Appendix A
Air Quality Assessment

# Air Quality Assessment 2919 South King Road Project City of San José, California



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# **APPENDIX**

Appendix A: Air Quality Data

### **LIST OF ABBREVIATED TERMS**

AQMP air quality management plan

AB Assembly Bill
ADT average daily traffic

BAAQMD Bay Area Air Quality Management District

CAPCOA California Air Pollution Control Officers Association

CARB California Air Resources Board

CAAQS California Ambient Air Quality Standards

CCAA California Clean Air Act

CalEEMod California Emissions Estimator Model
CEQA California Environmental Quality Act

CO carbon monoxide cy cubic yards

DPM diesel particulate matter

EPA Environmental Protection Agency

FCAA Federal Clean Air Act H<sub>2</sub>S hydrogen sulfide

Pb Lead

LST local significance threshold µg/m³ micrograms per cubic meter mg/m³ milligrams per cubic meter

NAAQS National Ambient Air Quality Standards

NO<sub>2</sub> nitrogen dioxide NO<sub>x</sub> nitrogen oxide

O<sub>3</sub> Ozone

PM<sub>10</sub> particulate matter less than 10 microns in diameter PM<sub>2.5</sub> particulate matter less than 2.5 microns in diameter

ppm parts per million

ROG reactive organic gases

RTP/SCS Regional Transportation Plan/Sustainable Communities Strategy

SB Senate Bill

SRA source receptor area

 $\begin{array}{lll} \text{SF} & \text{square foot} \\ \text{SO}_{4\text{-}2} & \text{Sulfates} \\ \text{SO}_2 & \text{sulfur dioxide} \end{array}$ 

TAC toxic air contaminant

C<sub>2</sub>H<sub>3</sub>Cl vinyl chloride

VOC volatile organic compound

# 1 INTRODUCTION

This report documents the results of an Air Quality Assessment completed for the 2919 South King Road Project ("project" or "proposed project") in the City of San José. The purpose of this Air Quality Assessment is to evaluate potential short- and long-term noise impacts associated with the Project and determine the level of impact the Project would have on the environment.

### 1.1 PROJECT LOCATION

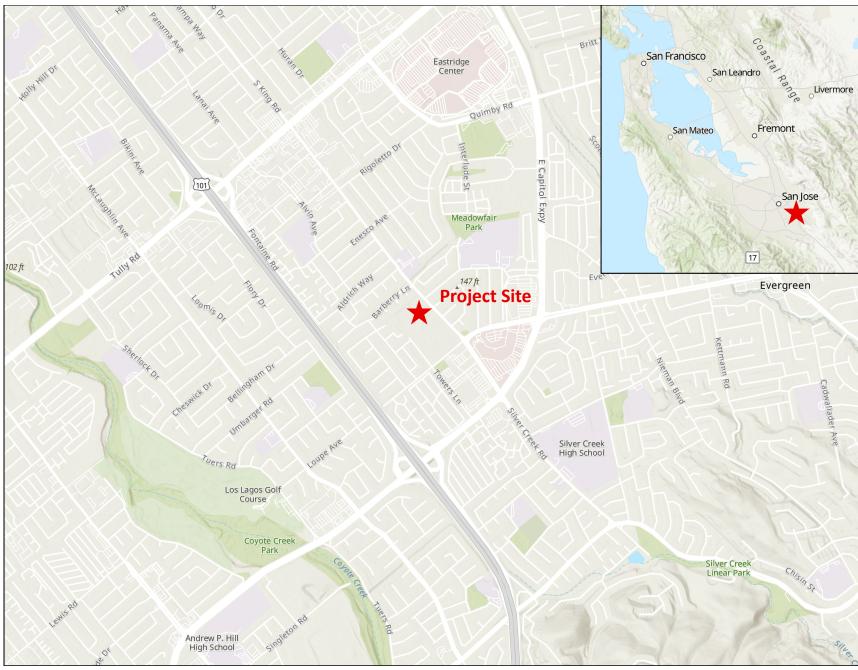
The proposed project is located at 2919 South King Road in San José. Figure 1: Regional Vicinity and Figure 2: Site Vicinity, depict the project site in a regional and local context. The project site is located in an urban area with a mix of surrounding uses including light industrial, residential, and commercial uses. The project site is immediately surrounded by residential uses to the north and northwest. The project site's existing land use designation is Light Industrial (LI) and existing zoning designation is Light Industrial Planned Development Zoning District LI(PD). Currently, the project site is vacant with some existing vegetation.

### 1.2 PROJECT DESCRIPTION

The project intends to redevelop the property as a modern industrial facility. The proposed project would construct an approximately 103,970 square foot (sf) speculative warehouse building with a loading dock on the north side of the building, refer to Figure 3: Project Site Plan. The new warehouse building would contain approximately 88,970 sf of warehouse space and 10,000 sf of office space on the first floor and 5,000 sf of office space on a mezzanine floor. The warehouse building would include 11 loading dock doors on its northern side. The proposed project also includes surface parking with 86 automobile (passenger vehicle) spaces. Of the 86 automobile spaces provided, 35 would be electric vehicle (EV) capable. In addition, 10 bicycle racks and 4 motorcycle parking spaces would be provided.

Access to the project site would be provided by two driveways off South King Road. A 32-foot wide driveway would be located north of the warehouse building, providing access for trucks and trailers. A 26-foot wide driveway would be located south of the warehouse building, providing access for passenger vehicles. Pedestrian access would be provided via South King Road, by a path located south of the warehouse building.

The proposed project would be constructed over the course of approximately 11 months. Demolition is anticipated to occur in October 2022, followed by a 10-month construction phase between November 2022 and September 2023. The proposed project would require approximately 5,590 cubic yards (cy) of soil import during the grading phases of construction.



Source: USGS, 2021







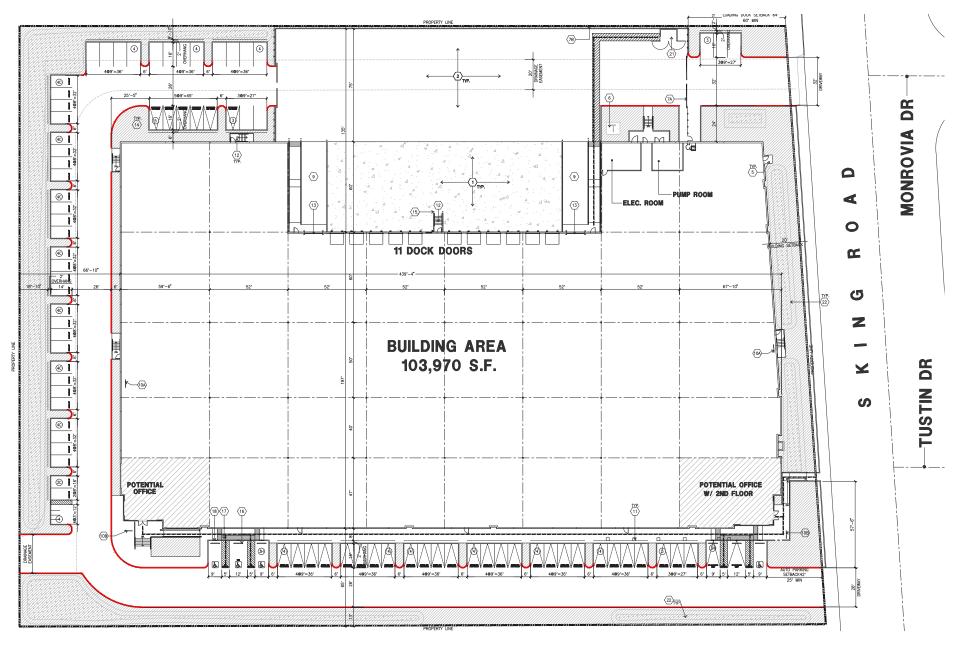


Source: Google Earth, 2020

Figure 2: Project Vicinity Map 2919 S King Road Project Air Quality Assessment







Source: Kier + Wright, 2021







# 2 ENVIRONMENTAL SETTING

### 2.1 CLIMATE AND METEOROLOGY

The California Air Resources Board (CARB) divides the State into 15 air basins that share similar meteorological and topographical features. The project is located within the San Francisco Bay Area Air Basin (Basin). This Basin comprises all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties, the southern portion of Sonoma County, and the southwestern portion of Solano County. Air quality in this area is determined by such natural factors as topography, meteorology, and climate, in addition to the presence of existing air pollution sources and ambient conditions. These factors along with applicable regulations are discussed below. The Bay Area Air Quality Management District (BAAQMD) is responsible for local control and monitoring of criteria air pollutants throughout the Basin.

Climate, or the average weather condition, affects air quality in several ways. Wind patterns can remove or add air pollutants emitted by stationary or mobile sources. Inversion, a condition where warm air traps cooler air underneath it, can hold pollutants near the ground by limiting upward mixing (dilution). Topography also affects the local climate, as valleys often trap emissions by limiting lateral dispersal.

The inversions typical of winter, called radiation inversions, are formed as heat quickly radiates from the earth's surface after sunset, causing the air in contact with it to rapidly cool. Radiation inversions are strongest on clear, low-wind, cold winter nights, allowing the build-up of such pollutants as carbon monoxide and particulate matter. When wind speeds are low, there is little mechanical turbulence to mix the air, resulting in a layer of warm air over a layer of cooler air next to the ground. During radiation inversions downwind transport is slow, the mixing depths are shallow, and turbulence is minimal, all factors which contribute to ozone formation.

The frequency of hot, sunny days during the summer months in the Basin is another important factor that affects air pollution potential. It is at the higher temperatures that ozone is formed. In the presence of ultraviolet sunlight and warm temperatures, reactive organic gases and oxides of nitrogen react to form secondary photochemical pollutants, including ozone.

The climate is dominated by the location and strength of a semi-permanent, subtropical high-pressure cell. In the summer, the Pacific cell is centered over the northeastern Pacific Ocean, resulting in stable meteorological conditions and a steady northwesterly wind flow. Upwelling of cold ocean water from below the surface because of the northwesterly flow produces a band of cold water off the coast which results in condensation and the presence of fog and stratus clouds along the coast. In the winter, the high-pressure cell weakens and shifts southward, resulting in increased wind flow offshore, the absence of upwelling, and the occurrence of storms.

The Basin is characterized by moderately wet winters (November through March) and dry summers. The rainfall in the mountains reaches 40 inches while the valley sees less than 16 inches. Generally, coastal temperatures can be 35 degrees Fahrenheit cooler than temperatures 15 to 20 miles inland. At night, this contrast usually decreases to less than 10 degrees Fahrenheit. In the winter, the relationship of minimum and maximum temperatures is reversed.

The project site is located in the City of San José and Santa Clara County; on the southern perimeter of the San Francisco Bay. The City of San José has a generally mild climate, with average temperatures in the low 80's Fahrenheit in the summer and high 50's Fahrenheit in the winter. The annual rainfall is approximately 15 inches in the City, primarily between November and April. The regulatory section below discusses the various buffer zones around sources of air pollution sufficient to avoid adverse health and nuisance impacts on nearby receptors.

### 2.2 AIR POLLUTANTS OF PRIMARY CONCERN

The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state laws. These regulated air pollutants are known as "criteria air pollutants" and are categorized into primary and secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxide (NO<sub>X</sub>), sulfur dioxide (SO<sub>2</sub>), coarse particulate matter (PM<sub>10</sub>), fine particulate matter (PM<sub>2.5</sub>), and lead are primary air pollutants. Of these, CO, NO<sub>X</sub>, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> are criteria pollutants. ROG and NO<sub>X</sub> are criteria pollutant precursors and go on to form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. For example, the criteria pollutant ozone (O<sub>3</sub>) is formed by a chemical reaction between ROG and NO<sub>X</sub> in the presence of sunlight. O<sub>3</sub> and nitrogen dioxide (NO<sub>2</sub>) are the principal secondary pollutants. Sources and health effects commonly associated with criteria pollutants are summarized in <u>Table 1: Air</u> Contaminants and Associated Public Health Concerns.

Ozone, or smog, is not emitted directly into the environment, but is formed in the atmosphere by complex chemical reactions between ROG and  $NO_X$  in the presence of sunlight. Ozone formation is greatest on warm, windless, sunny days. The main sources of  $NO_X$  and ROG, often referred to as ozone precursors, are combustion processes (including motor vehicle engines) the evaporation of solvents, paints, and fuels, and biogenic sources. Automobiles are the single largest source of ozone precursors in the Basin. Tailpipe emissions of ROG are highest during cold starts, hard acceleration, stop-and-go conditions, and slow speeds. They decline as speeds increase up to about 50 miles per hour (mph), then increase again at high speeds and high engine loads. ROG emissions associated with evaporation of unburned fuel depend on vehicle and ambient temperature cycles. Nitrogen oxide emissions exhibit a different curve; emissions decrease as the vehicle approaches 30 mph and then begin to increase with increasing speeds.

Ozone levels usually build up during the day and peak in the afternoon hours. Short-term exposure can irritate the eyes and cause constriction of the airways. Besides causing shortness of breath, it can aggravate existing respiratory diseases such as asthma, bronchitis and emphysema. Chronic exposure to high ozone levels can permanently damage lung tissue. Ozone can also damage plants and trees, and materials such as rubber and fabrics.

Table 1: Air Contaminants and Associated Public Health Concerns

Pollutant	Major Man-Made Sources	Human Health Effects
Particulate Matter (PM <sub>10</sub> and PM <sub>2.5</sub> )	Power plants, steel mills, chemical plants, unpaved roads and parking lots, woodburning stoves and fireplaces, automobiles and others.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; asthma; chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility.
Ozone (O <sub>3</sub> )	Formed by a chemical reaction between reactive organic gases/volatile organic compounds (ROG or VOC) <sup>1</sup> and nitrogen oxides (NO <sub>X</sub> ) in the presence of sunlight. 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.
Sulfur Dioxide (SO <sub>2</sub> )	A colorless gas formed when fuel containing sulfur is burned and when gasoline is extracted from oil. 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.
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 <sub>2</sub> )	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. Contributes to global warming and nutrient overloading which deteriorates water quality. Causes brown discoloration of the atmosphere.
Lead (Pb)	Lead is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been motor vehicles (such as cars and trucks) and industrial sources. Due to the phase out of leaded gasoline, metals processing is the major source of lead emissions to the air today. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufacturers.	Exposure to lead occurs mainly through inhalation of air and ingestion of lead in food, water, soil, or dust. It accumulates in the blood, bones, and soft tissues and can adversely affect the kidneys, liver, nervous system, and other organs. Excessive exposure to lead may cause neurological impairments such as seizures, mental retardation, and behavioral disorders. Even at low doses, lead exposure is associated with damage to the nervous systems of fetuses and young children, resulting in learning deficits and lowered IQ.

Volatile Organic Compounds (VOCs or Reactive Organic Gases [ROG]) are hydrocarbons/organic gases that are formed solely of hydrogen and carbon. There are several subsets of organic gases including ROGs and VOCs. Both ROGs and VOCs are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels. The major sources of hydrocarbons are combustion engine exhaust, oil refineries, and oil-fueled power plants; other common sources are petroleum fuels, solvents, dry cleaning solutions, and paint (via evaporation).
Source: California Air Pollution Control Officers Association (CAPCOA), Health Effects, capcoa.org/health-effects/, accessed February 1, 2022.

### **Toxic Air Contaminants**

Toxic air contaminants (TACs) are airborne substances that can cause short-term (acute) or long-term (chronic or carcinogenic, i.e., cancer causing) adverse human health effects (i.e., injury or illness). TACs include both organic and inorganic chemical substances. They may be emitted from a variety of common sources including gasoline stations, automobiles, dry cleaners, industrial operations, and painting operations. The current California list of TACs includes more than 200 compounds, including particulate emissions from diesel-fueled engines.

CARB identified diesel particulate matter (DPM) as a toxic air contaminant. DPM differs from other TACs in that it is not a single substance but rather a complex mixture of hundreds of substances. Diesel exhaust is a complex mixture of particles and gases produced when an engine burns diesel fuel. DPM is a concern because it causes lung cancer; many compounds found in diesel exhaust are carcinogenic. DPM includes the particle-phase constituents in diesel exhaust. The chemical composition and particle sizes of DPM vary between different engine types (heavy-duty, light-duty), engine operating conditions (idle, accelerate, decelerate), fuel formulations (high/low sulfur fuel), and the year of the engine. Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and diesel exhaust can cause coughs, headaches, light-headedness, and nausea. DPM poses the greatest health risk among the TACs. Almost all diesel exhaust particle mass is 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

## 2.3 AMBIENT AIR QUALITY

CARB monitors ambient air quality at approximately 250 air monitoring stations across the state. Air quality monitoring stations usually measure pollutant concentrations ten feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. Existing levels of ambient air quality, historical trends, and projections near the project site are documented by measurements made by the Bay Area Air Quality Management District (BAAAQMD)'s air pollution regulatory agency that maintains air quality monitoring stations, which process ambient air quality measurements.

Ozone  $(O_3)$  and particulate matter  $(PM_{10}$  and  $PM_{2.5})$  are pollutants of concern in the BAAQMD. The closest air monitoring station to the project site that monitors ambient concentrations of these pollutants is the San Jose-Jackson Street Monitoring Station located approximately 4.95 miles northwest of the project site. Local air quality data from 2018 to 2020 is provided in <u>Table 2</u>: <u>Ambient Air Quality Data</u> lists the monitored maximum concentrations and number of exceedances of federal or state air quality standards for each year. Particulate matter  $(PM_{10}$  and  $PM_{2.5})$  were both exceeded in 2020 at the closest monitoring station.

**Table 2: Ambient Air Quality Data** 

Dollutont	Sa	San Jose- Jackson Street <sup>1</sup>				
Pollutant	2018	2019	2020			
Ozone (O <sub>3</sub> )						
1-hour Maximum Concentration (ppm)	0.078	0.095	.106			
8-hour Maximum Concentration (ppm)	0.061	0.081	0.085			
Number of Days Standard Exceeded						
CAAQS 1-hour (>0.09 ppm)	0	1	1			
NAAQS 8-hour (>0.070 ppm)	0	2	2			
Carbon Monoxide (CO)						
1-hour Maximum Concentration (ppm)	2.51	1.71	1.66			
Number of Days Standard Exceeded						
NAAQS 1-hour (>35 ppm)	-	-	-			
CAAQS 1 hour (>20 ppm)	-	-	-			
Nitrogen Dioxide (NO <sub>2</sub> )						
1-hour Maximum Concentration (ppm)	0.0861	0.0598	0.0519			
Number of Days Standard Exceeded						
NAAQS 1-hour (>0.100 ppm)	0	0	0			

Pollutant	Sa	San Jose- Jackson Street <sup>1</sup>				
Pollutant	2018	2019	2020			
CAAQS 1-hour (>0.18 ppm)	0	0	0			
Particulate Matter Less Than 2.5 Microns (PM <sub>2.5</sub> )		•				
National 24-hour Maximum Concentration	133.9	27.6	120.5			
State 24-hour Maximum Concentration	133.9	34.4	120.5			
Number of Days Standard Exceeded						
NAAQS 24-hour (>150 μg/m³)	15	0	12			
CAAQS 24-hour (>50 μg/m³)	13	13	13			
Particulate Matter Less Than 10 Microns (PM <sub>10</sub> )		•				
National 24-hour Maximum Concentration	115.4	75.4	134.9			
State 24-hour Maximum Concentration	121.8	77.1	137.1			
Number of Days Standard Exceeded		•				
NAAQS 24-hour (>150 μg/m³)	0	0	0			
CAAQS 24-hour (>50 μg/m³)	4	4	10			

NAAQS = National Ambient Air Quality Standards; CAAQS = California Ambient Air Quality Standards; ppm = parts per million;  $\mu g/m^3$  = micrograms per cubic meter; NM = not measured

Source: All pollutant measurements are from the CARB Aerometric Data Analysis and Management system database (arb.ca.gov/adam) except for CO, which were retrieved from the CARB Air Quality and Meteorological Information System (https://www.arb.ca.gov/aqmis2/aqdselect.php, https://www.arb.ca.gov/qaweb/siteinfo.php).

### 2.4 SENSITIVE RECEPTORS

Sensitive populations are more susceptible to the effects of air pollution than the general population. Sensitive receptors in proximity to localized sources of toxics are of particular concern. Land uses considered sensitive receptors include residences, schools, playgrounds, childcare centers, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes.

The project site is located in an urban area in City of San José. The surrounding land uses are commercial and industrial, with residences to the north, east, south, and west. <u>Table 3: Sensitive Receptors</u>, lists the distances and locations of nearby sensitive receptors. <u>Figure 4: Sensitive Receptor Locations</u> shows the receptors.

**Table 3: Sensitive Receptors** 

Receptor Description	Distance and Direction from the Project Site	
Single-family residential community	85 feet south	
Single-family residential community	110 feet east	
Single-family residential community	125 feet north	
Single-family residential community	130 feet west	
Liberty Baptist Church	685 feet north	
George V. LeyVa Middle School	1,060 feet northeast	

<sup>&</sup>lt;sup>1</sup> Measurements taken at the San Jose-Jackson Street Monitoring Station located at 156B Jackson Street, San Jose, California 95112 (CARB# 43383).



**Figure 4: Sensitive Receptor Locations** 

2919 S King Road Project Air Quality Assessment





# 3 REGULATORY SETTING

### 3.1 FEDERAL

### Federal Clean Air Act

Air quality is federally protected by the Federal Clean Air Act (FCAA) and its amendments. Under the FCAA, the U.S. Environmental Protection Agency (U.S. EPA) developed the primary and secondary National Ambient Air Quality Standards (NAAQS) for the criteria air pollutants including ozone, NO<sub>2</sub>, CO, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and lead. Depending on whether the standards are met or exceeded, the local air basin is classified as in "attainment" or "nonattainment." Some areas are unclassified, which means no monitoring data are available. Unclassified areas are considered to be in attainment. Proposed projects in or near nonattainment areas could be subject to more stringent air-permitting requirements. The FCAA requires that each state prepare a State Implementation Plan (SIP) to demonstrate how it will attain the NAAQS within the federally imposed deadlines.

