Air Quality Assessment
5853 Rue Ferrari Project
City of San José, California

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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_2S	hydrogen sulfide
Pb	Lead
LST	local significance threshold
µg/m^3	micrograms per cubic meter
mg/m^3	milligrams per cubic meter
NAAQS	National Ambient Air Quality Standards
NO_2	nitrogen dioxide
NO_x	nitrogen oxide
O_3	Ozone
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	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
SF	square foot
SO_{4-2}	Sulfates
SO_2	sulfur dioxide
TAC	toxic air contaminant
C_2H_3Cl	vinyl chloride
VOC	volatile organic compound

1 INTRODUCTION

This report describes the air quality conditions in the project area. The current condition and quality of air quality was used as the baseline against which to compare potential impacts of the project. The purpose of this Air Quality Assessment is to evaluate potential short- and long-term noise impacts resulting from implementation of the proposed 5853 Rue Ferrari project in the City of San José.

1.1 PROJECT LOCATION

The proposed project is located on 5853 Rue Ferrari (APN: 678-05-057) in the City of 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 commercial, office, and industrial uses. The proposed project's existing land use designation is Combined Industrial/Commercial (CIC) and existing zoning designation is Industrial Park (IP).

Currently, the project site is developed with two industrial use buildings totaling 286,330 square feet. The existing buildings are located in the center of the parcel and include loading docks along the eastern and western elevations. Surface parking is available throughout the site, with automobile parking along all sides of the existing buildings. The project site has existing landscaping along all site boundaries. There are 345 existing trees throughout the project site. The project site also has existing light fixtures.

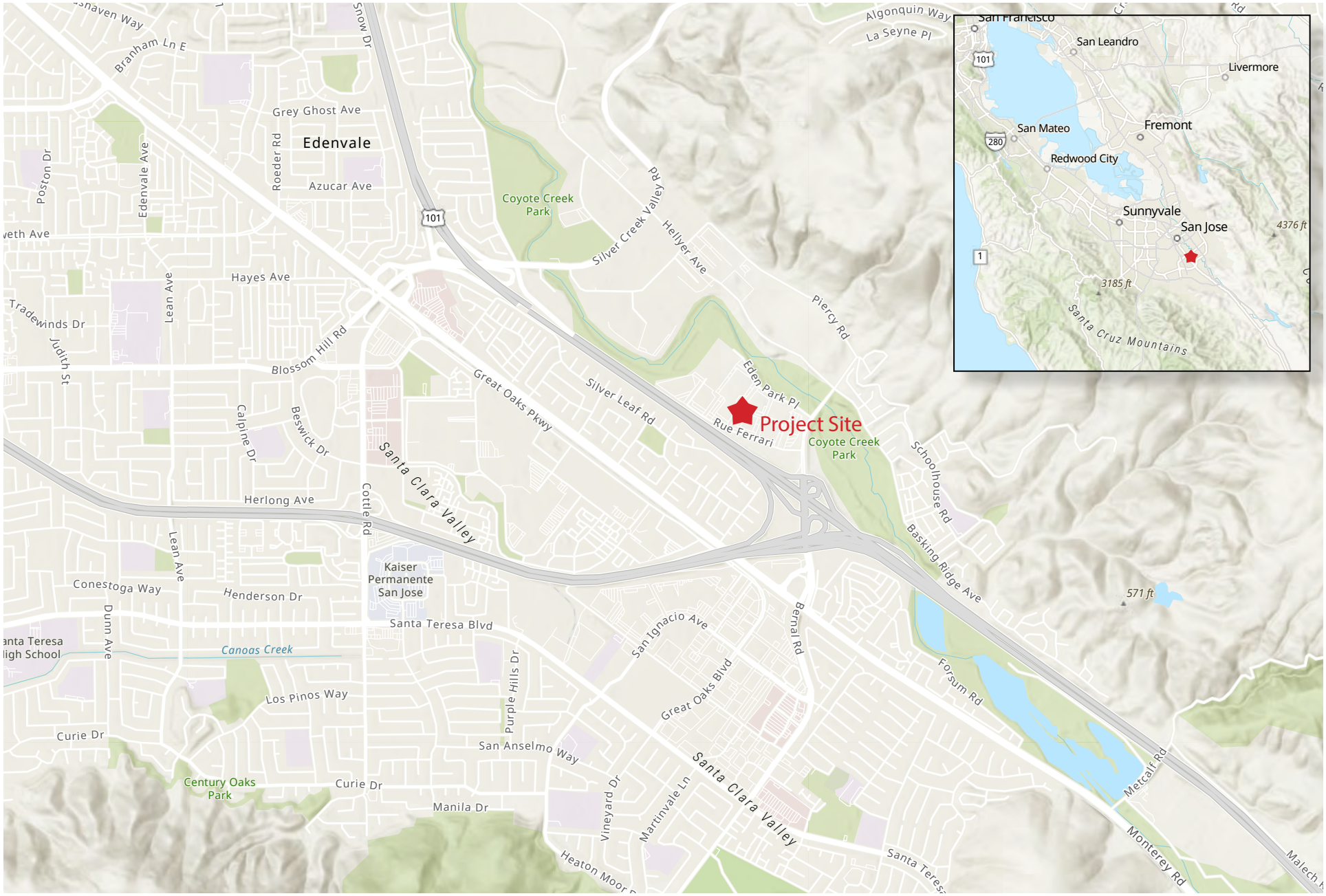
1.2 PROJECT DESCRIPTION

The project site is located at 5853 Rue Ferrari in the City of San José, California on an approximate 17.38-acre parcel. The proposed 5853 Rue Ferrari project (proposed project or project) would demolish the two existing warehouse buildings and construct one industrial warehouse building with a loading dock area on the west side of the warehouse building. Construction of the project is expected to commence in February 2022 and last for approximately 1 year. The proposed development would contain approximately 292,772 square feet of warehouse space and 10,000 square feet of office space, see Figure 3: Site Plan.

The proposed warehouse building would include 47 loading dock doors for trailer, box, and recycling trucks on the west side of the warehouse building. The proposed project also includes surface parking with 110 trailer truck stalls and 301 automobile stalls on site. Automobile parking would be located north, east, and south of the warehouse building while the trailer truck parking would be located west of the warehouse building. Additionally, 10 motorcycle parking spaces and 60 bicycle parking spaces would be located around the office space. The primary pedestrian entrance to the building would be provided from Rue Ferrari. Access to the project site would be provided by four driveways, two off Rue Ferrari and two off Eden Park Place.

The project site has mature landscape vegetation including trees and shrubs along the site boundary and throughout the surface parking lot. The proposed project would include additional landscaping throughout the site would include a mix of trees, grasses, shrubs and groundcover.

The project site is designated as Combined Industrial/Commercial (CIC) by the General Plan, which allows for warehousing uses. The project site is zoned as Industrial Park (IP). The IP Zoning District allows for a warehouse/distribution facility.



Source: USGS, 2021

Figure 1: Regional Map

5853 Rue Ferrari Project

Not to scale

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Source: Nearmap, 2021

Figure 2: Project Vicinity Map

5853 Rue Ferrari Project

Not to scale

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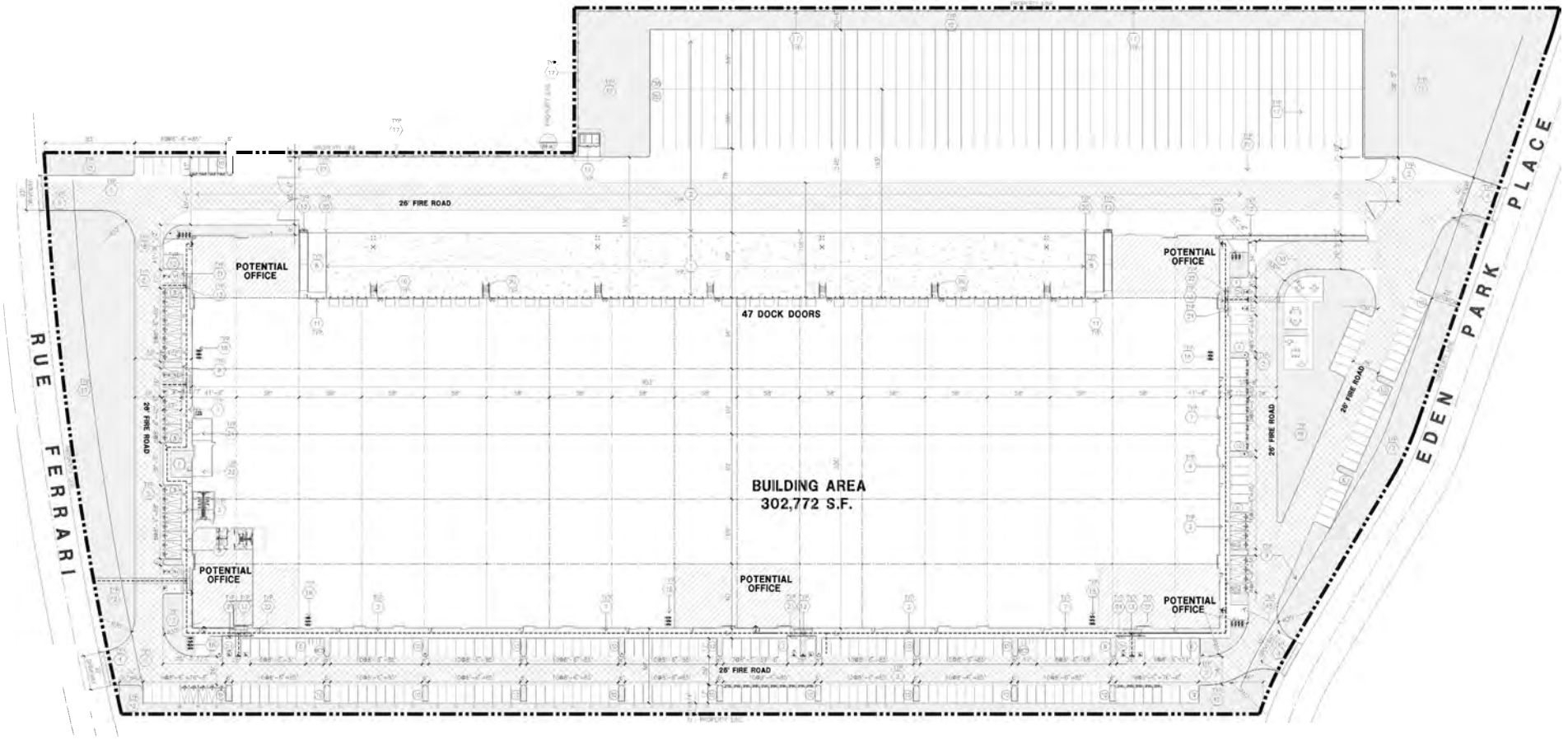

Source: Duke Realty, 2021

Figure 3: Site Plan

5853 Rue Ferrari Project

Not to scale

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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_X), sulfur dioxide (SO_2), coarse particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), and lead are primary air pollutants. Of these, CO, NO_X, SO_2, PM_{10}, and $PM_{2.5}$ are criteria pollutants. ROG and NO_X 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_3) is formed by a chemical reaction between ROG and NO_X in the presence of sunlight. O_3 and nitrogen dioxide (NO_2) are the principal secondary pollutants. Sources and health effects commonly associated with criteria pollutants are summarized in Table 1: Air 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_{10} and $PM_{2.5}$)	Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning 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_3)	Formed by a chemical reaction between reactive organic gases/volatile organic compounds (ROG or VOC)[1] and nitrogen oxides (NO_X) 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_2)	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_2)	A reddish-brown gas formed during fuel combustion for motor vehicles and industrial sources. Sources include motor vehicles, electric utilities, and other sources that burn fuel.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone. 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.

[1] 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 August 16, 2021.

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 9.2 miles northwest of the project site. Local air quality data from 2017 to 2019 is provided in Table 2: Ambient Air Quality Data, which 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 2019 at the closest monitoring station.

Table 2: Ambient Air Quality Data

Pollutant	San Jose- Jackson Street[1]		
	2017	2018	2019
Ozone (O_3)			
1-hour Maximum Concentration (ppm)	0.121	0.078	0.095
8-hour Maximum Concentration (ppm)	0.098	0.061	0.081
Number of Days Standard Exceeded			
CAAQS 1-hour (>0.09 ppm)	3	0	1
NAAQS 8-hour (>0.070 ppm)	4	0	2
Carbon Monoxide (CO)			
1-hour Maximum Concentration (ppm)	2.15	2.51	1.71
Number of Days Standard Exceeded			
NAAQS 1-hour (>35 ppm)	0	0	0
CAAQS 1 hour (>20 ppm)	0	0	0
Nitrogen Dioxide (NO_2)			
1-hour Maximum Concentration (ppm)	0.0675	0.0861	0.0598
Number of Days Standard Exceeded			
NAAQS 1-hour (>0.100 ppm)	0	0	0
CAAQS 1-hour (>0.18 ppm)	0	0	0
Particulate Matter Less Than 2.5 Microns ($PM_{2.5}$)			
National 24-hour Maximum Concentration	49.7	133.9	27.6
State 24-hour Maximum Concentration	49.7	133.9	34.4
Number of Days Standard Exceeded			
NAAQS 24-hour (>150 µg/m^3)	6	15	0
CAAQS 24-hour (>50 µg/m^3)	11	13	13
Particulate Matter Less Than 10 Microns (PM_{10})			
National 24-hour Maximum Concentration	69.4	115.4	75.4
State 24-hour Maximum Concentration	69.8	121.8	77.1
Number of Days Standard Exceeded			
NAAQS 24-hour (>150 µg/m^3)	0	0	0
CAAQS 24-hour (>50 µg/m^3)	6	4	4

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

[1] Measurements taken at the San Jose-Jackson Street Monitoring Station located at 156B Jackson Street, San Jose, California 95112 (CARB# 43383).

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 industrial area in City of San José. The surrounding land uses are predominantly commercial and industrial, with some housing to the east and west. The southeastern

boundary of the site is Rue Ferrari. Table 3: Sensitive Receptors, lists the distances and locations of nearby sensitive receptors. Figure 4: Sensitive Receptor Locations, shows the nearest sensitive receptors.

Table 3: Sensitive Receptors

Receptor Description	Distance and Direction from the Project Site
1. Carrington College	45 feet east
2. Gateway City Church and Daycare	45 feet east
3. Coyote Creek Trail	100 feet northeast
4. San Jose Emergency Interim Housing	300 feet southeast
5. Single family homes	400 feet southwest
6. Starlight High School	420 feet east

Figure 4: Sensitive Receptors

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 EPA developed the primary and secondary National Ambient Air Quality Standards (NAAQS) for the criteria air pollutants including ozone, NO_2, CO, SO_2, PM_{10}, $PM_{2.5}$, 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. Environmental Protection Agency (EPA) has designated enforcement of air pollution control regulations to the individual states. Applicable federal standards are summarized in Table 4: State and Federal Ambient Air Quality Standards.

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 Table 4, 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_3 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 $PM_{2.5}$. The region is also considered to be in nonattainment with the CAAQS for PM_{10} and $PM_{2.5}$. Area sources generate the majority of these airborne particulate emissions. The Basin is considered in attainment or unclassified with respect to the CO, NO_2 and SO_2 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 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

Pollutant	Averaging Time	State Standards[1]		Federal Standards[2]	
		Concentration	Attainment Status	Concentration[3]	Attainment Status
Ozone (O_3)	8 Hour	0.070 ppm (137 µg/m³)	N[9]	0.070 ppm	N[4]
	1 Hour	0.09 ppm (180 µg/m³)	N	NA	N/A[5]
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10 mg/m³)	A	9 ppm (10 mg/m³)	A[6]
	1 Hour	20 ppm (23 mg/m³)	A	35 ppm (40 mg/m³)	A
Nitrogen Dioxide (NO_2)	1 Hour	0.18 ppm (339 µg/m³)	A	0.100 ppm[11]	U
	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)	-	0.053 ppm (100 µg/m³)	A
Sulfur Dioxide[12] (SO_2)	24 Hour	0.04 ppm (105 µg/m³)	A	0.14 ppm (365 µg/m³)	A
	1 Hour	0.25 ppm (655 µg/m³)	A	0.075 ppm (196 µg/m³)	A
	Annual Arithmetic Mean	NA	-	0.03 ppm (80 µg/m³)	A
Particulate Matter (PM_{10})	24-Hour	50 µg/m³	N	150 µg/m³	-U
	Annual Arithmetic Mean	20 µg/m³	N[7]	NA	-
Fine Particulate Matter ($PM_{2.5}$)[15]	24-Hour	NA	-	35 µg/m³	U/A
	Annual Arithmetic Mean	12 µg/m³	N[7]	12 µg/m³	N
Sulfates (SO_{4-2})	24 Hour	25 µg/m³	A	NA	-
Lead (Pb)[13, 14]	30-Day Average	1.5 µg/m³	-	NA	A
	Calendar Quarter	NA	-	1.5 µg/m³	A
	Rolling 3-Month Average	NA	-	0.15 µg/m³	-
Hydrogen Sulfide (H_2S)	1 Hour	0.03 ppm (42 µg/m³)	U	NA	-
Vinyl Chloride (C_2H_3Cl)	24 Hour	0.01 ppm (26 µg/m³)	-	NA	-
Visibility Reducing Particles[8]	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; µg/m³ = micrograms per cubic meter; mg/m³ = milligrams per cubic meter; – = not indicated or no information available.

1. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, suspended particulate matter - PM_{10}, 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_{10} 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 4th highest daily concentrations is 0.070 ppm (70 ppb) or less. The 24-hour PM_{10} standard is attained when the 3-year average of the 99th percentile of monitored concentrations is less than 150 µg/m_3. The 24-hour $PM_{2.5}$ standard is attained when the 3-year average of 98th percentiles is less than 35 µg/m³.
   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_{10} is met if the 3-year average falls below the standard at every site. The annual $PM_{2.5}$ standard is met if the 3-year average of annual averages spatially-averaged across officially designed clusters of sites falls below the standard.
3. National air quality standards are set by the 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. 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 $PM_{2.5}$ and PM_{10}.
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, EPA issued a final rule to determine that the Bay Area attains the 24-hour $PM_{2.5}$ national standard. This EPA rule suspends key SIP requirements as long as monitoring data continues to show that the Bay Area attains the standard. Despite this EPA action, the Bay Area will continue to be designated as "nonattainment" for the national 24-hour $PM_{2.5}$ standard until such time as the Air District submits a "redesignation request" and a "maintenance plan" to EPA, and 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 US Environmental Protection Agency (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_2 standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. The existing 0.030 ppm annual and 0.14 ppm 24-hour SO_2 NAAQS however must continue to be used until one year following U.S. EPA initial designations of the new 1-hour SO_2 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, EPA strengthened the annual $PM_{2.5}$ National Ambient Air Quality Standards (NAAQS) from 15.0 to 12.0 micrograms per cubic meter ($\mu g/m^3$). In December 2014, EPA issued final area designations for the 2012 primary annual $PM_{2.5}$ 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, 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 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_X), 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 derived from State 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 the California Environmental Quality Act (CEQA), the Bay Area Air Quality Management District (BAAQMD) is an expert commenting agency on air quality within its jurisdiction or impacting its jurisdiction. Under the Federal Clean Air Act (FCAA), the BAAQMD has adopted Federal attainment plans for O_3 and $PM_{2.5}$. 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 Table 5: 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

Criteria Air Pollutants and Precursors (Regional)	Construction-Related	Operational-Related	
	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_X)	54	54	10
Coarse Particulates (PM_{10})	82 (exhaust)	82	15
Fine Particulates ($PM_{2.5}$)	54 (exhaust)	54	10
PM_{10} / $PM_{2.5}$ (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 (August 2020). Emissions rates in CalEEMod have been updated with CARB SAFE Rule adjustment factors and EMFAC2017 emission rates consistent with the methodology described in Section 5.2 *Methodology for Converting EMFAC2014 Emission Rates into CalEEMod Vehicle Emission Factors* of *Appendix A: Calculation Details for CalEEMod* in the *CalEEMod User Guide*. 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 2017 Bay Area 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.

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 303 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 City[1]. The project is consistent with the City General Plan, therefore the addition of 303 new jobs would be within the ABAG growth projections for the City of approximately 554,875 job 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 be increased to a job per employed resident ratio of 1.3. The increase in jobs would incrementally decrease the overall jobs/housing imbalance within the City. The project would not exceed the level of population or housing in regional planning efforts. Additionally, the 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 Progress Report 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 the site, but bases 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.

1 City of San José. Envision San José 2040 General Plan DEIR.

The project is consistent with the 2017 Clean Air Plan policies that are applicable to the project site. As discussed in Table 6: Project Consistency with Applicable Clean Air Plan Control Measures, 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**. Any future sources of TACs would be subject to the new source rule, would require permits, and would be required to implement best available control measures.
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 construction.
SS26: Surface Prep and Cleaning Solvent	
SS29: Asphaltic Concrete	**Consistent**. 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	**Consistent**. BAAQMD is the responsible party for implementation of this regulation. The project 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	**Consistent**. 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	**Consistent**. Use of back-up generators by the project is currently not anticipated. However, if emergency generators were to be installed they would be required to meet the BAAQMD's emissions standards for back-up generators.
SS33: Commercial Cooking Equipment	**Consistent**. The project does include the potential development of additional 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	**Consistent**. The project would comply with BAAQMD Regulation 6, Rule 3 and prohibit the construction of wood burning appliances/ fireplaces.
SS36: Particulate Matter from Trackout	**Consistent**. 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 dust control measures and City Standard Permit Conditions.
SS37: Particulate Matter from Asphalt Operations	**Consistent**. Paving and roofing activities associated with the project would be required to utilize best management practices 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 best management practices, such as watering exposed surfaces twice a day, covering haul trucks, keeping

Control Measure	Project Consistency
	vehicle speeds on unpaved roads under 15 mph, to minimize the creation of fugitive dust. See City of San José Standard Permit Conditions for a more detailed list.
SS40: Odors	**Consistent**. The project is an industrial development and is not anticipated to generate odors. The project would comply with BAAQMD Regulation 7 to strengthen odor standards and enhance enforceability.
Transportation Control Measures	
TR2: Trip Reduction Programs	**Consistent**. The project would include a number of vehicle miles traveled (VMT) reduction strategies such as Tier 1 – Project Characteristics such as project density, activity mix, and employment density. Additionally, the project includes Tier 2- Multimodal Infrastructure such as travel demand measures (TDM) such as network connectivity/design improvements, pedestrian improvements, and bike access improvements. These VMT reduction strategies would help reduce vehicle miles traveled (VMT) and mobile greenhouse gas emissions.
TR8: Ridesharing and Last-Mile Connections	
TR9: Bicycle and Pedestrian Access Facilities	**Consistent**. There are no bicycle facilities in the area which provide Class II bike lanes with buffered striping to separate the vehicle and bike travel way. However, the proposed project would include 30 bicycle parking spaces.
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 2,000 feet of a transit stop at Monterey Road / Tennant Avenue intersection. 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	**Consistent.** The proposed project would create approximately 348 new parking spaces (47 trailer spaces and 301 automobile spaces). The proposed parking is sufficient for the proposed uses.
TR19: Medium and Heavy Duty Trucks	**Consistent.** The project includes a warehousing use that would generate truck trips. However, per the transportation analysis prepared for the project indicated there would be approximately 112 daily truck trips. The project would not conflict with the implementation of this measure.
TR22: Construction, Freight and Farming Equipment	**Consistent**. The Project would comply through implementation of the BAAQMD standard condition, which requires construction equipment to be properly maintained.
Energy and Climate Control Measures	
EN1: Decarbonize Electricity Generation	**Consistent**. The project would be constructed in accordance with the latest California Building Code and green building regulations/CalGreen.

