]	Grid Origin Y Coordinate [m]	No. of X-Axis Receptors	No. of Y-Axis Receptors	Spacing for X-Axis [m]	Spacing for Y-Axis [m]
UCART1	478480.00	3744820.00	40	30	20.00	20.00

Discrete Receptors

Discrete Cartesian Receptors

Record Number	X-Coordinate [m]	Y-Coordinate [m]	Group Name (Optional)	Terrain Elevations	Flagpole Heights [m] (Optional)
1	478700.66	3745175.71		444.93	
2	478714.35	3745152.30		444.79	
3	478774.40	3745152.63		444.70	
4	478875.24	3745278.42		444.90	
5	478894.29	3745296.40		445.01	
6	479206.51	3744874.76		444.42	
7	479012.42	3745021.43		444.32	
8	479037.02	3745038.39		444.24	
9	478989.68	3745239.41		444.63	
10	478934.05	3745302.25		445.00	

Plant Boundary Receptors

Receptor Pathway

Cartesian Plant Boundary

Primary

Record Number	X-Coordinate [m]	Y-Coordinate [m]	Group Name (Optional)	Terrain Elevations	Flagpole Heights [m] (Optional)
1	478687.32	3745149.19	FENCEPRI	445.33	
2	478694.38	3745119.43	FENCEPRI	445.30	
3	478700.93	3745078.25	FENCEPRI	445.04	
4	478701.76	3744986.62	FENCEPRI	444.90	
5	478703.54	3744980.27	FENCEPRI	444.82	
6	478707.98	3744975.46	FENCEPRI	444.69	
7	478712.73	3744973.17	FENCEPRI	444.63	
8	478796.68	3744972.98	FENCEPRI	444.11	
9	478810.83	3744969.91	FENCEPRI	444.14	
10	478981.03	3744970.28	FENCEPRI	443.99	
11	478981.04	3745073.76	FENCEPRI	444.02	
12	479067.48	3745074.04	FENCEPRI	444.21	
13	479067.46	3745149.85	FENCEPRI	444.36	

Intermediate

Record Number	X-Coordinate [m]	Y-Coordinate [m]	Group Name (Optional)	Terrain Elevations	Flagpole Heights [m] (Optional)
1	478690.85	3745134.31	FENCEINT	445.38	
2	478696.56	3745105.70	FENCEINT	445.22	
3	478698.75	3745091.98	FENCEINT	445.13	
4	478701.10	3745059.92	FENCEINT	445.04	
5	478701.26	3745041.60	FENCEINT	445.05	
6	478701.43	3745023.27	FENCEINT	444.99	
7	478701.59	3745004.95	FENCEINT	444.94	
8	478729.52	3744973.13	FENCEINT	444.35	
9	478746.31	3744973.09	FENCEINT	444.22	
10	478763.10	3744973.06	FENCEINT	444.17	
11	478779.89	3744973.02	FENCEINT	444.14	
12	478829.74	3744969.95	FENCEINT	444.11	
13	478848.65	3744969.99	FENCEINT	444.08	
14	478867.56	3744970.03	FENCEINT	444.05	
15	478886.47	3744970.07	FENCEINT	444.03	
16	478905.39	3744970.12	FENCEINT	444.02	
17	478924.30	3744970.16	FENCEINT	444.01	
18	478943.21	3744970.20	FENCEINT	443.98	
19	478962.12	3744970.24	FENCEINT	443.94	
20	478981.03	3744987.53	FENCEINT	443.90	
21	478981.03	3745004.77	FENCEINT	443.89	