The U.S. EPA has designated enforcement of air pollution control regulations to the individual states. Applicable federal standards are summarized in <u>Table 4</u>.

#### California Air Resources Board

CARB administers California's air quality policy. The California Ambient Air Quality Standards (CAAQS) were established in 1969 pursuant to the Mulford-Carrell Act. These standards, included with the NAAQS in <u>Table 4</u>, are generally more stringent and apply to more pollutants than the NAAQS. In addition to the criteria pollutants, CAAQS have been established for visibility reducing particulates, hydrogen sulfide, and sulfates. In general, the Bay Area experiences low concentrations of most pollutants when compared to federal standards, except for O<sub>3</sub> and PM, for which standards are exceeded periodically. With respect to federal standards, the Bay Area's attainment status for 8-hour ozone is classified as "marginal nonattainment" and "nonattainment" for PM<sub>2.5</sub>. The region is also considered to be in nonattainment with the CAAQS for PM<sub>10</sub> and PM<sub>2.5</sub>. Area sources generate the majority of these airborne particulate emissions. The Basin is considered in attainment or unclassified with respect to the CO, NO<sub>2</sub> and SO<sub>2</sub> NAAQS and CAAQS.

The California Clean Air Act (CCAA), which was approved in 1988, requires that each local air district prepare and maintain an Air Quality Management Plan (AQMP) to achieve compliance with CAAQS. These AQMPs also serve as the basis for the preparation of the SIP for meeting federal clean air standards for the State of California. Like the U.S. EPA, CARB also designates areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data shows that a state standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events such as wildfires, volcanoes, etc. are not considered violations of a State standard, and are not used as a basis for designating areas as nonattainment. The applicable State standards are summarized in Table 4.

**Table 4: State and Federal Ambient Air Quality Standards** 

		State Standa	ırds¹	Federal Standards <sup>2</sup>		
Pollutant	Averaging Time	Concentration	Attainment Status	Concentration <sup>3</sup>	Attainment Status	
Ozone	8 Hour	0.070 ppm (137 μg/m³)		0.070 ppm	N <sup>4</sup>	
(O <sub>3</sub> )	1 Hour	0.09 ppm (180 μg/m³)	N	NA	N/A <sup>5</sup>	
Carbon Monoxide	8 Hour	9.0 ppm (10 mg/m <sup>3</sup> )	Α	9 ppm (10 mg/m <sup>3</sup> )	$A^6$	
(CO)	1 Hour	20 ppm (23 mg/m <sup>3</sup> )	Α	35 ppm (40 mg/m <sup>3</sup> )	А	
Nitrogen Dioxide	1 Hour	0.18 ppm (339 μg/m³)	А	0.100 ppm <sup>11</sup>	U	
(NO <sub>2</sub> )	Annual Arithmetic Mean	0.030 ppm (57 μg/m³)	-	0.053 ppm (100 μg/m³)	А	
	24 Hour	0.04 ppm (105 μg/m³)	А	0.14 ppm (365 μg/m³)	А	
Sulfur Dioxide <sup>12</sup> (SO <sub>2</sub> )	1 Hour	0.25 ppm (655 μg/m³)	А	0.075 ppm (196 μg/m³)	А	
	Annual Arithmetic Mean	NA	-	0.03 ppm (80 μg/m³)	А	
Particulate Matter	24-Hour	50 μg/m³	N	150 μg/m³	-U	
(PM <sub>10</sub> )	Annual Arithmetic Mean	20 μg/m³	N <sup>7</sup>	NA	-	
Fine Particulate	24-Hour	NA	-	35 μg/m³	U/A	
Matter (PM <sub>2.5</sub> ) <sup>15</sup>	Annual Arithmetic Mean	12 μg/m³	N <sup>7</sup>	12 μg/m³	N	
Sulfates (SO <sub>4-2</sub> )	24 Hour	25 μg/m³	Α	NA	-	
	30-Day Average	1.5 μg/m <sup>3</sup>	ı	NA	Α	
Lead (Pb) <sup>13, 14</sup>	Calendar Quarter	NA	-	$1.5  \mu g/m^3$	Α	
Lead (F b)	Rolling 3-Month Average	NA	-	0.15 μg/m³	-	
Hydrogen Sulfide (H₂S)	1 Hour	0.03 ppm (42 μg/m³)	U	NA	-	
Vinyl Chloride (C₂H₃CI)	24 Hour	0.01 ppm (26 μg/m³)	-	NA	-	
Visibility Reducing Particles <sup>8</sup>	8 Hour (10:00 to 18:00 PST)	-	U	-	-	

A = attainment; N = nonattainment; U = unclassified; N/A = not applicable or no applicable standard; ppm = parts per million;  $\mu g/m^3 = micrograms$  per cubic meter;  $mg/m^3 = milligrams$  per cubic meters  $mg/m^3$ 

- 1. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, suspended particulate matter PM<sub>10</sub>, and visibility reducing particles are values that are not to be exceeded. The standards for sulfates, Lake Tahoe carbon monoxide, lead, hydrogen sulfide, and vinyl chloride are not to be equaled or exceeded. If the standard is for a 1-hour, 8-hour or 24-hour average (i.e., all standards except for lead and the PM<sub>10</sub> annual standard), then some measurements may be excluded. In particular, measurements are excluded that CARB determines would occur less than once per year on the average. The Lake Tahoe CO standard is 6.0 ppm, a level one-half the national standard and two-thirds the state standard.
- 2. National standards shown are the "primary standards" designed to protect public health. National standards other than for ozone, particulates and those based on annual averages are not to be exceeded more than once a year. The 1-hour ozone standard is attained if, during the most recent three-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one. The 8-hour ozone standard is attained when the 3-year average of the 4<sup>th</sup> highest daily concentrations is 0.070 ppm (70 ppb) or less. The 24-hour PM<sub>10</sub> standard is attained when the 3-year average of the 99<sup>th</sup> percentile of monitored concentrations is less than 150 μg/m<sub>3</sub>. The 24-hour PM<sub>2.5</sub> standard is attained when the 3-year average of 98<sup>th</sup> percentiles is less than 35 μg/m<sup>3</sup>. Except for the national particulate standards, annual standards are met if the annual average falls below the standard at every site. The national annual particulate standard for PM<sub>10</sub> is met if the 3-year average falls below the standard at every site. The annual PM<sub>2.5</sub> standard is met if the 3-year average of annual averages spatially-averaged across officially designed clusters of sites falls below the standard.
- National air quality standards are set by the U.S. EPA at levels determined to be protective of public health with an adequate margin of safety.

- 4. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm. An area will meet the standard if the fourth-highest maximum daily 8-hour ozone concentration per year, averaged over three years, is equal to or less than 0.070 ppm. U.S. EPA will make recommendations on attainment designations by October 1, 2016, and issue final designations October 1, 2017. Nonattainment areas will have until 2020 to late 2037 to meet the health standard, with attainment dates varying based on the ozone level in the area.
- 5. The national 1-hour ozone standard was revoked by U.S. EPA on June 15, 2005.
- 6. In April 1998, the Bay Area was redesignated to attainment for the national 8-hour carbon monoxide standard.
- 7 In June 2002, CARB established new annual standards for PM<sub>2.5</sub> and PM<sub>10</sub>.
- 8 Statewide VRP Standard (except Lake Tahoe Air Basin): Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer when the relative humidity is less than 70 percent. This standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.
- 9. The 8-hour CA ozone standard was approved by the Air Resources Board on April 28, 2005 and became effective on May 17, 2006.
- 10. On January 9, 2013, U.S. EPA issued a final rule to determine that the Bay Area attains the 24-hour PM<sub>2.5</sub> national standard. This U.S. EPA rule suspends key SIP requirements as long as monitoring data continues to show that the Bay Area attains the standard. Despite this U.S. EPA action, the Bay Area will continue to be designated as "nonattainment" for the national 24-hour PM<sub>2.5</sub> standard until such time as the Air District submits a "redesignation request" and a "maintenance plan" to U.S. EPA, and U.S. EPA approves the proposed redesignation.
- 11. To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100ppm (effective January 22, 2010). The U.S. EPA expects to make a designation for the Bay Area by the end of 2017.
- 12. On June 2, 2010, the U.S. EPA established a new 1-hour SO<sub>2</sub> standard, effective August 23, 2010, which is based on the 3-year average of the annual 99<sup>th</sup> percentile of 1-hour daily maximum concentrations. The existing 0.030 ppm annual and 0.14 ppm 24-hour SO<sub>2</sub> NAAQS however must continue to be used until one year following U.S. EPA initial designations of the new 1-hour SO<sub>2</sub> NAAQS.
- 13. CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure below which there are no adverse health effects determined.
- 14. National lead standard, rolling 3-month average: final rule signed October 15, 2008. Final designations effective December 31, 2011.
- 15. In December 2012, U.S. EPA strengthened the annual PM<sub>2.5</sub> National Ambient Air Quality Standards (NAAQS) from 15.0 to 12.0 micrograms per cubic meter (μg/m³). In December 2014, U.S. EPA issued final area designations for the 2012 primary annual PM<sub>2.5</sub> NAAQS. Areas designated "unclassifiable/attainment" must continue to take steps to prevent their air quality from deteriorating to unhealthy levels. The effective date of this standard is April 15, 2015.

Source: Bay Area Air Quality Management District, Air Quality Standards and Attainment Status, 2017. http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status.

## 3.2 REGIONAL

# Bay Area Air Quality Management District

The BAAQMD is the regional agency with jurisdiction over the nine-county region located in the Basin. The Association of Bay Area Governments (ABAG), Metropolitan Transportation Commission (MTC), county transportation agencies, cities and counties, and various nongovernmental organizations also join in the efforts to improve air quality through a variety of programs. These programs include the adoption of regulations and policies, as well as implementation of extensive education and public outreach programs.

### Clean Air Plan

Air quality plans developed to meet federal requirements are referred to as State Implementation Plans. The federal and state Clean Air Acts require plans to be developed for areas designated as nonattainment (with the exception of areas designated as nonattainment for the state  $PM_{10}$  standard). The BAAQMD is responsible for developing a Clean Air Plan, which guides the region's air quality planning efforts to attain the CAAQS. The BAAQMD adopted the 2017 Clean Air Plan: Spare the Air, Cool the Climate on April 19, 2019 (Clean Air Plan), by the BAAQMD.

BAAQMD periodically develops air quality plans that outline the regional strategy to improve air quality and protect the climate. The most recent plan, 2017 Bay Area Clean Air Plan, includes a wide range of control measures designed to reduce emissions of air pollutants and GHGs, including the following examples that may be relevant to this project: reduce emissions of toxic air contaminants by adopting

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more stringent limits and methods for evaluating toxic risks; implement pricing measures to reduce travel demand; accelerate the widespread adoption of electric vehicles; promote the use of clean fuels; promote energy efficiency in both new and existing buildings; and promote the switch from natural gas to electricity for space and water heating in Bay Area buildings.

The 2017 Clean Air Plan provides a regional strategy to protect public health and protect the climate. To protect public health, the plan describes how the BAAQMD will continue progress toward attaining all state and federal air quality standards and eliminating health risk disparities from exposure to air pollution among Bay Area communities. To protect the climate, the 2017 Clean Air Plan defines a vision for transitioning the region to a post-carbon economy needed to achieve ambitious greenhouse gas (GHG) reduction targets for 2030 and 2050 and provides a regional climate protection strategy that will put the Bay Area on a pathway to achieve those GHG reduction targets. The 2017 Clean Air Plan contains district-wide control measures to reduce ozone precursor emissions (i.e., ROG and NO<sub>x</sub>), particulate matter, TACs, and greenhouse gas emissions. The Bay Area 2017 Clean Air Plan updates the Bay Area 2010 Clean Air Plan in accordance with the requirements of the California Clean Air Act to implement "all feasible measures" to reduce ozone; provides a control strategy to reduce ozone, PM, TACs, and greenhouse gases in a single, integrated plan; reviews progress in improving air quality in recent years; and establishes emission control measures to be adopted or implemented in both the short term and through 2050.

The 2017 Clean Air Plan includes a wide range of control measures designed to decrease emissions of the air pollutants that are most harmful to Bay Area residents, such as particulate matter, ozone, and toxic air contaminants; to reduce emissions of methane and other "super-GHGs" that are potent climate pollutants in the near-term; and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

The following BAAQMD rules would limit emissions of air pollutants from construction and operation of the project:

- Regulation 8, Rule 3 Architectural Coatings. This rule governs the manufacture, distribution, and sale of architectural coatings and limits the reactive organic gases content in paints and paint solvents. Although this rule does not directly apply to the project, it does dictate the ROG content of paint available for use during the construction.
- Regulation 8, Rule 15 Emulsified and Liquid Asphalts. This rule dictates the reactive organic gases content of asphalt available for use during construction through regulating the sale and use of asphalt and limits the ROG content in asphalt. Although this rule does not directly apply to the project, it does dictate the ROG content of asphalt for use during the construction.
- Regulation 9, Rule 8 Organic Compounds. This rule limits the emissions of nitrogen oxides and carbon monoxide from stationary internal combustion engines with an output rated by the manufacturer at more than 50 brake horsepower.

BAAQMD prepared an Ozone Attainment Demonstration Plan to satisfy the federal 1-hour ozone planning requirement because of the Air Basin's nonattainment for federal and State ozone standards. The U.S. EPA revoked the 1-hour ozone standard and adopted an 8-hour ozone standard. The BAAQMD will address the new federal 8-hour ozone planning requirements once they are established.

### 3.3 LOCAL

### City of San José General Plan

The San José General Plan includes the following policies intended to control or reduce air pollution impacts:

**Policy MS-10.1**: Assess projected air emissions from new development in conformance with the

BAAQMD CEQA Guidelines and relative to state and federal standards. Identify

and implement feasible air emissions reduction measures.

Policy MS - 10.2: States that the City should take into consideration the cumulative air quality

impacts from proposed developments for proposed land use designation changes and new development, consistent with the region's Clean Air Plan and State law.

**Policy MS-10.4:** Encourage effective regulation of mobile and stationary sources of air pollution,

both inside and outside of San José. In particular, support Federal and State

regulations to improve automobile emission controls.

**Policy MS – 10.6:** Encourage mixed land use development near transit lines and provide retail and

other types of service-oriented uses within walking distance to minimize

automobile dependent development.

Policy MS – 10.7: Encourage regional and statewide air pollutant emission reduction through

energy conservation to improve air quality.

**Policy MS - 11.2:** For projects that emit toxic air contaminants, require project proponents to

prepare health risk assessments in accordance with BAAQMD-recommended procedures as part of environmental review and employ effective mitigation to reduce possible health risks to a less than significant level. Alternatively, require new projects (such as, but not limited to, industrial, manufacturing, and processing facilities) that are sources of TACs to be located an adequate distance

from residential areas and other sensitive receptors.

Policy MS-11.6: Develop and adopt a comprehensive Community Risk Reduction Plan that

includes: baseline inventory of toxic air contaminants (TACs) and particulate matter smaller than 2.5 microns (PM2.5), emissions from all sources, emissions reduction targets, and enforceable emission reduction strategies and performance measures. The Community Risk Reduction Plan will include enforcement and monitoring tools to ensure regular review of progress toward the emission reduction targets, progress reporting to the public and responsible

agencies, and periodic updates of the plan, as appropriate.

Policy MS-11.7: Consult with BAAQMD to identify stationary and mobile TAC sources and

determine the need for and requirements of a health risk assessment for

proposed developments.

Policy MS-11.8:

For new projects that generate truck traffic, require signage which reminds drivers that the State truck idling law limits truck idling to five minutes.

Policy MS-12.2:

Require new residential development projects and projects categorized as sensitive receptors to be located an adequate distance from facilities that are existing and potential sources of odor. An adequate separation distance will be determined based upon the type, size and operations of the facility

Policy MS-13.1:

Include dust, particulate matter, and construction equipment exhaust control measures as conditions of approval for subdivision maps, site development and planned development permits, grading permits, and demolition permits. At minimum, conditions shall conform to construction mitigation measures recommended in the current BAAQMD CEQA Guidelines for the relevant project size and type.

Policy MS-13.3:

Construction and/or demolition projects that have the potential to disturb asbestos (from soil or building material) shall comply with all the requirements of the California Air Resources Board's air toxic control measures (ATCMs) for Construction, Grading, Quarrying, and Surface Mining Operations.

# 4 SIGNIFICANCE CRITERIA AND METHODOLOGY

# 4.1 AIR QUALITY THRESHOLDS

# State CEQA Guidelines Appendix G

Based upon the criteria from the California Environmental Quality Act (CEQA) Guidelines Appendix G, a project normally would have a significant effect on the environment if it would:

- AQ-1 Conflict with or obstruct implementation of the applicable air quality plan?
- AQ-2 Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?
- AQ-3 Expose sensitive receptors to substantial pollutant concentrations?
- AQ-4 Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

### **Air Quality Thresholds**

Under CEQA, the Bay Area Air Quality Management District (BAAQMD) is an expert commenting agency on air quality within its jurisdiction or impacting its jurisdiction. Pursuant to the FCAA, the BAAQMD has adopted Federal attainment plans for O<sub>3</sub> and PM<sub>2.5</sub>. The BAAQMD reviews projects to ensure that they would not: (1) cause or contribute to any new violation of any air quality standard; (2) increase the frequency or severity of any existing violation of any air quality standard; or (3) delay timely attainment of any air quality standard or any required interim emission reductions or other milestones of any Federal attainment plan.

The BAAQMD Options and Justification Report (dated October 2009) establishes thresholds based on substantial evidence, and the thresholds are consistent with the thresholds outlined within the 2010/2011 BAAQMD CEQA Air Quality Guidelines (and current 2017 CEQA Air Quality Guidelines). The thresholds have been developed by the BAAQMD in order to attain State and Federal ambient air quality standards. Therefore, projects below these thresholds would not violate an air quality standard and would not contribute substantially to an existing or projected air quality violation.

The BAAQMD's CEQA Air Quality Guidelines provides significance thresholds for both construction and operation of projects. Ultimately the lead agency determines the thresholds of significance for impacts. However, if a project proposes development in excess of the established thresholds, as outlined in <a href="Table 5">Table 5</a>: Bay Area Air Quality Management District Emissions Thresholds, a significant air quality impact may occur and additional analysis is warranted to fully assess the significance of impacts.

Table 5: Bay Area Air Quality Management District Emissions Thresholds

	Construction-Related	Operational-Related				
Criteria Air Pollutants and Precursors (Regional)	Average Daily Emissions (pounds/day)	Average Daily Emission (pounds/day)	Annual Average Emission (tons/year)			
Reactive Organic Gases (ROG)	54	54	10			
Nitrogen Oxides (NO <sub>X</sub> )	54	54	10			
Coarse Particulates (PM <sub>10</sub> )	82 (exhaust)	82	15			
Fine Particulates (PM <sub>2.5</sub> )	54 (exhaust)	54	10			
PM <sub>10</sub> / PM <sub>2.5</sub> (fugitive dust)	Best Management Practices	None				
Local CO	None	9.0 ppm (8-hour average) 20.0 ppm (1-hour average)				
Source: Bay Area Air Quality Management District, 2017 CEQA Air Quality Guidelines, 2017.						

### 4.2 METHODOLOGY

This air quality impact analysis considers construction and operational impacts associated with the project. Where criteria air pollutant quantification was required, emissions were modeled using the California Emissions Estimator Model (CalEEMod). CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. Air quality impacts were assessed according to methodologies recommended by CARB and the BAAQMD.

Construction equipment, trucks, worker vehicles, and ground-disturbing activities associated with project construction would generate emissions of criteria air pollutants and precursors. Air quality impacts were assessed according to CARB and BAAQMD recommended methodologies. Daily regional construction emissions are estimated by assuming construction occurs at the earliest feasible date (i.e., a conservative estimate of construction activities) and applying off-road, fugitive dust, and on-road emissions factors in CalEEMod.

Project operations would result in emissions of area sources (consumer products), energy sources (natural gas usage), and mobile sources (motor vehicles from project generated vehicle trips). Project-generated increases in operational emissions would be predominantly associated with motor vehicle use. The increase of traffic over existing conditions as a result of the project was obtained from the project's Transportation Analysis prepared by Kimley-Horn (March 2022). Other operational emissions from area, energy, and stationary sources were quantified in CalEEMod based on land use activity data.

As discussed above, the BAAQMD provides significance thresholds for emissions associated with proposed project construction and operations. The proposed project's construction and operational emissions are compared to the daily criteria pollutant emissions significance thresholds in order to determine the significance of the project's impact on regional air quality.

# 5 POTENTIAL IMPACTS AND MITIGATION

### 5.1 AIR QUALITY ANALYSIS

Threshold AQ-1: Would the Project conflict with or obstruct implementation of the applicable air quality plan?

The most recently adopted plan, the Clean Air Plan, in the Basin outlines how the San Francisco area will attain air quality standards, reduce population exposure and protect public health, and reduce GHG emissions.

The Clean Air Plan assumptions for projected air emissions and pollutants in the City of San José are based on the Envision San José 2040 General Plan Land Use Designation Map which designates the project site use as "Light Industrial (LI)". The project site is zoned "Light Industrial Planned Zoning District (LI(PD))". The LI(PD) Zoning District allows for property in the zone to be used only as if it were in its base district alone, unless and until a planned development permit has been issues and effectuated. Once a planned development permit is effective, any use or combination of uses provided for in the permit is allowed on the project site. A planned development permit was previously approved to allow for existing mini-storage buildings on the project site and the proposed project would include a planned development permit amendment to allow for construction of the proposed project. The project would be consistent with the development assumptions for the land use. Therefore, the project is consistent with the General Plan assumptions. The proposed project consists of an approximately 103,970 sf speculative warehouse consistent with the Envision San José 2040 General Plan Supplemental Program EIR land use designation and would not increase the regional population growth or cause changes in vehicle traffic that would obstruct implementation of the Clean Air Plan in the San Francisco Bay Area Basin.