Control Measure	Project Consistency
EN2: Decrease Electricity Demand	The proposed development would be constructed in compliance with the City's Council Policy 6-32 and the City's Green Building Ordinance.
Buildings Control Measures	
BL1: Green Buildings	**Consistent**. The project would be constructed in accordance with the latest California Building Code and green building regulations/CalGreen. The proposed development would be constructed in compliance with the City's Council Policy 6-32 and the City's Green Building Ordinance.
L2: Decarbonize Buildings	
BL4: Urban Heat Island Mitigation	**Consistent**. The project would demolish the two existing warehouse buildings and associated asphalt surfaces. The project would include some landscaping.
Natural and Working Lands Control Measures	
NW2: Urban Tree Planting	**Not Applicable**. The project site is in an existing warehouse building. The project includes landscaping with native vegetation and trees.
Waste Management Control Measures	
WA1: Landfills	**Consistent**. The waste service provider for the project would be required to meet the AB 341 and SB 939, 1374, and 1383 requirements that require waste service providers to divert and recycle waste. Per Cal Green requirements the project would recycle construction waste.
WA3: Green Waste Diversion	
WA4: Recycling and Waste Reduction	
Water Control Measures	
WR2: Support Water Conservation	**Consistent**. The project would implement water conservation measures and low flow fixtures as required by Title 24, CalGreen, and the City of San Jose's 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 Kimley-Horn & Associates, 2021.	

The addition of 303 new jobs as a result of the proposed project would be within the ABAG growth projections for the City of approximately 554,875 jobs by 2040. Therefore, population growth from the project would be consistent with ABAG's projections for the City and with the City's General Plan. In addition, the City of San José is "housing-rich", and the increase of jobs would promote a jobs/housing balance that is closer to 1 to 1. Population growth from the project would be consistent with ABAG's projections for the City and with the City's General Plan. Thus, the project would not exceed the assumptions in the General Plan or the Clean Air Plan.

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.

The duration of construction activities associated with the project are estimated to last approximately 12 months, beginning in February 2022 and last approximately one year. 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 demolition and site preparation are anticipated to begin in February 2022 and last approximately two months. Project grading and construction is anticipated to begin in March 2022 and last approximately eight months and would import approximately 5,000 cubic yards (cy) of soil. Paving and architectural coating were modeled to be completed February 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 Modeling 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.

Table 7: Construction-Related Emissions

Construction Year	Pollutant (maximum pounds per day)[1]					
	Reactive Organic Gases (ROG)	Nitrogen Oxide (NO_x)	Exhaust		Fugitive Dust	
			Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)	Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)
2022	36.82	50.75	1.66	1.53	33.31	10.14
2023	34.06	1.41	0.07	0.73	0.45	0.12
Maximum	**36.82**	**50.75**	**1.66**	**1.53**	**33.31**	**10.14**
BAAQMD Significance Threshold [2, 3]	*54*	*54*	*82*	*54*	*BMPs*	*BMPs*
Exceed BAAQMD Threshold?	**No**	**No**	**No**	**No**	**N/A**	**N/A**

1. Emissions were calculated using CalEEMod. 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. These emissions do not include MM HRA-1 Tier 4 Final construction equipment. That would result in further reduction in NO_x and exhaust PM.
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.

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

Fugitive Dust Emissions. Fugitive dust emissions are associated with land clearing, ground excavation, cut-and-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 and 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.

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.

Construction Equipment and Worker Vehicle Exhaust. 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

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

ROG Emissions. In addition to gaseous and particulate emissions, the application of asphalt and surface coatings creates ROG emissions, which are O_3 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 2022 and lasting approximately four 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. Regulation 8, Rule 3 provides specifications on painting practices and regulates the ROG content of paint.

Summary. As shown in Table 7, 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, 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). Table 8: Maximum Daily Project Operational Emissions shows that the project's maximum emissions would not exceed BAAQMD operational thresholds.

Table 8: Maximum Daily Project Operational Emissions

Emissions Source	Pollutant (maximum pounds per day)[1]					
	Reactive Organic Gases (ROG)	Nitrogen Oxides (NO_X)	Exhaust		Fugitive Dust	
			Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)	Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)
Existing Project Site						
Area	7.45	0.00	0.00	0.00	0.00	0.00
Energy	0.03	0.26	0.02	0.02	0.00	0.00
Mobile	13.54	19.66	0.25	0.23	18.40	5.14
Total Emissions	**21.02**	**19.93**	**0.27**	**0.25**	**18.40**	**5.14**
Proposed Project						

Emissions Source	Pollutant (maximum pounds per day)[1]					
	Reactive Organic Gases (ROG)	Nitrogen Oxides (NO_X)	Exhaust		Fugitive Dust	
			Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)	Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)
Area	7.52	0.00	0.00	0.00	0.00	0.00
Energy	0.03	0.28	0.02	0.02	0.00	0.00
Mobile	7.69	32.22	0.32	0.30	25.18	6.77
Total Project Emissions	**15.23**	**32.50**	**0.34**	**0.32**	**25.18**	**6.77**
Net Emissions						
Existing Project Site	20.92	19.93	0.27	0.25	18.40	5.14
Proposed Project	15.23	30.01	0.34	0.32	25.18	6.77
Net Change	**-5.69**	**+10.08**	**+0.07**	**+0.07**	**+6.78**	**+1.63**
BAAQMD Significance Threshold[2]	*54*	*54*	*82*	*54*	*N/A*	*N/A*
BAAQMD Threshold Exceeded?	**No**	**No**	**No**	**No**	**N/A**	**N/A**

1. Emissions were calculated using CalEEMod.
2. Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines*, 2017.

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

Area Source Emissions Area source emissions would be generated due to the use consumer products, architectural coating, and landscaping.

Energy Source Emissions. 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.

Mobile Sources. 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 (2021). Based on the Transportation Analysis, the project would result in a gross total of 2,477 daily vehicle trips. However, with applicable trip reductions including location-based mode-share the project would result in a net of 2,155 new trips. The existing site generates 2,789 vehicle trips, therefore the project would not generate any additional daily trips.

Total Operational Emissions. As indicated in Table 8, net project operational emissions would not exceed BAAQMD thresholds. As noted above, the BAAQMD has set its CEQA significance threshold based on the trigger levels for the federal NSR 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. 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. discussed above, the project's construction-related emissions would not have the potential to 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, it can be expected that 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 mitigation 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.[2]

As shown in Table 8, 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?

[2] 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).

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 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. The maximally exposed individual (MEI) during construction (i.e., the closest sensitive receptor) to the project site are the church/daycare (approximately 45 feet away).

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.

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 (2021), maximum (worst case) PM_{25} 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 this assessment are summarized in Table 9: Construction Risk.

Table 9: Construction Risk

Emissions Sources	Pollutant Concentration ($\mu g/m^3$)	Cancer Risk (per Million)	Chronic Hazard	Acute Hazard
Unmitigated				
Construction	0.088	27.93	0.018	0.173
BAAQMD Threshold	*0.3*	*10*	*1.0*	*1.0*
Threshold Exceeded?	**No**	**Yes**	**No**	**No**

Emissions Sources	Pollutant Concentration (µg/m³)	Cancer Risk (per Million)	Chronic Hazard	Acute Hazard
Mitigated				
Construction	0.011	3.47	0.002	0.022
BAAQMD Threshold	*0.3*	*10*	*1.0*	*1.0*
Threshold Exceeded?	**No**	**No**	**No**	**No**

1. Heavy-duty off-road construction equipment would also meet CARB Tier 4 Final emissions standards per Mitigation Measure HRA-1.
Refer to Appendix A: Air Quality Modeling Data.

Maximum unmitigated concentration of $PM_{2.5}$ during construction would be 0.09 µg/m³, which would not exceed the BAAQMD threshold of 0.3 µg/m³. The highest calculated unmitigated carcinogenic risk from project construction would be 28 per million, which would exceed the BAAQMD threshold of 10 in one million. The MEI during construction (i.e., the closest sensitive receptor) to the Project site are the church/daycare (approximately 45 feet away).

Mitigation Measure HRA-1 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 HRA-1 would reduce the Project's maximum cancer risk to 3.47 per million, which are below the BAAQMD thresholds of 10 in one million. Non-cancer hazards for DPM would be below BAAQMD threshold, with a chronic hazard index computed at 0.009 and an acute hazard index of 0.16 without mitigation and 0.002 and 0.022 with mitigation. Acute and chronic hazards would be below the BAAQMD significance threshold of 1.0. As described above, construction risk levels would be below the BAAQMD's thresholds with Mitigation Measure HRA-1. Construction risk levels would be less than significant with mitigation.

Operational Toxic Air Contaminants

The project would demolish the existing buildings onsite and construct a new 302,772 square feet office/warehouse industrial building. According to the Transportation Analysis prepared, the project would include passenger vehicles, vans, and trucks. The project is anticipated to generate approximately 2,155 daily vehicle trips. As shown in Table 10: Operational Risk Assessment Results, the highest calculated carcinogenic risk resulting from the project is 0.31 per million residents, which is below the BAAQMD threshold of 10 per million. 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)	Maximum Cancer Risk (Risk per Million)	Chronic Noncancer Hazard	Acute Noncancer Hazard
Particulate Matter ($PM_{2.5}$)	0.001	0.31	0.0001	0.001
Threshold	*NA*	*10 in one million*	*1.0*	*1.0*
Exceed Threshold?	**No**	**No**	**No**	**No**

Refer to Appendix A: Modeling Data.
1. The maximum cancer would be experienced at the temporary housing shelters located southeast along Rue Ferrari based on worst-case exposure durations for the Project, 95th percentile breathing rates, and 30-year averaging time.

The pollutant concentrations modeled in AERMOD represent the exposure levels outdoors. The BAAQMD conservatively does not include indoor exposure adjustments for residents. However, the typical person spends the majority of time indoors rather than remaining outdoors in the same location for 24 hours a

day.[3] Therefore, the AERMOD outdoor pollutant concentrations are not necessarily representative of actual exposure at the project site, and tend to overestimate exposure.

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. There was one stationary sources located within a 1,000-foor radius of the project site. Table 11: Cumulative Operational Health Risk below shows the cumulative health risk values for the proposed project.

Table 11: Cumulative Operational Health Risk

Emissions Sources	$PM_{2.5}$ (µg/m^3)	Cancer Risk (per million)	Hazard
Project Mobile Emissions	0.001	0.31	0.0001
Major Street Sources[1]	0.001	0.07	0.004
Highway Sources[1]	0.43	30.65	1.72
Railway Sources[1]	0.002	1.17	0.01
Stationary Sources			
San Jose Behavioral Health	0.00	0.12	0.00
Cumulative Health Risk Values	**0.434**	**32.32**	**1.734**
BAAQMD Cumulative Threshold	*0.8*	*100*	*10*
Threshold Exceeded?	**No**	**No**	**No**

1. BAAQMD GIS data.
Source: BAAQMD's Stationary Source Data and GIS Mapping Tools, 2021.

As described above in Table 11, cumulative impacts related to $PM_{2.5}$, cancer risk and hazard would be less than cumulatively considerable and within acceptable limits. 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 not generate any 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).

[3] California Air Resources Board Research Division and University of California, Berkeley, *Activity Patterns of California Residents,* May 1991. The study indicates that on average, adults and adolescents in California spent almost 15 hours per day inside their homes, and 6 hours in other indoor locations, for a total of 21 hours (87% of the day). Approximately two hours per day were spent in transit, and just over one hour per day was spent in outdoor locations.

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, however, 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 "hot spots," 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 carbon monoxide (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 (2021), the project would not generate any net new daily trips. The project's effects to existing vehicle distribution and travel speeds would be nominal. Therefore, the project would not involve intersections with more than 24,000 or 44,000 vehicles per hour. As a result, the project would not have the potential to create a CO hotspot and impacts would be less than significant.

Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact.

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

Construction

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 project includes a 302,772 SF industrial/office building which is not anticipated to generate odors. The activities would be primarily indoors and the building construction would be built to local and State requirements. The proposed warehouse building would not include industrial operations, heavy manufacturing, or and other odor generating sources. 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.

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_{10}, and $PM_{2.5}$ and federal standards of ozone and $PM_{2.5,}$ attainment and serious maintenance for federal PM_{10} 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.

6 REFERENCES

1. Bay Area Air Quality Management District, *Planning Healthy Places*, 2016.
2. Bay Area Air Quality Management District, *CEQA Air Quality Guidelines,* 2017.
3. Bay Area Air Quality Management District, *Clean Air Plan*, 2017.
4. Bay Area Air Quality Management District, *Air Quality Standards and Attainment Status,* 2017.
5. Bay Area Air Quality Management District, *Current Rules*, 2017.
6. California Air Pollution Control Officers Association (CAPCOA), *Health Effects*, 2018.
7. California Air Pollution Control Officers Association (CAPCOA), *Health Risk Assessments for Proposed Land Use Projects*, 2009.
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.
10. California Air Resources Board, *Current Air Quality Standards*, 2016.
11. California Air Resources Board, *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*, 2000.
12. City of San José, *General Plan,* 2018.
13. City of San José, *Municipal Code*, 2019.
14. Federal Highway Administration*, Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents,* 2016.
15. Kimley-Horn & Associates, *5853 Rue Ferrari Development Transportation Analysis*, July 2021.
16. Office of Environmental Health Hazard Assessment, *Air Toxics Hot Spots Program Risk Assessment Guidelines*, 2015.
17. United States Environmental Protection Agency, *National Ambient Air Quality Standards Table*, 2016.
18. United States Environmental Protection Agency, *Nonattainment Areas for Criteria Pollutants*, 2018.
19. United States Environmental Protection Agency, *Policy Assessment for the Review of the Lead National Ambient Air Quality Standards*, 2013.

Appendix A

Air Quality Modeling Data

Rue Ferrari Existing - Santa Cruz County, Summer

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

Rue Ferrari Existing

Santa Cruz County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	286.33	1000sqft	6.57	286,330.00	0
Other Non-Asphalt Surfaces	107.51	1000sqft	2.47	107,510.00	0
Parking Lot	373.19	1000sqft	8.57	373,190.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	1.8	**Precipitation Freq (Days)**	61
Climate Zone	4			**Operational Year**	2021
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Existing Use no construction

Grading -

Vehicle Trips - Per Transportation Analysis

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblGrading	AcresOfGrading	90.00	0.00
tblGrading	AcresOfGrading	15.00	0.00

Rue Ferrari Existing - Santa Cruz County, Summer

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

tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.74	9.74
tblVehicleTrips	SU_TR	1.74	9.74
tblVehicleTrips	WD_TR	1.74	9.74

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/day										lb/day					
2021	4.2703	46.4593	31.5966	0.0813	18.2141	2.0455	20.2597	9.9699	1.8819	11.8518	0.0000	8,239.4558	8,239.4558	1.9490	0.5559	8,424.7362
2022	3.1990	25.7203	29.0166	0.0799	3.4953	0.9169	4.4122	0.9461	0.8638	1.8099	0.0000	8,098.8873	8,098.8873	0.7635	0.5367	8,277.8989
2023	209.5078	22.9912	27.6858	0.0782	3.4954	0.7620	4.2574	0.9462	0.7174	1.6635	0.0000	7,938.9573	7,938.9573	0.7448	0.5148	8,110.9784
Maximum	**209.5078**	**46.4593**	**31.5966**	**0.0813**	**18.2141**	**2.0455**	**20.2597**	**9.9699**	**1.8819**	**11.8518**	**0.0000**	**8,239.4558**	**8,239.4558**	**1.9490**	**0.5559**	**8,424.7362**

Mitigated Construction

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

Rue Ferrari Existing - Santa Cruz County, Summer

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

2021	4.2703	46.4593	31.5966	0.0813	18.2141	2.0455	20.2597	9.9699	1.8819	11.8518	0.0000	8,239.4558	8,239.4558	1.9490	0.5559	8,424.7362
2022	3.1990	25.7203	29.0166	0.0799	3.4953	0.9169	4.4122	0.9461	0.8638	1.8099	0.0000	8,098.8873	8,098.8873	0.7635	0.5367	8,277.8989
2023	209.5078	22.9912	27.6858	0.0782	3.4954	0.7620	4.2574	0.9462	0.7174	1.6635	0.0000	7,938.9573	7,938.9573	0.7448	0.5148	8,110.9784
Maximum	**209.5078**	**46.4593**	**31.5966**	**0.0813**	**18.2141**	**2.0455**	**20.2597**	**9.9699**	**1.8819**	**11.8518**	**0.0000**	**8,239.4558**	**8,239.4558**	**1.9490**	**0.5559**	**8,424.7362**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.4508	7.2000e-004	0.0786	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1679	0.1679	4.5000e-004		0.1790
Energy	0.0291	0.2646	0.2222	1.5900e-003		0.0201	0.0201		0.0201	0.0201		317.4779	317.4779	6.0800e-003	5.8200e-003	319.3645
Mobile	13.5437	17.1879	123.3313	0.2000	18.4031	0.2464	18.6495	4.9076	0.2316	5.1392		20,410.1638	20,410.1638	1.7604	1.0480	20,766.4644
Total	**21.0236**	**17.4532**	**123.6321**	**0.2016**	**18.4031**	**0.2668**	**18.6699**	**4.9076**	**0.2520**	**5.1596**		**20,727.8095**	**20,727.8095**	**1.7669**	**1.0538**	**21,086.0079**

Mitigated Operational

Rue Ferrari Existing - Santa Cruz 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/day					
Area	7.4508	7.2000e-004	0.0786	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1679	0.1679	4.5000e-004		0.1790
Energy	0.0291	0.2646	0.2222	1.5900e-003		0.0201	0.0201		0.0201	0.0201		317.4779	317.4779	6.0800e-003	5.8200e-003	319.3645
Mobile	13.5437	17.1879	123.3313	0.2000	18.4031	0.2464	18.6495	4.9076	0.2316	5.1392		20,410.1638	20,410.1638	1.7604	1.0480	20,766.4644
Total	**21.0236**	**17.4532**	**123.6321**	**0.2016**	**18.4031**	**0.2668**	**18.6699**	**4.9076**	**0.2520**	**5.1596**		**20,727.8095**	**20,727.8095**	**1.7669**	**1.0538**	**21,086.0079**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/17/2021	9/13/2021	5	20	
2	Site Preparation	Site Preparation	9/14/2021	9/27/2021	5	10	
3	Grading	Grading	9/28/2021	11/8/2021	5	30	
4	Building Construction	Building Construction	11/9/2021	1/2/2023	5	300	
5	Paving	Paving	1/3/2023	1/30/2023	5	20	
6	Architectural Coating	Architectural Coating	1/31/2023	2/27/2023	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Rue Ferrari Existing - Santa Cruz County, Summer

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

Acres of Paving: 11.04

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 429,495; Non-Residential Outdoor: 143,165; Striped Parking Area: 28,842

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
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
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Rue Ferrari Existing - Santa Cruz County, Summer

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

Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	322.00	126.00	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	64.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**		**1.5513**	**1.5513**		**1.4411**	**1.4411**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0593	0.0446	0.5386	1.1700e-003	0.1232	9.0000e-004	0.1241	0.0327	8.3000e-004	0.0335		118.9176	118.9176	4.6800e-003	3.9000e-003	120.1958

Rue Ferrari Existing - Santa Cruz County, Summer

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

Total	**0.0593**	**0.0446**	**0.5386**	**1.1700e-003**	**0.1232**	**9.0000e-004**	**0.1241**	**0.0327**	**8.3000e-004**	**0.0335**		**118.9176**	**118.9176**	**4.6800e-003**	**3.9000e-003**	**120.1958**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**		**1.5513**	**1.5513**		**1.4411**	**1.4411**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0593	0.0446	0.5386	1.1700e-003	0.1232	9.0000e-004	0.1241	0.0327	8.3000e-004	0.0335		118.9176	118.9176	4.6800e-003	3.9000e-003	120.1958
Total	**0.0593**	**0.0446**	**0.5386**	**1.1700e-003**	**0.1232**	**9.0000e-004**	**0.1241**	**0.0327**	**8.3000e-004**	**0.0335**		**118.9176**	**118.9176**	**4.6800e-003**	**3.9000e-003**	**120.1958**

Rue Ferrari Existing - Santa Cruz County, Summer

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

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0712	0.0535	0.6463	1.4100e-003	0.1479	1.0800e-003	0.1489	0.0392	9.9000e-004	0.0402		142.7011	142.7011	5.6200e-003	4.6800e-003	144.2350
Total	**0.0712**	**0.0535**	**0.6463**	**1.4100e-003**	**0.1479**	**1.0800e-003**	**0.1489**	**0.0392**	**9.9000e-004**	**0.0402**		**142.7011**	**142.7011**	**5.6200e-003**	**4.6800e-003**	**144.2350**

Mitigated Construction On-Site

Rue Ferrari Existing - Santa Cruz 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/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0712	0.0535	0.6463	1.4100e-003	0.1479	1.0800e-003	0.1489	0.0392	9.9000e-004	0.0402		142.7011	142.7011	5.6200e-003	4.6800e-003	144.2350
Total	**0.0712**	**0.0535**	**0.6463**	**1.4100e-003**	**0.1479**	**1.0800e-003**	**0.1489**	**0.0392**	**9.9000e-004**	**0.0402**		**142.7011**	**142.7011**	**5.6200e-003**	**4.6800e-003**	**144.2350**

3.4 Grading - 2021

Unmitigated Construction On-Site

Date: 10/11/2021 10:40 PM

Rue Ferrari Existing - Santa Cruz 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/day					
Fugitive Dust					6.0221	0.0000	6.0221	3.3102	0.0000	3.3102			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**6.0221**	**1.9853**	**8.0074**	**3.3102**	**1.8265**	**5.1367**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0791	0.0595	0.7181	1.5600e-003	0.1643	1.2000e-003	0.1655	0.0436	1.1000e-003	0.0447		158.5568	158.5568	6.2400e-003	5.2000e-003	160.2611
Total	**0.0791**	**0.0595**	**0.7181**	**1.5600e-003**	**0.1643**	**1.2000e-003**	**0.1655**	**0.0436**	**1.1000e-003**	**0.0447**		**158.5568**	**158.5568**	**6.2400e-003**	**5.2000e-003**	**160.2611**