22	478981.04	3745022.02	FENCEINT	443.90	
23	478981.04	3745039.27	FENCEINT	443.93	
24	478981.04	3745056.51	FENCEINT	443.97	
25	478998.33	3745073.82	FENCEINT	444.06	
26	479015.62	3745073.87	FENCEINT	444.13	
27	479032.90	3745073.93	FENCEINT	444.14	
28	479050.19	3745073.98	FENCEINT	444.17	
29	479067.48	3745092.99	FENCEINT	444.23	
30	479067.47	3745111.95	FENCEINT	444.27	
31	479067.47	3745130.90	FENCEINT	444.32	
32	479048.45	3745149.82	FENCEINT	444.32	
33	479029.45	3745149.78	FENCEINT	444.33	
34	479010.44	3745149.75	FENCEINT	444.37	
35	478991.43	3745149.72	FENCEINT	444.40	
36	478972.43	3745149.69	FENCEINT	444.44	
37	478953.42	3745149.65	FENCEINT	444.47	
38	478934.41	3745149.62	FENCEINT	444.49	
39	478915.40	3745149.59	FENCEINT	444.51	
40	478896.40	3745149.55	FENCEINT	444.54	
41	478877.39	3745149.52	FENCEINT	444.57	
42	478858.38	3745149.49	FENCEINT	444.58	
43	478839.38	3745149.45	FENCEINT	444.61	
44	478820.37	3745149.42	FENCEINT	444.62	
45	478801.36	3745149.39	FENCEINT	444.65	
46	478782.36	3745149.36	FENCEINT	444.68	
47	478763.35	3745149.32	FENCEINT	444.69	
48	478744.34	3745149.29	FENCEINT	444.72	
49	478725.33	3745149.26	FENCEINT	444.75	
50	478706.33	3745149.22	FENCEINT	444.86	

Receptor Groups

Record Number	Group ID	Group Description
1	FENCEPRI	Cartesian plant boundary Primary Receptors
2	FENCEINT	Cartesian plant boundary Intermediate Receptors

Meteorology Pathway

AERMOD

Met Input Data

Surface Met Data

Filename: PERI_v9.SFC
Format Type: Default AERMET format

Profile Met Data

Filename: PERI_v9.PFL
Format Type: Default AERMET format

Wind Speed

☐ Wind Speeds are Vector Mean (Not Scalar Means)

Wind Direction

Rotation Adjustment [deg]:

Potential Temperature Profile

Base Elevation above MSL (for Primary Met Tower): 442.00 [m]

Meteorological Station Data

Stations	Station No.	Year	X Coordinate [m]	Y Coordinate [m]	Station Name
Surface		2010			
Upper Air		2010			
On-Site		2010			

Data Period

Data Period to Process

Start Date: 1/1/2010 Start Hour: 1 End Date: 12/31/2016 End Hour: 24

Wind Speed Categories

Stability Category	Wind Speed [m/s]	Stability Category	Wind Speed [m/s]
A	1.54	D	8.23
B	3.09	E	10.8
C	5.14	F	No Upper Bound

Output Pathway

Tabular Printed Outputs

Short Term Averaging Period	RECTABLE Highest Values Table										MAXTABLE Maximum Values Table	DAYTABLE Daily Values Table
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th		
1	■	☐	☐	☐	☐	☐	☐	☐	☐	☐		No

Contour Plot Files (PLOTFILE)

Path for PLOTFILES: Perris EComm.AD

Averaging Period	Source Group ID	High Value	File Name
1	ALL	1st	01H1GALL.PLT
Period	ALL	N/A	PE00GALL.PLT

HARP Proje 0/2022

PROJECT INFORMATION
HARP Version: 22118
Project Name: PERRIS ECOMM RISK
Project Out ers\ma rtinr\Deskt ECommerce HRA\ ECOMM RISK
HARP Database: NA

FACILITY INFORMATION
Origin
X (m):0
Y (m):0
Zone:1
No. of Sources:0
No. of Buildings:0