As described below, construction and operational air quality emissions generated by the proposed project would not exceed the BAAQMD's emissions thresholds. Since the proposed project would not exceed these thresholds, the proposed project would not be considered by the BAAQMD to be a substantial emitter of criteria air pollutants, and would not contribute to any non-attainment areas in the Basin.

The project is anticipated to generate 104¹ jobs within the City. ABAG predicts that job opportunities in the City of San José will grow from 387,510 in 2010 to 554,875 by 2040. As of 2015, there are 359,128 job opportunities in the City². The project is consistent with the City General Plan land use designation for the project site. Therefore, the addition of 104 new jobs would be within the ABAG growth projections for the City which assumes approximately new 554,875 jobs by 2040 and would not exceed the ABAG growth projections for the City. As identified in the General Plan FEIR, the City currently has an existing ratio of jobs per resident of 0.8. The General Plan FEIR identified that at full buildout of the General Plan, the existing ratio of jobs per employed resident would increase to a job per employed resident ratio of 1.3. The increase in jobs would incrementally decrease the overall jobs/housing imbalance in the City. The project would not exceed the regional planning population or housing assumptions. Additionally, the

<sup>&</sup>lt;sup>1</sup> City of San José. San Jose Market Overview and Employment Lands Analysis, 2016. Employment Density is 1,000 square feet per employee for Traditional Industrial

<sup>2</sup> City of San José. Envision San José 2040 General Plan DEIR.

proposed project would not significantly affect regional vehicle miles travelled pursuant to the CEQA Guidelines (Section 15206). Therefore, population growth from the project would be consistent with ABAG's projections for the City and with the City's General Plan.

A project would be consistent with the 2017 Clean Air Plan if it would not exceed the growth assumptions in the plan. The primary method of determining consistency with the 2017 Clean Air Plan growth assumptions is consistency with the General Plan land use designations and zoning designations for the site. It should be noted that the Clean Air Plan does not make a specific assumption for development on a site-specific basis, but provides assumptions on growth in population, travel, and business, based on socioeconomic forecasts. As noted above, the project would not exceed the growth assumptions in the General Plan. Therefore, the growth assumptions in the Clean Air Plan would not be exceeded.

Given that approval of a project would not result in significant and unavoidable air quality impacts after the application of all feasible project conditions, the project is considered consistent with the 2017 Clean Air Plan. In addition, projects are considered consistent with the 2017 Clean Air Plan if they incorporate all applicable and feasible control measures from the 2017 Clean Air Plan and would not disrupt or hinder implementation of any 2017 Clean Air Plan control measures.

The project is consistent with the 2017 Clean Air Plan policies that are applicable to the project site. As discussed in <u>Table 6: Project Consistency with Applicable Clean Air Plan Control Measures</u>, the project would comply with City, State, and regional requirements.

Table 6: Project Consistency with Applicable Clean Air Plan Control Measures

Control Measure	Project Consistency		
Stationary Source Control Measures			
SS21: New Source Review of Toxic Air Contaminants	Consistent. The project would not include uses that would generate new sources of TAC that would impact nearby sensitive receptors. The building design would accommodate interior uses such as e-commerce, warehouse/distribution, wholesaling, industrial services and similar uses that are not heavy industrial or would exhaust TACs.		
SS25: Coatings, Solvents, Lubricants, Sealants and Adhesives	Consistent. The project would comply with Regulation 8, Rule 3: Architectural Coatings, which would dictate the ROG content of paint available for use during		
SS26: Surface Prep and Cleaning Solvent	construction.		
SS29: Asphaltic Concrete	<b>Consistent</b> . Paving activities associated with the project would be required to utilize asphalt that does not exceed BAAQMD emission standards in Regulation 8, Rule 15.		
SS30: Residential Fan Type Furnaces	<b>Not Applicable</b> . BAAQMD is the responsible party for implementation of this regulation. The project does not involve residential development, but would use the latest central furnaces that comply with the applicable regulations. The project would not conflict with BAAQMD's implementation of that measure.		
SS31: General Particulate Matter Emissions Limitation	<b>Consistent</b> . This control measure is implemented by the BAAQMD through Regulation 6, Rule 1. This Rule Limits the quantity of particulate matter in the atmosphere by controlling emission rates, concentration, visible emissions and opacity. The project would be required to comply with applicable BAAQMD rules.		
SS32: Emergency Back-up Generators	<b>Consistent</b> . Back-up generators are not proposed. However, if emergency generators were to be installed they would be required to meet the BAAQMD's emissions standards for back-up generators.		

Control Measure	Project Consistency
SS33: Commercial Cooking Equipment	<b>Not Applicable</b> . The project does not include the potential development of restaurant facilities. However, if any kitchen facilities or restaurants occur and they install a charbroiler, a catalytic oxidizer system must also be installed pursuant to BAAQMD Rule 6-2.
SS34: Wood Smoke	<b>Not Applicable</b> . The project is an industrial facility and not include wood burning. However, projects are required to comply with BAAQMD Regulation 6, Rule 3 and prohibit the construction of wood burning appliances/ fireplaces, as applicable.
SS36: Particulate Matter from Trackout	<b>Consistent</b> . Mud and dirt that may be tracked out onto the nearby public roads during construction activities would be removed promptly by the contractor based on BAAQMD's requirements and City Standard Permit Conditions.
SS37: Particulate Matter from Asphalt Operations	<b>Consistent</b> . Paving and roofing activities associated with the project would be required to utilize best management practices (BMPs) to minimize the particulate matter created from the transport and application of road and roofing asphalt.
SS38: Fugitive Dust	Consistent. Material stockpiling and track out during grading activities as well as smoke and fumes from paving and roofing asphalt operations would be required to utilize BMPs, such as watering exposed surfaces twice a day, covering haul trucks, keeping vehicle speeds on unpaved roads under 15 miles per hour (mph), to minimize the creation of fugitive dust. See City of San José Standard Permit Conditions for a more detailed list.
SS40: Odors	<b>Consistent</b> . The project is an industrial development and is not anticipated to generate odors. The project would comply with BAAQMD Regulation 7 to minimize odors.
Transportation Control Measures	
TR2: Trip Reduction Programs	Consistent. The project would include a number of travel demand measures
TR8: Ridesharing and Last-Mile Connections	(TDM) such as mix of land uses and ride sharing. These TDM Programs would help reduce vehicle miles traveled (VMT) and mobile greenhouse gas emissions.
TR9: Bicycle and Pedestrian Access Facilities	<b>Consistent</b> . Bicycle facilities in the area include South King Road, which provide Class II bike lanes with striping to separate the vehicle and bike travel way. The proposed project would include 10 bicycle racks.
TR10: Land Use Strategies	Consistent. This measure is a BAAQMD funding tool to maintain and disseminate information on current climate action plans and other local best practices and collaborate with regional partners to identify innovative funding mechanisms to help local governments address air quality and climate change in their general plans. In addition, the proposed project site is located within 90 feet of a transit stop at South King Road. Therefore, these employment opportunities would be easily accessible via transit, furthering the City's General Plan goals to support a healthy community, reduce traffic congestion and decrease greenhouse gas emissions and energy consumption. The project would not conflict with implementation of this measure.
TR13: Parking Policies	<b>Consistent.</b> The proposed project would create approximately 86 new parking spaces. The proposed parking is sufficient for the proposed uses.
TR19: Medium and Heavy Duty Trucks	Consistent. The project includes a speculative warehousing use that would generate truck trips. Per the transportation analysis prepared for the project, there would be approximately 62 daily truck trips. The project would not conflict with the implementation of this measure.
TR22: Construction, Freight and Farming Equipment	<b>Consistent</b> . The project would comply through implementation of the BAAQMD standard condition, which requires construction equipment to be properly maintained.
Energy and Climate Control Measures	

Control Measure	Project Consistency
EN1: Decarbonize Electricity Generation	Consistent. The project would be constructed in accordance with the latest
	California Building Code and green building regulations/CalGreen. The proposed
EN2: Decrease Electricity Demand	development would be constructed in compliance with the City's Council Policy
Buildings Control Massures	6-32 and the City's Green Building Ordinance.
Buildings Control Measures	
BL1: Green Buildings	<b>Consistent</b> . The project would be constructed in accordance with the latest
	California Building Code and green building regulations/CalGreen. The proposed
L2: Decarbonize Buildings	development would be constructed in compliance with the City's Council Policy
	6-32 and the City's Green Building Ordinance.
DI A. Urban Haat Island Mitigation	Consistent. The project would develop a vacant lot. The project would include
BL4: Urban Heat Island Mitigation	landscaping and tree planting.
Natural and Working Lands Control Meas	ures
NIM/2: Urban Trac Planting	Consistent. The project would plant 47 trees on site. The project includes
NW2: Urban Tree Planting	landscaping with a mix of trees, shrubs, and groundcover.
Waste Management Control Measures	
WA1: Landfills	Consistent. The waste service provider for the project would be required to
WA3: Green Waste Diversion	meet the AB 341 and SB 939, 1374, and 1383 requirements that require waste
WA4: Recycling and Waste Reduction	service providers to divert and recycle waste. Per CalGreen requirements the project would recycle construction waste.
Water Control Measures	
	<b>Consistent</b> . The project would implement water conservation measures and low
	flow fixtures as required by Title 24, CalGreen, and the City of San Jose's
WR2: Support Water Conservation	Municipal Code Section 15-11 Water Efficient Landscaping Ordinance, which
• •	includes various specifications for plant types, water features, and irrigation
	design etc.
Source: BAAQMD, Clean Air Plan, 2017 and Kim	ley-Horn, 2022.

Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact.

Threshold AQ-2: Would the Project result in a cumulatively considerable net increase of any

criteria pollutant for which the project region is non-attainment under an

applicable federal or state ambient air quality standard?

### **Construction Emissions**

Project construction activities would generate short-term emissions of criteria air pollutants. The criteria pollutants of primary concern within the project area include ozone-precursor pollutants (i.e., ROG and  $NO_x$ ) and  $PM_{10}$  and  $PM_{2.5}$ . Construction-generated emissions are short term and temporary, lasting only while construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the BAAQMD's thresholds of significance.

Construction results in the temporary generation of emissions during demolition, site preparation, site grading, road paving, motor vehicle exhaust associated with construction equipment and worker trips, and the movement of construction equipment, especially on unpaved surfaces. Emissions of airborne particulate matter are largely dependent on the amount of ground disturbance associated with site

preparation activities, as well as weather conditions and the appropriate application of water. For this project, site preparation includes the excavation and removal of previously identified contaminated soils.

The duration of construction activities associated with the project are estimated to last approximately 11 months. Demolition is anticipated to occur in October 2022, followed by a 10-month construction phase between November 2022 and September 2023. The project's construction-related emissions were calculated using the BAAQMD-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. Project site preparation are anticipated to begin in October 2022 and last approximately one month. Project grading and construction is anticipated to begin in November 2022 and last approximately 10 months. Paving and architectural coating activities were modeled to be completed September 2023. The exact construction timeline is unknown; however, to be conservative, earlier dates were utilized in the modeling. This approach is conservative given that emissions factors decrease in future years due to regulatory and technological improvements and fleet turnover. See Appendix A: Air Quality Data for additional information regarding the construction assumptions used in this analysis. The project's predicted maximum daily construction-related emissions are summarized in Table 7: Construction-Related Emissions.

<u>Fugitive Dust Emissions</u>. Fugitive dust emissions are associated with land clearing, ground excavation, cutand-fill operations, demolition, and truck travel on unpaved roadways. Dust emissions also vary substantially from day to day, depending on the level of activity, the specific operations, and weather conditions. Fugitive dust emissions may have a substantial, temporary impact on local air quality. In addition, fugitive dust may be a nuisance to those living and working in the project vicinity. Uncontrolled dust from construction can become a nuisance and potential health hazard to those living and working nearby. The BAAQMD recommends the implementation of all Basic Construction Control Measures, whether or not construction-related emissions exceed applicable significance thresholds. The project would implement the BAAQMD Basic Construction Control Measures as a Standard Permit Condition to control dust at the project site during all phases of construction.

**Table 7: Construction-Related Emissions** 

able 7. construction-related Emissions								
	Pollutant (maximum pounds per day) <sup>1</sup>							
	Beative	Reactive Organic Gases (ROG)  Nitrogen Oxide (NO <sub>x</sub> )	Exhaust		Fugitive Dust			
Construction Year	Organic Gases		Coarse Particulate Matter (PM <sub>10</sub> )	Fine Particulate Matter (PM <sub>2.5</sub> )	Coarse Particulate Matter (PM <sub>10</sub> )	Fine Particulate Matter (PM <sub>2.5</sub> )		
2022	3.22	33.12	1.61	1.48	8.54	4.36		
2023	19.67	17.55	0.79	0.74	1.19	0.32		
Maximum	19.67	33.12	1.61	1.48	8.54	4.36		
BAAQMD Significance Threshold <sup>2, 3</sup>	54	54	82	54	BMPs	BMPs		
Exceed BAAQMD Threshold?	No	No	No	No	N/A	N/A		

<sup>1.</sup> Emissions were calculated using CalEEMod. Mitigated emissions include compliance with the BAAQMD's Basic Construction Mitigation Measures Recommended for All projects and the City of San José Environmental Standard Conditions. These measures include the following: water exposed surfaces two times daily; cover haul trucks; clean track outs with wet powered vacuum street sweepers; limit speeds on unpaved roads to 15 miles per hour; complete paving as soon as possible after grading; limit idle times to 5 minutes; properly maintain mobile and other construction equipment; and post a publicly visible sign with contact information to register dust complaints and take corrective action within 48 hours.

	Pollutant (maximum pounds per day) <sup>1</sup>					
	Reactive		Exhaust		Fugitive Dust	
Construction Year	Organic Gases (ROG)	Nitrogen Oxide (NO <sub>x</sub> )	Coarse Particulate Matter (PM <sub>10</sub> )	Fine Particulate Matter (PM <sub>2.5</sub> )	Coarse Particulate Matter (PM <sub>10</sub> )	Fine Particulate Matter (PM <sub>2.5</sub> )

- 2. Bay Area Air Quality Management District, California Environmental Quality Act Air Quality Guidelines, updated May 2017.
- 3. BMPs = Best Management Practices. The BAAQMD recommends the implementation of all Basic Construction Mitigation Measures, whether or not construction-related emissions exceed applicable significance thresholds. Implementation of Basic Construction Mitigation measures are considered to mitigate fugitive dust emissions to be less than significant.
- 4. Since the CalEEMod modeling, the Project has been reduced from 103,970 sf to 92,123 sf. Therefore, the modeling is conservative. Source: Refer to the CalEEMod outputs provided in Appendix A.

### **Standard Permit Condition**

These measures would be placed on the project plan documents prior to the issuance of any grading permits for the proposed project.

- i. Water active construction areas at least twice daily or as often as needed to control dust emissions.
- ii. Cover trucks hauling soil, sand, and other loose materials and/or ensure that all trucks hauling such materials maintain at least two feet of freeboard.
- iii. Remove visible mud or dirt track-out onto adjacent public roads using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- iv. Enclose, cover, water twice daily or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.).
- v. Pave new or improved roadways, driveways, and sidewalks as soon as possible.
- vi. Lay building pads as soon as possible after grading unless seeding or soil binders are used.
- vii. Replant vegetation in disturbed areas as quickly as possible.
- viii. Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- ix. Minimizing idling times either by shutting off equipment when not in use, or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Provide clear signage for construction workers at all access points.
- x. Maintain and properly tune construction equipment in accordance with manufacturer's specifications. Check all equipment by a certified mechanic and record a determination of running in proper condition prior to operation.
- xi. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints.

<u>Construction Equipment and Worker Vehicle Exhaust</u>. Exhaust emission factors for typical diesel-powered heavy equipment are based on the CalEEMod program defaults. Variables factored into estimating the total construction emissions include: level of activity, length of construction period, number of pieces/types of equipment in use, site characteristics, weather conditions, number of construction personnel, and the amount of materials to be transported onsite or offsite. Exhaust emissions from construction activities include emissions associated with the transport of machinery and supplies to and from the project site, emissions produced on site as the equipment is used, and emissions from trucks

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transporting materials and workers to and from the site. Emitted pollutants would include ROG,  $NO_X$ ,  $PM_{10}$ , and  $PM_{2.5}$ . As previously addressed, the BAAQMD recommends the implementation of all Basic Construction Control Measures, whether or not construction-related emissions exceed applicable significance thresholds. The See the above listed Standard Permit Conditions. As detailed in <u>Table 7</u>, project construction emissions would not exceed the BAAQMD thresholds and construction emissions would not result in a potentially significant impact. Therefore, construction air quality impacts would be less than significant.

<u>ROG Emissions</u>. In addition to gaseous and particulate emissions, the application of asphalt and surface coatings creates ROG emissions, which are O<sub>3</sub> precursors. In accordance with the methodology prescribed by the BAAQMD, the ROG emissions associated with paving have been quantified with CalEEMod. The highest concentration of ROG emissions would be generated from architectural coating beginning in fall 2023 and lasting approximately two months. This phase includes the interior and exterior painting as well as striping of all paved parking areas and driveways. Paints would be required to comply with BAAQMD Regulation 8, Rule 3: Architectural Coating, provides specifications on painting practices and regulates the ROG content of paint.

<u>Summary</u>. As shown in <u>Table 7</u>, all criteria pollutant emissions would remain below their respective thresholds. BAAQMD considers fugitive dust emissions to be potentially significant without implementation of the Construction Control Measures which help control fugitive dust.  $NO_X$  emissions are primarily generated by engine combustion in construction equipment, haul trucks, and employee commuting, requiring the use of newer construction equipment with better emissions controls would reduce construction-related  $NO_X$  emissions. With implementation of the Standard Permit Condition identified above, project condition of approval, the proposed project's construction would not worsen ambient air quality, create additional violations of federal and state standards, or delay the Basin's goal for meeting attainment standards. Impacts would be less than significant.

# **Operational Emissions**

Operational emissions for industrial developments are typically generated from mobile sources (burning of fossil fuels in cars); energy sources (cooling and heating); and area sources (landscape equipment and household products). <u>Table 8: Maximum Daily Project Operational Emissions</u> shows that the project's maximum emissions would not exceed BAAQMD operational thresholds.

**Table 8: Maximum Daily Project Operational Emissions** 

	Pollutant (maximum pounds per day) <sup>1</sup>					
			Exhaust		Fugitive Dust	
Emissions Source	Reactive Organic Gases (ROG)	Nitrogen Oxides (NO <sub>x</sub> )	Coarse Particulate Matter (PM <sub>10</sub> )	Fine Particulate Matter (PM <sub>2.5</sub> )	Coarse Particulate Matter (PM <sub>10</sub> )	Fine Particulate Matter (PM <sub>2.5</sub> )
Area	2.59	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.50	0.54	0.01	0.01	0.01	0.37
Generators	1.69	4.71	0.25	0.25	0.00	0.00
Off-Road Equipment	0.06	1.17	0.01	0.01	0.00	0.00
Total Project Emissions	4.84	6.42	0.27	0.27	0.01	0.37

	Pollutant (maximum pounds per day)¹					
			Exhaust		Fugitive Dust	
Emissions Source	Reactive Organic Gases (ROG)	Nitrogen Oxides (NO <sub>x</sub> )	Coarse Particulate Matter (PM <sub>10</sub> )	Fine Particulate Matter (PM <sub>2.5</sub> )	Coarse Particulate Matter (PM <sub>10</sub> )	Fine Particulate Matter (PM <sub>2.5</sub> )
BAAQMD Significance Threshold <sup>2</sup>	54	54	82	54	N/A	N/A
BAAQMD Threshold Exceeded?	No	No	No	No	N/A	N/A

<sup>1.</sup> Emissions were calculated using CalEEMod.

<u>Area Source Emissions</u> Area source emissions would be generated by the use of consumer products, architectural coating, and landscaping equipment.

<u>Energy Source Emissions</u>. Energy source emissions would be generated as a result of electricity and natural gas usage associated with the project. The primary use of electricity and natural gas by the project would be for space heating and cooling, water heating, ventilation, lighting, appliances, and electronics.

<u>Mobile Sources</u>. Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG,  $NO_X$ ,  $PM_{10}$ , and  $PM_{2.5}$  are all pollutants of regional concern ( $NO_X$  and ROG react with sunlight to form  $O_3$  [photochemical smog], and wind currents readily transport  $PM_{10}$  and  $PM_{2.5}$ ). However, CO tends to be a localized pollutant, dispersing rapidly at the source. Project-generated vehicle emissions have been estimated using CalEEMod. Trip generation rates associated with the project were based on the Project Transportation Analysis prepared by Kimley-Horn (2022). Based on the Transportation Analysis, the project would generate 178 daily vehicle trips. However, with applicable trip reductions including location-based mode-share and other trip adjustments the project would result in a net increase of 164 new trips.

<u>Generators</u>. Generators would emit pollutants that are either of regional or local concerns like ROG,  $NO_x$ ,  $PM_{10}$ , and  $PM_{2.5}$ . The project would include a back-up generator that would operate during emergencies and maintenance. Emissions from the generator would be infrequent and would not be constant. The project would only have one emergency back-up generator.

<u>Off-Road Equipment</u>. The Project would include the operation of off-road equipment such as forklifts. Emissions related to off-road equipment have been estimated using emission rates from the CARB Emission Factor (EMFAC) model. The project is estimated to use two forklifts based off the square footage of the proposed building.