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

Rue Ferrari Existing - Santa Cruz 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					
Fugitive Dust					6.0221	0.0000	6.0221	3.3102	0.0000	3.3102			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**6.0221**	**1.9853**	**8.0074**	**3.3102**	**1.8265**	**5.1367**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0791	0.0595	0.7181	1.5600e-003	0.1643	1.2000e-003	0.1655	0.0436	1.1000e-003	0.0447		158.5568	158.5568	6.2400e-003	5.2000e-003	160.2611
Total	**0.0791**	**0.0595**	**0.7181**	**1.5600e-003**	**0.1643**	**1.2000e-003**	**0.1655**	**0.0436**	**1.1000e-003**	**0.0447**		**158.5568**	**158.5568**	**6.2400e-003**	**5.2000e-003**	**160.2611**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

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

Rue Ferrari Existing - Santa Cruz County, Summer

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

Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**		**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4618	10.8447	2.5331	0.0292	0.8501	0.1524	1.0025	0.2445	0.1458	0.3903		3,133.3283	3,133.3283	0.0682	0.4723	3,275.7683
Worker	1.2736	0.9572	11.5621	0.0252	2.6452	0.0193	2.6644	0.7016	0.0178	0.7194		2,552.7636	2,552.7636	0.1005	0.0837	2,580.2036
Total	**1.7354**	**11.8019**	**14.0952**	**0.0544**	**3.4953**	**0.1717**	**3.6670**	**0.9461**	**0.1636**	**1.1097**		**5,686.0919**	**5,686.0919**	**0.1687**	**0.5559**	**5,855.9719**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

Rue Ferrari Existing - Santa Cruz County, Summer

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4618	10.8447	2.5331	0.0292	0.8501	0.1524	1.0025	0.2445	0.1458	0.3903		3,133.3283	3,133.3283	0.0682	0.4723	3,275.7683
Worker	1.2736	0.9572	11.5621	0.0252	2.6452	0.0193	2.6644	0.7016	0.0178	0.7194		2,552.7636	2,552.7636	0.1005	0.0837	2,580.2036
Total	**1.7354**	**11.8019**	**14.0952**	**0.0544**	**3.4953**	**0.1717**	**3.6670**	**0.9461**	**0.1636**	**1.1097**		**5,686.0919**	**5,686.0919**	**0.1687**	**0.5559**	**5,855.9719**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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Rue Ferrari Existing - Santa Cruz 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/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	0.3094	9.2609	2.1216	0.0285	0.8502	0.0898	0.9399	0.2445	0.0859	0.3304		3,054.7056	3,054.7056	0.0614	0.4600	3,193.3069
Worker	1.1834	0.8438	10.5317	0.0245	2.6452	0.0181	2.6633	0.7016	0.0167	0.7184		2,489.8481	2,489.8481	0.0902	0.0767	2,514.9598
Total	**1.4927**	**10.1047**	**12.6532**	**0.0529**	**3.4953**	**0.1079**	**3.6032**	**0.9461**	**0.1026**	**1.0487**		**5,544.5537**	**5,544.5537**	**0.1516**	**0.5367**	**5,708.2667**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Mitigated Construction Off-Site

Rue Ferrari Existing - Santa Cruz 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/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	0.3094	9.2609	2.1216	0.0285	0.8502	0.0898	0.9399	0.2445	0.0859	0.3304		3,054.7056	3,054.7056	0.0614	0.4600	3,193.3069
Worker	1.1834	0.8438	10.5317	0.0245	2.6452	0.0181	2.6633	0.7016	0.0167	0.7184		2,489.8481	2,489.8481	0.0902	0.0767	2,514.9598
Total	**1.4927**	**10.1047**	**12.6532**	**0.0529**	**3.4953**	**0.1079**	**3.6032**	**0.9461**	**0.1026**	**1.0487**		**5,544.5537**	**5,544.5537**	**0.1516**	**0.5367**	**5,708.2667**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	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

	ROG	NOx	CO	SO2	Fugitive 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					

Rue Ferrari Existing - Santa Cruz County, Summer

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

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	0.1833	7.8602	1.7952	0.0275	0.8502	0.0452	0.8954	0.2445	0.0432	0.2878		2,953.9199	2,953.9199	0.0559	0.4442	3,087.6788
Worker	1.1021	0.7461	9.6467	0.0237	2.6452	0.0171	2.6622	0.7016	0.0157	0.7174		2,429.8275	2,429.8275	0.0811	0.0706	2,452.8935
Total	**1.2854**	**8.6063**	**11.4418**	**0.0513**	**3.4954**	**0.0622**	**3.5576**	**0.9462**	**0.0590**	**1.0051**		**5,383.7474**	**5,383.7474**	**0.1369**	**0.5148**	**5,540.5724**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	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
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	0.1833	7.8602	1.7952	0.0275	0.8502	0.0452	0.8954	0.2445	0.0432	0.2878		2,953.9199	2,953.9199	0.0559	0.4442	3,087.6788

Rue Ferrari Existing - Santa Cruz County, Summer

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

Worker	1.1021	0.7461	9.6467	0.0237	2.6452	0.0171	2.6622	0.7016	0.0157	0.7174		2,429.8275	2,429.8275	0.0811	0.0706	2,452.8935
Total	**1.2854**	**8.6063**	**11.4418**	**0.0513**	**3.4954**	**0.0622**	**3.5576**	**0.9462**	**0.0590**	**1.0051**		**5,383.7474**	**5,383.7474**	**0.1369**	**0.5148**	**5,540.5724**

3.6 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/day										lb/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	1.1227					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1554**	**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**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0513	0.0348	0.4494	1.1100e-003	0.1232	7.9000e-004	0.1240	0.0327	7.3000e-004	0.0334		113.1907	113.1907	3.7800e-003	3.2900e-003	114.2652

Rue Ferrari Existing - Santa Cruz County, Summer

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

Total	**0.0513**	**0.0348**	**0.4494**	**1.1100e-003**	**0.1232**	**7.9000e-004**	**0.1240**	**0.0327**	**7.3000e-004**	**0.0334**		**113.1907**	**113.1907**	**3.7800e-003**	**3.2900e-003**	**114.2652**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	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	1.1227					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1554**	**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

	ROG	NOx	CO	SO2	Fugitive 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	0.0513	0.0348	0.4494	1.1100e-003	0.1232	7.9000e-004	0.1240	0.0327	7.3000e-004	0.0334		113.1907	113.1907	3.7800e-003	3.2900e-003	114.2652
Total	**0.0513**	**0.0348**	**0.4494**	**1.1100e-003**	**0.1232**	**7.9000e-004**	**0.1240**	**0.0327**	**7.3000e-004**	**0.0334**		**113.1907**	**113.1907**	**3.7800e-003**	**3.2900e-003**	**114.2652**

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Rue Ferrari Existing - Santa Cruz County, Summer

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

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	209.0971					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	**209.2888**	**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 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	0.2190	0.1483	1.9174	4.7200e-003	0.5257	3.3900e-003	0.5291	0.1395	3.1300e-003	0.1426		482.9471	482.9471	0.0161	0.0140	487.5316
Total	**0.2190**	**0.1483**	**1.9174**	**4.7200e-003**	**0.5257**	**3.3900e-003**	**0.5291**	**0.1395**	**3.1300e-003**	**0.1426**		**482.9471**	**482.9471**	**0.0161**	**0.0140**	**487.5316**

Rue Ferrari Existing - Santa Cruz County, Summer

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	209.0971					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	**209.2888**	**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
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	0.2190	0.1483	1.9174	4.7200e-003	0.5257	3.3900e-003	0.5291	0.1395	3.1300e-003	0.1426		482.9471	482.9471	0.0161	0.0140	487.5316
Total	**0.2190**	**0.1483**	**1.9174**	**4.7200e-003**	**0.5257**	**3.3900e-003**	**0.5291**	**0.1395**	**3.1300e-003**	**0.1426**		**482.9471**	**482.9471**	**0.0161**	**0.0140**	**487.5316**

4.0 Operational Detail - Mobile

Rue Ferrari Existing - Santa Cruz County, Summer

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

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	13.5437	17.1879	123.3313	0.2000	18.4031	0.2464	18.6495	4.9076	0.2316	5.1392		20,410.1630	20,410.1630	1.7604	1.0480	20,766.4644
Unmitigated	13.5437	17.1879	123.3313	0.2000	18.4031	0.2464	18.6495	4.9076	0.2316	5.1392		20,410.1630	20,410.1630	1.7604	1.0480	20,766.4644

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	2,788.85	2,788.85	2788.85	8,728,199	8,728,199
Total	2,788.85	2,788.85	2,788.85	8,728,199	8,728,199

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	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
Other Non-Asphalt Surfaces	0.492584	0.055551	0.211895	0.139925	0.032315	0.006837	0.011800	0.003940	0.000827	0.000870	0.036730	0.001182	0.005545
Parking Lot	0.492584	0.055551	0.211895	0.139925	0.032315	0.006837	0.011800	0.003940	0.000827	0.000870	0.036730	0.001182	0.005545
Unrefrigerated Warehouse-No Rail	0.492584	0.055551	0.211895	0.139925	0.032315	0.006837	0.011800	0.003940	0.000827	0.000870	0.036730	0.001182	0.005545

Rue Ferrari Existing - Santa Cruz County, Summer

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0291	0.2646	0.2222	1.5900e-003		0.0201	0.0201		0.0201	0.0201		317.4779	317.4779	6.0800e-003	5.8200e-003	319.3645
NaturalGas Unmitigated	0.0291	0.2646	0.2222	1.5900e-003		0.0201	0.0201		0.0201	0.0201		317.4779	317.4779	6.0800e-003	5.8200e-003	319.3645

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	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	0.0000
Unrefrigerated Warehouse-No	2698.56	0.0291	0.2646	0.2222	1.5900e-003		0.0201	0.0201		0.0201	0.0201		317.4779	317.4779	6.0800e-003	5.8200e-003	319.3645
Total		**0.0291**	**0.2646**	**0.2222**	**1.5900e-003**		**0.0201**	**0.0201**		**0.0201**	**0.0201**		**317.4779**	**317.4779**	**6.0800e-003**	**5.8200e-003**	**319.3645**

Rue Ferrari Existing - Santa Cruz County, Summer

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

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	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	0.0000
Unrefrigerated Warehouse-No	2.69856	0.0291	0.2646	0.2222	1.5900e-003		0.0201	0.0201		0.0201	0.0201		317.4779	317.4779	6.0800e-003	5.8200e-003	319.3645
Total		**0.0291**	**0.2646**	**0.2222**	**1.5900e-003**		**0.0201**	**0.0201**		**0.0201**	**0.0201**		**317.4779**	**317.4779**	**6.0800e-003**	**5.8200e-003**	**319.3645**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.4508	7.2000e-004	0.0786	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1679	0.1679	4.5000e-004		0.1790
Unmitigated	7.4508	7.2000e-004	0.0786	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1679	0.1679	4.5000e-004		0.1790

Rue Ferrari Existing - Santa Cruz County, Summer

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

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.1457					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.2977					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.3400e-003	7.2000e-004	0.0786	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1679	0.1679	4.5000e-004		0.1790
Total	**7.4508**	**7.2000e-004**	**0.0786**	**1.0000e-005**		**2.8000e-004**	**2.8000e-004**		**2.8000e-004**	**2.8000e-004**		**0.1679**	**0.1679**	**4.5000e-004**		**0.1790**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.1457					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.2977					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.3400e-003	7.2000e-004	0.0786	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1679	0.1679	4.5000e-004		0.1790
Total	**7.4508**	**7.2000e-004**	**0.0786**	**1.0000e-005**		**2.8000e-004**	**2.8000e-004**		**2.8000e-004**	**2.8000e-004**		**0.1679**	**0.1679**	**4.5000e-004**		**0.1790**

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Rue Ferrari Existing - Santa Cruz County, Summer

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

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Rue Ferrari Existing - Santa Cruz County, Winter

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

Rue Ferrari Existing

Santa Cruz County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	286.33	1000sqft	6.57	286,330.00	0
Other Non-Asphalt Surfaces	107.51	1000sqft	2.47	107,510.00	0
Parking Lot	373.19	1000sqft	8.57	373,190.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	1.8	**Precipitation Freq (Days)**	61
Climate Zone	4			**Operational Year**	2021
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Existing Use no construction

Grading -

Vehicle Trips - Per Transportation Analysis

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblGrading	AcresOfGrading	90.00	0.00
tblGrading	AcresOfGrading	15.00	0.00

Rue Ferrari Existing - Santa Cruz County, Winter

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

tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.74	9.74
tblVehicleTrips	SU_TR	1.74	9.74
tblVehicleTrips	WD_TR	1.74	9.74

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/day										lb/day					
2021	4.2762	46.4736	31.5998	0.0803	18.2141	2.0455	20.2597	9.9699	1.8819	11.8518	0.0000	8,129.8759	8,129.8759	1.9498	0.5695	8,319.5034
2022	3.2927	26.3280	29.1737	0.0788	3.4953	0.9174	4.4127	0.9461	0.8642	1.8103	0.0000	7,993.1915	7,993.1915	0.7745	0.5492	8,176.2059
2023	209.5255	23.5258	27.8614	0.0772	3.4954	0.7623	4.2577	0.9462	0.7177	1.6638	0.0000	7,838.0663	7,838.0663	0.7549	0.5265	8,013.8436
Maximum	**209.5255**	**46.4736**	**31.5998**	**0.0803**	**18.2141**	**2.0455**	**20.2597**	**9.9699**	**1.8819**	**11.8518**	**0.0000**	**8,129.8759**	**8,129.8759**	**1.9498**	**0.5695**	**8,319.5034**

Mitigated Construction

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

Rue Ferrari Existing - Santa Cruz County, Winter

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

2021	4.2762	46.4736	31.5998	0.0803	18.2141	2.0455	20.2597	9.9699	1.8819	11.8518	0.0000	8,129.8759	8,129.8759	1.9498	0.5695	8,319.5033
2022	3.2927	26.3280	29.1737	0.0788	3.4953	0.9174	4.4127	0.9461	0.8642	1.8103	0.0000	7,993.1915	7,993.1915	0.7745	0.5492	8,176.2059
2023	209.5255	23.5258	27.8614	0.0772	3.4954	0.7623	4.2577	0.9462	0.7177	1.6638	0.0000	7,838.0663	7,838.0663	0.7549	0.5265	8,013.8435
Maximum	**209.5255**	**46.4736**	**31.5998**	**0.0803**	**18.2141**	**2.0455**	**20.2597**	**9.9699**	**1.8819**	**11.8518**	**0.0000**	**8,129.8759**	**8,129.8759**	**1.9498**	**0.5695**	**8,319.5033**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.4508	7.2000e-004	0.0786	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1679	0.1679	4.5000e-004		0.1790
Energy	0.0291	0.2646	0.2222	1.5900e-003		0.0201	0.0201		0.0201	0.0201		317.4779	317.4779	6.0800e-003	5.8200e-003	319.3645
Mobile	13.4410	19.6602	134.5680	0.1936	18.4031	0.2465	18.6497	4.9076	0.2317	5.1393		19,761.0127	19,761.0127	1.9625	9.2772	22,574.6767
Total	**20.9210**	**19.9255**	**134.8688**	**0.1952**	**18.4031**	**0.2669**	**18.6701**	**4.9076**	**0.2521**	**5.1597**		**20,078.6585**	**20,078.6585**	**1.9690**	**9.2830**	**22,894.2202**

Mitigated Operational

Rue Ferrari Existing - Santa Cruz 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					
Area	7.4508	7.2000e-004	0.0786	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1679	0.1679	4.5000e-004		0.1790
Energy	0.0291	0.2646	0.2222	1.5900e-003		0.0201	0.0201		0.0201	0.0201		317.4779	317.4779	6.0800e-003	5.8200e-003	319.3645
Mobile	13.4410	19.6602	134.5680	0.1936	18.4031	0.2465	18.6497	4.9076	0.2317	5.1393		19,761.0127	19,761.0127	1.9625	9.2772	22,574.6767
Total	**20.9210**	**19.9255**	**134.8688**	**0.1952**	**18.4031**	**0.2669**	**18.6701**	**4.9076**	**0.2521**	**5.1597**		**20,078.6585**	**20,078.6585**	**1.9690**	**9.2830**	**22,894.2202**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/17/2021	9/13/2021	5	20	
2	Site Preparation	Site Preparation	9/14/2021	9/27/2021	5	10	
3	Grading	Grading	9/28/2021	11/8/2021	5	30	
4	Building Construction	Building Construction	11/9/2021	1/2/2023	5	300	
5	Paving	Paving	1/3/2023	1/30/2023	5	20	
6	Architectural Coating	Architectural Coating	1/31/2023	2/27/2023	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Rue Ferrari Existing - Santa Cruz County, Winter

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

Acres of Paving: 11.04

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 429,495; Non-Residential Outdoor: 143,165; Striped Parking Area: 28,842

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
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
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Rue Ferrari Existing - Santa Cruz County, Winter

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

Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	322.00	126.00	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	64.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**		**1.5513**	**1.5513**		**1.4411**	**1.4411**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0638	0.0554	0.5410	1.1200e-003	0.1232	9.0000e-004	0.1241	0.0327	8.3000e-004	0.0335		113.8789	113.8789	5.2500e-003	4.5100e-003	115.3543

Rue Ferrari Existing - Santa Cruz County, Winter

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

Total	**0.0638**	**0.0554**	**0.5410**	**1.1200e-003**	**0.1232**	**9.0000e-004**	**0.1241**	**0.0327**	**8.3000e-004**	**0.0335**		**113.8789**	**113.8789**	**5.2500e-003**	**4.5100e-003**	**115.3543**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**		**1.5513**	**1.5513**		**1.4411**	**1.4411**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0638	0.0554	0.5410	1.1200e-003	0.1232	9.0000e-004	0.1241	0.0327	8.3000e-004	0.0335		113.8789	113.8789	5.2500e-003	4.5100e-003	115.3543
Total	**0.0638**	**0.0554**	**0.5410**	**1.1200e-003**	**0.1232**	**9.0000e-004**	**0.1241**	**0.0327**	**8.3000e-004**	**0.0335**		**113.8789**	**113.8789**	**5.2500e-003**	**4.5100e-003**	**115.3543**

Rue Ferrari Existing - Santa Cruz County, Winter

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

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0766	0.0664	0.6492	1.3500e-003	0.1479	1.0800e-003	0.1489	0.0392	9.9000e-004	0.0402		136.6546	136.6546	6.3000e-003	5.4100e-003	138.4251
Total	**0.0766**	**0.0664**	**0.6492**	**1.3500e-003**	**0.1479**	**1.0800e-003**	**0.1489**	**0.0392**	**9.9000e-004**	**0.0402**		**136.6546**	**136.6546**	**6.3000e-003**	**5.4100e-003**	**138.4251**

Mitigated Construction On-Site

Rue Ferrari Existing - Santa Cruz 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					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0766	0.0664	0.6492	1.3500e-003	0.1479	1.0800e-003	0.1489	0.0392	9.9000e-004	0.0402		136.6546	136.6546	6.3000e-003	5.4100e-003	138.4251
Total	**0.0766**	**0.0664**	**0.6492**	**1.3500e-003**	**0.1479**	**1.0800e-003**	**0.1489**	**0.0392**	**9.9000e-004**	**0.0402**		**136.6546**	**136.6546**	**6.3000e-003**	**5.4100e-003**	**138.4251**

3.4 Grading - 2021

Unmitigated Construction On-Site

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Rue Ferrari Existing - Santa Cruz 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					
Fugitive Dust					6.0221	0.0000	6.0221	3.3102	0.0000	3.3102			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**6.0221**	**1.9853**	**8.0074**	**3.3102**	**1.8265**	**5.1367**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0851	0.0738	0.7214	1.5000e-003	0.1643	1.2000e-003	0.1655	0.0436	1.1000e-003	0.0447		151.8385	151.8385	7.0000e-003	6.0100e-003	153.8057
Total	**0.0851**	**0.0738**	**0.7214**	**1.5000e-003**	**0.1643**	**1.2000e-003**	**0.1655**	**0.0436**	**1.1000e-003**	**0.0447**		**151.8385**	**151.8385**	**7.0000e-003**	**6.0100e-003**	**153.8057**

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

Rue Ferrari Existing - Santa Cruz County, Winter

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

Category	lb/day										lb/day					
Fugitive Dust					6.0221	0.0000	6.0221	3.3102	0.0000	3.3102			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**6.0221**	**1.9853**	**8.0074**	**3.3102**	**1.8265**	**5.1367**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0851	0.0738	0.7214	1.5000e-003	0.1643	1.2000e-003	0.1655	0.0436	1.1000e-003	0.0447		151.8385	151.8385	7.0000e-003	6.0100e-003	153.8057
Total	**0.0851**	**0.0738**	**0.7214**	**1.5000e-003**	**0.1643**	**1.2000e-003**	**0.1655**	**0.0436**	**1.1000e-003**	**0.0447**		**151.8385**	**151.8385**	**7.0000e-003**	**6.0100e-003**	**153.8057**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

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

Rue Ferrari Existing - Santa Cruz County, Winter

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

Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**		**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4647	11.3137	2.6041	0.0292	0.8501	0.1530	1.0031	0.2445	0.1464	0.3909		3,131.9126	3,131.9126	0.0679	0.4727	3,274.4674
Worker	1.3694	1.1884	11.6142	0.0241	2.6452	0.0193	2.6644	0.7016	0.0178	0.7194		2,444.5994	2,444.5994	0.1126	0.0968	2,476.2717
Total	**1.8341**	**12.5021**	**14.2183**	**0.0533**	**3.4953**	**0.1723**	**3.6675**	**0.9461**	**0.1642**	**1.1103**		**5,576.5120**	**5,576.5120**	**0.1805**	**0.5695**	**5,750.7391**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

Rue Ferrari Existing - Santa Cruz County, Winter

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4647	11.3137	2.6041	0.0292	0.8501	0.1530	1.0031	0.2445	0.1464	0.3909		3,131.9126	3,131.9126	0.0679	0.4727	3,274.4674
Worker	1.3694	1.1884	11.6142	0.0241	2.6452	0.0193	2.6644	0.7016	0.0178	0.7194		2,444.5994	2,444.5994	0.1126	0.0968	2,476.2717
Total	**1.8341**	**12.5021**	**14.2183**	**0.0533**	**3.4953**	**0.1723**	**3.6675**	**0.9461**	**0.1642**	**1.1103**		**5,576.5120**	**5,576.5120**	**0.1805**	**0.5695**	**5,750.7391**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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Rue Ferrari Existing - Santa Cruz County, Winter

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/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	0.3112	9.6649	2.1910	0.0285	0.8502	0.0902	0.9404	0.2445	0.0863	0.3308		3,054.1896	3,054.1896	0.0611	0.4604	3,192.9222
Worker	1.2753	1.0474	10.6193	0.0234	2.6452	0.0181	2.6633	0.7016	0.0167	0.7184		2,384.6683	2,384.6683	0.1015	0.0888	2,413.6515
Total	**1.5864**	**10.7123**	**12.8103**	**0.0519**	**3.4953**	**0.1084**	**3.6037**	**0.9461**	**0.1031**	**1.0492**		**5,438.8579**	**5,438.8579**	**0.1626**	**0.5492**	**5,606.5737**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Mitigated Construction Off-Site