EMISSION INVENTORY
No. of Pollutants:9
No. of Background Pollutants:0

Emissions

ScrID	ProID	PolID	PolAbbrev	Multi	Annual Ems (lbs/yr)	MaxHr Ems (lbs/hr)	MWAF
CIRC	0	9901	DieselExhPM	1	0.232948	2.73E-05	1
DOCK1	0	9901	DieselExhPM	1	0.00660418	1.83E-05	1
DOCK2	0	9901	DieselExhPM	1	0.00660418	1.83E-05	1
INDS	0	9901	DieselExhPM	1	0.0958898	1.14E-05	1
INDN	0	9901	DieselExhPM	1	0.0946525	1.12E-05	1
ENTR	0	9901	DieselExhPM	1	0.046916	5.50E-06	1
PARK1	0	9901	DieselExhPM	1	0.00659165	1.83E-05	1
PARK2	0	9901	DieselExhPM	1	0.00953242	1.83E-05	1
EXIT	0	9901	DieselExhPM	1	0.0395853	4.64E-06	1

Background

PolID	Conc (ug/m^3)	MWAF

Ground lev s (\gl c\)

9901MAXHR.txt
9901PER.txt

***POLLUT ***
Health Data s\HEAL TH17320.mdb
Health Tabl 13
Official: True

PolID	InhCa	ncer	Or r	AcuteREL	InhChronic L	OralChronic EL	InhChronic8 REL
9901	1.1				5		

Residential Cancer Risk

*HARP - HRACalc v22118 5/20/2022 10:22:51 AM - Cancer Risk -

REC	GRP	NETID	X	Y	RISK_SUM	SCENARIO
1201	ALL	R1	478700.66	3745175.71	7.29E-07	30YrCancerRMP_Inh
1202	ALL	R2	478714.35	3745152.3	9.44E-07	30YrCancerRMP_Inh
1203	ALL	R3	478774.4	3745152.63	1.14E-06	30YrCancerRMP_Inh
1204	ALL	R4	478875.24	3745278.42	1.48E-07	30YrCancerRMP_Inh
1205	ALL	R5	478894.29	3745296.4	1.22E-07	30YrCancerRMP_Inh
1206	ALL	R6	479206.51	3744874.76	2.99E-08	30YrCancerRMP_Inh

Off-Site Worker Cancer Risk

*HARP - HRACalc v22118 5/20/2022 10:23:41 AM - Cancer Risk -

REC	GRP	NETID	X	Y	RISK_SUM	SCENARIO
1207	ALL	C1	479012.42	3745021.43	8.38E-09	25YrCancerDerived_Inh
1208	ALL	C2	479037.02	3745038.39	7.22E-09	25YrCancerDerived_Inh
1209	ALL	C3	478989.68	3745239.41	8.45E-09	25YrCancerDerived_Inh
1210	ALL	C4	478934.05	3745302.25	8.17E-09	25YrCancerDerived_Inh

Residential Non-Cancer Chronic Maximum HI

*HARP - HRACalc v22118 5/20/2022 10:24:05 AM - Chronic Risk -

REC	GRP	NETID	X	Y	SCENARIO	MAXHI
1201	ALL	R1	478700.66	3745175.71	NonCancerChronicDerived_Inh	1.92E-04
1202	ALL	R2	478714.35	3745152.3	NonCancerChronicDerived_Inh	2.49E-04
1203	ALL	R3	478774.4	3745152.63	NonCancerChronicDerived_Inh	3.02E-04
1204	ALL	R4	478875.24	3745278.42	NonCancerChronicDerived_Inh	3.91E-05
1205	ALL	R5	478894.29	3745296.4	NonCancerChronicDerived_Inh	3.21E-05
1206	ALL	R6	479206.51	3744874.76	NonCancerChronicDerived_Inh	7.87E-06

Off-Site Worker Non-Cancer Maximum HI

*HARP - HRACalc v22118 5/20/2022 10:24:30 AM - Chronic Risk -

REC	GRP	NETID	X	Y	SCENARIO	MAXHI
1207	ALL	C1	479012.42	3745021.43	NonCancerChronicDerived_Inh	2.71E-05
1208	ALL	C2	479037.02	3745038.39	NonCancerChronicDerived_Inh	2.33E-05
1209	ALL	C3	478989.68	3745239.41	NonCancerChronicDerived_Inh	2.73E-05
1210	ALL	C4	478934.05	3745302.25	NonCancerChronicDerived_Inh	2.64E-05