<u>Total Operational Emissions</u>. As indicated in <u>Table 8</u>, net project operational emissions would not exceed BAAQMD thresholds. The BAAQMD has set its CEQA significance threshold based on the trigger levels for the federal New Source Review (NSR) permitting program and BAAQMD's Regulation 2, Rule 2 for new or modified sources. The NSR Program was created to ensure projects are consistent with attainment of health-based federal ambient air quality standards. The federal ambient air quality standards establish the levels of air quality necessary, with an adequate margin of safety, to protect the public health.

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<sup>2.</sup> Bay Area Air Quality Management District, California Environmental Quality Act Air Quality Guidelines, 2017.

Note: As shown in Appendix A, the project was also modeled as a manufacturing use in CalEEMod as manufacturing is a permitted use in the zoning designation. Emissions associated with the new building use would remain below BAAQMD thresholds and less than significant.

Source: Refer to the CalEEMod outputs provided in Appendix A, Air Quality Data.

Therefore, the project would not violate any air quality standards or contribute substantially to an existing or projected air quality violation and no criteria pollutant health impacts would occur. Project operational emissions would be less than significant.

#### **Cumulative Short-Term Emissions**

The SFBAAB is designated nonattainment for  $O_3$ ,  $PM_{10}$ , and  $PM_{2.5}$  for State standards and nonattainment for  $O_3$  and  $PM_{2.5}$  for federal standards. As previously noted, the project's construction-related emissions would not exceed the BAAQMD significance thresholds for criteria pollutants. Since these thresholds indicate whether an individual project's emissions have the potential to affect cumulative regional air quality, the project-related construction emissions would not be cumulatively considerable. The BAAQMD recommends Basic Construction Control Measures for all projects whether or not construction-related emissions exceed the thresholds of significance. Compliance with BAAQMD construction-related requirements are considered to reduce cumulative impacts at a Basin-wide level. As a result, construction emissions associated with the project would not result in a cumulatively considerable contribution to significant cumulative air quality impacts.

# **Cumulative Long-Term Impacts**

The BAAQMD has not established separate significance thresholds for cumulative operational emissions. The nature of air emissions is largely a cumulative impact. As a result, no single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. The BAAQMD developed the operational thresholds of significance based on the level above which a project's individual emissions would result in a cumulatively considerable contribution to the Basin's existing air quality conditions. Therefore, a project that exceeds the BAAQMD operational thresholds would also be a cumulatively considerable contribution to a significant cumulative impact.<sup>3</sup> As shown in <u>Table 8</u>, the project's operational emissions would not exceed BAAQMD thresholds. As a result, operational emissions associated with the project would not result in a cumulatively considerable contribution to significant cumulative air quality impacts.

Mitigation Measures: No mitigation is required.

**Level of Significance:** Less than significant impact with compliance with standard conditions and City policies.

Threshold AQ-3: Would the Project expose sensitive receptors to substantial pollutant concentrations?

Sensitive land uses are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. The State

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<sup>&</sup>lt;sup>3</sup> In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions (BAAQMD CEQA Guidelines page 2-1).

CEQA Guidelines indicate that a potentially significant impact could occur if a project would expose sensitive receptors to substantial pollutant concentrations. CO concentrations would be well below the state and Federal standards according to the General Plan Final EIR.

### **Construction Toxic Air Contaminants**

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust which is a known Toxic Air Contaminants (TAC). Diesel exhaust from construction equipment operating at the site poses a health risk to nearby sensitive receptors. However, the use of diesel-powered construction equipment would be episodic and would occur in various phases throughout the project site. Construction is subject to and would comply with California regulations (e.g., California Code of Regulations, Title 13, Division 3, Article 1, Chapter 10, Sections 2485 and 2449), which reduce DPM and criteria pollutant emissions from in-use off-road diesel-fueled vehicles and limit the idling of heavy-duty construction equipment to no more than five minutes. These regulations would further reduce nearby sensitive receptors' exposure to temporary and variable DPM emissions.

As noted in the Health Risk Assessment prepared by Kimley-Horn (2022), maximum (worst case) PM<sub>2.5</sub> exhaust construction emissions over the entire construction period were used in AERMOD to approximate construction DPM emissions. See the HRA for additional methodology on the modeling analysis. Risk levels were calculated with the CARB Hotspots Analysis and Reporting Program (HARP) Risk Assessment Standalone Tool (RAST) based on the California Office of Environmental Health Hazard Assessment (OEHHA) guidance document, Air Toxics Hot Spots Program Risk Assessment Guidelines (February 2015). Results of the HRA are summarized in Table 9: Construction Risk.

**Table 9: Construction Risk** 

Exposure Scenario	Pollutant Concentration (μg/m³)	Cancer Risk (per Million) <sup>1</sup>	Chronic Hazard	Acute Hazard
Unmitigated				
Construction	0.064	20.28	0.013	1.27
BAAQMD Threshold	0.3	10	1.0	1.0
Threshold Exceeded?	No	Yes	No	Yes
Mitigated <sup>2</sup>				
Construction	0.010	3.07	0.002	0.191
BAAQMD Threshold	0.3	10	1.0	1.0
Threshold Exceeded?	No	No	No	No

<sup>1.</sup> Although construction would only occur for 13 months, the exposure duration was calculated to last for 3 years per the *BAAQMD Health Risk Assessment Modeling Protocol* (December 2020). Worker exposure would be 8 hours per day for 245 days per year and a residential exposure would be 24 hours per day for 350 days per year. The residential exposure scenario assumes a third trimester start age, 95<sup>th</sup> percentile breathing rates, and age sensitivity factors.

Refer to the Project Health Risk Assessment.

Maximum concentration of PM<sub>2.5</sub> during construction would be 0.06  $\mu$ g/m<sup>3</sup>, which would not exceed the BAAQMD threshold of 0.3  $\mu$ g/m<sup>3</sup>. The highest calculated carcinogenic risk from project construction would be 20.28 per million for the maximally exposed individual resident (MEIR) located south of the project

<sup>2.</sup> Mitigation Measure AQ-1 from the prior ISMND requires heavy-duty off-road construction equipment to meet CARB Tier 4 Final emissions standards.

site, which would exceed the BAAQMD threshold of 10 in one million. The maximally exposed individuals (MEI) during construction (i.e., the closest receptor exposed to the highest concentrations) are the residences located approximately 140 feet west of the project site.

Mitigation Measure AQ-1 from the prior ISMND requires the use of construction equipment that would meet CARB Tier 4 Final emissions standards in order to reduce diesel exhaust construction emissions. Mitigation Measure AQ-1 would reduce the project PM<sub>2.5</sub> concentration to 0.01  $\mu$ g/m³ and would reduce the Project's maximum cancer risk to 3.07 per million, which would be below the BAAQMD thresholds of 0.3  $\mu$ g/m³ and 10 in one million, respectively. Non-cancer hazards for DPM would be below BAAQMD threshold for chronic hazard index computed at 0.013 without mitigation and 0.002 with mitigation. The acute hazard index would be 1.27 without mitigation which exceeds BAAQMD threshold, but would be reduced to 0.191 with mitigation. Acute and chronic hazards would be below the BAAQMD significance threshold of 1.0 with Mitigation Measure AQ-1 from the prior ISMND. Construction risk levels would be below the BAAQMD's thresholds with Mitigation Measure AQ-1.

### **Operational Toxic Air Contaminants**

The project would construct a new 103,970 square foot speculative warehouse building. Based on the Transportation Analysis, the project would result in a total of generate 178 daily vehicle trips. However, with applicable trip reductions including location-based mode-share and other trip adjustments the project would result in a net increase of 164 new trips. Table 10: Operational Risk Assessment Results shows that the highest calculated carcinogenic risk resulting from the project is 0.25 per million, which is below the BAAQMD threshold of 10 per million. The maximally exposed individual resident (MEIR) during operation is the sensitive receptor located 140 feet to the north. Acute and chronic hazards also would be below the BAAQMD significance threshold of 1.0. Operational mobile impacts would be less than significant.

**Table 10: Operational Risk Assessment Results** 

Exposure Scenario	Pollutant Concentration (μg/m³)	Cancer Risk (per Million) <sup>1</sup>	Chronic Hazard	Acute Hazard
Residential Exposure	0.0004	0.25	0.0001	0.0044
Threshold	0.3	10	1.0	1.0
Exceed Threshold?	No	No	No	No

The maximum cancer would be experienced at the residences located south of the project site based on worst-case exposure durations for the project, 95<sup>th</sup> percentile breathing rates, age sensitivity factors, third trimester start age, and 30-year exposure duration. The worker and trail exposure is based on 95<sup>th</sup> percentile breathing rates and 25-year exposure duration.
 Refer to the Project Health Risk Assessment.

## **Cumulative Health Risk Analysis**

In addition to mobile sources, stationary sources within a 1,000-foot radius of the project site were reviewed using BAAQMD's Stationary Source Screening Analysis Tools. BAAQMD's Stationary Source data indicated that there is one stationary sources within 1,000 feet of the project site. <u>Table 11: Cumulative Operational Health Risk</u> shows the cumulative health risk values for the proposed project.

**Table 11: Cumulative Operational Health Risk** 

Emissions Sources	PM <sub>2.5</sub> (μg/m³)	Cancer Risk (per million	Hazard
Project Mobile Emissions	0.0004	0.25	0.0001
Major Street Sources <sup>1</sup>	0.19	8.15	0.76
Highway Sources <sup>1</sup>	0.32	36.42	1.28
Railway Sources <sup>1</sup>	0.001	0.40	0.03
Stationary Sources (Name of Facility)			•
Blossom Valley Collision	0.00	0.00	0.00
Cumulative Health Risk Values	0.51	45.22	2.07
BAAQMD Cumulative Threshold	0.8	100	10
Threshold Exceeded?	No	No	No

Cumulative impacts are defined as two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. Worst-case PM<sub>2.5</sub> concentrations and chronic hazard levels for the project would be well below the BAAQMD's thresholds. CEQA Guidelines 15065(a)(3) states "... 'Cumulatively considerable' means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." Table 11 shows that cumulative impacts related to cancer risk and hazard would be less than cumulatively considerable. Therefore, the project's cumulative impacts would be less than significant.

### **Mobile Sources**

The project would not place sensitive receptors within 1,000-feet of a major roadway (mobile TAC source). Additionally, the project's effects to existing vehicle distribution and travel speeds would be nominal. According to the Transportation Analysis, the project would generate 164 net new daily trips. Any changes to vehicle distribution and travel speeds can affect vehicle emissions rates, although these changes would be minimal and would not substantially change criteria pollutant emissions, which are primarily driven by vehicle miles travelled (VMT). Traffic is also predominantly light-duty and gasoline powered and therefore any shifts in traffic would not constitute a change in substantial cancer risk. The project does not involve the increase of transit trips or routes and would not generate increased emissions from expanded service (e.g., increased bus idling service).

# **Carbon Monoxide Hotspots**

The primary mobile-source criteria pollutant of local concern is carbon monoxide. Concentrations of CO are a direct function of the number of vehicles, length of delay, and traffic flow conditions. Transport of this criteria pollutant is extremely limited; CO disperses rapidly with distance from the source under normal meteorological conditions. Under certain meteorological conditions, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Areas of high CO concentrations, or "hotspots," are typically associated with intersections that are projected to operate at unacceptable levels of service during the peak commute hours. CO concentration modeling is therefore typically conducted

for intersections that are projected to operate at unacceptable levels of service during peak commute hours.

The Basin is designated as in attainment for CO. Emissions and ambient concentrations of CO have decreased dramatically in the Basin with the introduction of the catalytic converter in 1975. No exceedances of the CAAQS or NAAQS for CO have been recorded at nearby monitoring stations since 1991. As a result, the BAAQMD screening criteria notes that CO impacts may be determined to be less than significant if a project would not increase traffic volumes at local intersections to more than 44,000 vehicles per hour, or 24,000 vehicles per hour for locations in heavily urban areas, where "urban canyons" formed by buildings tend to reduce air circulation. Traffic would increase along surrounding roadways during long-term operational activities.

According to the Transportation Analysis prepared for the project (2022), the project would generate 164 new trips. The project's effects to existing vehicle distribution and travel speeds would be nominal. As a result, the project would not have the potential to create a CO hotspot and impacts would be less than significant.

The prior ISMND had impacts related to construction health risk to nearby sensitive receptors. Unmitigated project emissions resulted in a cancer risk above the BAAQMD threshold of 10 per one million. Therefore, mitigation measure AQ-1 was incorporated, with mitigation measure impacts were less than significant. The proposed project has health risk associated with project construction. Implementation of the previous ISMND mitigation measure AQ-1 would result in less than significant impacts. The previous ISMND mitigation measures is included here:

### **Mitigation Measures:**

- AQ-1 The project applicant shall select equipment during construction to minimize emissions. A construction management plan shall be submitted by the project applicant for review and approval by the Supervising Planner of the Planning, Building, and Code Enforcement Department prior to issuance of any grading and building permits. The construction management plan shall demonstrate that the off-road equipment used on-site to construct the project would achieve a fleet-wide average 85% reduction in PM<sub>2.5</sub> exhaust emissions or more. Options to achieve this reduction could include, but are not limited to, the following:
  - All mobile diesel-powered off-road equipment larger than 25 horsepower and operating on the site for more than two days shall meet U.S. EPA particulate matter emissions standards for Tier 4 engines or equivalent.
  - Use of equipment that includes CARB-certified Level 3 Diesel Particulate Filters or alternatively fueled equipment (i.e., non-diesel).
  - Use of added exhaust devices.

**Level of Significance:** Construction health risk would be less than significant with Mitigation Measure AQ-1 incorporated. All other impacts would be less than significant without mitigation.

Threshold AQ-4: Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

### Construction

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According to the BAAQMD, land uses associated with odor complaints typically include wastewater treatment plants, landfills, confined animal facilities, composting stations, food manufacturing plants, refineries, and chemical plants. The project does not include any uses identified by the BAAQMD as being associated with odors.

Construction activities associated with the project may generate detectable odors from heavy duty equipment (i.e., diesel exhaust), as well as from architectural coatings and asphalt off-gassing. Odors generated from the referenced sources are common in the man-made environment and are not known to be substantially offensive to adjacent receptors. Any construction-related odors would be short-term in nature and cease upon project completion. As a result, impacts to existing adjacent land uses from construction-related odors would be short-term in duration and therefore would be less than significant.

### **Operational**

BAAQMD has established odor screening thresholds for land uses that have the potential to generate substantial odor complaints, including wastewater treatment plants, landfills or transfer stations, composting facilities, confined animal facilities, food manufacturing, and chemical plants. BAAQMD's thresholds for odors are qualitative based on BAAQMD's Regulation 7, Odorous Substances. This rule places general limitations on odorous substances and specific emission limitations on certain odorous compounds. The BAAQMD threshold is five confirmed complaints per year averaged over three years. The project is a 103,970 sf speculative warehouse building which is not anticipated to generate odors that would result in complaints. The uses BAAQMD includes as substantial odor generating uses are not permitted in the LI zoning. Additionally, none of the above listed odor generating uses are located near the project site. Impacts would be less than significant.

**Mitigation Measures:** Compliance with General Plan Policies and applicable state and local law would reduce impacts associated with odors to a less than significant level. No additional site-specific mitigation measures are required.

**Level of Significance:** Less than significant impact.

Air Quality Assessment

#### 5.2 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

#### **Cumulative Setting**

The cumulative setting for air quality includes the City and the Air Basin. The Air Basin is designated as a nonattainment area for state standards of ozone, PM<sub>10</sub>, and PM<sub>2.5</sub> and federal standards of ozone and PM<sub>2.5</sub>, attainment and serious maintenance for federal PM<sub>10</sub> standards, and is designated as unclassified or attainment for all other pollutants. Cumulative growth in population and vehicle use could inhibit efforts to improve regional air quality and attain the ambient air quality standards.

#### **Cumulative Impacts and Mitigation Measures**

The BAAQMD CEQA Air Quality Guidelines do not include separate significance thresholds for cumulative operational emissions. However, with respect to regional air pollution, the development of the project would result in population growth that is consistent with ABAG projections and the City General Plan. Therefore, the project would be consistent with the 2017 Clean Air Plan that uses ABAG population forecasts.

As described in threshold AQ-1 above, the project would also be consistent with the appropriate 2017 Clean Air Plan control measures, which are provided to reduce air quality emissions for the entire Bay Area region. Additionally, the discussion in threshold AQ-2 addresses cumulative impacts and demonstrates that the project would not exceed the applicable BAAQMD thresholds for construction or operations. The BAAQMD CEQA Air Quality Guidelines note that the nature of air emissions is largely a cumulative impact. As a result, no single project is sufficient in size by itself to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. Consistency with the 2017 Clean Air Plan control measures would ensure that the project would not cumulatively contribute to air quality impacts in the Basin. Therefore, impacts would be less than significant.

Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact.

Air Quality Assessment

#### 6 REFERENCES

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- 8. California Air Resources Board, Aerometric Data Analysis and Measurement System (ADAM) Top Four Summaries from 2015 to 2017, 2018.
- 9. California Air Resources Board, *Air Quality and Land Use Handbook: A Community Health Perspective*, 2005.
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- 17. United States Environmental Protection Agency, National Ambient Air Quality Standards Table, 2016.
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# Appendix A

Air Quality Data

#### 2905 S King - Santa Clara County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

#### 2905 S King

#### Santa Clara County, Summer

#### 1.0 Project Characteristics

#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	103.97	1000sqft	2.39	103,970.00	0
Parking Lot	134.85	1000sqft	3.10	134,850.00	0

#### 1.2 Other Project Characteristics

UrbanizationUrbanWind Speed (m/s)2.2Precipitation Freq (Days)58Climate Zone4Operational Year2023

Utility Company Pacific Gas and Electric Company

 CO2 Intensity
 203.98
 CH4 Intensity
 0.033
 N2O Intensity
 0.004

 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - per construction timeline

Grading -

Vehicle Trips - Per TA - Parking lot = truck trips

Energy Use - Per GHGRS natural gas policy (electric-only building)

Construction Off-road Equipment Mitigation - Per BAAQMD rule compliance

Waste Mitigation - Per AB 939

Fleet Mix - per TA fleet mix

Table Name	Column Namo	Default Value	Now Value
Table Name	Column Name	Delault value	New Value

2905 S King - Santa Clara County, Summer

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	65.00
tblConstructionPhase	NumDays	230.00	191.00
tblConstructionPhase	NumDays	20.00	23.00
tblConstructionPhase	NumDays	20.00	24.00
tblConstructionPhase	NumDays	10.00	22.00
tblEnergyUse	NT24E	1.07	4.53
tblEnergyUse	NT24NG	0.07	0.00
tblEnergyUse	T24NG	3.37	0.00
tblFleetMix	HHD	6.4040e-003	1.00
tblFleetMix	LDA	0.57	0.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.1020e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	2.7760e-003	0.00
tblFleetMix	MHD	7.9340e-003	0.00
tblFleetMix	OBUS	9.0000e-004	0.00
tblFleetMix	SBUS	9.1400e-004	0.00
tblFleetMix	UBUS	3.8000e-004	0.00
tblGrading	MaterialImported	0.00	5,590.00
tblVehicleTrips	CNW_TL	7.30	31.00
tblVehicleTrips	CNW_TTP	0.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00

2905 S King - Santa Clara County, Summer

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	0.00	0.42
tblVehicleTrips	ST_TR	1.74	1.03
tblVehicleTrips	SU_TR	0.00	0.42
tblVehicleTrips	SU_TR	1.74	1.03
tblVehicleTrips	WD_TR	0.00	0.42
tblVehicleTrips	WD_TR	1.74	1.03

# 2.0 Emissions Summary

# 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/c	lay							lb/d	day		
2022	3.2211	33.1151	20.1698	0.0501	19.8049	1.6133	21.4182	10.1417	1.4843	11.6259	0.0000	5,090.9536	5,090.9536	1.1958	0.3369	5,216.4570
2023	19.6714	17.5512	21.5048	0.0463	1.2499	0.7855	2.0354	0.3375	0.7433	1.0809	0.0000	4,553.8367	4,553.8367	0.7167	0.1461	4,613.9718
Maximum	19.6714	33.1151	21.5048	0.0501	19.8049	1.6133	21.4182	10.1417	1.4843	11.6259	0.0000	5,090.9536	5,090.9536	1.1958	0.3369	5,216.4570

## **Mitigated Construction**

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## 2905 S King - Santa Clara County, Summer

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	СО	SO2	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/c	lay							lb/c	lay		
2022	3.2211	33.1151	20.1698	0.0501	8.5435	1.6133	10.1568	4.3561	1.4843	5.8404	0.0000	5,090.9536	5,090.9536	1.1958	0.3369	5,216.4570
2023	19.6714	17.5512	21.5048	0.0463	1.1872	0.7855	1.9727	0.3221	0.7433	1.0655	0.0000	4,553.8367	4,553.8367	0.7167	0.1461	4,613.9718
Maximum	19.6714	33.1151	21.5048	0.0501	8.5435	1.6133	10.1568	4.3561	1.4843	5.8404	0.0000	5,090.9536	5,090.9536	1.1958	0.3369	5,216.4570

	ROG	NOx	СО	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	53.78	0.00	48.28	55.36	0.00	45.65	0.00	0.00	0.00	0.00	0.00	0.00

# 2.2 Overall Operational

# **Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Area	2.5874	2.2000e-004	0.0243	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0523	0.0523	1.4000e-004		0.0557
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.4462	11.3170	5.1511	0.0581	2.2498	0.1017	2.3515	0.6110	0.0972	0.7082		6,306.9474	6,306.9474	0.2285	0.9206	6,587.0071
Total	3.0336	11.3172	5.1754	0.0581	2.2498	0.1018	2.3516	0.6110	0.0973	0.7083		6,306.9997	6,306.9997	0.2287	0.9206	6,587.0628