Rue Ferrari Existing - Santa Cruz 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	0.3112	9.6649	2.1910	0.0285	0.8502	0.0902	0.9404	0.2445	0.0863	0.3308		3,054.1896	3,054.1896	0.0611	0.4604	3,192.9222
Worker	1.2753	1.0474	10.6193	0.0234	2.6452	0.0181	2.6633	0.7016	0.0167	0.7184		2,384.6683	2,384.6683	0.1015	0.0888	2,413.6515
Total	**1.5864**	**10.7123**	**12.8103**	**0.0519**	**3.4953**	**0.1084**	**3.6037**	**0.9461**	**0.1031**	**1.0492**		**5,438.8579**	**5,438.8579**	**0.1626**	**0.5492**	**5,606.5737**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	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

	ROG	NOx	CO	SO2	Fugitive 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					

Rue Ferrari Existing - Santa Cruz County, Winter

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

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	0.1835	8.2150	1.8565	0.0275	0.8502	0.0455	0.8957	0.2445	0.0435	0.2881		2,955.3782	2,955.3782	0.0555	0.4449	3,089.3388
Worker	1.1907	0.9259	9.7609	0.0227	2.6452	0.0171	2.6622	0.7016	0.0157	0.7174		2,327.4782	2,327.4782	0.0916	0.0817	2,354.0987
Total	**1.3742**	**9.1409**	**11.6174**	**0.0503**	**3.4954**	**0.0626**	**3.5579**	**0.9462**	**0.0593**	**1.0054**		**5,282.8563**	**5,282.8563**	**0.1471**	**0.5265**	**5,443.4375**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	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
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	0.1835	8.2150	1.8565	0.0275	0.8502	0.0455	0.8957	0.2445	0.0435	0.2881		2,955.3782	2,955.3782	0.0555	0.4449	3,089.3388

Rue Ferrari Existing - Santa Cruz County, Winter

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

Worker	1.1907	0.9259	9.7609	0.0227	2.6452	0.0171	2.6622	0.7016	0.0157	0.7174		2,327.4782	2,327.4782	0.0916	0.0817	2,354.0987
Total	**1.3742**	**9.1409**	**11.6174**	**0.0503**	**3.4954**	**0.0626**	**3.5579**	**0.9462**	**0.0593**	**1.0054**		**5,282.8563**	**5,282.8563**	**0.1471**	**0.5265**	**5,443.4375**

3.6 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/day										lb/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	1.1227					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1554**	**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**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0555	0.0431	0.4547	1.0600e-003	0.1232	7.9000e-004	0.1240	0.0327	7.3000e-004	0.0334		108.4229	108.4229	4.2600e-003	3.8000e-003	109.6630

Rue Ferrari Existing - Santa Cruz County, Winter

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

Total	**0.0555**	**0.0431**	**0.4547**	**1.0600e-003**	**0.1232**	**7.9000e-004**	**0.1240**	**0.0327**	**7.3000e-004**	**0.0334**		**108.4229**	**108.4229**	**4.2600e-003**	**3.8000e-003**	**109.6630**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	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	1.1227					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1554**	**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

	ROG	NOx	CO	SO2	Fugitive 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	0.0555	0.0431	0.4547	1.0600e-003	0.1232	7.9000e-004	0.1240	0.0327	7.3000e-004	0.0334		108.4229	108.4229	4.2600e-003	3.8000e-003	109.6630
Total	**0.0555**	**0.0431**	**0.4547**	**1.0600e-003**	**0.1232**	**7.9000e-004**	**0.1240**	**0.0327**	**7.3000e-004**	**0.0334**		**108.4229**	**108.4229**	**4.2600e-003**	**3.8000e-003**	**109.6630**

Rue Ferrari Existing - Santa Cruz County, Winter

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

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	209.0971					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	**209.2888**	**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 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	0.2367	0.1840	1.9401	4.5200e-003	0.5257	3.3900e-003	0.5291	0.1395	3.1300e-003	0.1426		462.6044	462.6044	0.0182	0.0162	467.8954
Total	**0.2367**	**0.1840**	**1.9401**	**4.5200e-003**	**0.5257**	**3.3900e-003**	**0.5291**	**0.1395**	**3.1300e-003**	**0.1426**		**462.6044**	**462.6044**	**0.0182**	**0.0162**	**467.8954**

Rue Ferrari Existing - Santa Cruz County, Winter

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	209.0971					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	**209.2888**	**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
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	0.2367	0.1840	1.9401	4.5200e-003	0.5257	3.3900e-003	0.5291	0.1395	3.1300e-003	0.1426		462.6044	462.6044	0.0182	0.0162	467.8954
Total	**0.2367**	**0.1840**	**1.9401**	**4.5200e-003**	**0.5257**	**3.3900e-003**	**0.5291**	**0.1395**	**3.1300e-003**	**0.1426**		**462.6044**	**462.6044**	**0.0182**	**0.0162**	**467.8954**

4.0 Operational Detail - Mobile

Rue Ferrari Existing - Santa Cruz County, Winter

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

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	13.4410	19.6602	134.5680	0.1936	18.4031	0.2465	18.6497	4.9076	0.2317	5.1393		19,761.012 7	19,761.012 7	1.9625	9.2772	22,574.676 7
Unmitigated	13.4410	19.6602	134.5680	0.1936	18.4031	0.2465	18.6497	4.9076	0.2317	5.1393		19,761.012 7	19,761.012 7	1.9625	9.2772	22,574.676 7

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	2,788.85	2,788.85	2788.85	8,728,199	8,728,199
Total	2,788.85	2,788.85	2,788.85	8,728,199	8,728,199

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	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
Other Non-Asphalt Surfaces	0.492584	0.055551	0.211895	0.139925	0.032315	0.006837	0.011800	0.003940	0.000827	0.000870	0.036730	0.001182	0.005545
Parking Lot	0.492584	0.055551	0.211895	0.139925	0.032315	0.006837	0.011800	0.003940	0.000827	0.000870	0.036730	0.001182	0.005545
Unrefrigerated Warehouse-No Rail	0.492584	0.055551	0.211895	0.139925	0.032315	0.006837	0.011800	0.003940	0.000827	0.000870	0.036730	0.001182	0.005545

Rue Ferrari Existing - Santa Cruz County, Winter

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0291	0.2646	0.2222	1.5900e-003		0.0201	0.0201		0.0201	0.0201		317.4779	317.4779	6.0800e-003	5.8200e-003	319.3645
NaturalGas Unmitigated	0.0291	0.2646	0.2222	1.5900e-003		0.0201	0.0201		0.0201	0.0201		317.4779	317.4779	6.0800e-003	5.8200e-003	319.3645

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	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	0.0000
Unrefrigerated Warehouse-No	2698.56	0.0291	0.2646	0.2222	1.5900e-003		0.0201	0.0201		0.0201	0.0201		317.4779	317.4779	6.0800e-003	5.8200e-003	319.3645
Total		**0.0291**	**0.2646**	**0.2222**	**1.5900e-003**		**0.0201**	**0.0201**		**0.0201**	**0.0201**		**317.4779**	**317.4779**	**6.0800e-003**	**5.8200e-003**	**319.3645**

Rue Ferrari Existing - Santa Cruz County, Winter

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

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	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	0.0000
Unrefrigerated Warehouse-No	2.69856	0.0291	0.2646	0.2222	1.5900e-003		0.0201	0.0201		0.0201	0.0201		317.4779	317.4779	6.0800e-003	5.8200e-003	319.3645
Total		**0.0291**	**0.2646**	**0.2222**	**1.5900e-003**		**0.0201**	**0.0201**		**0.0201**	**0.0201**		**317.4779**	**317.4779**	**6.0800e-003**	**5.8200e-003**	**319.3645**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.4508	7.2000e-004	0.0786	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1679	0.1679	4.5000e-004		0.1790
Unmitigated	7.4508	7.2000e-004	0.0786	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1679	0.1679	4.5000e-004		0.1790

Rue Ferrari Existing - Santa Cruz County, Winter

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

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.1457					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.2977					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.3400e-003	7.2000e-004	0.0786	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1679	0.1679	4.5000e-004		0.1790
Total	**7.4508**	**7.2000e-004**	**0.0786**	**1.0000e-005**		**2.8000e-004**	**2.8000e-004**		**2.8000e-004**	**2.8000e-004**		**0.1679**	**0.1679**	**4.5000e-004**		**0.1790**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.1457					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.2977					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.3400e-003	7.2000e-004	0.0786	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1679	0.1679	4.5000e-004		0.1790
Total	**7.4508**	**7.2000e-004**	**0.0786**	**1.0000e-005**		**2.8000e-004**	**2.8000e-004**		**2.8000e-004**	**2.8000e-004**		**0.1679**	**0.1679**	**4.5000e-004**		**0.1790**

Rue Ferrari Existing - Santa Cruz County, Winter

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

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Date: 10/12/2021 12:34 PM

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Summer

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

Rue Ferrari Project (Construction + Ops)

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	302.77	1000sqft	6.95	302,775.00	0
Parking Lot	351.09	1000sqft	8.06	351,086.00	0
City Park	2.60	Acre	2.60	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Land use per 5/6/2021 site plan

Construction Phase - anticipated construction schedule

Demolition - 19,000 tons of concrete, 9,700 tons of asphalt

Grading - 5,000 cy import

Vehicle Trips - Estimated traffic data per TA Report

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Construction Off-road Equipment Mitigation - BAAQMD Dust Control Measures

Waste Mitigation - AB939

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Summer

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

Fleet Mix - Updated fleet mix per land use

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Summer

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

tblConstructionPhase	NumDays	20.00	98.00
tblConstructionPhase	NumDays	300.00	149.00
tblFleetMix	HHD	6.3620e-003	0.60
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	5.0410e-003	0.17
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	2.8380e-003	0.00
tblFleetMix	MHD	7.8170e-003	0.23
tblFleetMix	OBUS	9.1200e-004	0.00
tblFleetMix	SBUS	9.2700e-004	0.00
tblFleetMix	UBUS	3.8900e-004	0.00
tblGrading	MaterialExported	0.00	5,000.00
tblLandUse	LandUseSquareFeet	302,770.00	302,775.00
tblLandUse	LandUseSquareFeet	351,090.00	351,086.00
tblLandUse	LandUseSquareFeet	113,256.00	0.00
tblVehicleTrips	CNW_TL	7.30	40.00
tblVehicleTrips	CNW_TTP	0.00	100.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	9.50	13.54
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	66.00	0.00
tblVehicleTrips	PR_TP	0.00	100.00

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Summer

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

tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	0.00	0.32
tblVehicleTrips	ST_TR	1.74	6.74
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	0.00	0.32
tblVehicleTrips	SU_TR	1.74	6.74
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	0.00	0.32
tblVehicleTrips	WD_TR	1.74	6.74

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/day										lb/day					
2022	36.7987	49.4465	30.1608	0.1302	33.3129	1.6614	34.7774	10.1417	1.5294	11.6259	0.0000	13,701.0253	13,701.0253	1.9875	1.5628	14,201.5813
2023	34.0513	1.3886	3.1453	6.8300e-003	0.4518	0.0730	0.5248	0.1198	0.0728	0.1927	0.0000	676.9507	676.9507	0.0268	9.4600e-003	680.4397
Maximum	**36.7987**	**49.4465**	**30.1608**	**0.1302**	**33.3129**	**1.6614**	**34.7774**	**10.1417**	**1.5294**	**11.6259**	**0.0000**	**13,701.0253**	**13,701.0253**	**1.9875**	**1.5628**	**14,201.5813**

Mitigated Construction

Rue Ferrari Project (Construction + Ops) - 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
Year	lb/day										lb/day					
2022	35.4784	25.7303	34.1184	0.1302	15.6138	0.2835	15.8974	4.3561	0.2739	4.4189	0.0000	13,701.0253	13,701.0253	1.9875	1.5628	14,201.5813
2023	33.8894	0.2144	3.1666	6.8300e-003	0.4283	6.1300e-003	0.4344	0.1141	5.9600e-003	0.1200	0.0000	676.9507	676.9507	0.0268	9.4600e-003	680.4397
Maximum	**35.4784**	**25.7303**	**34.1184**	**0.1302**	**15.6138**	**0.2835**	**15.8974**	**4.3561**	**0.2739**	**4.4189**	**0.0000**	**13,701.0253**	**13,701.0253**	**1.9875**	**1.5628**	**14,201.5813**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**2.09**	**48.96**	**-11.95**	**0.00**	**52.49**	**83.30**	**53.74**	**56.44**	**82.53**	**61.60**	**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/day										lb/day					
Area	7.5152	6.1000e-004	0.0670	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1437	0.1437	3.8000e-004		0.1531
Energy	0.0308	0.2798	0.2350	1.6800e-003		0.0213	0.0213		0.0213	0.0213		335.7119	335.7119	6.4300e-003	6.1500e-003	337.7068
Mobile	7.6885	29.7304	87.9312	0.3135	25.1839	0.3169	25.5008	6.7695	0.2999	7.0693		32,765.4383	32,765.4383	1.2492	2.5653	33,561.1216
Total	**15.2345**	**30.0107**	**88.2332**	**0.3152**	**25.1839**	**0.3384**	**25.5223**	**6.7695**	**0.3214**	**7.0908**		**33,101.2938**	**33,101.2938**	**1.2561**	**2.5714**	**33,898.9815**

Mitigated Operational

Rue Ferrari Project (Construction + Ops) - 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/day					
Area	7.5152	6.1000e-004	0.0670	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1437	0.1437	3.8000e-004		0.1531
Energy	0.0308	0.2798	0.2350	1.6800e-003		0.0213	0.0213		0.0213	0.0213		335.7119	335.7119	6.4300e-003	6.1500e-003	337.7068
Mobile	7.6885	29.7304	87.9312	0.3135	25.1839	0.3169	25.5008	6.7695	0.2999	7.0693		32,765.4383	32,765.4383	1.2492	2.5653	33,561.1216
Total	**15.2345**	**30.0107**	**88.2332**	**0.3152**	**25.1839**	**0.3384**	**25.5223**	**6.7695**	**0.3214**	**7.0908**		**33,101.2938**	**33,101.2938**	**1.2561**	**2.5714**	**33,898.9815**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/15/2022	3/14/2022	5	20	
2	Site Preparation	Site Preparation	3/15/2022	3/28/2022	5	10	
3	Grading	Grading	3/29/2022	5/9/2022	5	30	
4	Building Construction	Building Construction	6/7/2022	12/30/2022	5	149	
5	Paving	Paving	5/10/2022	6/6/2022	5	20	
6	Architectural Coating	Architectural Coating	10/1/2022	2/15/2023	5	98	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 90

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Summer

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

Acres of Paving: 8.06

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 454,163; Non-Residential Outdoor: 151,388; Striped Parking Area: 21,065

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
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

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	2,838.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Summer

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

Grading	8	20.00	0.00	494.00	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	275.00	107.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	55.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					30.7076	0.0000	30.7076	4.6494	0.0000	4.6494			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**30.7076**	**1.2427**	**31.9502**	**4.6494**	**1.1553**	**5.8047**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

Unmitigated Construction Off-Site

Rue Ferrari Project (Construction + Ops) - 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/day					
Hauling	0.6775	23.7007	5.1257	0.0903	2.4821	0.2213	2.7034	0.6804	0.2117	0.8921		9,843.5760	9,843.5760	0.3388	1.5600	10,316.9171
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	**0.7200**	**23.7271**	**5.5191**	**0.0914**	**2.6053**	**0.2219**	**2.8272**	**0.7130**	**0.2123**	**0.9253**		**9,954.2442**	**9,954.2442**	**0.3418**	**1.5628**	**10,428.4893**

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					13.1275	0.0000	13.1275	1.9876	0.0000	1.9876			0.0000			0.0000
Off-Road	0.4623	2.0032	23.2798	0.0388		0.0616	0.0616		0.0616	0.0616	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**0.4623**	**2.0032**	**23.2798**	**0.0388**	**13.1275**	**0.0616**	**13.1891**	**1.9876**	**0.0616**	**2.0493**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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

Rue Ferrari Project (Construction + Ops) - 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	0.6775	23.7007	5.1257	0.0903	2.3695	0.2213	2.5908	0.6527	0.2117	0.8644	9,843.5760	9,843.5760	0.3388	1.5600	10,316.9171
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	**0.7200**	**23.7271**	**5.5191**	**0.0914**	**2.4863**	**0.2219**	**2.7082**	**0.6838**	**0.2123**	**0.8961**	**9,954.2442**	**9,954.2442**	**0.3418**	**1.5628**	**10,428.4893**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	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**

Unmitigated Construction Off-Site

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

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Summer

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

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	CO	SO2	Fugitive 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	0.4656	2.0175	20.8690	0.0380		0.0621	0.0621		0.0621	0.0621	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**0.4656**	**2.0175**	**20.8690**	**0.0380**	**8.4034**	**0.0621**	**8.4655**	**4.3188**	**0.0621**	**4.3809**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Summer

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

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**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**9.2036**	**1.6349**	**10.8385**	**3.6538**	**1.5041**	**5.1579**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0786	2.7503	0.5948	0.0105	0.2880	0.0257	0.3137	0.0790	0.0246	0.1035		1,142.2895	1,142.2895	0.0393	0.1810	1,197.2180
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

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Summer

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

Worker	0.0567	0.0351	0.5245	1.4500e-003	0.1643	8.3000e-004	0.1651	0.0436	7.6000e-004	0.0443		147.5576	147.5576	4.0100e-003	3.7100e-003	148.7629
Total	**0.1353**	**2.7854**	**1.1193**	**0.0119**	**0.4523**	**0.0265**	**0.4788**	**0.1225**	**0.0253**	**0.1479**		**1,289.8471**	**1,289.8471**	**0.0433**	**0.1847**	**1,345.9809**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.9345	0.0000	3.9345	1.5620	0.0000	1.5620			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**0.7616**	**3.3000**	**32.9991**	**0.0621**	**3.9345**	**0.1015**	**4.0361**	**1.5620**	**0.1015**	**1.6635**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0786	2.7503	0.5948	0.0105	0.2750	0.0257	0.3007	0.0758	0.0246	0.1003		1,142.2895	1,142.2895	0.0393	0.1810	1,197.2180
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	0.0567	0.0351	0.5245	1.4500e-003	0.1557	8.3000e-004	0.1566	0.0415	7.6000e-004	0.0422		147.5576	147.5576	4.0100e-003	3.7100e-003	148.7629

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Summer

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

Total	**0.1353**	**2.7854**	**1.1193**	**0.0119**	**0.4307**	**0.0265**	**0.4572**	**0.1172**	**0.0253**	**0.1426**		**1,289.8471**	**1,289.8471**	**0.0433**	**0.1847**	**1,345.9809**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2385	5.8247	1.7361	0.0228	0.7247	0.0632	0.7879	0.2086	0.0604	0.2691		2,445.9663	2,445.9663	0.0554	0.3607	2,554.8275
Worker	0.7790	0.4827	7.2116	0.0199	2.2591	0.0114	2.2705	0.5992	0.0105	0.6097		2,028.9169	2,028.9169	0.0551	0.0510	2,045.4903
Total	**1.0176**	**6.3074**	**8.9477**	**0.0428**	**2.9838**	**0.0746**	**3.0584**	**0.8078**	**0.0709**	**0.8788**		**4,474.8832**	**4,474.8832**	**0.1105**	**0.4117**	**4,600.3178**

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Summer

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5608	2.6936	17.6592	0.0269		0.1018	0.1018		0.1018	0.1018	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**0.5608**	**2.6936**	**17.6592**	**0.0269**		**0.1018**	**0.1018**		**0.1018**	**0.1018**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2385	5.8247	1.7361	0.0228	0.6937	0.0632	0.7569	0.2010	0.0604	0.2615		2,445.9663	2,445.9663	0.0554	0.3607	2,554.8275
Worker	0.7790	0.4827	7.2116	0.0199	2.1413	0.0114	2.1527	0.5703	0.0105	0.5808		2,028.9169	2,028.9169	0.0551	0.0510	2,045.4903
Total	**1.0176**	**6.3074**	**8.9477**	**0.0428**	**2.8350**	**0.0746**	**2.9096**	**0.7713**	**0.0709**	**0.8423**		**4,474.8832**	**4,474.8832**	**0.1105**	**0.4117**	**4,600.3178**

3.6 Paving - 2022

Unmitigated Construction On-Site

Date: 10/12/2021 12:34 PM

Rue Ferrari Project (Construction + Ops) - 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/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	1.0559					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1587**	**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**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0425	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

Rue Ferrari Project (Construction + Ops) - 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/day					
Off-Road	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	1.0559					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3363**	**1.2154**	**17.2957**	**0.0228**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0425	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**

3.7 Architectural Coating - 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

Rue Ferrari Project (Construction + Ops) - 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					
Archit. Coating	33.7145					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**33.9191**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1558	0.0965	1.4423	3.9900e-003	0.4518	2.2800e-003	0.4541	0.1198	2.1000e-003	0.1219		405.7834	405.7834	0.0110	0.0102	409.0981
Total	**0.1558**	**0.0965**	**1.4423**	**3.9900e-003**	**0.4518**	**2.2800e-003**	**0.4541**	**0.1198**	**2.1000e-003**	**0.1219**		**405.7834**	**405.7834**	**0.0110**	**0.0102**	**409.0981**

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					

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Summer

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

Archit. Coating	33.7145					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**33.7443**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1558	0.0965	1.4423	3.9900e-003	0.4283	2.2800e-003	0.4305	0.1141	2.1000e-003	0.1162		405.7834	405.7834	0.0110	0.0102	409.0981
Total	**0.1558**	**0.0965**	**1.4423**	**3.9900e-003**	**0.4283**	**2.2800e-003**	**0.4305**	**0.1141**	**2.1000e-003**	**0.1162**		**405.7834**	**405.7834**	**0.0110**	**0.0102**	**409.0981**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	33.7145					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Summer

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

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	**33.9062**	**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 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	0.1451	0.0856	1.3342	3.8600e-003	0.4518	2.1700e-003	0.4540	0.1198	1.9900e-003	0.1218		395.5026	395.5026	9.9400e-003	9.4600e-003	398.5707
Total	**0.1451**	**0.0856**	**1.3342**	**3.8600e-003**	**0.4518**	**2.1700e-003**	**0.4540**	**0.1198**	**1.9900e-003**	**0.1218**		**395.5026**	**395.5026**	**9.9400e-003**	**9.4600e-003**	**398.5707**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	33.7145					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0168		281.8690

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Summer

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

Total	**33.7443**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**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
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	0.1451	0.0856	1.3342	3.8600e-003	0.4283	2.1700e-003	0.4304	0.1141	1.9900e-003	0.1161		395.5026	395.5026	9.9400e-003	9.4600e-003	398.5707
Total	**0.1451**	**0.0856**	**1.3342**	**3.8600e-003**	**0.4283**	**2.1700e-003**	**0.4304**	**0.1141**	**1.9900e-003**	**0.1161**		**395.5026**	**395.5026**	**9.9400e-003**	**9.4600e-003**	**398.5707**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.6885	29.7304	87.9312	0.3135	25.1839	0.3169	25.5008	6.7695	0.2999	7.0693		32,765.4383	32,765.4383	1.2492	2.5653	33,561.1216

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Summer

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

Unmitigated	7.6885	29.7304	87.9312	0.3135	25.1839	0.3169	25.5008	6.7695	0.2999	7.0693		32,765.438	32,765.438	1.2492	2.5653	33,561.121

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Parking Lot	112.35	112.35	112.35	1,635,799	1,635,799
Unrefrigerated Warehouse-No Rail	2,040.67	2,040.67	2040.67	10,057,564	10,057,564
Total	2,153.02	2,153.02	2,153.02	11,693,362	11,693,362

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	0	0	0
Parking Lot	9.50	7.30	40.00	0.00	0.00	100.00	100	0	0
Unrefrigerated Warehouse-No	13.54	7.30	7.30	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.571175	0.055403	0.188166	0.116095	0.020429	0.005041	0.007817	0.006362	0.000912	0.000389	0.024445	0.000927	0.002838
Parking Lot	0.000000	0.000000	0.000000	0.000000	0.000000	0.170000	0.230000	0.600000	0.000000	0.000000	0.000000	0.000000	0.000000
Unrefrigerated Warehouse-No Rail	0.571175	0.055403	0.188166	0.116095	0.020429	0.005041	0.007817	0.006362	0.000912	0.000389	0.024445	0.000927	0.002838

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Rue Ferrari Project (Construction + Ops) - 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/day					
NaturalGas Mitigated	0.0308	0.2798	0.2350	1.6800e-003		0.0213	0.0213		0.0213	0.0213		335.7119	335.7119	6.4300e-003	6.1500e-003	337.7068
NaturalGas Unmitigated	0.0308	0.2798	0.2350	1.6800e-003		0.0213	0.0213		0.0213	0.0213		335.7119	335.7119	6.4300e-003	6.1500e-003	337.7068

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	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	0.0000
Unrefrigerated Warehouse-No	2853.55	0.0308	0.2798	0.2350	1.6800e-003		0.0213	0.0213		0.0213	0.0213		335.7119	335.7119	6.4300e-003	6.1500e-003	337.7068
Total		**0.0308**	**0.2798**	**0.2350**	**1.6800e-003**		**0.0213**	**0.0213**		**0.0213**	**0.0213**		**335.7119**	**335.7119**	**6.4300e-003**	**6.1500e-003**	**337.7068**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Summer

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

City Park	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	0.0000
Unrefrigerated Warehouse-No	2.85355	0.0308	0.2798	0.2350	1.6800e-003		0.0213	0.0213		0.0213	0.0213		335.7119	335.7119	6.4300e-003	6.1500e-003	337.7068
Total		**0.0308**	**0.2798**	**0.2350**	**1.6800e-003**		**0.0213**	**0.0213**		**0.0213**	**0.0213**		**335.7119**	**335.7119**	**6.4300e-003**	**6.1500e-003**	**337.7068**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.5152	6.1000e-004	0.0670	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1437	0.1437	3.8000e-004		0.1531
Unmitigated	7.5152	6.1000e-004	0.0670	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1437	0.1437	3.8000e-004		0.1531

6.2 Area by SubCategory

Unmitigated

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

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Summer

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

Architectural Coating	0.9052					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.6037					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.2100e-003	6.1000e-004	0.0670	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1437	0.1437	3.8000e-004		0.1531
Total	**7.5152**	**6.1000e-004**	**0.0670**	**1.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**		**0.1437**	**0.1437**	**3.8000e-004**		**0.1531**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.9052					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.6037					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.2100e-003	6.1000e-004	0.0670	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1437	0.1437	3.8000e-004		0.1531
Total	**7.5152**	**6.1000e-004**	**0.0670**	**1.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**		**0.1437**	**0.1437**	**3.8000e-004**		**0.1531**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Summer

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

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Winter

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

Rue Ferrari Project (Construction + Ops)

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	302.77	1000sqft	6.95	302,775.00	0
Parking Lot	351.09	1000sqft	8.06	351,086.00	0
City Park	2.60	Acre	2.60	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Land use per 5/6/2021 site plan

Construction Phase - anticipated construction schedule

Demolition - 19,000 tons of concrete, 9,700 tons of asphalt

Grading - 5,000 cy import

Vehicle Trips - Estimated traffic data per TA Report

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Construction Off-road Equipment Mitigation - BAAQMD Dust Control Measures

Waste Mitigation - AB939

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Rue Ferrari Project (Construction + Ops) - Santa Clara County, Winter

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

Fleet Mix - Updated fleet mix per land use

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Winter

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

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	98.00
tblConstructionPhase	NumDays	300.00	149.00
tblFleetMix	HHD	6.3620e-003	0.60
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	5.0410e-003	0.17
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	2.8380e-003	0.00
tblFleetMix	MHD	7.8170e-003	0.23
tblFleetMix	OBUS	9.1200e-004	0.00
tblFleetMix	SBUS	9.2700e-004	0.00
tblFleetMix	UBUS	3.8900e-004	0.00
tblGrading	MaterialExported	0.00	5,000.00
tblLandUse	LandUseSquareFeet	302,770.00	302,775.00
tblLandUse	LandUseSquareFeet	351,090.00	351,086.00
tblLandUse	LandUseSquareFeet	113,256.00	0.00
tblVehicleTrips	CNW_TL	7.30	40.00
tblVehicleTrips	CNW_TTP	0.00	100.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	9.50	13.54
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	66.00	0.00

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Winter

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

tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	0.00	0.32
tblVehicleTrips	ST_TR	1.74	6.74
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	0.00	0.32
tblVehicleTrips	SU_TR	1.74	6.74
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	0.00	0.32
tblVehicleTrips	WD_TR	1.74	6.74

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/day										lb/day					
2022	36.8194	50.7467	30.1409	0.1302	33.3129	1.6614	34.7777	10.1417	1.5295	11.6259	0.0000	13,696.1614	13,696.1614	1.9879	1.5637	14,196.9935
2023	34.0555	1.4074	3.0737	6.5500e-003	0.4518	0.0730	0.5248	0.1198	0.0728	0.1927	0.0000	648.0907	648.0907	0.0281	0.0108	652.0133
Maximum	**36.8194**	**50.7467**	**30.1409**	**0.1302**	**33.3129**	**1.6614**	**34.7777**	**10.1417**	**1.5295**	**11.6259**	**0.0000**	**13,696.1614**	**13,696.1614**	**1.9879**	**1.5637**	**14,196.9935**

Mitigated Construction

Rue Ferrari Project (Construction + Ops) - 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
Year	lb/day										lb/day					
2022	35.4991	27.0306	34.0985	0.1302	15.6138	0.2839	15.8977	4.3561	0.2742	4.4189	0.0000	13,696.1614	13,696.1614	1.9879	1.5637	14,196.9935
2023	33.8936	0.2332	3.0950	6.5500e-003	0.4283	6.1300e-003	0.4344	0.1141	5.9600e-003	0.1200	0.0000	648.0907	648.0907	0.0281	0.0108	652.0133
Maximum	**35.4991**	**27.0306**	**34.0985**	**0.1302**	**15.6138**	**0.2839**	**15.8977**	**4.3561**	**0.2742**	**4.4189**	**0.0000**	**13,696.1614**	**13,696.1614**	**1.9879**	**1.5637**	**14,196.9935**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**2.09**	**47.72**	**-11.98**	**0.00**	**52.49**	**83.28**	**53.74**	**56.44**	**82.51**	**61.60**	**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/day										lb/day					
Area	7.5152	6.1000e-004	0.0670	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1437	0.1437	3.8000e-004		0.1531
Energy	0.0308	0.2798	0.2350	1.6800e-003		0.0213	0.0213		0.0213	0.0213		335.7119	335.7119	6.4300e-003	6.1500e-003	337.7068
Mobile	7.2603	32.2153	87.8365	0.3015	25.1839	0.3171	25.5009	6.7695	0.3000	7.0695		31,539.6441	31,539.6441	1.3246	2.6358	32,358.2233
Total	**14.8062**	**32.4957**	**88.1386**	**0.3032**	**25.1839**	**0.3386**	**25.5224**	**6.7695**	**0.3215**	**7.0910**		**31,875.4997**	**31,875.4997**	**1.3314**	**2.6419**	**32,696.0832**

Rue Ferrari Project (Construction + Ops) - 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	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.5152	6.1000e-004	0.0670	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1437	0.1437	3.8000e-004		0.1531
Energy	0.0308	0.2798	0.2350	1.6800e-003		0.0213	0.0213		0.0213	0.0213		335.7119	335.7119	6.4300e-003	6.1500e-003	337.7068
Mobile	7.2603	32.2153	87.8365	0.3015	25.1839	0.3171	25.5009	6.7695	0.3000	7.0695		31,539.6441	31,539.6441	1.3246	2.6358	32,358.2233
Total	**14.8062**	**32.4957**	**88.1386**	**0.3032**	**25.1839**	**0.3386**	**25.5224**	**6.7695**	**0.3215**	**7.0910**		**31,875.4997**	**31,875.4997**	**1.3314**	**2.6419**	**32,696.0832**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/15/2022	3/14/2022	5	20	
2	Site Preparation	Site Preparation	3/15/2022	3/28/2022	5	10	
3	Grading	Grading	3/29/2022	5/9/2022	5	30	
4	Building Construction	Building Construction	6/7/2022	12/30/2022	5	149	
5	Paving	Paving	5/10/2022	6/6/2022	5	20	
6	Architectural Coating	Architectural Coating	10/1/2022	2/15/2023	5	98	

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Rue Ferrari Project (Construction + Ops) - Santa Clara County, Winter

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

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 90

Acres of Paving: 8.06

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 454,163; Non-Residential Outdoor: 151,388; Striped Parking Area: 21,065

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
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

Rue Ferrari Project (Construction + Ops) - 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
Demolition	6	15.00	0.00	2,838.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	494.00	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	275.00	107.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	55.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					30.7076	0.0000	30.7076	4.6494	0.0000	4.6494			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**30.7076**	**1.2427**	**31.9502**	**4.6494**	**1.1553**	**5.8047**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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Rue Ferrari Project (Construction + Ops) - Santa Clara County, Winter

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/day										lb/day					
Hauling	0.6623	24.9952	5.2132	0.0903	2.4821	0.2216	2.7037	0.6804	0.2120	0.8924		9,846.8094	9,846.8094	0.3379	1.5605	10,320.2986
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	**0.7059**	**25.0273**	**5.5840**	**0.0914**	**2.6053**	**0.2222**	**2.8275**	**0.7130**	**0.2126**	**0.9256**		**9,949.3803**	**9,949.3803**	**0.3413**	**1.5637**	**10,423.9014**

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					13.1275	0.0000	13.1275	1.9876	0.0000	1.9876			0.0000			0.0000
Off-Road	0.4623	2.0032	23.2798	0.0388		0.0616	0.0616		0.0616	0.0616	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**0.4623**	**2.0032**	**23.2798**	**0.0388**	**13.1275**	**0.0616**	**13.1891**	**1.9876**	**0.0616**	**2.0493**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Winter

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6623	24.9952	5.2132	0.0903	2.3695	0.2216	2.5911	0.6527	0.2120	0.8647		9,846.8094	9,846.8094	0.3379	1.5605	10,320.2986
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	**0.7059**	**25.0273**	**5.5840**	**0.0914**	**2.4863**	**0.2222**	**2.7085**	**0.6838**	**0.2126**	**0.8964**		**9,949.3803**	**9,949.3803**	**0.3413**	**1.5637**	**10,423.9014**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	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**

Unmitigated Construction Off-Site

Rue Ferrari Project (Construction + Ops) - 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	0.1479	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	0.4656	2.0175	20.8690	0.0380		0.0621	0.0621		0.0621	0.0621	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**0.4656**	**2.0175**	**20.8690**	**0.0380**	**8.4034**	**0.0621**	**8.4655**	**4.3188**	**0.0621**	**4.3809**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Mitigated Construction Off-Site

Rue Ferrari Project (Construction + Ops) - 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**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**9.2036**	**1.6349**	**10.8385**	**3.6538**	**1.5041**	**5.1579**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Unmitigated Construction Off-Site

Rue Ferrari Project (Construction + Ops) - 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	0.0769	2.9006	0.6050	0.0105	0.2880	0.0257	0.3138	0.0790	0.0246	0.1036		1,142.6647	1,142.6647	0.0392	0.1811	1,197.6104
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	0.0580	0.0428	0.4944	1.3400e-003	0.1643	8.3000e-004	0.1651	0.0436	7.6000e-004	0.0443		136.7612	136.7612	4.5000e-003	4.2400e-003	138.1371
Total	**0.1349**	**2.9434**	**1.0993**	**0.0118**	**0.4523**	**0.0265**	**0.4789**	**0.1225**	**0.0254**	**0.1479**		**1,279.4260**	**1,279.4260**	**0.0437**	**0.1853**	**1,335.7475**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.9345	0.0000	3.9345	1.5620	0.0000	1.5620			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**0.7616**	**3.3000**	**32.9991**	**0.0621**	**3.9345**	**0.1015**	**4.0361**	**1.5620**	**0.1015**	**1.6635**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Mitigated Construction Off-Site

Rue Ferrari Project (Construction + Ops) - 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	0.0769	2.9006	0.6050	0.0105	0.2750	0.0257	0.3007	0.0758	0.0246	0.1004		1,142.6647	1,142.6647	0.0392	0.1811	1,197.6104
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	0.0580	0.0428	0.4944	1.3400e-003	0.1557	8.3000e-004	0.1566	0.0415	7.6000e-004	0.0422		136.7612	136.7612	4.5000e-003	4.2400e-003	138.1371
Total	**0.1349**	**2.9434**	**1.0993**	**0.0118**	**0.4307**	**0.0265**	**0.4572**	**0.1172**	**0.0254**	**0.1426**		**1,279.4260**	**1,279.4260**	**0.0437**	**0.1853**	**1,335.7475**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Unmitigated Construction Off-Site

Rue Ferrari Project (Construction + Ops) - 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	0.2363	6.1409	1.7975	0.0228	0.7247	0.0634	0.7881	0.2086	0.0606	0.2692		2,446.9602	2,446.9602	0.0551	0.3612	2,555.9811
Worker	0.7981	0.5889	6.7978	0.0185	2.2591	0.0114	2.2705	0.5992	0.0105	0.6097		1,880.4666	1,880.4666	0.0619	0.0583	1,899.3847
Total	**1.0344**	**6.7298**	**8.5953**	**0.0413**	**2.9838**	**0.0748**	**3.0585**	**0.8078**	**0.0711**	**0.8789**		**4,327.4268**	**4,327.4268**	**0.1170**	**0.4195**	**4,455.3658**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5608	2.6936	17.6592	0.0269		0.1018	0.1018		0.1018	0.1018	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**0.5608**	**2.6936**	**17.6592**	**0.0269**		**0.1018**	**0.1018**		**0.1018**	**0.1018**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Mitigated Construction Off-Site

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

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Winter

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

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	0.2363	6.1409	1.7975	0.0228	0.6937	0.0634	0.7571	0.2010	0.0606	0.2616		2,446.9602	2,446.9602	0.0551	0.3612	2,555.9811
Worker	0.7981	0.5889	6.7978	0.0185	2.1413	0.0114	2.1527	0.5703	0.0105	0.5808		1,880.4666	1,880.4666	0.0619	0.0583	1,899.3847
Total	**1.0344**	**6.7298**	**8.5953**	**0.0413**	**2.8350**	**0.0748**	**2.9097**	**0.7713**	**0.0711**	**0.8424**		**4,327.4268**	**4,327.4268**	**0.1170**	**0.4195**	**4,455.3658**

3.6 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/day										lb/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	1.0559					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1587**	**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**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Winter

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

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/day										lb/day					
Off-Road	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	1.0559					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3363**	**1.2154**	**17.2957**	**0.0228**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Winter

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

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**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	33.7145					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**33.9191**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1596	0.1178	1.3596	3.7000e-003	0.4518	2.2800e-003	0.4541	0.1198	2.1000e-003	0.1219		376.0933	376.0933	0.0124	0.0117	379.8769

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Winter

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

Total	**0.1596**	**0.1178**	**1.3596**	**3.7000e-003**	**0.4518**	**2.2800e-003**	**0.4541**	**0.1198**	**2.1000e-003**	**0.1219**		**376.0933**	**376.0933**	**0.0124**	**0.0117**	**379.8769**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	33.7145					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**33.7443**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1596	0.1178	1.3596	3.7000e-003	0.4283	2.2800e-003	0.4305	0.1141	2.1000e-003	0.1162		376.0933	376.0933	0.0124	0.0117	379.8769
Total	**0.1596**	**0.1178**	**1.3596**	**3.7000e-003**	**0.4283**	**2.2800e-003**	**0.4305**	**0.1141**	**2.1000e-003**	**0.1162**		**376.0933**	**376.0933**	**0.0124**	**0.0117**	**379.8769**

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Winter

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

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	33.7145					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	**33.9062**	**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 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	0.1493	0.1045	1.2626	3.5800e-003	0.4518	2.1700e-003	0.4540	0.1198	1.9900e-003	0.1218		366.6427	366.6427	0.0112	0.0108	370.1443
Total	**0.1493**	**0.1045**	**1.2626**	**3.5800e-003**	**0.4518**	**2.1700e-003**	**0.4540**	**0.1198**	**1.9900e-003**	**0.1218**		**366.6427**	**366.6427**	**0.0112**	**0.0108**	**370.1443**

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Winter

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	33.7145					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**33.7443**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**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
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	0.1493	0.1045	1.2626	3.5800e-003	0.4283	2.1700e-003	0.4304	0.1141	1.9900e-003	0.1161		366.6427	366.6427	0.0112	0.0108	370.1443
Total	**0.1493**	**0.1045**	**1.2626**	**3.5800e-003**	**0.4283**	**2.1700e-003**	**0.4304**	**0.1141**	**1.9900e-003**	**0.1161**		**366.6427**	**366.6427**	**0.0112**	**0.0108**	**370.1443**

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Winter

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.2603	32.2153	87.8365	0.3015	25.1839	0.3171	25.5009	6.7695	0.3000	7.0695		31,539.6441	31,539.644 1	1.3246	2.6358	32,358.223 2
Unmitigated	7.2603	32.2153	87.8365	0.3015	25.1839	0.3171	25.5009	6.7695	0.3000	7.0695		31,539.6441	31,539.644 1	1.3246	2.6358	32,358.223 2

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Parking Lot	112.35	112.35	112.35	1,635,799	1,635,799
Unrefrigerated Warehouse-No Rail	2,040.67	2,040.67	2040.67	10,057,564	10,057,564
Total	2,153.02	2,153.02	2,153.02	11,693,362	11,693,362

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	0	0	0
Parking Lot	9.50	7.30	40.00	0.00	0.00	100.00	100	0	0
Unrefrigerated Warehouse-No Rail	13.54	7.30	7.30	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.571175	0.055403	0.188166	0.116095	0.020429	0.005041	0.007817	0.006362	0.000912	0.000389	0.024445	0.000927	0.00283

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Winter

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

Parking Lot	0.000000	0.000000	0.000000	0.000000	0.000000	0.170000	0.230000	0.600000	0.000000	0.000000	0.000000	0.000000	0.00000
Unrefrigerated Warehouse-No Rail	0.571175	0.055403	0.188166	0.116095	0.020429	0.005041	0.007817	0.006362	0.000912	0.000389	0.024445	0.000927	0.00283

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0308	0.2798	0.2350	1.6800e-003		0.0213	0.0213		0.0213	0.0213		335.7119	335.7119	6.4300e-003	6.1500e-003	337.7068
NaturalGas Unmitigated	0.0308	0.2798	0.2350	1.6800e-003		0.0213	0.0213		0.0213	0.0213		335.7119	335.7119	6.4300e-003	6.1500e-003	337.7068

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	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	0.0000

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Winter

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

Unrefrigerated Warehouse-No	2853.55	0.0308	0.2798	0.2350	1.6800e-003		0.0213	0.0213		0.0213	0.0213		335.7119	335.7119	6.4300e-003	6.1500e-003	337.7068
Total		**0.0308**	**0.2798**	**0.2350**	**1.6800e-003**		**0.0213**	**0.0213**		**0.0213**	**0.0213**		**335.7119**	**335.7119**	**6.4300e-003**	**6.1500e-003**	**337.7068**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	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	0.0000
Unrefrigerated Warehouse-No	2.85355	0.0308	0.2798	0.2350	1.6800e-003		0.0213	0.0213		0.0213	0.0213		335.7119	335.7119	6.4300e-003	6.1500e-003	337.7068
Total		**0.0308**	**0.2798**	**0.2350**	**1.6800e-003**		**0.0213**	**0.0213**		**0.0213**	**0.0213**		**335.7119**	**335.7119**	**6.4300e-003**	**6.1500e-003**	**337.7068**

6.0 Area Detail

6.1 Mitigation Measures Area

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

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Winter

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

Category	lb/day										lb/day					
Mitigated	7.5152	6.1000e-004	0.0670	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1437	0.1437	3.8000e-004		0.1531
Unmitigated	7.5152	6.1000e-004	0.0670	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1437	0.1437	3.8000e-004		0.1531

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.9052					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.6037					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.2100e-003	6.1000e-004	0.0670	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1437	0.1437	3.8000e-004		0.1531
Total	**7.5152**	**6.1000e-004**	**0.0670**	**1.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**		**0.1437**	**0.1437**	**3.8000e-004**		**0.1531**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.9052					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Winter

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

Consumer Products	6.6037					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.2100e-003	6.1000e-004	0.0670	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1437	0.1437	3.8000e-004		0.1531
Total	**7.5152**	**6.1000e-004**	**0.0670**	**1.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**		**0.1437**	**0.1437**	**3.8000e-004**		**0.1531**

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

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Greenhouse Gas Emissions Assessment
5853 Rue Ferrari Project
City of San José, California

Prepared by:

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October 2021

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APPENDIX
Appendix A: Greenhouse Gas Emissions Data
Appendix B: 2030 Greenhouse Gas Reduction Strategy Checklist

LIST OF ABBREVIATED TERMS

AB	Assembly Bill
CARB	California Air Resource Board
CCR	California Code of Regulations
CalEEMod	California Emissions Estimator Model
CEQA	California Environmental Quality Act
CALGreen	California Green Building Standards
CPUC	California Public Utilities Commission
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CFC	Chlorofluorocarbon
CPP	Clean Power Plan
CCSP	Climate Change Scoping Plan
cy	cubic yard
EPA	Environmental Protection Agency
FCAA	Federal Clean Air Act
FR	Federal Register
GHG	greenhouse gas
HCFC	Hydrochlorofluorocarbon
HFC	Hydrofluorocarbon
LCFS	Low Carbon Fuel Standard
CH_4	Methane
$MMTCO_2e$	million metric tons of carbon dioxide equivalent
$MTCO_2e$	million tons of carbon dioxide equivalent
NHTSA	National Highway Traffic Safety Administration
NF_3	nitrogen trifluoride
N_2O	nitrous oxide
PFC	Perfluorocarbon
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
Sf	square foot
SF_6	sulfur hexafluoride
TAC	toxic air contaminants

1 INTRODUCTION

This report describes effects of climate change and greenhouse gas (GHG) emissions that would be caused by implementation of the 5853 Rue Ferrari Project. The study area for climate change and the analysis of GHG emissions is broad because climate change is influenced by world-wide emissions and their global effects. However, the study area is also limited by the CEQA Guidelines [Section 15064(d)], which directs lead agencies to consider an "indirect physical change" only if that change is a reasonably foreseeable impact that may be caused by the project. This report limits discussion to those physical changes to the environment that are not speculative and are reasonably foreseeable.