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## 2905 S King - Santa Clara County, Summer

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

## **Mitigated Operational**

	ROG	NOx	СО	SO2	Fugitive 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/o	day							lb/d	lay		
Area	2.5874	2.2000e-004	0.0243	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0523	0.0523	1.4000e-004		0.0557
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.4462	11.3170	5.1511	0.0581	2.2498	0.1017	2.3515	0.6110	0.0972	0.7082		6,306.9474	6,306.9474	0.2285	0.9206	6,587.0071
Total	3.0336	11.3172	5.1754	0.0581	2.2498	0.1018	2.3516	0.6110	0.0973	0.7083		6,306.9997	6,306.9997	0.2287	0.9206	6,587.0628

	ROG	NOx	СО	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	10/3/2022	11/1/2022	5	22	
2	Grading	Grading	11/2/2022	12/2/2022	5	23	
3	Paving	Paving	12/5/2022	1/5/2023	5	24	
4	Building Construction	Building Construction	1/6/2023	9/29/2023	5	191	

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#### 2905 S King - Santa Clara County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

_	Architectural Coating	Architectural Coating	7/2/2022	10/20/22		CE:	
5	Architectural Coating	Architectural Coating	7/3/2023	9/29/2023	i 0i	60	
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	1		<b>.</b>	•		<b>1</b>	
	<b>.</b>			=			

Acres of Grading (Site Preparation Phase): 33

Acres of Grading (Grading Phase): 23

Acres of Paving: 3.1

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 155,955; Non-Residential Outdoor: 51,985; Striped Parking Area: 8,091 (Architectural

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	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	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00		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	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor Vehicle	Hauling
	Count	Number	Number	Number	Length	Length	Length	Class	Class	Vehicle Class

#### 2905 S King - Santa Clara County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	699.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	100.00	39.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

#### **3.1 Mitigation Measures Construction**

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

## 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/c	lay							lb/c	lay		
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	3.1701	33.0835	19.6978	0.0380	19.6570	1.6126	21.2696	10.1025	1.4836	11.5860		3,686.0619	3,686.0619	1.1922		3,715.8655

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## 2905 S King - Santa Clara County, Summer

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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/e	day							lb/d	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	0.0316	0.4720	1.3100e-003	0.1479	7.5000e-004	0.1486	0.0392	6.9000e-004	0.0399		132.8018	132.8018	3.6000e-003	3.3400e-003	133.8866
Total	0.0510	0.0316	0.4720	1.3100e-003	0.1479	7.5000e-004	0.1486	0.0392	6.9000e-004	0.0399		132.8018	132.8018	3.6000e-003	3.3400e-003	133.8866

# **Mitigated Construction On-Site**

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/c	lay		
Fugitive Dust					8.4034	0.0000	8.4034	4.3188	0.0000	4.3188			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	3.1701	33.0835	19.6978	0.0380	8.4034	1.6126	10.0159	4.3188	1.4836	5.8024	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655

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## 2905 S King - Santa Clara County, Summer

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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/e	day							lb/d	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	0.0316	0.4720	1.3100e-003	0.1402	7.5000e-004	0.1409	0.0373	6.9000e-004	0.0380		132.8018	132.8018	3.6000e-003	3.3400e-003	133.8866
Total	0.0510	0.0316	0.4720	1.3100e-003	0.1402	7.5000e-004	0.1409	0.0373	6.9000e-004	0.0380		132.8018	132.8018	3.6000e-003	3.3400e-003	133.8866

# 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/c	lay							lb/d	day		
Fugitive Dust					7.1101	0.0000	7.1101	3.4289	0.0000	3.4289			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656		2,872.0464	2,872.0464	0.9289		2,895.2684
Total	1.9486	20.8551	15.2727	0.0297	7.1101	0.9409	8.0509	3.4289	0.8656	4.2945		2,872.0464	2,872.0464	0.9289		2,895.2684

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## 2905 S King - Santa Clara County, Summer

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	СО	SO2	Fugitive 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/d	day		
Hauling	0.1451	5.0761	1.0978	0.0193	0.5316	0.0474	0.5790	0.1457	0.0453	0.1911		2,108.2390	2,108.2390	0.0726	0.3341	2,209.6164
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	0.0425	0.0263	0.3934	1.0900e-003	0.1232	6.2000e-004	0.1238	0.0327	5.7000e-004	0.0333		110.6682	110.6682	3.0000e-003	2.7800e-003	111.5722
Total	0.1876	5.1024	1.4912	0.0204	0.6548	0.0480	0.7028	0.1784	0.0459	0.2243		2,218.9072	2,218.9072	0.0756	0.3369	2,321.1886

# **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/c	lay							lb/d	day		
Fugitive Dust					3.0396	0.0000	3.0396	1.4659	0.0000	1.4659			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656	0.0000	2,872.0464	2,872.0464	0.9289		2,895.2684
Total	1.9486	20.8551	15.2727	0.0297	3.0396	0.9409	3.9804	1.4659	0.8656	2.3314	0.0000	2,872.0464	2,872.0464	0.9289		2,895.2684

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## 2905 S King - Santa Clara County, Summer

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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/d	day		
Hauling	0.1451	5.0761	1.0978	0.0193	0.5075	0.0474	0.5549	0.1398	0.0453	0.1851		2,108.2390	2,108.2390	0.0726	0.3341	2,209.6164
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	0.0425	0.0263	0.3934	1.0900e-003	0.1168	6.2000e-004	0.1174	0.0311	5.7000e-004	0.0317		110.6682	110.6682	3.0000e-003	2.7800e-003	111.5722
Total	0.1876	5.1024	1.4912	0.0204	0.6243	0.0480	0.6723	0.1709	0.0459	0.2168		2,218.9072	2,218.9072	0.0756	0.3369	2,321.1886

# 3.4 Paving - 2022

**Unmitigated Construction On-Site** 

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/d	day		
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.3384					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.4412	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104

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## 2905 S King - Santa Clara County, Summer

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	СО	SO2	Fugitive 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/d	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	0.0425	0.0263	0.3934	1.0900e-003	0.1232	6.2000e-004	0.1238	0.0327	5.7000e-004	0.0333		110.6682	110.6682	3.0000e-003	2.7800e-003	111.5722
Total	0.0425	0.0263	0.3934	1.0900e-003	0.1232	6.2000e-004	0.1238	0.0327	5.7000e-004	0.0333		110.6682	110.6682	3.0000e-003	2.7800e-003	111.5722

# **Mitigated Construction On-Site**

	ROG	NOx	СО	SO2	Fugitive 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/d	lay							lb/c	lay		
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.3384					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.4412	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104

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## 2905 S King - Santa Clara County, Summer

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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/d	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	0.0425	0.0263	0.3934	1.0900e-003	0.1168	6.2000e-004	0.1174	0.0311	5.7000e-004	0.0317		110.6682	110.6682	3.0000e-003	2.7800e-003	111.5722
Total	0.0425	0.0263	0.3934	1.0900e-003	0.1168	6.2000e-004	0.1174	0.0311	5.7000e-004	0.0317		110.6682	110.6682	3.0000e-003	2.7800e-003	111.5722

# 3.4 Paving - 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/d	lay							lb/c	day		
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.3384		,			0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.3712	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336

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## 2905 S King - Santa Clara County, Summer

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	СО	SO2	Fugitive 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/d	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	0.0396	0.0234	0.3639	1.0500e-003	0.1232	5.9000e-004	0.1238	0.0327	5.4000e-004	0.0332		107.8644	107.8644	2.7100e-003	2.5800e-003	108.7011
Total	0.0396	0.0234	0.3639	1.0500e-003	0.1232	5.9000e-004	0.1238	0.0327	5.4000e-004	0.0332		107.8644	107.8644	2.7100e-003	2.5800e-003	108.7011

# **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/d	lay							lb/c	lay		
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.3384					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.3712	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336

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## 2905 S King - Santa Clara County, Summer

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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/d	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	0.0396	0.0234	0.3639	1.0500e-003	0.1168	5.9000e-004	0.1174	0.0311	5.4000e-004	0.0317		107.8644	107.8644	2.7100e-003	2.5800e-003	108.7011
Total	0.0396	0.0234	0.3639	1.0500e-003	0.1168	5.9000e-004	0.1174	0.0311	5.4000e-004	0.0317		107.8644	107.8644	2.7100e-003	2.5800e-003	108.7011

# 3.5 Building Construction - 2023

**Unmitigated Construction On-Site** 

	ROG	NOx	СО	SO2	Fugitive 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/d	ay							lb/d	lay		
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997	-	0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

#### **Unmitigated Construction Off-Site**

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## 2905 S King - Santa Clara County, Summer

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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/d	ay		
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	0.0437	1.6765	0.5387	7.9600e-003	0.2642	0.0102	0.2743	0.0761	9.7400e-003	0.0858		854.2639	854.2639	0.0181	0.1254	892.0879
Worker	0.2639	0.1557	2.4258	7.0300e-003	0.8215	3.9400e-003	0.8254	0.2179	3.6200e-003	0.2215		719.0957	719.0957	0.0181	0.0172	724.6740
Total	0.3076	1.8322	2.9645	0.0150	1.0856	0.0141	1.0998	0.2939	0.0134	0.3073		1,573.3596	1,573.3596	0.0361	0.1426	1,616.7620

# **Mitigated Construction On-Site**

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/c	lay		
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

#### **Mitigated Construction Off-Site**

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

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## 2905 S King - Santa Clara County, Summer

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category					lb/	day						lb/c	lay		
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	0.0437	1.6765	0.5387	7.9600e-003	0.2529	0.0102	0.2631	0.0733	9.7400e-003	0.0830	 854.2639	854.2639	0.0181	0.1254	892.0879
Worker	0.2639	0.1557	2.4258	7.0300e-003	0.7786	3.9400e-003	0.7826	0.2074	3.6200e-003	0.2110	 719.0957	719.0957	0.0181	0.0172	724.6740
Total	0.3076	1.8322	2.9645	0.0150	1.0315	0.0141	1.0456	0.2807	0.0134	0.2940	1,573.3596	1,573.3596	0.0361	0.1426	1,616.7620

# 3.6 Architectural Coating - 2023

**Unmitigated Construction On-Site** 

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/c	day		
Archit. Coating	17.5466					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	17.7383	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

## **Unmitigated Construction Off-Site**

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

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## 2905 S King - Santa Clara County, Summer

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0528	0.0311	0.4852	1.4100e-003	0.1643	7.9000e-004	0.1651	0.0436	7.2000e-004	0.0443	 143.8191	143.8191	3.6100e-003	3.4400e-003	144.9348
Total	0.0528	0.0311	0.4852	1.4100e-003	0.1643	7.9000e-004	0.1651	0.0436	7.2000e-004	0.0443	143.8191	143.8191	3.6100e-003	3.4400e-003	144.9348

# **Mitigated Construction On-Site**

	ROG	NOx	СО	SO2	Fugitive 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/c	day							lb/c	lay		
Archit. Coating	17.5466					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	17.7383	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

## **Mitigated Construction Off-Site**

I	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
ı					PM10	PM10		PM2.5	PM2.5							
ı																

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## 2905 S King - Santa Clara County, Summer

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0528	0.0311	0.4852	1.4100e-003	0.1557	7.9000e-004	0.1565	0.0415	7.2000e-004	0.0422	 143.8191	143.8191	3.6100e-003	3.4400e-003	144.9348
Total	0.0528	0.0311	0.4852	1.4100e-003	0.1557	7.9000e-004	0.1565	0.0415	7.2000e-004	0.0422	143.8191	143.8191	3.6100e-003	3.4400e-003	144.9348

# 4.0 Operational Detail - Mobile

# **4.1 Mitigation Measures Mobile**

	ROG	NOx	СО	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Mitigated	0.4462	11.3170	5.1511	0.0581	2.2498	0.1017	2.3515	0.6110	0.0972	0.7082		6,306.9474	· ·	0.2285	0.9206	6,587.0071
Unmitigated	0.4462	11.3170	5.1511	0.0581	2.2498	0.1017	2.3515	0.6110	0.0972	0.7082		6,306.9474		0.2285	0.9206	6,587.0071

## **4.2 Trip Summary Information**

	Ave	erage Daily Trip Rat	e	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	57.04	57.04	57.04	643,657	643,657
Unrefrigerated Warehouse-No Rail	107.09	107.09	107.09	335,154	335,154
Total	164.13	164.13	164.13	978,811	978,811

## 2905 S King - Santa Clara County, Summer

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# **4.3 Trip Type Information**

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	7.30	31.00	0.00	0.00	100.00	100	0	0
Unrefrigerated Warehouse-No Rail		7.30	7.30	59.00	0.00	41.00	100	0	0

#### 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.00
Unrefrigerated Warehouse-No Rail	0.572464	0.055653	0.187060	0.115672	0.020329	0.005102	0.007934	0.006404	0.000900	0.000380		0.000914	

# 5.0 Energy Detail

Historical Energy Use: N

# **5.1 Mitigation Measures Energy**

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/c	lay		
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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## 2905 S King - Santa Clara County, Summer

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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/d	lay							lb/c	lay		
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	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		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

# <u>Mitigated</u>

	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/c	lay							lb/d	day		
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	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		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

## 6.0 Area Detail

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## 2905 S King - Santa Clara County, Summer

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# **6.1 Mitigation Measures Area**

	ROG	NOx	СО	SO2	Fugitive 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/d	lay							lb/d	day		
Mitigated	2.5874	2.2000e-004	0.0243	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0523	0.0523	1.4000e-004		0.0557
Unmitigated	2.5874	2.2000e-004	0.0243	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0523	0.0523	1.4000e-004		0.0557

# 6.2 Area by SubCategory

# **Unmitigated**

	ROG	NOx	СО	SO2	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	у							lb/d	day		
Architectural Coating	0.3125					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2727					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.2500e-003	2.2000e-004	0.0243	0.0000	9.	0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0523	0.0523	1.4000e-004		0.0557
Total	2.5874	2.2000e-004	0.0243	0.0000	9.	.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0523	0.0523	1.4000e-004		0.0557

#### 2905 S King - Santa Clara County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

#### **Mitigated**

	ROG	NOx	СО	SO2	Fugitive Exhau		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	0.3125				0.000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2727				0.000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.2500e-003	2.2000e-004	0.0243	0.0000	9.0000e	-005 9.0000e-005		9.0000e-005	9.0000e-005		0.0523	0.0523	1.4000e-004		0.0557
Total	2.5874	2.2000e-004	0.0243	0.0000	9.0000e	-005 9.0000e-005		9.0000e-005	9.0000e-005		0.0523	0.0523	1.4000e-004		0.0557

#### 7.0 Water Detail

#### 7.1 Mitigation Measures Water

## 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

## 2905 S King - Santa Clara County, Summer

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

## **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						

#### **User Defined Equipment**

F	
Equipment Type	Number

# 11.0 Vegetation

#### 2905 S King - Santa Clara County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

#### 2905 S King

#### Santa Clara County, Winter

#### 1.0 Project Characteristics

#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	103.97	1000sqft	2.39	103,970.00	0
Parking Lot	134.85	1000sqft	3.10	134,850.00	0

#### 1.2 Other Project Characteristics

UrbanizationUrbanWind Speed (m/s)2.2Precipitation Freq (Days)58Climate Zone4Operational Year2023

Utility Company Pacific Gas and Electric Company

 CO2 Intensity
 203.98
 CH4 Intensity
 0.033
 N2O Intensity
 0.004

 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - per construction timeline

Grading -

Vehicle Trips - Per TA - Parking lot = truck trips

Energy Use - Per GHGRS natural gas policy (electric-only building)

Construction Off-road Equipment Mitigation - Per BAAQMD rule compliance

Waste Mitigation - Per AB 939

Fleet Mix - per TA fleet mix

Table Name	Column Namo	Default Value	Now Value
Table Name	Column Name	Delault value	New Value

2905 S King - Santa Clara County, Winter

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	65.00
tblConstructionPhase	NumDays	230.00	191.00
tblConstructionPhase	NumDays	20.00	23.00
tblConstructionPhase	NumDays	20.00	24.00
tblConstructionPhase	NumDays	10.00	22.00
tblEnergyUse	NT24E	1.07	4.53
tblEnergyUse	NT24NG	0.07	0.00
tblEnergyUse	T24NG	3.37	0.00
tblFleetMix	HHD	6.4040e-003	1.00
tblFleetMix	LDA	0.57	0.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.1020e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	2.7760e-003	0.00
tblFleetMix	MHD	7.9340e-003	0.00
tblFleetMix	OBUS	9.0000e-004	0.00
tblFleetMix	SBUS	9.1400e-004	0.00
tblFleetMix	UBUS	3.8000e-004	0.00
tblGrading	MaterialImported	0.00	5,590.00
tblVehicleTrips	CNW_TL	7.30	31.00
tblVehicleTrips	CNW_TTP	0.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00

2905 S King - Santa Clara County, Winter

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	0.00	0.42
tblVehicleTrips	ST_TR	1.74	1.03
tblVehicleTrips	SU_TR	0.00	0.42
tblVehicleTrips	SU_TR	1.74	1.03
tblVehicleTrips	WD_TR	0.00	0.42
tblVehicleTrips	WD_TR	1.74	1.03

# 2.0 Emissions Summary

# 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/c	lay							lb/c	lay		
2022	3.2224	33.1221	20.1427	0.0500	19.8049	1.6133	21.4182	10.1417	1.4843	11.6259	0.0000	5,083.5488	5,083.5488	1.1962	0.3374	5,209.2118
2023	19.6791	17.6893	21.3676	0.0457	1.2499	0.7855	2.0354	0.3375	0.7434	1.0809	0.0000	4,492.0902	4,492.0902	0.7170	0.1493	4,553.2652
Maximum	19.6791	33.1221	21.3676	0.0500	19.8049	1.6133	21.4182	10.1417	1.4843	11.6259	0.0000	5,083.5488	5,083.5488	1.1962	0.3374	5,209.2118

## **Mitigated Construction**

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## 2905 S King - Santa Clara County, Winter

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	СО	SO2	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/c	lay							lb/c	day		
2022	3.2224	33.1221	20.1427	0.0500	8.5435	1.6133	10.1568	4.3561	1.4843	5.8404	0.0000	5,083.5488	5,083.5488	1.1962	0.3374	5,209.2118
2023	19.6791	17.6893	21.3676	0.0457	1.1872	0.7855	1.9727	0.3221	0.7434	1.0655	0.0000	4,492.0902	4,492.0902	0.7170	0.1493	4,553.2652
Maximum	19.6791	33.1221	21.3676	0.0500	8.5435	1.6133	10.1568	4.3561	1.4843	5.8404	0.0000	5,083.5488	5,083.5488	1.1962	0.3374	5,209.2118

	ROG	NOx	СО	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	53.78	0.00	48.28	55.36	0.00	45.65	0.00	0.00	0.00	0.00	0.00	0.00

# 2.2 Overall Operational

# **Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Area	2.5874	2.2000e-004	0.0243	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0523	0.0523	1.4000e-004		0.0557
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.4143	11.9818	5.2574	0.0577	2.2498	0.1018	2.3516	0.6110	0.0973	0.7083		6,270.8456	6,270.8456	0.2318	0.9237	6,551.8878
Total	3.0017	11.9820	5.2818	0.0577	2.2498	0.1019	2.3517	0.6110	0.0974	0.7084		6,270.8978	6,270.8978	0.2320	0.9237	6,551.9435

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## 2905 S King - Santa Clara County, Winter

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

## **Mitigated Operational**

	ROG	NOx	СО	SO2	Fugitive 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/o	day							lb/d	day		
Area	2.5874	2.2000e-004	0.0243	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0523	0.0523	1.4000e-004		0.0557
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.4143	11.9818	5.2574	0.0577	2.2498	0.1018	2.3516	0.6110	0.0973	0.7083		6,270.8456	6,270.8456	0.2318	0.9237	6,551.8878
Total	3.0017	11.9820	5.2818	0.0577	2.2498	0.1019	2.3517	0.6110	0.0974	0.7084		6,270.8978	6,270.8978	0.2320	0.9237	6,551.9435

	ROG	NOx	со	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	10/3/2022	11/1/2022	5	22	
2	Grading	Grading	11/2/2022	12/2/2022	5	23	
3	Paving	Paving	12/5/2022	1/5/2023	5	24	
4	Building Construction	Building Construction	1/6/2023	9/29/2023	5	191	

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#### 2905 S King - Santa Clara County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5	Architectural Coeting	Architectural Coating	<b>フ/2/2022</b>	0/20/2022		65	
S	Architectural Coating	Architectural Coating	[7/3/2023	9/29/2023	ິວ	05	
	1						

Acres of Grading (Site Preparation Phase): 33

Acres of Grading (Grading Phase): 23

Acres of Paving: 3.1

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 155,955; Non-Residential Outdoor: 51,985; Striped Parking Area: 8,091 (Architectural

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00		0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00		0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00		0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

#### **Trips and VMT**

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor Vehicle	Hauling
	Count	Number	Number	Number	Length	Length	Length	Class	Class	Vehicle Class

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## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	699.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	100.00	39.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

#### **3.1 Mitigation Measures Construction**

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

## 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/c	lay							lb/d	ay		
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	3.1701	33.0835	19.6978	0.0380	19.6570	1.6126	21.2696	10.1025	1.4836	11.5860		3,686.0619	3,686.0619	1.1922		3,715.8655

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## 2905 S King - Santa Clara County, Winter

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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/e	day							lb/d	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	0.0522	0.0386	0.4450	1.2100e-003	0.1479	7.5000e-004	0.1486	0.0392	6.9000e-004	0.0399		123.0851	123.0851	4.0500e-003	3.8200e-003	124.3234
Total	0.0522	0.0386	0.4450	1.2100e-003	0.1479	7.5000e-004	0.1486	0.0392	6.9000e-004	0.0399		123.0851	123.0851	4.0500e-003	3.8200e-003	124.3234