1.1 PROJECT LOCATION

The proposed project is located on 5853 Rue Ferrari (APN: 678-05-057) in the City of 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 area with a mix of surrounding uses including institutional, office, and industrial uses. The proposed project's existing land use designation is Combined Industrial/Commercial (CIC) and existing zoning designation is Industrial Park (IP).

Currently, the project site is developed with two industrial use buildings totaling 286,330 square feet. The existing buildings are located in the center of the parcel and include loading docks along the eastern and western elevations. Surface parking is available throughout the site, with automobile parking along all sides of the existing buildings. The project site has existing landscaping along all site boundaries. There are 345 existing trees throughout the project site. The project site also has existing light fixtures.

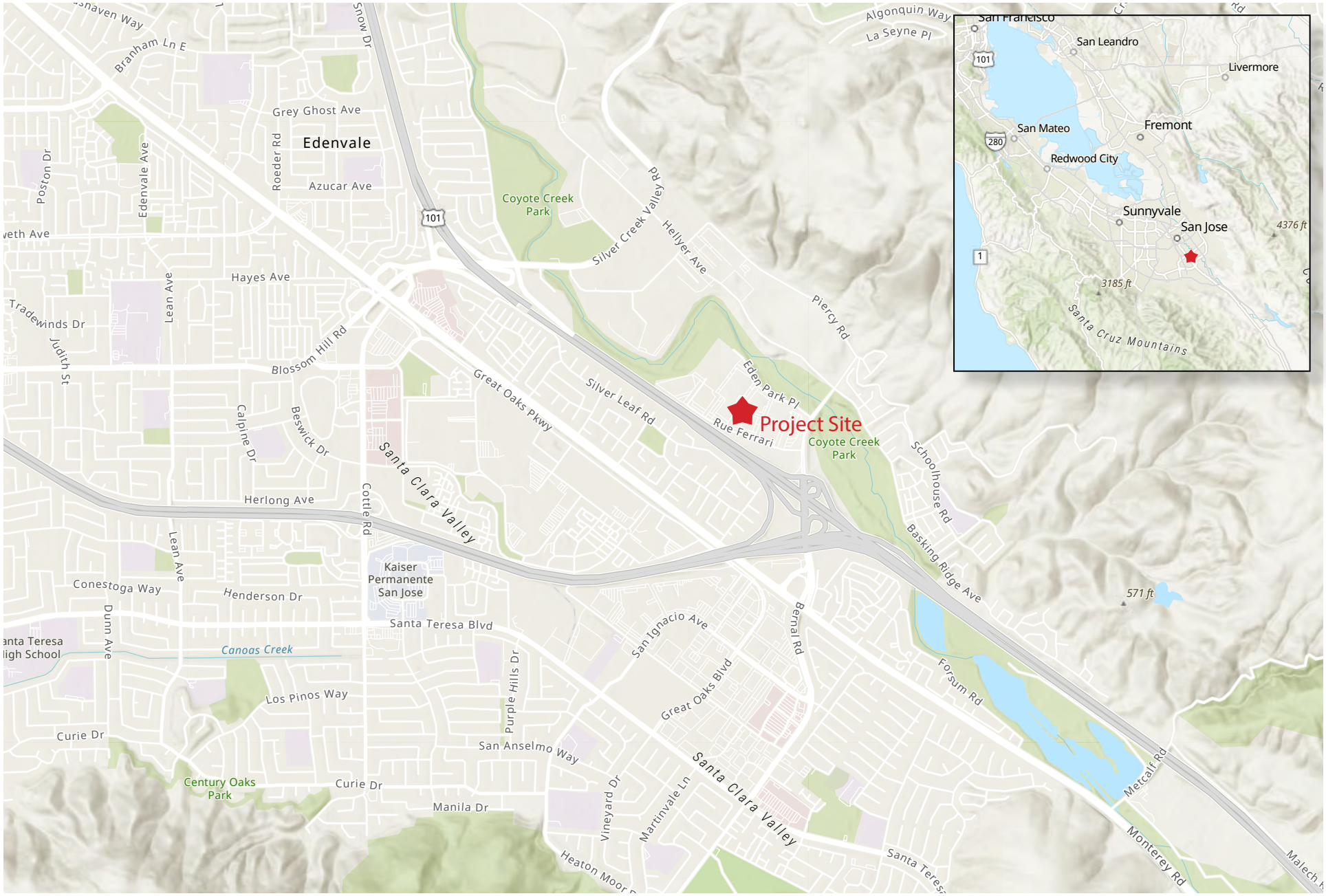
1.2 PROJECT DESCRIPTION

The project site is located at 5853 Rue Ferrari in the City of San José, California on an approximate 17.38-acre parcel. The proposed 5853 Rue Ferrari project (proposed project or project) would demolish the two existing warehouse buildings and construct one industrial warehouse building with a loading dock area on the west side of the warehouse building. Construction of the project is expected to commence in February 2022 and last for approximately 12 months. The proposed development would contain approximately 292,772 square feet of warehouse space and 10,000 square feet of office space, see **Figure 3: Site Plan**.

The proposed warehouse building would include 47 loading dock doors for trailer, box, and recycling trucks on the west side of the warehouse building. The proposed project also includes surface parking with 110 trailer truck stalls and 301 automobile stalls on site. Automobile parking would be located north, east, and south of the warehouse building while the trailer truck parking would be located west of the warehouse building. Additionally, 10 motorcycle parking spaces and 60 bicycle parking spaces would be located around the office space. The primary pedestrian entrance to the building would be provided from Rue Ferrari. Access to the project site would be provided by four driveways, two off Rue Ferrari and two off Eden Park Place.

The project site has mature landscape vegetation including trees and shrubs along the site boundary and throughout the surface parking lot. The proposed project would include additional landscaping throughout the site would include a mix of trees, grasses, shrubs and groundcover.

The project site is designated as Combined Industrial/Commercial (CIC) by the General Plan, which allows for warehousing uses. The project site is zoned as Industrial Park (IP). The IP Zoning District allows for a warehouse/distribution facility.



Source: USGS, 2021

Figure 1: Regional Map

5853 Rue Ferrari Project

Not to scale

Kimley»Horn

Expect More. Experience Better.

Source: Nearmap, 2021

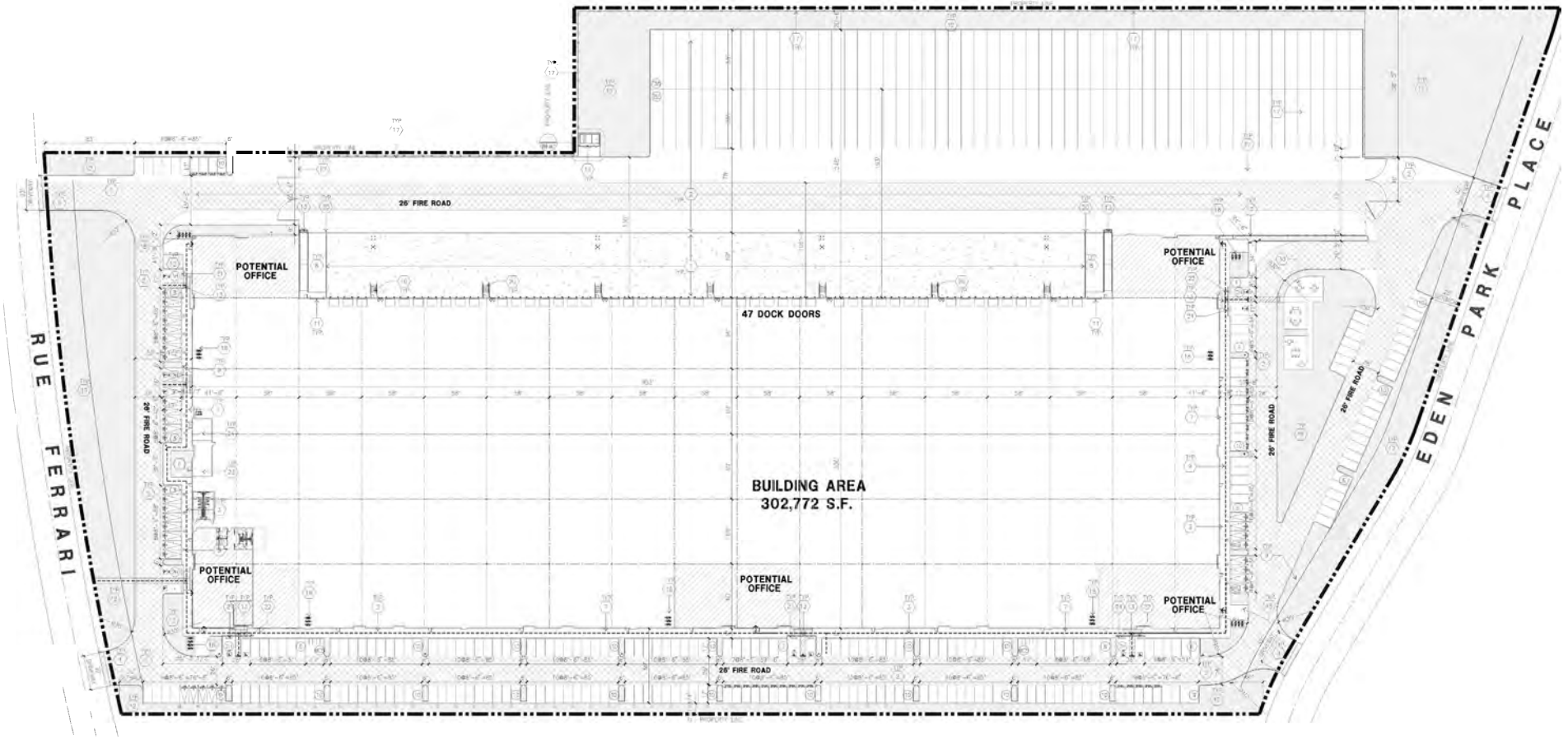
Figure 2: Project Vicinity Map

5853 Rue Ferrari Project

Not to scale

Kimley»Horn

Expect More. Experience Better.



Source: Duke Realty, 2021

Figure 3: Site Plan

5853 Rue Ferrari Project

Not to scale

Kimley»Horn
Expect More. Experience Better.

2 ENVIRONMENTAL SETTING

2.1 GREENHOUSE GASES AND CLIMATE CHANGE

Certain gases in the earth's atmosphere classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface and a smaller portion of this radiation is reflected toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. Because the earth has a much lower temperature than the sun, it emits lower-frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth.

The primary GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). Fluorinated gases also make up a small fraction of the GHGs that contribute to climate change. Examples of fluorinated gases include chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3); however, it is noted that these gases are not associated with typical land use development. Human-caused emissions of GHGs exceeding natural ambient concentrations are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the Earth's climate, known as global climate change or global warming.

GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants (TACs), which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (approximately one day), GHGs have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the exact lifetime of a GHG molecule is dependent on multiple variables and cannot be pinpointed, more CO_2 is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, or other forms of carbon sequestration. Of the total annual human-caused CO_2 emissions, approximately 55 percent is sequestered through ocean and land uptakes every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO_2 emissions remains stored in the atmosphere (Intergovernmental Panel on Climate Change, 2013). Table 1: Description of Greenhouse Gases, describes the primary GHGs attributed to global climate change, including their physical properties.

Table 1: Description of Greenhouse Gases

Greenhouse Gas	Description
Carbon Dioxide (CO_2)	CO_2 is a colorless, odorless gas that is emitted naturally and through human activities. Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood. The largest source of CO_2 emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, and industrial facilities. The atmospheric lifetime of CO_2 is variable because it is readily exchanged in the atmosphere. CO_2 is the most widely emitted GHG and is the reference gas (Global Warming Potential of 1) for determining Global Warming Potentials for other GHGs.
Nitrous Oxide (N_2O)	N_2O is largely attributable to agricultural practices and soil management. Primary human-related sources of N_2O include agricultural soil management, sewage treatment, combustion of fossil fuels, and adipic and nitric acid production. N_2O is produced from biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N_2O is approximately 120 years. The Global Warming Potential of N_2O is 298.
Methane (CH_4)	CH_4, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. Methane is the major component of natural gas, approximately 87 percent by volume. Human-related sources include fossil fuel production, animal husbandry, rice cultivation, biomass burning, and waste management. Natural sources of CH_4 include wetlands, gas hydrates, termites, oceans, freshwater bodies, non-wetland soils, and wildfires. The atmospheric lifetime of CH_4 is approximately 12 years and the Global Warming Potential is 25.
Hydrofluorocarbons (HFCs)	HFCs are typically used as refrigerants for both stationary refrigeration and mobile air conditioning. The use of HFCs for cooling and foam blowing is increasing, as the continued phase out of CFCs and HCFCs gains momentum. The 100-year Global Warming Potential of HFCs range from 124 for HFC-152 to 14,800 for HFC-23.
Perfluorocarbons (PFCs)	PFCs have stable molecular structures and only break down by ultraviolet rays approximately 60 kilometers above Earth's surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Two main sources of PFCs are primary aluminum production and semiconductor manufacturing. Global Warming Potentials range from 6,500 to 9,200.
Chlorofluorocarbons (CFCs)	CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. They are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). CFCs were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. The Montreal Protocol on Substances that Deplete the Ozone Layer prohibited their production in 1987. Global Warming Potentials for CFCs range from 3,800 to 14,400.
Sulfur Hexafluoride (SF_6)	SF_6 is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. It has a lifetime of 3,200 years. This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas. The Global Warming Potential of SF_6 is 23,900.
Hydrochlorofluoro-carbons (HCFCs)	HCFCs are solvents, similar in use and chemical composition to CFCs. The main uses of HCFCs are for refrigerant products and air conditioning systems. As part of the Montreal Protocol, HCFCs are subject to a consumption cap and gradual phase out. The United States is scheduled to achieve a 100 percent reduction to the cap by 2030. The 100-year Global Warming Potentials of HCFCs range from 90 for HCFC-123 to 1,800 for HCFC-142b.
Nitrogen Trifluoride (NF_3)	NF_3 was added to Health and Safety Code section 38505(g)(7) as a GHG of concern. This gas is used in electronics manufacture for semiconductors and liquid crystal displays. It has a high global warming potential of 17,200.

Source: Compiled from U.S. EPA, *Overview of Greenhouse Gases*, April 11, 2018 (https://www.epa.gov/ghgemissions/overview-greenhouse-gases); U.S. EPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2016*, 2018; Intergovernmental Panel on Climate Change, *Climate Change 2007: The Physical Science Basis*, 2007; National Research Council, Advancing the Science of Climate Change, 2010; U.S. EPA, *Methane and Nitrous Oxide Emission from Natural Sources*, April 2010.

3 REGULATORY SETTING

3.1 FEDERAL

To date, national standards have not been established for nationwide GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level. Various efforts have been promulgated at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects.

Energy Independence and Security Act of 2007. The Energy Independence and Security Act of 2007 (December 2007), among other key measures, requires the following, which would aid in the reduction of national GHG emissions:

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020 and direct the National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

U.S. Environmental Protection Agency Endangerment Finding. The U.S. Environmental Protection Agency's (EPA) authority to regulate GHG emissions stems from the U.S. Supreme Court decision in Massachusetts v. EPA (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Federal Clean Air Act (FCAA) and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court's ruling, the EPA finalized an endangerment finding in December 2009. Based on scientific evidence, it found that six GHGs (CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing FCAA and the EPA's assessment of the scientific evidence that form the basis for the EPA's regulatory actions.

Federal Vehicle Standards. In response to the U.S. Supreme Court ruling discussed above, Executive Order 13432 was issued in 2007 directing the EPA, the Department of Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011, and in 2010, the EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016.

In 2010, an Executive Memorandum was issued directing the Department of Transportation, Department of Energy, EPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the EPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards projected to achieve 163 grams per mile of CO_2 in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if this level were

achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–2021, and NHTSA intends to set standards for model years 2022–2025 in a future rulemaking. On January 12, 2017, the EPA finalized its decision to maintain the current GHG emissions standards for model years 2022–2025 cars and light trucks. It should be noted that the EPA is currently proposing to freeze the vehicle fuel efficiency standards at their planned 2020 level (37 mpg), canceling any future strengthening (currently 54.5 mpg by 2026).

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the EPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO_2 emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the EPA, this regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by 6 to 23 percent over the 2010 baseline.

In August 2016, the EPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower CO_2 emissions by approximately 1.1 billion metric tons and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program.

In 2018, the EPA stated their intent to halt various Federal regulatory activities to reduce GHG emissions, including the phase two program. California and other states have stated their intent to challenge federal actions that would delay or eliminate GHG reduction measures and have committed to cooperating with other countries to implement global climate change initiatives. On September 27, 2019, the EPA and the NHTSA published the "Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program." (84 Fed. Reg. 51,310 (Sept. 27, 2019.) The Part One Rule revokes California's authority to set its own GHG emissions standards and set zero-emission vehicle mandates in California. On March 31, 2020, the EPA and NHTSA finalized rulemaking for SAFE Part Two sets CO_2 emissions standards and corporate average fuel economy (CAFE) standards for passenger vehicles and light duty trucks, covering model years 2021-2026.

3.2 STATE OF CALIFORNIA

California Air Resources Board

The California Air Resources Board (CARB) is responsible for the coordination and oversight of State and local air pollution control programs in California. Various statewide and local initiatives to reduce California's contribution to GHG emissions have raised awareness about climate change and its potential for severe long-term adverse environmental, social, and economic effects. California is a significant emitter of CO_2e in the world and produced 440 million gross metric tons of CO_2e in 2015. In the state, the transportation sector is the largest emitter of GHGs, followed by industrial operations such as manufacturing and oil and gas extraction.

The State of California legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the nation. Some legislation, such as the landmark AB 32 California Global Warming Solutions Act of 2006, was specifically enacted to address GHG emissions. Other legislation, such

as Title 24 building efficiency standards and Title 20 appliance energy standards, were originally adopted for other purposes such as energy and water conservation, but also provide GHG reductions. This section describes the major legislation related to GHG emissions reduction.

Assembly Bill 32 (California Global Warming Solutions Act of 2006). AB 32 instructs the CARB to develop and enforce regulations for the reporting and verification of statewide GHG emissions. AB 32 also directed CARB to set a GHG emissions limit based on 1990 levels, to be achieved by 2020. It set a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner.

CARB Scoping Plan. CARB adopted the Scoping Plan to achieve the goals of AB 32. The Scoping Plan establishes an overall framework for the measures that would be adopted to reduce California's GHG emissions. CARB determined that achieving the 1990 emissions level would require a reduction of GHG emissions of approximately 29 percent below what would otherwise occur in 2020 in the absence of new laws and regulations (referred to as "business-as-usual"). The Scoping Plan evaluates opportunities for sector-specific reductions, integrates early actions and additional GHG reduction measures by both CARB and the state's Climate Action Team, identifies additional measures to be pursued as regulations, and outlines the adopted role of a cap-and-trade program. Additional development of these measures and adoption of the appropriate regulations occurred through the end of 2013. Key elements of the Scoping Plan include:

- Expanding and strengthening existing energy efficiency programs, as well as building and appliance standards.
- Achieving a statewide renewables energy mix of 33 percent by 2020.
- Developing a California cap-and-trade program that links with other programs to create a regional market system and caps sources contributing 85 percent of California's GHG emissions (adopted in 2011).
- Establishing targets for transportation-related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets (several sustainable community strategies have been adopted).
- Adopting and implementing measures pursuant to existing state laws and policies, including California's clean car standards, heavy-duty truck measures, the Low Carbon Fuel Standard (amendments to the Pavley Standard adopted 2009; Advanced Clean Car standard adopted 2012), goods movement measures, and the Low Carbon Fuel Standard (adopted 2009).
- Creating targeted fees, including a public goods charge on water use, fees on gasses with high global warming potential, and a fee to fund the administrative costs of California's long-term commitment to AB 32 implementation.

In 2012, CARB released revised estimates of the expected 2020 emissions reductions. The revised analysis relied on emissions projections updated considering current economic forecasts that accounted for the economic downturn since 2008, reduction measures already approved and put in place relating to future fuel and energy demand, and other factors. This update reduced the projected 2020 emissions from 596 million metric tons of CO_2e ($MMTCO_2e$) to 545 $MMTCO_2e$. The reduction in forecasted 2020 emissions means that the revised business-as-usual reduction necessary to achieve AB 32's goal of reaching 1990 levels by 2020 is now 21.7 percent, down from 29 percent. CARB also provided a lower 2020 inventory

forecast that incorporated state-led GHG emissions reduction measures already in place. When this lower forecast is considered, the necessary reduction from business-as-usual needed to achieve the goals of AB 32 is approximately 16 percent.

CARB adopted the first major update to the Scoping Plan on May 22, 2014. The updated Scoping Plan summarizes the most recent science related to climate change, including anticipated impacts to California and the levels of GHG emissions reductions necessary to likely avoid risking irreparable damage. It identifies the actions California has already taken to reduce GHG emissions and focuses on areas where further reductions could be achieved to help meet the 2020 target established by AB 32. By 2016, California had reduced GHG emissions below 1990 levels, achieving AB 32's 2020 goal four years ahead of schedule.

In January 2017, CARB released the 2017 Climate Change Scoping Plan Update (Second Update) for public review and comment (CARB, 2017). The Second Update sets forth CARB's strategy for achieving the state's 2030 GHG target as established in Senate Bill (SB) 32 (discussed below). The Second Update was approved by CARB's Governing Board on December 14, 2017.

Senate Bill 32 (California Global Warming Solutions Act of 2006: Emissions Limit. Signed into law in September 2016, SB 32 codifies the 2030 GHG reduction target in Executive Order B-30-15 (40 percent below 1990 levels by 2030). The bill authorizes CARB to adopt an interim GHG emissions level target to be achieved by 2030. CARB also must adopt rules and regulations in an open public process to achieve the maximum, technologically feasible, and cost-effective GHG reductions.

With SB 32, the Legislature passed companion legislation, AB 197, which provides additional direction for developing the Scoping Plan. On December 14, 2017, CARB adopted a second update to the Scoping Plan (CARB, 2017b). The 2017 Scoping Plan details how the State will reduce GHG emissions to meet the 2030 target set by Executive Order B-30-15 and codified by SB 32. Other objectives listed in the 2017 Scoping Plan are to provide direct GHG emissions reductions; support climate investment in disadvantaged communities; and support the Clean Power Plan and other Federal actions.