# **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					8.4034	0.0000	8.4034	4.3188	0.0000	4.3188			0.0000			0.0000	
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655	
Total	3.1701	33.0835	19.6978	0.0380	8.4034	1.6126	10.0159	4.3188	1.4836	5.8024	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655	

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## 2905 S King - Santa Clara County, Winter

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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						
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	0.0522	0.0386	0.4450	1.2100e-003	0.1402	7.5000e-004	0.1409	0.0373	6.9000e-004	0.0380		123.0851	123.0851	4.0500e-003	3.8200e-003	124.3234	
Total	0.0522	0.0386	0.4450	1.2100e-003	0.1402	7.5000e-004	0.1409	0.0373	6.9000e-004	0.0380		123.0851	123.0851	4.0500e-003	3.8200e-003	124.3234	

# 3.3 Grading - 2022

## **Unmitigated Construction On-Site**

Total	1.9486	20.8551	15.2727	0.0297	7.1101	0.9409	8.0509	3.4289	0.8656	4.2945		2,872.0464	2,872.0464	0.9289		2,895.2684
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656		2,872.0464	2,872.0464	0.9289		2,895.2684
Fugitive Dust					7.1101	0.0000	7.1101	3.4289	0.0000	3.4289			0.0000			0.0000
Category					lb/d								lb/d	day		
	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2			N2O	CO2e

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# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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/c	day		
Hauling	0.1419	5.3533	1.1165	0.0194	0.5316	0.0475	0.5791	0.1457	0.0454	0.1911		2,108.9315	2,108.9315	0.0724	0.3342	2,210.3406
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	0.0435	0.0321	0.3708	1.0100e-003	0.1232	6.2000e-004	0.1238	0.0327	5.7000e-004	0.0333		102.5709	102.5709	3.3800e-003	3.1800e-003	103.6028
Total	0.1854	5.3855	1.4873	0.0204	0.6548	0.0481	0.7029	0.1784	0.0460	0.2244		2,211.5024	2,211.5024	0.0758	0.3374	2,313.9434

# **Mitigated Construction On-Site**

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/d	day		
Fugitive Dust					3.0396	0.0000	3.0396	1.4659	0.0000	1.4659			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656	0.0000	2,872.0464	2,872.0464	0.9289		2,895.2684
Total	1.9486	20.8551	15.2727	0.0297	3.0396	0.9409	3.9804	1.4659	0.8656	2.3314	0.0000	2,872.0464	2,872.0464	0.9289		2,895.2684

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# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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/d	day							lb/d	lay		
Hauling	0.1419	5.3533	1.1165	0.0194	0.5075	0.0475	0.5550	0.1398	0.0454	0.1852		2,108.9315	2,108.9315	0.0724	0.3342	2,210.3406
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	0.0435	0.0321	0.3708	1.0100e-003	0.1168	6.2000e-004	0.1174	0.0311	5.7000e-004	0.0317		102.5709	102.5709	3.3800e-003	3.1800e-003	103.6028
Total	0.1854	5.3855	1.4873	0.0204	0.6243	0.0481	0.6724	0.1709	0.0460	0.2169		2,211.5024	2,211.5024	0.0758	0.3374	2,313.9434

# 3.4 Paving - 2022

# **Unmitigated Construction On-Site**

	ROG	NOx	СО	SO2	Fugitive 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/d	day							lb/d	day		
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.3384					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.4412	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104

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# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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/e	day							lb/d	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	0.0435	0.0321	0.3708	1.0100e-003	0.1232	6.2000e-004	0.1238	0.0327	5.7000e-004	0.0333		102.5709	102.5709	3.3800e-003	3.1800e-003	103.6028
Total	0.0435	0.0321	0.3708	1.0100e-003	0.1232	6.2000e-004	0.1238	0.0327	5.7000e-004	0.0333		102.5709	102.5709	3.3800e-003	3.1800e-003	103.6028

# **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/d	lay							lb/c	lay		
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.3384					0.0000	0.0000		0.0000	0.0000			0.0000		***************************************	0.0000
Total	1.4412	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104

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# 2905 S King - Santa Clara County, Winter

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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/e	day							lb/d	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	0.0435	0.0321	0.3708	1.0100e-003	0.1168	6.2000e-004	0.1174	0.0311	5.7000e-004	0.0317		102.5709	102.5709	3.3800e-003	3.1800e-003	103.6028
Total	0.0435	0.0321	0.3708	1.0100e-003	0.1168	6.2000e-004	0.1174	0.0311	5.7000e-004	0.0317		102.5709	102.5709	3.3800e-003	3.1800e-003	103.6028

# 3.4 Paving - 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/d	lay							lb/c	lay		
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.3384					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.3712	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336

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# 2905 S King - Santa Clara County, Winter

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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/e	day							lb/o	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	0.0407	0.0285	0.3443	9.8000e-004	0.1232	5.9000e-004	0.1238	0.0327	5.4000e-004	0.0332		99.9935	99.9935	3.0600e-003	2.9500e-003	100.9485
Total	0.0407	0.0285	0.3443	9.8000e-004	0.1232	5.9000e-004	0.1238	0.0327	5.4000e-004	0.0332		99.9935	99.9935	3.0600e-003	2.9500e-003	100.9485

# **Mitigated Construction On-Site**

	ROG	NOx	СО	SO2	Fugitive 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/d	ay							lb/c	day		
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.3384					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.3712	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336

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# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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/d	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	0.0407	0.0285	0.3443	9.8000e-004	0.1168	5.9000e-004	0.1174	0.0311	5.4000e-004	0.0317		99.9935	99.9935	3.0600e-003	2.9500e-003	100.9485
Total	0.0407	0.0285	0.3443	9.8000e-004	0.1168	5.9000e-004	0.1174	0.0311	5.4000e-004	0.0317		99.9935	99.9935	3.0600e-003	2.9500e-003	100.9485

# 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/d	ay							lb/c	lay		
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

#### **Unmitigated Construction Off-Site**

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# 2905 S King - Santa Clara County, Winter

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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/o	day							lb/d	ay		
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	0.0424	1.7735	0.5578	7.9700e-003	0.2642	0.0102	0.2744	0.0761	9.7800e-003	0.0858		855.4845	855.4845	0.0179	0.1257	893.4025
Worker	0.2715	0.1899	2.2956	6.5100e-003	0.8215	3.9400e-003	0.8254	0.2179	3.6200e-003	0.2215		666.6231	666.6231	0.0204	0.0197	672.9897
Total	0.3138	1.9635	2.8533	0.0145	1.0856	0.0142	1.0998	0.2939	0.0134	0.3074		1,522.1076	1,522.1076	0.0383	0.1454	1,566.3922

# **Mitigated Construction On-Site**

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/d	lay		
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

#### **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

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# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

				lb/	day							lb/d	lay		
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
0.0424	1.7735	0.5578	7.9700e-003	0.2529	0.0102	0.2631	0.0733	9.7800e-003	0.0831		855.4845	855.4845	0.0179	0.1257	893.4025
0.2715	0.1899	2.2956	6.5100e-003	0.7786	3.9400e-003	0.7826	0.2074	3.6200e-003	0.2110		666.6231	666.6231	0.0204	0.0197	672.9897
0.3138	1.9635	2.8533	0.0145	1.0315	0.0142	1.0457	0.2807	0.0134	0.2941		1,522.1076	1,522.1076	0.0383	0.1454	1,566.3922
	0.0424 0.2715	0.0424 1.7735 0.2715 0.1899	0.0424     1.7735     0.5578       0.2715     0.1899     2.2956	0.0424     1.7735     0.5578     7.9700e-003       0.2715     0.1899     2.2956     6.5100e-003	0.0000         0.0000         0.0000         0.0000         0.0000           0.0424         1.7735         0.5578         7.9700e-003         0.2529           0.2715         0.1899         2.2956         6.5100e-003         0.7786	0.0424     1.7735     0.5578     7.9700e-003     0.2529     0.0102       0.2715     0.1899     2.2956     6.5100e-003     0.7786     3.9400e-003	0.0000         0.0000<	0.0000         0.0000<	0.0000         0.0000<	0.0000         0.0000<	0.0000         0.0000<	0.0000         0.0000<	0.0000         0.0000<	0.0000         0.0000<	0.0000         0.0000<

# 3.6 Architectural Coating - 2023

**Unmitigated Construction On-Site** 

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/d	lay		
Archit. Coating	17.5466					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	17.7383	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

# **Unmitigated Construction Off-Site**

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

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# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0543	0.0380	0.4591	1.3000e-003	0.1643	7.9000e-004	0.1651	0.0436	7.2000e-004	0.0443	 133.3246	133.3246	4.0800e-003	3.9300e-003	134.5979
Total	0.0543	0.0380	0.4591	1.3000e-003	0.1643	7.9000e-004	0.1651	0.0436	7.2000e-004	0.0443	133.3246	133.3246	4.0800e-003	3.9300e-003	134.5979

# **Mitigated Construction On-Site**

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/d	day		
Archit. Coating	17.5466					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	17.7383	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

# **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
				PIVITO	PIVITO		FIVIZ.5	FIVIZ.5							

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# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category					lb/	day						lb/e	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	0.0543	0.0380	0.4591	1.3000e-003	0.1557	7.9000e-004	0.1565	0.0415	7.2000e-004	0.0422	 133.3246	133.3246	4.0800e-003	3.9300e-003	134.5979
Total	0.0543	0.0380	0.4591	1.3000e-003	0.1557	7.9000e-004	0.1565	0.0415	7.2000e-004	0.0422	133.3246	133.3246	4.0800e-003	3.9300e-003	134.5979

# 4.0 Operational Detail - Mobile

# **4.1 Mitigation Measures Mobile**

	ROG	NOx	СО	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Mitigated	0.4143	11.9818	5.2574	0.0577	2.2498	0.1018	2.3516	0.6110	0.0973	0.7083		6,270.8456	· ·	0.2318	0.9237	6,551.8878
Unmitigated	0.4143	11.9818	5.2574	0.0577	2.2498	0.1018	2.3516	0.6110	0.0973	0.7083		6,270.8456		0.2318	0.9237	6,551.8878

# **4.2 Trip Summary Information**

	Ave	erage Daily Trip Rat	e	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	57.04	57.04	57.04	643,657	643,657
Unrefrigerated Warehouse-No Rail	107.09	107.09	107.09	335,154	335,154
Total	164.13	164.13	164.13	978,811	978,811

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# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# **4.3 Trip Type Information**

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	7.30	31.00	0.00	0.00	100.00	100	0	0
Unrefrigerated Warehouse-No Rail	9.50	7.30	7.30	59.00	0.00	41.00	100	0	0

#### 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.00
Unrefrigerated Warehouse-No Rail	0.572464	0.055653	0.187060	0.115672	0.020329	0.005102	0.007934	0.006404	0.000900	0.000380		0.000914	

# 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/d	lay							lb/c	lay		
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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/d	lay							lb/d	lay		
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	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		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

# **Mitigated**

	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/c	lay							lb/d	day		
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	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		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

#### 6.0 Area Detail

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# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# **6.1 Mitigation Measures Area**

	ROG	NOx	СО	SO2	Fugitive 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/c	ay							lb/d	day		
Mitigated	2.5874	2.2000e-004	0.0243	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0523	0.0523	1.4000e-004		0.0557
Unmitigated	2.5874	2.2000e-004	0.0243	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0523	0.0523	1.4000e-004		0.0557

# 6.2 Area by SubCategory

# **Unmitigated**

	ROG	NOx	СО	SO2	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	0.3125					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2727					0.0000	0.0000		0.0000	0.0000			0.0000		1	0.0000
Landscaping	2.2500e-003	2.2000e-004	0.0243	0.0000	Ç	9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0523	0.0523	1.4000e-004		0.0557
Total	2.5874	2.2000e-004	0.0243	0.0000	9	9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0523	0.0523	1.4000e-004		0.0557

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# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

#### **Mitigated**

	ROG	NOx	СО	SO2	Fugitive Exhau		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	0.3125				0.000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2727				0.000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.2500e-003	2.2000e-004	0.0243	0.0000	9.0000e	-005 9.0000e-005		9.0000e-005	9.0000e-005		0.0523	0.0523	1.4000e-004		0.0557
Total	2.5874	2.2000e-004	0.0243	0.0000	9.0000e	-005 9.0000e-005		9.0000e-005	9.0000e-005		0.0523	0.0523	1.4000e-004		0.0557

#### 7.0 Water Detail

#### 7.1 Mitigation Measures Water

# 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

Date: 4/4/2022 11:43 AM

# 2905 S King - Santa Clara County, Winter

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

#### **Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Boilers						
Equipment Type	Number	Hoat Input/Day	Hoat Input/Voor	Roilor Pating	Fuel Type	i

#### **User Defined Equipment**

Equipment Type	Number
1 1 71	

# 11.0 Vegetation

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#### 2905 S King - Santa Clara County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# 2905 S King

#### Santa Clara County, Summer

#### 1.0 Project Characteristics

#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	103.97	1000sqft	2.39	103,970.00	0
Parking Lot	134.85	1000sqft	3.10	134,850.00	0

#### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	58
Climate Zone	4			Operational Year	2024

**Utility Company** Pacific Gas and Electric Company

 CO2 Intensity
 203.98
 CH4 Intensity
 0.033
 N20 Intensity
 0.004

 (Ib/MWhr)
 (Ib/MWhr)
 (Ib/MWhr)
 (Ib/MWhr)

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - per construction timeline

Trips and VMT - per last run

Grading - Per last CalEEMod Run

Vehicle Trips - Per TA - Parking lot = truck trips

Energy Use - Per GHGRS natural gas policy (electric-only building)

Solid Waste - Per last CalEEMod Run

Construction Off-road Equipment Mitigation - Per BAAQMD rule compliance

Waste Mitigation - Per AB 939

Fleet Mix - per TA fleet mix

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2905 S King - Santa Clara County, Summer

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	65.00
tblConstructionPhase		230.00	191.00
tblConstructionPhase	NumDays	20.00	23.00
tblConstructionPhase	NumDays	20.00	24.00
tblConstructionPhase	NumDays	10.00	22.00
tblEnergyUse	NT24NG	6.67	0.00
tblEnergyUse	T24E	1.32	1.35
tblEnergyUse	· ·	19.51	0.00
tblFleetMix	HHD	6.4040e-003	1.00
tblFleetMix	LDA	0.57	0.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.1020e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	МН	2.7760e-003	0.00
tblFleetMix	MHD	7.9340e-003	0.00
tblFleetMix	OBUS	9.0000e-004	0.00
tblFleetMix	SBUS	9.1400e-004	0.00
tblFleetMix	UBUS	3.8000e-004	0.00
tblGrading	MaterialImported	0.00	5,590.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	31.00

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# 2905 S King - Santa Clara County, Summer

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tbl/ehicleTrips         CNW_TTP         13.00         41.00           tbl/ehicleTrips         CNW_TTP         0.00         100.00           tbl/ehicleTrips         DV_TP         5.00         0.00           tbl/ehicleTrips         PB_TP         3.00         0.00           tbl/ehicleTrips         PR_TP         92.00         100.00           tbl/ehicleTrips         PR_TP         0.00         100.00           tbl/ehicleTrips         ST_TR         6.42         1.03           tbl/ehicleTrips         ST_TR         0.00         0.42           tbl/ehicleTrips         SU_TR         5.09         1.03           tbl/ehicleTrips         SU_TR         0.00         0.42           tbl/ehicleTrips         WD_TR         3.93         1.03           tbl/ehicleTrips         WD_TR         0.00         0.42		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
tbl/ehicleTrips         DV_TP         5.00         0.00           tbl/ehicleTrips         PB_TP         3.00         0.00           tbl/ehicleTrips         PR_TP         92.00         100.00           tbl/ehicleTrips         PR_TP         0.00         100.00           tbl/ehicleTrips         ST_TR         6.42         1.03           tbl/ehicleTrips         ST_TR         0.00         0.42           tbl/ehicleTrips         SU_TR         5.09         1.03           tbl/ehicleTrips         SU_TR         0.00         0.42           tbl/ehicleTrips         SU_TR         0.00         0.42           tbl/ehicleTrips         WD_TR         3.93         1.03	tblVehicleTrips	CNW_TTP	13.00	41.00
tbl/VehicleTrips         PB_TP         3.00         0.00           tbl/VehicleTrips         PR_TP         92.00         100.00           tbl/VehicleTrips         PR_TP         0.00         100.00           tbl/VehicleTrips         ST_TR         6.42         1.03           tbl/VehicleTrips         ST_TR         0.00         0.42           tbl/VehicleTrips         SU_TR         5.09         1.03           tbl/VehicleTrips         SU_TR         0.00         0.42           tbl/VehicleTrips         SU_TR         3.93         1.03	tblVehicleTrips	CNW_TTP	0.00	100.00
tbl/VehicleTrips         PR_TP         92.00         100.00           tbl/VehicleTrips         PR_TP         0.00         100.00           tbl/VehicleTrips         ST_TR         6.42         1.03           tbl/VehicleTrips         ST_TR         0.00         0.42           tbl/VehicleTrips         SU_TR         5.09         1.03           tbl/VehicleTrips         SU_TR         0.00         0.42           tbl/VehicleTrips         WD_TR         3.93         1.03	tblVehicleTrips	DV_TP	5.00	0.00
tbl/ehicleTrips         PR_TP         92.00         100.00           tbl/ehicleTrips         PR_TP         0.00         100.00           tbl/ehicleTrips         ST_TR         6.42         1.03           tbl/ehicleTrips         ST_TR         0.00         0.42           tbl/ehicleTrips         SU_TR         5.09         1.03           tbl/ehicleTrips         SU_TR         0.00         0.42           tbl/ehicleTrips         WD_TR         3.93         1.03	· ·	PB_TP	3.00	0.00
tblVehicleTrips         PR_TP         0.00         100.00           tblVehicleTrips         ST_TR         6.42         1.03           tblVehicleTrips         ST_TR         0.00         0.42           tblVehicleTrips         SU_TR         5.09         1.03           tblVehicleTrips         SU_TR         0.00         0.42           tblVehicleTrips         WD_TR         3.93         1.03	tblVehicleTrips	_	92.00	100.00
tbl/VehicleTrips         ST_TR         6.42         1.03           tbl/VehicleTrips         ST_TR         0.00         0.42           tbl/VehicleTrips         SU_TR         5.09         1.03           tbl/VehicleTrips         SU_TR         0.00         0.42           tbl/VehicleTrips         WD_TR         3.93         1.03	tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips         ST_TR         0.00         0.42           tblVehicleTrips         SU_TR         5.09         1.03           tblVehicleTrips         SU_TR         0.00         0.42           tblVehicleTrips         WD_TR         3.93         1.03	tblVehicleTrips	ST_TR	6.42	1.03
tbl/VehicleTrips         SU_TR         5.09         1.03           tbl/VehicleTrips         SU_TR         0.00         0.42           tbl/VehicleTrips         WD_TR         3.93         1.03	tblVehicleTrips	ST_TR	0.00	0.42
tblVehicleTrips         SU_TR         0.00         0.42           tblVehicleTrips         WD_TR         3.93         1.03	tblVehicleTrips	SU_TR	5.09	1.03
		SU_TR	0.00	0.42
tblVehicleTrips WD_TR 0.00 0.42	tblVehicleTrips	WD_TR	3.93	1.03
	tblVehicleTrips	WD_TR	0.00	0.42

# 2.0 Emissions Summary

# **2.1 Overall Construction (Maximum Daily Emission)**

# **Unmitigated Construction**

	ROG	NOx	СО	SO2	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/d	day							lb/d	ay		
2022	3.2211	33.1151	20.1698	0.0501	19.8049	1.6133	21.4182	10.1417	1.4843	11.6259		5,090.9536	ŕ			5,216.4570
2023	19.6714	17.5512	21.5048	0.0463	1.2499	0.7855	2.0354	0.3375	0.7433	1.0809	0.0000	4,553.8367	4,553.8367	0.7167	0.1461	4,613.9718
Maximum	19.6714	33.1151	21.5048	0.0501	19.8049	1.6133	21.4182	10.1417	1.4843	11.6259	0.0000	5,090.9536	5,090.9536	1.1958	0.3369	5,216.4570

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# 2905 S King - Santa Clara County, Summer

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# **Mitigated Construction**

	ROG	NOx	СО	SO2	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/d	day							lb/d	ay		
2022	3.2211	33.1151	20.1698	0.0501	8.5435	1.6133	10.1568	4.3561	1.4843	5.8404	0.0000	5,090.9536	5,090.9536	1.1958	0.3369	5,216.4570
2023	19.6714	17.5512	21.5048	0.0463	1.1872	0.7855	1.9727	0.3221	0.7433	1.0655	0.0000	4,553.8367	4,553.8367	0.7167	0.1461	4,613.9718
Maximum	19.6714	33.1151	21.5048	0.0501	8.5435	1.6133	10.1568	4.3561	1.4843	5.8404	0.0000	5,090.9536	5,090.9536	1.1958	0.3369	5,216.4570

	ROG	NOx	со	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	53.78	0.00	48.28	55.36	0.00	45.65	0.00	0.00	0.00	0.00	0.00	0.00

# 2.2 Overall Operational <a href="Unmitigated Operational">Unmitigated Operational</a>

	ROG	NOx	СО	SO2	Fugitive 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/d	day							lb/d	ay		
Area	2.5874	2.2000e-004	0.0243	0.0000		9.0000e- 005	9.0000e-005		9.0000e- 005	9.0000e-005		0.0523	0.0523	1.4000e- 004		0.0557
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.4462	11.3170	5.1511	0.0581	2.2498	0.1017	2.3515	0.6110	0.0972	0.7082		6,306.9474	6,306.9474	0.2285	0.9206	6,587.0071

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# 2905 S King - Santa Clara County, Summer

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Total	3.0336	11.3172	5.1754	0.0581	2.2498	0.1018	2.3516	0.6110	0.0973	0.7083	6,306.9997	6,306.9997	0.2287	0.9206	6,587.0628

#### **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												lay			
Area	2.5874	2.2000e-004	0.0243	0.0000		9.0000e- 005	9.0000e-005		9.0000e- 005	9.0000e-005		0.0523	0.0523	1.4000e- 004		0.0557
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.4462	11.3170	5.1511	0.0581	2.2498	0.1017	2.3515	0.6110	0.0972	0.7082		6,306.9474	6,306.9474	0.2285	0.9206	6,587.0071
Total	3.0336	11.3172	5.1754	0.0581	2.2498	0.1018	2.3516	0.6110	0.0973	0.7083		6,306.9997	6,306.9997	0.2287	0.9206	6,587.0628

	ROG	NOx	СО	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 lumber	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1		Site Preparation	Site Preparation	10/3/2022	11/1/2022	5	22	
2		Grading	Grading	11/2/2022	12/2/2022	5	23	
3		Paving	Paving	12/5/2022	1/5/2023	5	24	

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#### 2905 S King - Santa Clara County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Building Construction	Building Construction	1/6/2023	9/29/2023	 5	191	
5	Architectural Coating	Architectural Coating	7/3/2023	9/29/2023	 5	65	

Acres of Grading (Site Preparation Phase): 33

Acres of Grading (Grading Phase): 23

Acres of Paving: 3.1

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 155,955; Non-Residential Outdoor: 51,985; Striped Parking Area: 8,091

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
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
Building Construction	Cranes	1	7.00	231	0.29
···································	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT** 

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#### 2905 S King - Santa Clara County, Summer

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor Vehicle	Hauling Vehicle
	Count	Number	Number	Number	Length	Length	Length	Class	Class	Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	699.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	100.00	39.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

# **3.1 Mitigation Measures Construction**

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

# 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/d	day							lb/d	ay		
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	3.1701	33.0835	19.6978	0.0380	19.6570	1.6126	21.2696	10.1025	1.4836	11.5860		3,686.0619	3,686.0619	1.1922		3,715.8655

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# 2905 S King - Santa Clara County, Summer

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

#### **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/d	day							lb/d	ay		
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	0.0316	0.4720	1.3100e-003	0.1479	7.5000e- 004	0.1486	0.0392	6.9000e- 004	0.0399		132.8018	132.8018	3.6000e- 003	3.3400e- 003	133.8866
Total	0.0510	0.0316	0.4720	1.3100e-003	0.1479	7.5000e- 004	0.1486	0.0392	6.9000e- 004	0.0399		132.8018	132.8018	3.6000e- 003	3.3400e- 003	133.8866

# **Mitigated Construction On-Site**

	ROG	NOx	СО	SO2	Fugitive 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/d	day							lb/d	lay		
Fugitive Dust					8.4034	0.0000	8.4034	4.3188	0.0000	4.3188			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	3.1701	33.0835	19.6978	0.0380	8.4034	1.6126	10.0159	4.3188	1.4836	5.8024	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655

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# 2905 S King - Santa Clara County, Summer

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	СО	SO2	Fugitive 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/d	day							lb/d	ay		
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	0.0316	0.4720	1.3100e-003	0.1402	7.5000e- 004	0.1409	0.0373	6.9000e- 004	0.0380		132.8018	132.8018	3.6000e- 003	3.3400e- 003	133.8866
Total	0.0510	0.0316	0.4720	1.3100e-003	0.1402	7.5000e- 004	0.1409	0.0373	6.9000e- 004	0.0380		132.8018	132.8018	3.6000e- 003	3.3400e- 003	133.8866

# 3.3 Grading - 2022

**Unmitigated Construction On-Site** 

	ROG	NOx	СО	SO2	Fugitive 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/d	day							lb/c	lay		
Fugitive Dust					7.1101	0.0000	7.1101	3.4289	0.0000	3.4289			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656		2,872.0464	2,872.0464	0.9289		2,895.2684
Total	1.9486	20.8551	15.2727	0.0297	7.1101	0.9409	8.0509	3.4289	0.8656	4.2945		2,872.0464	2,872.0464	0.9289		2,895.2684

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# 2905 S King - Santa Clara County, Summer

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	СО	SO2	Fugitive 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/d	day							lb/d	ay		
Hauling	0.1451	5.0761	1.0978	0.0193	0.5316	0.0474	0.5790	0.1457	0.0453	0.1911		2,108.2390	2,108.2390	0.0726	0.3341	2,209.6164
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	0.0425	0.0263	0.3934	1.0900e-003	0.1232	6.2000e- 004	0.1238	0.0327	5.7000e- 004	0.0333		110.6682	110.6682	3.0000e- 003	2.7800e- 003	111.5722
Total	0.1876	5.1024	1.4912	0.0204	0.6548	0.0480	0.7028	0.1784	0.0459	0.2243		2,218.9072	2,218.9072	0.0756	0.3369	2,321.1886

# **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/d	day							lb/d	ay		
Fugitive Dust					3.0396	0.0000	3.0396	1.4659	0.0000	1.4659			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656	0.0000	2,872.0464	2,872.0464	0.9289		2,895.2684
Total	1.9486	20.8551	15.2727	0.0297	3.0396	0.9409	3.9804	1.4659	0.8656	2.3314	0.0000	2,872.0464	2,872.0464	0.9289		2,895.2684

# **Mitigated Construction Off-Site**

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# 2905 S King - Santa Clara County, Summer

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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/d	day							lb/d	ay		
Hauling	0.1451	5.0761	1.0978	0.0193	0.5075	0.0474	0.5549	0.1398	0.0453	0.1851		2,108.2390	2,108.2390	0.0726	0.3341	2,209.6164
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	0.0425	0.0263	0.3934	1.0900e-003	0.1168	6.2000e- 004	0.1174	0.0311	5.7000e- 004	0.0317		110.6682	110.6682	3.0000e- 003	2.7800e- 003	111.5722
Total	0.1876	5.1024	1.4912	0.0204	0.6243	0.0480	0.6723	0.1709	0.0459	0.2168		2,218.9072	2,218.9072	0.0756	0.3369	2,321.1886

# 3.4 Paving - 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/d	lay							lb/d	lay		
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.3384					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.4412	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104

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# 2905 S King - Santa Clara County, Summer

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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/d	day							lb/d	ay		
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	0.0425	0.0263	0.3934	1.0900e-003	0.1232	6.2000e- 004	0.1238	0.0327	5.7000e- 004	0.0333		110.6682	110.6682	3.0000e- 003	2.7800e- 003	111.5722
Total	0.0425	0.0263	0.3934	1.0900e-003	0.1232	6.2000e- 004	0.1238	0.0327	5.7000e- 004	0.0333		110.6682	110.6682	3.0000e- 003	2.7800e- 003	111.5722

# **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/d	lay							lb/d	ay		
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603			2,225.5104
Paving	0.3384					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.4412	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104

# **Mitigated Construction Off-Site**

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# 2905 S King - Santa Clara County, Summer

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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/d	day							lb/c	lay		
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	0.0425	0.0263	0.3934	1.0900e-003	0.1168	6.2000e- 004	0.1174	0.0311	5.7000e- 004	0.0317		110.6682	110.6682	3.0000e- 003	2.7800e- 003	111.5722
Total	0.0425	0.0263	0.3934	1.0900e-003	0.1168	6.2000e- 004	0.1174	0.0311	5.7000e- 004	0.0317		110.6682	110.6682	3.0000e- 003	2.7800e- 003	111.5722

# 3.4 Paving - 2023 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	СО	SO2	Fugitive 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/c	day							lb/d	lay		
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.3384					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.3712	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336

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# 2905 S King - Santa Clara County, Summer

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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/d	day							lb/c	lay		
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	0.0396	0.0234	0.3639	1.0500e-003	0.1232	5.9000e- 004	0.1238	0.0327	5.4000e- 004	0.0332		107.8644	107.8644	2.7100e- 003	2.5800e- 003	108.7011
Total	0.0396	0.0234	0.3639	1.0500e-003	0.1232	5.9000e- 004	0.1238	0.0327	5.4000e- 004	0.0332		107.8644	107.8644	2.7100e- 003	2.5800e- 003	108.7011

# **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/c	lay							lb/d	ay		
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841			2,225.4336
Paving	0.3384					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.3712	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336

# **Mitigated Construction Off-Site**

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# 2905 S King - Santa Clara County, Summer

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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/d	day							lb/d	lay		
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	0.0396	0.0234	0.3639	1.0500e-003	0.1168	5.9000e- 004	0.1174	0.0311	5.4000e- 004	0.0317		107.8644	107.8644	2.7100e- 003	2.5800e- 003	108.7011
Total	0.0396	0.0234	0.3639	1.0500e-003	0.1168	5.9000e- 004	0.1174	0.0311	5.4000e- 004	0.0317		107.8644	107.8644	2.7100e- 003	2.5800e- 003	108.7011

# 3.5 Building Construction - 2023 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive 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/d	ay							lb/d	ay		
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	Ź			2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

# **Unmitigated Construction Off-Site**

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# 2905 S King - Santa Clara County, Summer

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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/d	day							lb/d	ay		
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	0.0437	1.6765	0.5387	7.9600e-003	0.2642	0.0102	0.2743	0.0761	9.7400e- 003	0.0858		854.2639	854.2639	0.0181	0.1254	892.0879
Worker	0.2639	0.1557	2.4258	7.0300e-003	0.8215	3.9400e- 003	0.8254	0.2179	3.6200e- 003	0.2215		719.0957	719.0957	0.0181	0.0172	724.6740
Total	0.3076	1.8322	2.9645	0.0150	1.0856	0.0141	1.0998	0.2939	0.0134	0.3073		1,573.3596	1,573.3596	0.0361	0.1426	1,616.7620

# **Mitigated Construction On-Site**

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/d	lay		
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

# **Mitigated Construction Off-Site**

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# 2905 S King - Santa Clara County, Summer

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category					lb/e	day						lb/d	ay		
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	0.0437	1.6765	0.5387	7.9600e-003	0.2529	0.0102	0.2631	0.0733	9.7400e- 003	0.0830	 854.2639	854.2639	0.0181	0.1254	892.0879
Worker	0.2639	0.1557	2.4258	7.0300e-003	0.7786	3.9400e- 003	0.7826	0.2074	3.6200e- 003	0.2110	719.0957	719.0957	0.0181	0.0172	724.6740
Total	0.3076	1.8322	2.9645	0.0150	1.0315	0.0141	1.0456	0.2807	0.0134	0.2940	1,573.3596	1,573.3596	0.0361	0.1426	1,616.7620

# 3.6 Architectural Coating - 2023 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	СО	SO2	Fugitive 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/c	day							lb/d	ay		
Archit. Coating	17.5466					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	17.7383	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

# **Unmitigated Construction Off-Site**

	500	110	0.0	000			D1440 T 4 1			D140 F T + 1	D: 000	ND: OOO	T / 1000	0114	NOO	0.00
	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
					50446	D1110		5.40.5	D1 10 5							
					PM10	PM10		PM2.5	PM2.5							
								_								

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# 2905 S King - Santa Clara County, Summer

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category					lb/d	day						lb/c	lay		
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	0.0528	0.0311	0.4852	1.4100e-003	0.1643	7.9000e- 004	0.1651	0.0436	7.2000e- 004	0.0443	143.8191	143.8191	3.6100e- 003	3.4400e- 003	144.9348
Total	0.0528	0.0311	0.4852	1.4100e-003	0.1643	7.9000e- 004	0.1651	0.0436	7.2000e- 004	0.0443	143.8191	143.8191	3.6100e- 003	3.4400e- 003	144.9348

# **Mitigated Construction On-Site**

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/c	lay		
Archit. Coating	17.5466					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	17.7383	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

# **Mitigated Construction Off-Site**

ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	3		PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
				PM10	PM10		PM2.5	PM2.5							

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# 2905 S King - Santa Clara County, Summer

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category					lb/d	day						lb/c	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	0.0528	0.0311	0.4852	1.4100e-003	0.1557	7.9000e- 004	0.1565	0.0415	7.2000e- 004	0.0422	143.8191	143.8191	3.6100e- 003	3.4400e- 003	144.9348
Total	0.0528	0.0311	0.4852	1.4100e-003	0.1557	7.9000e- 004	0.1565	0.0415	7.2000e- 004	0.0422	143.8191	143.8191	3.6100e- 003	3.4400e- 003	144.9348

# 4.0 Operational Detail - Mobile

# **4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						day		DM0 C	DNA/A				lb/d	day		
Mitigated	0.4462	11.3170	5.1511	0.0581	2.2498	0.1017	2.3515	0.6110	0.0972	0.7082		6,306.9474	6,306.9474	0.2285	0.9206	6,587.0071
Unmitigated	0.4462	11.3170	5.1511	0.0581	2.2498	0.1017	2.3515	0.6110	0.0972	0.7082		6,306.9474	6,306.9474	0.2285	0.9206	6,587.0071

# **4.2 Trip Summary Information**

	Ave	erage Daily Trip Ra	te	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	107.09	107.09	107.09	335,154	335,154
Parking Lot	57.04	57.04	57.04	643,657	643,657
Total	164.13	164.13	164.13	978,811	978,811

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# 2905 S King - Santa Clara County, Summer

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# **4.3 Trip Type Information**

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	9.50	7.30	7.30	59.00	0.00	41.00	100	0	0
Parking Lot	9.50	7.30	31.00	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
Manufacturing	0.572464	0.055653	0.187060	0.115672	0.020329	0.005102	0.007934	0.006404	0.000900	0.000380	0.024412	0.000914	
Parking Lot	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000		0.000000	0.000000	0.000000	0.000000	0.00000

# 5.0 Energy Detail

Historical Energy Use: N

# **5.1 Mitigation Measures Energy**

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/d	lay		
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000			0.0000	0.0000

# 5.2 Energy by Land Use - NaturalGas

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# 2905 S King - Santa Clara County, Summer

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

#### **Unmitigated**

	NaturalGa s Use	ROG	NOx	СО	SO2	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/d	day							lb/d	ay		
Manufacturing	0		0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

# **Mitigated**

	NaturalGa s Use	ROG	NOx	СО	SO2	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/d	day							lb/d	ay		
Manufacturing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

#### 6.0 Area Detail

# **6.1 Mitigation Measures Area**

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# 2905 S King - Santa Clara County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	СО	SO2	Fugitive 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/d	day							lb/d	day		
Mitigated		2.2000e-004		0.0000		9.0000e- 005	9.0000e-005		9.0000e- 005	9.0000e-005		0.0523	0.0523	1.4000e- 004		0.0557
Unmitigated	2.5874	2.2000e-004	0.0243	0.0000		9.0000e- 005	9.0000e-005		9.0000e- 005	9.0000e-005		0.0523	0.0523	1.4000e- 004		0.0557

# 6.2 Area by SubCategory

# **Unmitigated**

	ROG	NOx	СО	SO2	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/d	lay							lb/c	lay		
Architectural Coating	0.3125					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2727					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.2500e- 003	2.2000e-004	0.0243	0.0000		9.0000e- 005	9.0000e-005		9.0000e- 005	9.0000e-005		0.0523	0.0523	1.4000e- 004		0.0557
Total	2.5874	2.2000e-004	0.0243	0.0000		9.0000e- 005	9.0000e-005		9.0000e- 005	9.0000e-005		0.0523	0.0523	1.4000e- 004		0.0557

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#### 2905 S King - Santa Clara County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

#### **Mitigated**

	ROG	NOx	СО	SO2	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/d	lay							lb/c	lay		
Architectural Coating	0.3125					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2727					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.2500e- 003	2.2000e-004	0.0243	0.0000		9.0000e- 005	9.0000e-005		9.0000e- 005	9.0000e-005		0.0523	0.0523	1.4000e- 004		0.0557
Total	2.5874	2.2000e-004	0.0243	0.0000		9.0000e- 005	9.0000e-005		9.0000e- 005	9.0000e-005		0.0523	0.0523	1.4000e- 004		0.0557

#### 7.0 Water Detail

#### 7.1 Mitigation Measures Water

#### 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**

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# 2905 S King - Santa Clara County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
<u>Boilers</u>						
Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type	
User Defined Equipment						
Equipment Type	Number					

# 11.0 Vegetation

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#### 2905 S King - Santa Clara County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

### 2905 S King

Santa Clara County, Winter

# 1.0 Project Characteristics

#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	103.97	1000sqft	2.39	103,970.00	0
Parking Lot	134.85	1000sqft	3.10	134,850.00	0

#### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	58
Climate Zone	4			Operational Year	2024

Utility Company Pacific Gas and Electric Company

 CO2 Intensity
 203.98
 CH4 Intensity
 0.033
 N20 Intensity
 0.004

 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - per construction timeline

Trips and VMT - per last run

Grading - Per last CalEEMod Run

Vehicle Trips - Per TA - Parking lot = truck trips

Energy Use - Per GHGRS natural gas policy (electric-only building)

Solid Waste - Per last CalEEMod Run

Construction Off-road Equipment Mitigation - Per BAAQMD rule compliance

Waste Mitigation - Per AB 939

Fleet Mix - per TA fleet mix

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value		
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6		
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12		
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15		
tblConstructionPhase	NumDays	20.00	65.00		
tblConstructionPhase		230.00	191.00		
tblConstructionPhase	NumDays	20.00	23.00		
tblConstructionPhase	NumDays	20.00	24.00		
tblConstructionPhase	NumDays	10.00	22.00		
tblEnergyUse	NT24NG	6.67	0.00		
tblEnergyUse	T24E	1.32	1.35		
tblEnergyUse	- ·	19.51	0.00		
tblFleetMix	HHD	6.4040e-003	1.00		
tblFleetMix	LDA	0.57	0.00		
tblFleetMix	LDT1	0.06	0.00		
tblFleetMix	LDT2	0.19	0.00		
tblFleetMix	LHD1	0.02	0.00		
tblFleetMix	LHD2	5.1020e-003	0.00		
tblFleetMix	MCY	0.02	0.00		
tblFleetMix	MDV	0.12	0.00		
tblFleetMix	MH	2.7760e-003	0.00		
tblFleetMix	MHD	7.9340e-003	0.00		
tblFleetMix	OBUS	9.0000e-004	0.00		
tblFleetMix	SBUS	9.1400e-004	0.00		
tblFleetMix	UBUS	3.8000e-004	0.00		
tblGrading	MaterialImported	0.00	5,590.00		
tblVehicleTrips	CC_TTP	28.00	0.00		
tblVehicleTrips	CNW_TL	7.30	31.00		

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	CNW_TTP	13.00	41.00
tblVehicleTrips	CNW_TTP	0.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	6.42	1.03
tblVehicleTrips	ST_TR	0.00	0.42
tblVehicleTrips	SU_TR	5.09	1.03
tblVehicleTrips	SU_TR	0.00	0.42
tblVehicleTrips	WD_TR	3.93	1.03
tblVehicleTrips	WD_TR	0.00	0.42

# 2.0 Emissions Summary

# **2.1 Overall Construction (Maximum Daily Emission)**

# **Unmitigated Construction**

	ROG	NOx	СО	SO2	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/d	day							lb/d	ay		
2022	3.2224	33.1221	20.1427	0.0500	19.8049	1.6133	21.4182	10.1417	1.4843	11.6259		5,083.5488	ĺ			5,209.2118
2023	19.6791	17.6893	21.3676	0.0457	1.2499	0.7855	2.0354	0.3375	0.7434	1.0809	0.0000	4,492.0902	4,492.0902	0.7170	0.1493	4,553.2652
Maximum	19.6791	33.1221	21.3676	0.0500	19.8049	1.6133	21.4182	10.1417	1.4843	11.6259	0.0000	5,083.5488	5,083.5488	1.1962	0.3374	5,209.2118

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# 2905 S King - Santa Clara County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# **Mitigated Construction**

	ROG	NOx	СО	SO2	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/c	lay							lb/d	ay		
2022	3.2224	33.1221	20.1427	0.0500	8.5435	1.6133	10.1568	4.3561	1.4843	5.8404	0.0000	5,083.5488	5,083.5488	1.1962	0.3374	5,209.2118
2023	19.6791	17.6893	21.3676	0.0457	1.1872	0.7855	1.9727	0.3221	0.7434	1.0655	0.0000	4,492.0902	4,492.0902	0.7170	0.1493	4,553.2652
Maximum	19.6791	33.1221	21.3676	0.0500	8.5435	1.6133	10.1568	4.3561	1.4843	5.8404	0.0000	5,083.5488	5,083.5488	1.1962	0.3374	5,209.2118

	ROG	NOx	СО	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	53.78	0.00	48.28	55.36	0.00	45.65	0.00	0.00	0.00	0.00	0.00	0.00

# 2.2 Overall Operational <a href="Unmitigated Operational">Unmitigated Operational</a>

	ROG	NOx	СО	SO2	Fugitive 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/d	day							lb/d	lay		
Area	2.5874	2.2000e-004	0.0243	0.0000		9.0000e- 005	9.0000e-005		9.0000e- 005	9.0000e-005		0.0523	0.0523	1.4000e- 004		0.0557
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.4143	11.9818	5.2574	0.0577	2.2498	0.1018	2.3516	0.6110	0.0973	0.7083		6,270.8456	6,270.8456	0.2318	0.9237	6,551.8878

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Total	3.0017	11.9820	5.2818	0.0577	2.2498	0.1019	2.3517	0.6110	0.0974	0.7084	6,270.8978	6,270.8978	0.2320	0.9237	6,551.9435	