SB 375 (The Sustainable Communities and Climate Protection Act of 2008). Signed into law on September 30, 2008, SB 375 provides a process to coordinate land use planning, regional transportation plans, and funding priorities to help California meet the GHG reduction goals established by AB 32. SB 375 requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing GHG emissions, aligns planning for transportation and housing, and creates specified incentives for the implementation of the strategies. The applicable sustainable community strategy in the Bay Area is Plan Bay Area 2040.

AB 1493 (Pavley Regulations and Fuel Efficiency Standards). AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. Implementation of the regulation was delayed by lawsuits filed by automakers and by the EPA's denial of an implementation waiver. The EPA subsequently granted the requested waiver in 2009, which was upheld by the by the U.S. District Court for the District of Columbia in 2011. The regulations establish one set of emission standards for model years 2009–2016 and a second set of emissions standards for model years 2017 to 2025. By 2025, when all rules will be fully implemented, new automobiles will emit 34 percent fewer CO_2e emissions and 75 percent fewer smog-forming emissions.

SB 1368 (Emission Performance Standards). SB 1368 is the companion bill of AB 32, which directs the California Public Utilities Commission (CPUC) to adopt a performance standard for GHG emissions for the future power purchases of California utilities. SB 1368 limits carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than 5 years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. The new law effectively prevents California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the state. The CPUC adopted the regulations required by SB 1368 on August 29, 2007. The regulations implementing SB 1368 establish a standard for baseload generation owned by, or under long-term contract to publicly owned utilities, for 1,100 pounds of CO_2 per megawatt-hour.

SB 1078 and SBX1-2 (Renewable Electricity Standards). SB 1078 required California to generate 20 percent of its electricity from renewable energy by 2017. This goal was accelerated with SB 107, which changed the due date to 2010 instead of 2017. On November 17, 2008, Executive Order S-14-08 established a Renewable Portfolio Standard target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Executive Order S-21-09 also directed CARB to adopt a regulation by July 31, 2010, requiring the state's load serving entities to meet a 33 percent renewable energy target by 2020. CARB approved the Renewable Electricity Standard on September 23, 2010 by Resolution 10-23. SB X1-2 codified the 33 percent by 2020 goal.

SB 350 (Clean Energy and Pollution Reduction Act of 2015). Signed into law on October 7, 2015, SB 350 implements the goals of Executive Order B-30-15. The objectives of SB 350 are to increase the procurement of electricity from renewable sources from 33 percent to 50 percent (with interim targets of 40 percent by 2024, and 45 percent by 2027) and to double the energy efficiency savings in electricity and natural gas end uses of retail customers through energy efficiency and conservation. SB 350 also reorganizes the Independent System Operator to develop more regional electricity transmission markets and improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States.

AB 398 (Market-Based Compliance Mechanisms). Signed on July 25, 2017, AB 398 extended the duration of the Cap-and-Trade program from 2020 to 2030. AB 398 required CARB to update the Scoping Plan and for all GHG rules and regulations adopted by the State. It also designated CARB as the statewide regulatory body responsible for ensuring that California meets its statewide carbon pollution reduction targets, while retaining local air districts' responsibility and authority to curb toxic air contaminants and criteria pollutants from local sources that severely impact public health. AB 398 also decreased free carbon allowances over 40 percent by 2030 and prioritized Cap-and-Trade spending to various programs including reducing diesel emissions in impacted communities.

SB 150 (Regional Transportation Plans). Signed on October 10, 2017, SB 150 aligns local and regional GHG reduction targets with State targets (i.e., 40 percent below their 1990 levels by 2030). SB 150 creates a process to include communities in discussions on how to monitor their regions' progress on meeting these goals. The bill also requires the CARB to regularly report on that progress, as well as on the successes and the challenges regions experience associated with achieving their targets. SB 150 provides for accounting of climate change efforts and GHG reductions and identify effective reduction strategies.

SB 100 (California Renewables Portfolio Standard Program: Emissions of Greenhouse Gases). Signed into Law in September 2018, SB 100 increased California's renewable electricity portfolio from 50 to 60 percent

by 2030. SB 100 also established a further goal to have an electric grid that is entirely powered by clean energy by 2045.

Executive Orders Related to GHG Emissions

California's Executive Branch has taken several actions to reduce GHGs using executive orders. Although not regulatory, they set the state's tone and guide the actions of state agencies.

Executive Order S-3-05. Executive Order S-3-05 was issued on June 1, 2005, which established the following GHG emissions reduction targets:

- By 2010, reduce greenhouse gas emissions to 2000 levels.
- By 2020, reduce greenhouse gas emissions to 1990 levels.
- By 2050, reduce greenhouse gas emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an executive order, the goals are not legally enforceable for local governments or the private sector.

Executive Order S-01-07. Issued on January 18, 2007, Executive Order S-01-07 mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. The executive order established a Low Carbon Fuel Standard (LCFS) and directed the Secretary for Environmental Protection to coordinate the actions of the California Energy Commission, CARB, the University of California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. CARB adopted the LCFS on April 23, 2009

Executive Order S-13-08. Issued on November 14, 2008, Executive Order S-13-08 facilitated the California Natural Resources Agency development of the 2009 California Climate Adaptation Strategy. Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

Executive Order S-14-08. Issued on November 17, 2008, Executive Order S-14-08 expands the state's Renewable Energy Standard to 33 percent renewable power by 2020. Additionally, Executive Order S-21-09 (signed on September 15, 2009) directs CARB to adopt regulations requiring 33 percent of electricity sold in the state come from renewable energy by 2020. CARB adopted the Renewable Electricity Standard on September 23, 2010, which requires 33 percent renewable energy by 2020 for most publicly owned electricity retailers.

Executive Order S-21-09. Issued on July 17, 2009, Executive Order S-21-09 directs CARB to adopt regulations to increase California's Renewable Portfolio Standard (RPS) to 33 percent by 2020. This builds upon SB 1078 (2002), which established the California RPS program, requiring 20 percent renewable energy by 2017, and SB 107 (2006), which advanced the 20 percent deadline to 2010, a goal which was expanded to 33 percent by 2020 in the 2005 Energy Action Plan II.

Executive Order B-30-15. Issued on April 29, 2015, Executive Order B-30-15 established a California GHG reduction target of 40 percent below 1990 levels by 2030 and directs CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of CO_2e ($MMTCO_2e$). The 2030

target acts as an interim goal on the way to achieving reductions of 80 percent below 1990 levels by 2050, a goal set by Executive Order S-3-05. The executive order also requires the state's climate adaptation plan to be updated every three years and for the state to continue its climate change research program, among other provisions. With the enactment of SB 32 in 2016, the Legislature codified the goal of reducing GHG emissions by 2030 to 40 percent below 1990 levels.

Executive Order B-55-18. Issued on September 10, 2018, Executive Order B-55-18 establishes a goal to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter. This goal is in addition to the existing statewide targets of reducing GHG emissions. The executive order requires CARB to work with relevant state agencies to develop a framework for implementing this goal. It also requires CARB to update the Scoping Plan to identify and recommend measures to achieve carbon neutrality. The executive order also requires state agencies to develop sequestration targets in the Natural and Working Lands Climate Change Implementation Plan.

California Regulations and Building Codes

California has a long history of adopting regulations to improve energy efficiency in new and remodeled buildings. These regulations have kept California's energy consumption relatively flat, even with rapid population growth.

Title 20 Appliance Efficiency Regulations. The appliance efficiency regulations (California Code of Regulations [CCR] Title 20, Sections 1601-1608) include standards for new appliances. Twenty-three categories of appliances are included in the scope of these regulations. These standards include minimum levels of operating efficiency, and other cost-effective measures, to promote the use of energy- and water-efficient appliances.

Title 24 Building Energy Efficiency Standards. California's Energy Efficiency Standards for Residential and Nonresidential Buildings (CCR Title 24, Part 6), was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions. The 2016 Building Energy Efficiency Standards approved on January 19, 2016 went into effect on January 1, 2017. The 2019 Building Energy Efficiency Standards were adopted on May 9, 2018 and took effect on January 1, 2020. Under the 2019 standards, residential dwellings are required to use approximately 53 percent less energy and nonresidential buildings are required to use approximately 30 percent less energy than buildings under the 2016 standards.

Title 24 California Green Building Standards Code. The California Green Building Standards Code (CCR Title 24, Part 11 code) commonly referred to as CALGreen, is a statewide mandatory construction code developed and adopted by the California Building Standards Commission and the Department of Housing and Community Development. The CALGreen standards require new residential and nonresidential buildings to comply with mandatory measures under the topics of planning and design, energy efficiency, water efficiency/conservation, material conservation and resource efficiency, and environmental quality. CALGreen also provides voluntary tiers and measures that local governments may adopt that encourage or require additional measures in the five green building topics. The latest CALGreen Code took effect on January 1, 2020 (2019 CALGreen). The 2019 CALGreen standards will continue to improve upon the existing standards for new construction of, and additions and alterations to, residential and nonresidential

buildings. The new 2019 CALGreen standards require residential buildings are required to be solar ready through solar panels (refer to Section 110.10 in the 2019 Building Energy Efficiency Standards for more details).

3.3 REGIONAL

Bay Area Air Quality Management District Thresholds

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.

Under CEQA, the BAAQMD is a commenting responsible agency on air quality within its jurisdiction or impacting its jurisdiction. The BAAQMD reviews projects to ensure that they would: (1) support the primary goals of the latest Air Quality Plan; (2) include applicable control measures from the Air Quality Plan; and (3) not disrupt or hinder implementation of any Air Quality Plan control measures.

In May 2010, the BAAQMD adopted its updated California Environmental Quality Act (CEQA) Air Quality Guidelines as a guidance document to provide lead government agencies, consultants, and project proponents with uniform procedures for assessing air quality impacts and preparing the air quality sections of environmental documents for projects subject to CEQA. The BAAQMD CEQA Guidelines include methodologies and thresholds for addressing project and program level air quality and GHG emissions. The Guidelines were called into question by an order issued March 5, 2012, in California Building Industry Association (CBIA) v. BAAQMD (Alameda Superior Court Case No. RGI0548693). The Alameda County Superior Court issued a judgment finding that the BAAQMD had failed to comply with CEQA when it adopted the thresholds. The court also issued a writ of mandate ordering the BAAQMD to set aside the thresholds and cease dissemination of them until the BAAQMD had complied with CEQA. Notably, the court's ruling was based solely on BAAQMD's failure to comply with CEQA. The court did not reach any issues relating to the validity of the scientific reasoning underlying the recommended significance thresholds.

In August 2013, the Appellate Court struck down the lower court's order to set aside the thresholds. CBIA sought review by the California Supreme Court on three issues, including the appellate court's decision to uphold the BAAQMD's adoption of the thresholds, and the Court granted review on just one: Under what circumstances, if any, does CEQA require an analysis of how existing environmental conditions will impact future residents or users of a proposed project? In December 2015, the California Supreme Court confirmed that CEQA, with several specific exceptions, is concerned with the impacts of a project on the environment, not the effects the existing environment may have on a project. The BAAQMD published a new version of the Guidelines dated May 2017, which includes revisions made to address the Supreme Court's opinion. The BAAQMD is currently working to revise any outdated information in the Guidelines as part of its update to the CEQA Guidelines and thresholds of significance.

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 PM10 standard). The 2017 Clean Air Plan: Spare the Air, Cool the Climate was adopted on April 19, 2019, by the BAAQMD.

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 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.

3.4 LOCAL

Santa Clara County Climate Action Plan

The Santa Clara County Climate Action Plan (CAP) approved in 2009 focuses on County operations, facilities and employee actions that will reduce not only GHG emissions but also energy and water consumption, solid waste and fuel consumption. The GHG emission reduction goals require a change from "business as usual" to attain them. The goals were to stop increasing the amount of emissions by 2010, decrease emissions by 10 percent every 5 years from 2010 – 2050, and reach an 80 percent reduction by 2050. The CAP is being issued in the context of legislative and regulatory action at the federal and state level. California's climate change goals are set forth in AB 32, the Global Warming Solutions Act of 2006. This legislation requires a reduction of California GHG emissions to 1990 levels by 2020. In December 2008, CARB approved the Climate Change Scoping Plan Document required by AB 32. The Scoping Plan Document, which provides a roadmap for California to reduce its GHG emissions, recognizes the importance of development and implementation of Climate Action Plans by California cities and counties. Executive Order S-03-05 goes even further by requiring statewide reductions in GHG emissions to 80 percent below 1990 by the year 2050.

City of San José Municipal Code

The City's Municipal Code includes the following regulations that would reduce GHG emissions from future development:

- Green Building Regulations for Private Development (Chapter 17.84)
- Water Efficient Landscape Standards for New and Rehabilitated Landscaping (Chapter 15.10)
- Transportation Demand Programs for employers with more than 100 employees (Chapter 11.105)
- Construction and Demolition Diversion Deposit Program (Chapter 9.10)

- Wood Burning Ordinance (Chapter 9.10)

City of San José General Plan

The General Plan includes a GHG Reduction Strategy that is designed to help the City sustain its natural resources, grow efficiently, and meet California legal requirements for GHG emissions reduction. Multiple policies and actions in the General Plan have GHG implications including those targeting land use, housing, transportation, water usage, solid waste generation and recycling, and reuse of historic buildings. The policies also include a monitoring component that allows for adaptation and adjustment of City programs and initiatives related to sustainability and associated reductions in GHG emissions. The GHG Reduction Strategy is intended to meet the mandates as outlined in the CEQA Guidelines and the recent standards for "qualified plans" as set forth by BAAQMD.

The GHG Reduction Strategy was re-adopted by the San José City Council in December 2015. The environmental impacts of the GHG Reduction Strategy were analyzed in the General Plan FPEIR and a 2015 Supplement to the General Plan FPEIR. The City's projected emissions and the GHG Reduction Strategy are consistent with the measures necessary to meet state-wide 2020 goals established by AB 32 and addressed in the Climate Change Scoping Plan. Measures have not been identified that would ensure GHG emissions would be consistent with state-wide 2050 goals; however, the City adopted overriding considerations for identified future impacts associated with buildout of the City's General Plan.

The General Plan includes the following GHG reduction policies, which are applicable to the project. These policies are also described within the City's GHG Reduction Strategy.

Policy MS – 1.1 Demonstrate leadership in the development and implementation of green building policies and practices. Ensure that all projects are consistent with or exceed the City's Green Building Ordinance and City Council Policies as well as State and/or regional policies which require that projects incorporate various green building principles into their design and construction.

Policy MS – 1.4: Foster awareness of San José's business and residential communities of the economic and environmental benefits of green building practices. Encourage design and construction of environmentally responsible commercial and residential buildings that are also operated and maintained to reduce waste, conserve water, and meet other environmental objectives.

Policy MS-2.3: Encourage consideration of solar orientation, including building placement, landscaping, design, and construction techniques for new construction to minimize energy consumption.

Policy MS – 2.6: Promote roofing design and surface treatments that reduce the heat island effect of new and existing development and support reduced energy use, reduced air pollution, and a healthy urban forest. Connect businesses and residents with cool roof rebate programs through City outreach efforts.

Policy MS-2.11: Require new development to incorporate green building practices, including those required by the Green Building Ordinance. Specifically, target reduced energy use through construction techniques (e.g., design of building envelopes

and systems to maximize energy performance), through architectural design (e.g. design to maximize cross ventilation and interior daylight) and through site design techniques (e.g. orienting buildings on sites to maximize the effectiveness of passive solar design).

Policy MS – 5.5: Maximize recycling and composting from all residents, businesses, and institutions in the City.

Policy MS – 5.6: Enhance the construction and demolition debris recycling program to increase diversion from the building sector.

Policy MS-14.4: Implement the City's Green Building Policies so that new construction and rehabilitation of existing buildings fully implements industry best practices, including the use of optimized energy systems, selection of materials and resources, water efficiency, sustainable site selection, passive solar building design, and planting of trees and other landscape materials to reduce energy consumption.

Policy MS – 21.2: Manage the Community Forest to achieve San José's environmental goals for water and energy conservation, wildlife habitat preservation, stormwater retention, heat reduction in urban areas, energy conservation, and the removal of carbon dioxide from the atmosphere.

Policy CD-2.10: Recognize that finite land area exists for development and that density supports retail vitality and transit ridership. Use land regulations to require compact, low-impact development that efficiently uses land planned for growth, particularly for residential development which tends to have a long life-span. Strongly discourage small-lot and single-family detached residential product types in growth areas.

Policy CD-2.11: Within the Downtown and Urban Village Overlay areas, consistent with the minimum density requirements of the pertaining Land Use/Transportation Diagram designation, avoid the construction of surface parking lots except as an interim use, so that long-term development of the site will result in a cohesive urban form. In these areas, whenever possible, use structured parking, rather than surface parking, to fulfill parking requirements. Encourage the incorporation of alternative uses, such as parks, above parking structures.

Policy CD-3.2: Prioritize pedestrian and bicycle connections to transit, community facilities (including schools), commercial areas, and other areas serving daily needs. Ensure that the design of new facilities can accommodate significant anticipated future increases in bicycle and pedestrian activity.

Policy CD-5.1: Design areas to promote pedestrian and bicycle movements and to facilitate interaction between community members and to strengthen the sense of community.

Policy LU-5.4: Require new commercial development to facilitate pedestrian and bicycle access through techniques such as minimizing building separation from public sidewalks;

providing safe, accessible, convenient, and pleasant pedestrian connections; and including secure and convenient bike storage.

Policy TR – 1.16: Develop a strategy to construct a network of public and private alternative fuel vehicle charging/fueling stations city wide. Revise parking standards to require the installation of electric charging infrastructure at new large employment sites and large, multiple family residential developments.

Policy TR-2.18: Provide bicycle storage facilities as identified in the Bicycle Master Plan.

Policy TR-3.3: As part of the development review process, require that new development along existing and planned transit facilities consist of land use and development types and intensities that contribute toward transit ridership. In addition, require that new development is designed to accommodate and to provide direct access to transit facilities.

City of San José Greenhouse Gas Reduction Strategy

The City of San José updated its Greenhouse Gas Reduction Strategy, to the 2030 Greenhouse Gas Reduction Strategy (GHGRS), in August 2020, in alignment with SB 32. SB 23 has established an interim statewide greenhouse gas reduction goal for 2030 to meet the long-term target of carbon neutrality by 2045 (EO B-55-18). SB 32 expands upon AB 32, the Global Warming Solutions Act of 2006, and requires a reduction in greenhouse gas emissions of at least 40 percent below the 1990 levels by 2030.

The 2030 GHGRS allows for tiering and streamlining of GHG analyses under CEQA because it serves as a qualified Climate Action Plan for the City of San José. The 2030 GHGRS identifies major General Plan strategies and polices to be implemented by development project such as green building practices, transportation strategies, energy use, water conservation, waste reduction and diversion, and other sectors that contribute to GHG reductions and advancements of the City's broad sustainability goals.

The GHG Reduction Strategy identifies GHG emissions reduction measures to be implemented by development projects in three categories: built environment and energy, land use and transportation, and recycling and waste reduction. Some measures are mandatory for all proposed development projects and others are voluntary. Voluntary measures could be incorporated as mitigation measures for proposed projects, at the City's discretion.

Compliance with the mandatory measures and voluntary measures required by the City would ensure an individual project's consistency with the 2030 GHGRS. Implementation of the proposed General Plan through 2030 would not constitute a cumulatively considerable contribution to global climate change.

City of San José Private Sector Green Building Policy (6-32)

In October 2008, the City adopted the Private Sector Green Building Policy (6-32) that establishes baseline green building standards for private sector new construction and provides framework for the implementation of these standards. This policy requires that applicable projects achieve minimum green building performance levels using the Council adopted standards. Future development under the proposed Downtown Strategy 2040 would be subject to this policy.

Climate Smart San José

Climate Smart San José was developed by the City to reduce air pollution, save water, and create a healthier community. The plan contains nine strategies to reduce carbon emissions consistent with the Paris Climate Agreement. These strategies include use of renewable energy, densification of neighborhoods, electrification and sharing of vehicle fleets, investments in public infrastructure, creating local jobs, and improving building energy-efficiency.

Reach Building Code

In 2019, the San José City Council approved Ordinance No. 30311 and adopted Reach Code Ordinance (Reach Code) to reduce energy-related GHG emissions consistent with the goals of Climate Smart San José. The Reach Code applies to new construction projects in San José. It requires new residential construction to be outfitted with entirely electric fixtures. Mixed-fuel buildings (i.e., use of natural gas) are required to demonstrate increased energy efficiency through a higher Energy Design Ratings and be electrification ready. In addition, the Reach Code requires EV charging infrastructure for all building types (above current CALGreen requirements), and solar readiness for non-residential buildings

4 SIGNIFICANCE CRITERIA AND METHODOLOGY

4.1 THRESHOLDS AND SIGNIFICANCE CRITERIA

Based upon the criteria derived from State CEQA Guidelines Appendix G, a project normally would have a significant effect on the environment if it would:

GHG-1 Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

GHG-2 Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The Bay Area Air Quality Management District's (BAAQMD's) approach to developing a threshold of significance for GHG emissions is to identify the emissions level for which a project would not be expected to substantially conflict with existing California legislation adopted to reduce statewide GHG emissions needed to move towards climate stabilization. If a project would generate GHG emissions above the threshold level, it would be considered to contribute considerably to a significant cumulative impact. Stationary-source projects include land uses that would accommodate processes and equipment that emit GHG emissions and would require an Air District permit to operate. If annual emissions of operational-related GHGs exceed these levels, the proposed project would result in a cumulatively considerable contribution to a cumulatively significant impact to global climate change. BAAQMD is currently working to provide updated threshold guidance to address updated GHG regulations such as SB 32 and case law that has found efficiency metric thresholds based on state-wide data must be supported by substantial evidence that the threshold is appropriate for a specific location and specific project type.

BAAQMD does not have an adopted threshold of significance for construction-related GHG emissions. However, the BAAQMD recommends quantification and disclosure of construction GHG emissions. The BAAQMD also recommends that the Lead Agency should make a determination on the significance of these construction generated GHG emission impacts in relation to meeting AB 32 GHG reduction goals, as required by the Public Resources Code, Section 21082.2. The Lead Agency is encouraged to incorporate best management practices to reduce GHG emissions during construction, as feasible and applicable.

The City of San José has established consistency with their 2030 Greenhous Gas Reduction Strategy would result in a less than significant impact. The City of San José does not have construction-related GHG emission thresholds.

4.2 METHODOLOGY

Global climate change is, by definition, a cumulative impact of GHG emissions. Therefore, there is no project-level analysis. The baseline against which to compare potential impacts of the project includes the natural and anthropogenic drivers of global climate change, including world-wide GHG emissions from human activities which almost doubled between 1970 and 2010 from approximately 27 gigatonnes (Gt)

of CO_2/year to nearly 49 $GtCO_2$/year.[1] As such, the geographic extent of climate change and GHG emissions' cumulative impact discussion is worldwide.