#### **Mitigated Operational**

	ROG	NOx	СО	SO2	Fugitive 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/d	day							lb/c	lay		
Area	2.5874	2.2000e-004	0.0243	0.0000		9.0000e- 005	9.0000e-005		9.0000e- 005	9.0000e-005		0.0523	0.0523	1.4000e- 004		0.0557
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.4143	11.9818	5.2574	0.0577	2.2498	0.1018	2.3516	0.6110	0.0973	0.7083		6,270.8456	6,270.8456	0.2318	0.9237	6,551.8878
Total	3.0017	11.9820	5.2818	0.0577	2.2498	0.1019	2.3517	0.6110	0.0974	0.7084		6,270.8978	6,270.8978	0.2320	0.9237	6,551.9435

	ROG	NOx	СО	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	10/3/2022	11/1/2022	5	22	
2	Grading	Grading	11/2/2022	12/2/2022	5	23	
	Paving	J		1/5/2023	5	24	

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#### 2905 S King - Santa Clara County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Building Construction	Building Construction	1/6/2023	9/29/2023	  5	191	
5	Architectural Coating	Architectural Coating	7/3/2023	9/29/2023	 5	65	

Acres of Grading (Site Preparation Phase): 33

Acres of Grading (Grading Phase): 23

Acres of Paving: 3.1

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 155,955; Non-Residential Outdoor: 51,985; Striped Parking Area: 8,091

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
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
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	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT** 

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#### 2905 S King - Santa Clara County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	699.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	100.00	39.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

# **3.1 Mitigation Measures Construction**

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

# 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/d	day							lb/d	ay		
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	3.1701	33.0835	19.6978	0.0380	19.6570	1.6126	21.2696	10.1025	1.4836	11.5860		3,686.0619	3,686.0619	1.1922		3,715.8655

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

#### **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/d	day							lb/c	ay		
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	0.0522	0.0386	0.4450	1.2100e-003	0.1479	7.5000e- 004	0.1486	0.0392	6.9000e- 004	0.0399		123.0851	123.0851	4.0500e- 003	3.8200e- 003	124.3234
Total	0.0522	0.0386	0.4450	1.2100e-003	0.1479	7.5000e- 004	0.1486	0.0392	6.9000e- 004	0.0399		123.0851	123.0851	4.0500e- 003	3.8200e- 003	124.3234

#### **Mitigated Construction On-Site**

	ROG	NOx	СО	SO2	Fugitive 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/c	day							lb/c	day		
Fugitive Dust					8.4034	0.0000	8.4034	4.3188	0.0000	4.3188			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	3.1701	33.0835	19.6978	0.0380	8.4034	1.6126	10.0159	4.3188	1.4836	5.8024	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	СО	SO2	Fugitive 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/d	day							lb/c	lay		
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	0.0522	0.0386	0.4450	1.2100e-003	0.1402	7.5000e- 004	0.1409	0.0373	6.9000e- 004	0.0380		123.0851	123.0851	4.0500e- 003	3.8200e- 003	124.3234
Total	0.0522	0.0386	0.4450	1.2100e-003	0.1402	7.5000e- 004	0.1409	0.0373	6.9000e- 004	0.0380		123.0851	123.0851	4.0500e- 003	3.8200e- 003	124.3234

# 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/d	day							lb/d	ay		
Fugitive Dust					7.1101	0.0000	7.1101	3.4289	0.0000	3.4289			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656		2,872.0464	2,872.0464	0.9289		2,895.2684
Total	1.9486	20.8551	15.2727	0.0297	7.1101	0.9409	8.0509	3.4289	0.8656	4.2945		2,872.0464	2,872.0464	0.9289		2,895.2684

#### **Unmitigated Construction Off-Site**

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# 2905 S King - Santa Clara County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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/d	day							lb/d	lay		
Hauling	0.1419	5.3533	1.1165	0.0194	0.5316	0.0475	0.5791	0.1457	0.0454	0.1911		2,108.9315	2,108.9315	0.0724	0.3342	2,210.3406
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	0.0435	0.0321	0.3708	1.0100e-003	0.1232	6.2000e- 004	0.1238	0.0327	5.7000e- 004	0.0333		102.5709	102.5709	3.3800e- 003	3.1800e- 003	103.6028
Total	0.1854	5.3855	1.4873	0.0204	0.6548	0.0481	0.7029	0.1784	0.0460	0.2244		2,211.5024	2,211.5024	0.0758	0.3374	2,313.9434

# **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/d	day							lb/d	ay		
Fugitive Dust					3.0396	0.0000	3.0396	1.4659	0.0000	1.4659			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656	0.0000	2,872.0464	2,872.0464	0.9289		2,895.2684
Total	1.9486	20.8551	15.2727	0.0297	3.0396	0.9409	3.9804	1.4659	0.8656	2.3314	0.0000	2,872.0464	2,872.0464	0.9289		2,895.2684

#### **Mitigated Construction Off-Site**

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# 2905 S King - Santa Clara County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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/d	day							lb/d	ay		
Hauling	0.1419	5.3533	1.1165	0.0194	0.5075	0.0475	0.5550	0.1398	0.0454	0.1852		2,108.9315	2,108.9315	0.0724	0.3342	2,210.3406
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	0.0435	0.0321	0.3708	1.0100e-003	0.1168	6.2000e- 004	0.1174	0.0311	5.7000e- 004	0.0317		102.5709	102.5709	3.3800e- 003	3.1800e- 003	103.6028
Total	0.1854	5.3855	1.4873	0.0204	0.6243	0.0481	0.6724	0.1709	0.0460	0.2169		2,211.5024	2,211.5024	0.0758	0.3374	2,313.9434

# 3.4 Paving - 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/c	lay							lb/d	ay		
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603			2,225.5104
Paving	0.3384					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.4412	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104

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# 2905 S King - Santa Clara County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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/d	day							lb/c	lay		
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	0.0435	0.0321	0.3708	1.0100e-003	0.1232	6.2000e- 004	0.1238	0.0327	5.7000e- 004	0.0333		102.5709	102.5709	3.3800e- 003	3.1800e- 003	103.6028
Total	0.0435	0.0321	0.3708	1.0100e-003	0.1232	6.2000e- 004	0.1238	0.0327	5.7000e- 004	0.0333		102.5709	102.5709	3.3800e- 003	3.1800e- 003	103.6028

# **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/c	lay							lb/d	lay		
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.3384					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.4412	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104

#### **Mitigated Construction Off-Site**

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# 2905 S King - Santa Clara County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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/d	day							lb/d	lay		
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	0.0435	0.0321	0.3708	1.0100e-003	0.1168	6.2000e- 004	0.1174	0.0311	5.7000e- 004	0.0317		102.5709	102.5709	3.3800e- 003	3.1800e- 003	103.6028
Total	0.0435	0.0321	0.3708	1.0100e-003	0.1168	6.2000e- 004	0.1174	0.0311	5.7000e- 004	0.0317		102.5709	102.5709	3.3800e- 003	3.1800e- 003	103.6028

# 3.4 Paving - 2023 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	СО	SO2	Fugitive 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/d	day							lb/c	lay		
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.3384					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.3712	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336

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# 2905 S King - Santa Clara County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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/d	day							lb/c	lay		
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	0.0407	0.0285	0.3443	9.8000e-004	0.1232	5.9000e- 004	0.1238	0.0327	5.4000e- 004	0.0332		99.9935	99.9935	3.0600e- 003	2.9500e- 003	100.9485
Total	0.0407	0.0285	0.3443	9.8000e-004	0.1232	5.9000e- 004	0.1238	0.0327	5.4000e- 004	0.0332		99.9935	99.9935	3.0600e- 003	2.9500e- 003	100.9485

# **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/d	lay							lb/d	ay		
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841			2,225.4336
Paving	0.3384					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.3712	10.1917	14.5842	0.0228	-	0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336

#### **Mitigated Construction Off-Site**

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# 2905 S King - Santa Clara County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	СО	SO2	Fugitive 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/d	day							lb/d	ay		
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	0.0407	0.0285	0.3443	9.8000e-004	0.1168	5.9000e- 004	0.1174	0.0311	5.4000e- 004	0.0317		99.9935	99.9935	3.0600e- 003	2.9500e- 003	100.9485
Total	0.0407	0.0285	0.3443	9.8000e-004	0.1168	5.9000e- 004	0.1174	0.0311	5.4000e- 004	0.0317		99.9935	99.9935	3.0600e- 003	2.9500e- 003	100.9485

# 3.5 Building Construction - 2023 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive 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/c	ay							lb/d	ay		
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

#### **Unmitigated Construction Off-Site**

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# 2905 S King - Santa Clara County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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/d	day							lb/d	ay		
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	0.0424	1.7735	0.5578	7.9700e-003	0.2642	0.0102	0.2744	0.0761	9.7800e- 003	0.0858		855.4845	855.4845	0.0179	0.1257	893.4025
Worker	0.2715	0.1899	2.2956	6.5100e-003	0.8215	3.9400e- 003	0.8254	0.2179	3.6200e- 003	0.2215		666.6231	666.6231	0.0204	0.0197	672.9897
Total	0.3138	1.9635	2.8533	0.0145	1.0856	0.0142	1.0998	0.2939	0.0134	0.3074		1,522.1076	1,522.1076	0.0383	0.1454	1,566.3922

#### **Mitigated Construction On-Site**

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/d	lay		
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

# **Mitigated Construction Off-Site**

I	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

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# 2905 S King - Santa Clara County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category					lb/e	day			lb/d	ay					
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	0.0424	1.7735	0.5578	7.9700e-003	0.2529	0.0102	0.2631	0.0733	9.7800e- 003	0.0831	 855.4845	855.4845	0.0179	0.1257	893.4025
Worker	0.2715	0.1899	2.2956	6.5100e-003	0.7786	3.9400e- 003	0.7826	0.2074	3.6200e- 003	0.2110	666.6231	666.6231	0.0204	0.0197	672.9897
Total	0.3138	1.9635	2.8533	0.0145	1.0315	0.0142	1.0457	0.2807	0.0134	0.2941	1,522.1076	1,522.1076	0.0383	0.1454	1,566.3922

# 3.6 Architectural Coating - 2023 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	СО	SO2	Fugitive 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/d	lay							lb/d	ay		
Archit. Coating	17.5466					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	17.7383	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

#### **Unmitigated Construction Off-Site**

ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	3		PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
				PM10	PM10		PM2.5	PM2.5							

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# 2905 S King - Santa Clara County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category					lb/d	day					lb/d	lay			
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	0.0543	0.0380	0.4591	1.3000e-003	0.1643	7.9000e- 004	0.1651	0.0436	7.2000e- 004	0.0443	133.3246	133.3246	4.0800e- 003	3.9300e- 003	134.5979
Total	0.0543	0.0380	0.4591	1.3000e-003	0.1643	7.9000e- 004	0.1651	0.0436	7.2000e- 004	0.0443	133.3246	133.3246	4.0800e- 003	3.9300e- 003	134.5979

# **Mitigated Construction On-Site**

	ROG	NOx	СО	SO2	Fugitive 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/d	lay							lb/c	lay		
Archit. Coating	17.5466					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	17.7383	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

#### **Mitigated Construction Off-Site**

ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	3		PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
				PM10	PM10		PM2.5	PM2.5							

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# 2905 S King - Santa Clara County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category					lb/o	day						lb/d	lay		
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	0.0543	0.0380	0.4591	1.3000e-003	0.1557	7.9000e- 004	0.1565	0.0415	7.2000e- 004	0.0422	133.3246	133.3246	4.0800e- 003	3.9300e- 003	134.5979
Total	0.0543	0.0380	0.4591	1.3000e-003	0.1557	7.9000e- 004	0.1565	0.0415	7.2000e- 004	0.0422	133.3246	133.3246	4.0800e- 003	3.9300e- 003	134.5979

# 4.0 Operational Detail - Mobile

# **4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
0.1					DM40	- DM40		DM0.5	DMO				11. /			
Category					ID/	day							lb/d	aay		
Mitigated	0.4143	11.9818	5.2574	0.0577	2.2498	0.1018	2.3516	0.6110	0.0973	0.7083		6,270.8456	6,270.8456	0.2318	0.9237	6,551.8878
	Ē											Ī				
Unmitigated	0.4143	11.9818	5.2574	0.0577	2.2498	0.1018	2.3516	0.6110	0.0973	0.7083		6,270.8456	6,270.8456	0.2318		6,551.8878
Ü	<u> </u>									:		:				=

# **4.2 Trip Summary Information**

	Ave	erage Daily Trip Ra	te	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	107.09	107.09	107.09	335,154	335,154
Parking Lot	57.04	57.04	57.04	643,657	643,657
Total	164.13	164.13	164.13	978,811	978,811

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#### 2905 S King - Santa Clara County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# **4.3 Trip Type Information**

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	9.50	7.30	7.30	59.00	0.00	41.00	100	0	0
Parking Lot	9.50	7.30	31.00	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
Manufacturing	0.572464	0.055653	0.187060	0.115672	0.020329	0.005102	0.007934	0.006404	0.000900			0.000914	
Parking Lot	0.000000	0.000000										0.000000	

# 5.0 Energy Detail

Historical Energy Use: N

# **5.1 Mitigation Measures Energy**

	ROG	NOx	СО	SO2	Fugitive 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/c	lay							lb/d	lay		
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

# 5.2 Energy by Land Use - NaturalGas

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# 2905 S King - Santa Clara County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

#### **Unmitigated**

	NaturalGa s Use	ROG	NOx	СО	SO2	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		Ib/day 00 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000											lb/d	ay		
Manufacturing	0		0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

# **Mitigated**

	NaturalGa s Use	ROG	NOx	СО	SO2	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/c	day							lb/d	ay		
Manufacturing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

#### 6.0 Area Detail

# **6.1 Mitigation Measures Area**

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# 2905 S King - Santa Clara County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	СО	SO2	Fugitive 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/d	day							lb/c	lay		
Mitigated		2.2000e-004		0.0000		005	9.0000e-005		9.0000e- 005	9.0000e-005		0.0523	0.0523	1.4000e- 004		0.0557
Unmitigated	2.5874	2.2000e-004	0.0243	0.0000		9.0000e- 005	9.0000e-005		9.0000e- 005	9.0000e-005		0.0523	0.0523	1.4000e- 004		0.0557

# 6.2 Area by SubCategory

# **Unmitigated**

	ROG	NOx	СО	SO2	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/d	lay							lb/c	lay		
Architectural Coating	0.3125					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2727					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.2500e- 003	2.2000e-004	0.0243	0.0000		9.0000e- 005	9.0000e-005		9.0000e- 005	9.0000e-005		0.0523	0.0523	1.4000e- 004		0.0557
Total	2.5874	2.2000e-004	0.0243	0.0000		9.0000e- 005	9.0000e-005		9.0000e- 005	9.0000e-005		0.0523	0.0523	1.4000e- 004		0.0557

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#### 2905 S King - Santa Clara County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

#### **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/c	lay							lb/c	lay		
Architectural Coating	0.3125					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2727					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.2500e- 003	2.2000e-004	0.0243	0.0000		9.0000e- 005	9.0000e-005		9.0000e- 005	9.0000e-005		0.0523	0.0523	1.4000e- 004		0.0557
Total	2.5874	2.2000e-004	0.0243	0.0000		9.0000e- 005	9.0000e-005		9.0000e- 005	9.0000e-005		0.0523	0.0523	1.4000e- 004		0.0557

#### 7.0 Water Detail

#### 7.1 Mitigation Measures Water

#### 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**

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# 2905 S King - Santa Clara County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
<u>Boilers</u>						
Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type	
User Defined Equipment						•
Fauipment Type	Number					

# 11.0 Vegetation

Model Output: OFFROAD2021 (v1.0.3) Emissions Inventory

Region Type: Sub-Area Region: Santa Clara (SF) Calendar Year: 2023

Scenario: All Adopted Rules - Exhaust

Vehicle Classification: OFFROAD2021 Equipment Types

Units: tons/day for Emissions, gallons/year for Fuel, hours/year for Activity, Horsepower-hours/year for Horsepower-hours

Region	Calendar Ye: Vehicle Category	Model Year	Horsepower Fuel	HC_tpd	ROG_tpd	TOG_tpd	CO_tpd	NOx_tpd	CO2_tpd	PM10_tpd	PM2.5_tpd SO:	x_tpd	NH3_tpd	Fuel Consumption Total_Activit T	otal_Population	Horsepower_Hours_hhpy
Santa Clara (SF)	2023 Industrial - Forklifts	2023	100 Diesel	0.0001164	0.0001408	0.0001676	0.0061225	0.0026405	1.0408827	1.79999E-05	1.656E-05	9.61999E-06	8.49554E-06	33770.29285 38839.341	48.71429525	3249798.855

g/hph HC ROG TOG CO Nox CO2 PM10 PM2\_5 Sox NH3 Fuel\_gphr 2024 0.0118586 0.0143489 0.0170763 0.6238355 0.2690469 106.05746 0.001834043 0.0016873 0.000980198 0.000865627 3440917.432

Project Forklifts HP Hours per Day Days per Year 1 pound =	2 89 12 365 453.5924	grams							
Emissions Source	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	metric tons/yr	PM10 tons/yr
Forklift Emissions	0.06	1.17	2.71	0.00	0.01	0.01	460	76	0.001

Based on emission rates obtained from CARB OFFROAD Version 1.0.3.

Number of forklifts per SCAQMD High Cube Warehouse Truck Trip Study White Paper Summary of Business Survey Results, June 2014.

#### **Emergency Backup Generator Emissions**

Standard Generator	Fuel Type Diesel	<b>Quantity</b> 1	<b>HP</b> 750	<b>LF</b> 0.74	Hours/Year per Unit 50	Hours per Day 1	HP-hr per day 750	Total hp-hr per year 37,500		
	нс	ROG	TOG	со	NO <sub>x</sub>	CO2	PM <sub>10</sub>	PM <sub>2.5</sub>	PM	so <sub>x</sub>
Emissions Rates (g/hp-hr)	0.14	1.0205827	1.1249089	2.6	2.85	521.63114	0.15	0.15	0.15	0.00494
Pounds/Day	0.23	1.69	1.86	4.30	4.71	862.50	0.25	0.25	0.25	0.01
Tons/Year	0.01	0.04	0.05	0.11	0.12	21.56	0.01	0.01	0.01	0.00
Metric tons/year						19.56				

Source: Emissions rates from CalEEMod Guide Appenix D, Table 12.1

Model Output: OFFROAD2021 (v1.0.3) Emissions Inventory

Region Type: Sub-Area Region: Santa Clara (SF) Calendar Year: 2023

Scenario: All Adopted Rules - Exhaust
Vehicle Classification: OFFROAD2021 Equipment Types

Units: tons/day for Emissions, gallons/year for Fuel, hours/year for Activity, Horsepower-hours/year for Horsepower-hours

Region Calendar Y∈Vehicle Category		Model Year Horsepor	ver B Fuel	HC_tpd	ROG_tpd	TOG_tpd	CO_tpd	NOx_tpd	CO2_tpd	PM10_tpd	PM2.5_tpd	SOx_tpd	NH3_tpd	Fuel Consumption	Total_Activ Tota	I_Population	Horsepower_Hours_hhpy
Santa Clara	2023 Airport Ground Support - Cargo Loader	Aggregate Aggregat	e Diesel	0.000138065	0.000167059	0.000198814	0.003542	0.001824	0.652057	6.41859E-05	5.90511E-05	6.02445E-06	5.322E-06	21155.26257	10414.55	22.02238523	1219912.575
Santa Clara	2023 Airport Ground Support - Cargo Tractor	Aggregate Aggregat	e Diesel	0.000280479	0.00033938	0.00040389	0.002807	0.002861	0.532039	0.000178802	0.000164498	4.91055E-06	4.34243E-06	17261.42836	9785.317	14.60307897	921230.8972
Santa Clara	2023 Airport Ground Support - Misc - Cargo Tractor	Aggregate Aggregat	e Gasoline	0.005100437	0.004691382	0.00561272	0.479893	0.024269	5.382732	0.000375297	0.000283558	4.44404E-05	8.15978E-05	232921.1	44854.85	33.18	4261210.75

			2023	g/hph HC 0.037475864 0.100815581 0.396342182 HC 0.825307905 1.472217886 13.15063359 15.44815938 0.221303011	ROG 0.045345795 0.121986853 0.364555539 ROG 0.998622565 1.781383642 12.09595278 14.87595898 0.213105939	TOG 0.053965244 0.145174436 0.436150394 TOG 1.188443383 2.119993755 14.47147008 17.77990722 0.254706525	37.29127 CO 21.171551 14.735821 1237.3243 1273.2317	1.0282818 1.8858671 Nox 10.905313 15.016081 62.57307 88.494464	CO2 3897.7765 2792.6438 13878.485 20568.905	PM10 0.017422364 0.064268838 0.02916339 PM10 0.383682014 0.93852913 0.967641269 2.289846197 0.032803251	PM2_5 0.352987453 0.86344108	Sox 0.001635251 0.001765053 0.00345335 Sox 0.036012118 0.02577521 0.114582165 0.176369492 0.002526586	NH3 0.001444581 0.001560848 0.006340757 NH3 0.031813128 0.022793183 0.210386319 0.26499263 0.003796159	Fuel_gphr 5742296.562 6204462.168 18099714.5 Fuel_gphr 126459067 90604251.03 600548527.1 8176118145.1 11712719.83
Project Yard Trucks	0													
HP Hours per Day Days per Year 1 pound =	190 12 365 453.5924 g	grams												
Emissions Source Project Yard Trucks	ROG 0.36	NOX 2.11	CO 30.41	SO2 0.00	PM10 0.05	PM2.5 0.05			CO2 491.20	MT/yr 81.32		PM10 tons/yr 0.010		

Based on aggregated emission rates obtained from CARB OFFROAD Version 1.0.1 Number of yard trucks/hostlers per SCAQMD High Cube Warehouse Truck Trip Study White Paper Summary of Business Survey Results, June 201-