The project's construction and operational emissions were calculated using the California Emissions Estimator Model version 2016.3.2 (CalEEMod). Details of the modeling assumptions and emission factors are provided in Appendix A: Greenhouse Gas Emissions Data. For construction, CalEEMod calculates emissions from off-road equipment usage and on-road vehicle travel associated with haul, delivery, and construction worker trips. The project's construction-related GHG emissions were forecasted based on the proposed construction schedule and applying the mobile-source and fugitive dust emissions factors derived from CalEEMod. The project's construction-related GHG emissions would be generated from off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles.

The project's operations-related GHG emissions would be generated by vehicular traffic, area sources (e.g., landscaping maintenance, consumer products), electrical generation, natural gas consumption, water supply and wastewater treatment, and solid waste. Details of the modeling assumptions and emission factors are provided in Appendix A, and a summary of adjustments is provided below.

CalEEMod default emission factors incorporate compliance with some, but not all, applicable rules and regulations regarding energy efficiency and vehicle fuel efficiency, and other GHG reduction policies, as described in the CalEEMod User's Guide (CAPCOA, 2016). The reductions obtained from each regulation and the source of the reduction amount used in the analysis are described below.

The following regulations are incorporated into the CalEEMod emission factors:

- Pavley I motor vehicle emission standards
- Low Carbon Fuel Standard (LCFS)
- 2016 title 24 Energy Efficiency Standards

The following regulations have not been incorporated into the CalEEMod emission factors:

- Pavley II (LEV III) Advanced Clean Cars Program (extends to model year 2025)
- Renewable Portfolio Standards (RPS)
- Green Building Code Standards (indoor water use)
- California Model Water Efficient Landscape Ordinance (Outdoor Water)
- 2019 Title 24 Energy Efficiency Standards (effective January 1, 2020)

As RPS is not accounted for in the current version of CalEEMod. Reductions from RPS are addressed by revising the electricity emission intensity factor in CalEEMod to account for the utility complying with the 33 percent renewable mandate by 2020. As of 2018 (latest available), Pacific Gas and Electric's (PG&E) power mix was at 39 percent renewable energy and will be required to achieve the 60 percent renewable energy goal by 2030 established by SB 100. The CalEEMod carbon intensity factor was adjusted within the model to represent PG&E's current emissions rate.

[1] Intergovernmental Panel on Climate Change, *Climate Change 2014 Mitigation of Climate Change Working Group III Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, 2014.

Energy savings from water conservation resulting from the Green Building Code Standards for indoor water use and California Model Water Efficient Landscape Ordinance for outdoor water use are not included in CalEEMod. The Water Conservation Act of 2009 mandates a 20 percent reduction in urban water use that is implemented with these regulations. Benefits of the water conservation regulations are applied in the CalEEMod mitigation component. Adjustments were also made for project design features that would reduce GHG emissions. The proposed project would also be constructed in conformance with CALGreen, which requires high-efficiency water fixtures for indoor plumbing and water efficient irrigation systems.

The 2019 Building Energy Efficiency Standards (adopted on May 9, 2018) took effect on January 1, 2020. Under the 2019 standards, homes would use about 53 percent less energy and nonresidential buildings would use about 30 percent less energy than buildings under the 2016 standards. Adjustments were made for project design features that would reduce GHG emissions.

The mitigated output from CalEEMod show reductions from existing regulatory requirements and project design features that are termed "mitigation" within the model; however, those modeling components associated with locational measures and compliance with existing regulations are not considered mitigation under CEQA, but rather are treated as project design features.

5 POTENTIAL IMPACTS AND MITIGATION

5.1 GREENHOUSE GAS EMISSIONS

Impact GHG-1 Would the Project generate greenhouse gas emissions, either directly or indirectly, that could have a significant impact on the environment?

Short-Term Construction Greenhouse Gas Emissions

Construction of the proposed project would result in minor increases in GHG emissions from on-site equipment and emissions from construction workers' personal vehicle travelling to and from the project construction site. Construction-related GHG emissions vary depending on the level of activity, length of the construction period, specific construction operations, types of equipment, and number of construction workers. Neither the City of San José nor BAAQMD have an adopted threshold of significance for construction-related GHG emissions; however, BAAQMD recommends quantifying emissions and disclosing that GHG emissions would occur during construction. The CalEEMod outputs prepared for the proposed project (refer to Appendix A) calculated emissions with project construction to be 764 $MTCO_2e$ for the total construction period (12 months). Because project construction will be a temporary condition (a total of 12 months) and would not result in a permanent increase in emissions that would interfere with the implementation of AB32, the temporary increase in emissions would be less than significant.

Long-Term Operational Greenhouse Gas Emissions

The proposed project would include the demolition for two existing buildings and construction of one industrial building. Operational or long-term emissions would occur over the project's life. GHG emissions would result from direct emissions such as project generated vehicular traffic, on-site combustion of natural gas, and operation of any landscaping equipment. Operational GHG emissions would also result from indirect sources, such as off-site generation of electrical power over the life of the project, the energy required to convey water to, and wastewater from the project site, the emissions associated with solid waste generated from the project site, and any fugitive refrigerants from air conditioning or refrigerators. It should be noted that the project would comply with the 2019 Title 24 Part 6 Building Energy Efficiency Standards. The standards require updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa), residential and nonresidential ventilation requirements, and nonresidential lighting requirements that would cut residential energy use by more than 50 percent (with solar) and nonresidential energy use by 30 percent. The standards also encourage demand responsive technologies including battery storage and heat pump water heaters and improve the building's thermal envelope through high performance attics, walls and windows to improve comfort and energy savings (California Energy Commission, March 2018). The project would also comply with the appliance energy efficiency standards in Title 20 of the California Code of Regulations. The Title 20 standards include minimum levels of operating efficiency, and other cost-effective measures, to promote the use of energy- and water-efficient appliances. The project would be constructed according to the standards for high-efficiency water fixtures for indoor plumbing and water efficient irrigation systems required in 2019 Title 24, Part 11 (CALGreen).

At the State and global level, improvements in technology, policy, and social behavior can also influence and reduce operational emissions generated by a project. The state is currently on a pathway to achieving

the Renewable Portfolio Standards goal of 33 percent renewables by 2020 and 60 percent renewables by 2030 per SB 100.

The majority of project emissions would occur from mobile and energy sources. Energy and mobile sources are targeted by statewide measures such as low carbon fuels, cleaner vehicles, strategies to promote sustainable communities and improved transportation choices that result in reducing VMT, continued implementation of the Renewable Portfolio Standard (the target is now set at 60 percent renewables by 2030), and extension of the Cap and Trade program (requires reductions from industrial sources, energy generation, and fossil fuels). The Cap and Trade program covers approximately 85 percent of California's GHG emissions as of January 2015. The statewide cap for GHG emissions from the capped sectors (i.e., electricity generation, industrial sources, petroleum refining, and cement production) commenced in 2013 and will decline approximately three percent each year, achieving GHG emission reductions throughout the program's duration. The passage of AB 398 in July 2017 extended the duration of the Cap and Trade program from 2020 to 2030. With continued implementation of various statewide measures, the project's operational energy and mobile source emissions would continue to decline in the future.

As discussed in Impact Statement GHG-2, below, the proposed development would be constructed in compliance with the City's Council Policy 6-32 and the City's Green Building Ordinance which will ensure operational emissions reductions consistent with the 2030 GHG Reduction Strategy. The proposed project, therefore, would be consistent with the City's GHG Reduction and General Plan and would have a less than significant GHG emissions impact.

Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact.

5.2 GREENHOUSE GAS REDUCTION PLAN COMPLIANCE

Impact GHG-2: Would the Project conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing greenhouse gas emissions?

City of San José Greenhouse Gas Reduction Strategy Compliance Checklist

The City of San José 2030 Greenhouse Gas Reduction Strategy outlines the actions the City will undertake to achieve its proportional share of State GHG emission reductions for the interim target year 2030. For this purpose, the City has implemented a Greenhouse Gas Reduction Strategy Compliance Checklist.

Prior to project approval, the applicant is required to complete the Greenhouse Gas Reduction Strategy Compliance Checklist to demonstrate the project's compliance with the City of San José 2030 Greenhouse Gas Reduction Strategy, refer to Appendix D. Compliance with the checklist is demonstrated by completing Section A (General Plan Policy Conformance) and Section B (Greenhouse Gas Reduction Strategies). Projects that propose alternative GHG mitigation measures must also complete Section C (Alternative Project Measures and Additional GHG Reductions). As discussed above, the project would be constructed in accordance with the latest California Building Code and green building regulations/CalGreen. The proposed development would be constructed in compliance with the City's Council Policy 6-32 and the City's Green Building Ordinance. The project would include a number of vehicle miles traveled (VMT) reduction strategies such as project characteristics such as activity mix and density

as well as multimodal infrastructure improvements. These VMT reduction measures would help reduce vehicle miles traveled (VMT) and mobile greenhouse gas emissions. Pursuant to CEQA Guidelines Sections 15064(h)(3), 15130(d), and 15183(b), a project's incremental contribution to a cumulative GHG emissions effect may be determined not to be cumulatively considerable if it complies with the requirements of the Greenhouse Gas Reduction Strategy.

As shown Table 2: 2030 GHGRS Table A - Project Compliance with General Plan Polices and Table 3: 2030 GHGRS Table B GHGRS Compliance, the project would comply with the 2030 GHG Reduction Strategy.

Table 2: 2030 GHGRS Table A - Project Compliance with General Plan Polices

General Plan Measures	General Plan Policies	Project Compliance
1) Consistency with the Land Use/Transportation Diagram (Land Use and Density)	*Is the proposed Project consistent with the Land Use/Transportation Diagram?*	**Consistent**. The proposed project is consistent with the Land Use/Transportation Diagram.
2) Implementation of Green Building Measures	***MS-2.2**: Encourage maximized use of on-site generation of renewable energy for all new and existing buildings.*	**Consistent.** The project would be solar-ready by including building roof space and conduit infrastructure for a "Future PV Array" per California Code. The project would also enroll in San José Clean Energy (SJCE) GreenSource program which includes 55 percent renewable energy.
	***MS-2.3**: Encourage consideration of solar orientation, including building placement, landscaping, design and construction techniques for new construction to minimize energy consumption.*	**Consistent**. The project would comply with the latest energy efficiency standards. The State goal is to increase the use of green building practices. The project would implement required green building strategies through existing regulation that requires the project to comply with various CalGreen requirements. Additionally, the project would be enrolled in San José Clean Energy (SJCE) GreenSource program which includes 55 percent renewable energy.
	***MS-2.7**: Encourage the installation of solar panels or other clean energy power generation sources over parking areas.*	**Consistent**. This measure is to increase solar throughout California, which is being done by various electricity providers and existing solar programs. The project would be solar-ready by including building roof space and conduit infrastructure for a "Future PV Array" per California Code. Future tenants within the project would be able to take advantage of incentives that are in place at the time of

General Plan Measures	General Plan Policies	Project Compliance
		construction.
	MS-2.11*: Require new development to incorporate green building practices, including those required by the Green Building Ordinance. Specifically, target reduced energy use through construction techniques (e.g., design of building envelopes and systems to maximize energy performance), through architectural design (e.g., design to maximize cross ventilation and interior daylight) and through site design techniques (e.g., orienting buildings on sites to maximize the effectiveness of passive solar design).*	**Consistent**. The State goal is to increase the use of green building practices. The project would implement required green building strategies through existing regulation that requires the project to comply with various CalGreen requirements to reduce energy use. Per section 4.6 Energy, the project would use approximately 1,572 MWh per year which is approximately 0.01 percent of Santa Clara County's total electricity use. The project anticipated natural gas usage would be approximately 10,416 therms of natural gas per year or 0.002 percent of the County's natural gas demand. Therefore, the project would have a nominal electricity demand compared to the County.
	MS-16.2*: Promote neighborhood-based distributed clean/renewable energy generation to improve local energy security and to reduce the amount of energy wasted in transmitting electricity over long distances.*	**Consistent.** The project would be solar-ready by ensuring roof space and conduit infrastructure for "Future PV Array" per California Code. Additionally, the project would be enrolled in San José Clean Energy (SJCE) GreenSource program which includes 55 percent renewable energy.
	CD-2.1*: Promote the Circulation Goals and Policies in the Envision San José 2040 General Plan. Create streets that promote pedestrian and bicycle transportation by following applicable goals and policies in the Circulation section of the Envision San José 2040 General Plan.*	**Not Applicable.** The proposed project is in a heavy industrial area. The project would not alter existing street, pedestrian walkways or bike lanes. However, the proposed project would include 30 bicycle racks as well as bicycle and pedestrian access on the driveways.
3) Pedestrian, Bicycle & Transit Site Design Measures	***CD-2.5****: Integrate Green Building Goals and Policies of the Envision San José 2040 General Plan into site design to create healthful environments. Consider factors such as shaded parking areas, pedestrian connections, minimization of impervious surfaces, incorporation of stormwater treatment measures, appropriate building orientations, etc.*	**Consistent.** The proposed project would include landscaping and shading of the parking areas and walkways. Additionally, 16 percent of the site would be pervious. The project would comply with all applicable stormwater regulations.
	CD-2.11*: Within the Downtown and Urban Village Overlay areas, consistent with the minimum density requirements of the*	**Not Applicable.** The proposed project is not located within the Downtown or Urban Village Overlay areas.

General Plan Measures	General Plan Policies	Project Compliance
	pertaining Land Use/Transportation Diagram designation, avoid the construction of surface parking lots except as an interim use, so that long-term development of the site will result in a cohesive urban form. In these areas, whenever possible, use structured parking, rather than surface parking, to fulfill parking requirements. Encourage the incorporation of alternative uses, such as parks, above parking structures.	
	***CD-3.2**: Prioritize pedestrian and bicycle connections to transit, community facilities (including schools), commercial areas, and other areas serving daily needs. Ensure that the design of new facilities can accommodate significant anticipated future increases in bicycle and pedestrian activity.*	**Consistent.** The proposed project would include 30 bicycle parking spaces as well as bicycle and pedestrian improvements to the site.
	***CD-3.4**: Encourage pedestrian cross-access connections between adjacent properties and require pedestrian and bicycle connections to streets and other public spaces, with particular attention and priority given to providing convenient access to transit facilities. Provide pedestrian and vehicular connections with cross-access easements within and between new and existing developments to encourage walking and minimize interruptions by parking areas and curb cuts.*	**Consistent** As discussed above, the proposed project would include bicycle parking spaces as well as access for bicyclists and pedestrian to access the site. The project would include day use lockers. This would promote safety and encourage employees to use alternative sources of transportation.
	***LU-3.5**: Balance the need for parking to support a thriving Downtown with the need to minimize the impacts of parking upon a vibrant pedestrian and transit oriented urban environment. Provide for the needs of bicyclists and pedestrians, including adequate bicycle parking areas and design measures to promote bicyclist and pedestrian safety.*	**Not Applicable.** The project is not located in the Downtown area.
	***TR-2.8:** Require new development to provide on-site facilities such as bicycle storage and showers, provide connections to existing and planned facilities, dedicate land to expand existing facilities or provide new facilities such as sidewalks and/or bicycle lanes/paths, or share in the cost of improvements.*	**Consistent.** The project includes connections to proposed (per Mitigation Measure TRANS-1) bicycle lane facilities, bicycle parking and day use storage lockers.
	***TR-7.1:** Require large employers to develop TDM programs to reduce the vehicle trips and vehicle miles generated by their employees through the use of shuttles, provision for car-sharing, bicycle sharing, carpool, parking*	**Consistent.** The project would include VMT reduction measures for employees such as increasing multimodal connectivity, pedestrian and bicycle network improvements.

General Plan Measures	General Plan Policies	Project Compliance
	strategies, transit incentives and other measures.	These infrastructure improvements would result in fewer GHG emissions related to employee trips.
	***TR-8.5**: Promote participation in car share programs to minimize the need for parking spaces in new and existing development.*	**Consistent.** The project would include VMT reduction measures for employees such as increasing multimodal connectivity, pedestrian and bicycle network improvements. The project includes 29 clean air/vanpool spaces and 30 bike parking spaces.
	***MS-3.1**: Require water-efficient landscaping, which conforms to the State's Model Water Efficient Landscape Ordinance, for all new commercial, institutional, industrial and developer-installed residential development unless for recreation needs or other area functions.*	**Consistent**. The proposed project would comply with the State's Model Water Efficient Landscape Ordinance and the City's Water-Efficient Landscape Ordinance (Chapter 15.11 of the San José Municipal Code). Project landscaping would include all water efficient landscaping.
4) Water Conservation and Urban Forestry Measures	***MS-3.2**: Promote the use of green building technology or techniques that can help reduce the depletion of the City's potable water supply, as building codes permit. For example, promote the use of captured rainwater, graywater, or recycled water as the preferred source for non-potable water needs such as irrigation and building cooling, consistent with Building Codes or other regulations.*	**Consistent**. The project includes low-flow fixtures and appliances. These measures are required by City Code. The project would comply with measures to increase water efficiency and green building techniques per building codes.
	***MS-19.4**: Require the use of recycled water wherever feasible and cost-effective to serve existing and new development.*	**Consistent.** The City provides recycled water in the vicinity of the project site. The project would utilize recycled water for the outdoor landscaping based on availability.
	***MS-21.3**: Ensure that San José's Community Forest is comprised of species that have low water requirements and are well adapted to its Mediterranean climate. Select and plant diverse species to prevent monocultures that are vulnerable to pest invasions. Furthermore, consider the appropriate placement of tree species and their lifespan to ensure the perpetuation of the Community Forest.*	**Consistent**. The project would comply with City landscaping requirements through plan check and design review processes. This would include water-efficient landscaping, pest resistance, and diversity requirements.
	***MS-26.1**: As a condition of new development, require the planting and maintenance of both street trees and trees on private property to achieve a level of tree coverage in compliance with and that implements City laws, policies or guidelines.*	**Consistent.** The project would comply with City landscaping requirements and criteria to incorporate existing trees with new landscaping.

General Plan Measures	General Plan Policies	Project Compliance
	ER-8.7*: Encourage stormwater reuse for beneficial uses in existing infrastructure and future development through the installation of rain barrels, cisterns, or other water storage and reuse facilities.*	**Consistent**. The Municipal Regional Permit (MRP) allows development projects to use infiltration, evapotranspiration, harvesting and use, or biotreatment to treat full water quality design flow or volume of stormwater runoff, as specified in MRP Provision C.3.d. Project applicants are no longer required to evaluate the feasibility of infiltration of rainwater harvesting and use before proceeding to biotreatment. If a project applicant desires to use rainwater harvesting systems to meet LID treatment requirements, there must be sufficient demand on the project site to use the water quality design volume, i.e., 80% of the average annual rainfall runoff, from the collection area. Appendix I from SCVURPPP provides guidance on how to estimate the required landscaping or toilet flushing demand to meet C.3.d requirements. If the project appears to have sufficient demand for captured rainwater, Appendix I provides guidance on sizing the cistern (or other storage facility) to achieve the appropriate combination of drawdown time and cistern volume.

Table 3: 2030 GHGRS Table B GHGRS Compliance

GHGRS Strategy and Consistency Options	Project Consistency
Renewable Energy Development 1. *Install solar panels, solar hot water, or other clean energy power generation sources on development sites,* *or* 2. *Participate in community solar programs to support development of renewable energy in the community,* *or* 3. *Participate in San José Clean Energy at the Total Green level (i.e., 100% carbon-free electricity) for electricity accounts associated with the project.* **Supports Strategies**: GHGRS #1, GHGRS #3	**Alternative Measure Proposed.** The project would be enrolled in San José Clean Energy (SJCE) GreenSource program which includes 55 percent renewable energy. Additionally, the project would be solar-ready by including building roof space and conduit infrastructure for a "Future PV Array" per California Code.
Building Retrofits – Natural Gas[2] This strategy only applies to projects that include a retrofit of an existing building. If the proposed project does not include a retrofit, select "Not Applicable" in the Project Conformance column. 1. *Replace an existing natural gas appliance with an electric alternative (e.g., space heater, water heater, clothes dryer),* *or* 2. *Replace an existing natural gas appliance with a high-efficiency model* **Supports Strategies:** GHGRS #4	**Not applicable.** The project does not include a retrofit.
Zero Waste Goal 1. *Provide space for organic waste (e.g., food scraps, yard waste) collection containers, and/or* 2. *Exceed the City's construction & demolition waste diversion requirement.* **Supports Strategies:** GHGRS #5	**Consistent.** The proposed development includes an exterior trash enclosure with space for recycling and organic waste collection. Additionally, construction and demolition waste would be diverted to meet City requirements.
Caltrain Modernization 1. *For projects located within ½ mile of a Caltrain station, establish a program through which to provide project tenants and/or residents with free or reduced Caltrain passes* *or* 2. *Develop a program that provides project tenants*	**Not Applicable.** The proposed project is not located within ½ mile of a Caltrain station. Therefore, this strategy is not applicable to the project.

[2] GHGRS Strategy #4 applies to existing building retrofits and not to new construction; Strategy #2 applies to new construction to reduce natural gas related GHG emissions.

and/or residents with options to reduce their vehicle miles traveled (e.g., a TDM program), which could include transit passes, bike lockers and showers, or other strategies to reduce project related VMT. **Supports Strategies:** GHGRS #6	
Water Conservation 1. *Install high-efficiency appliances/fixtures to reduce water use, and/or include water-sensitive landscape design, and/or* 2. *Provide access to reclaimed water for outdoor water use on the project site.* **Supports Strategies:** GHGRS#7	**Consistent.** The proposed project would comply with water conservation per the California Green Building Standards Code, which requires a 20 percent reduction in indoor water use. The project would include low flow appliances and fixtures. The project would also comply with the City's Water-Efficient Landscape Ordinance (Chapter 15.11 of the San José Municipal Code).

As demonstrated in Table 2 and Table 3, the project would not conflict with the 2030 GHG Reduction Strategy. GHG emissions caused by long-term operation of the proposed would be less than significant.

CARB Scoping Plan

The California State Legislature adopted AB 32 in 2006. AB 32 focuses on reducing GHGs (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) to 1990 levels by the year 2020. Pursuant to the requirements in AB 32, CARB adopted the Climate Change Scoping Plan (Scoping Plan) in 2008, which outlines actions recommended to obtain that goal. The Scoping Plan provides a range of GHG reduction actions that include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as the cap-and-trade program, and an AB 32 implementation fee to fund the program.

The latest CARB Climate Change Scoping Plan (2017) outlines the state's strategy to reduce state's GHG emissions to return to 40 percent below 1990 levels by 2030 pursuant to SB 32. The CARB Scoping Plan is applicable to state agencies and is not directly applicable to cities/counties and individual projects. Nonetheless, the Scoping Plan has been the primary tool that is used to develop performance-based and efficiency-based CEQA criteria and GHG reduction targets for climate action planning efforts.

The 2017 Scoping Plan Update identifies additional GHG reduction measures necessary to achieve the 2030 target. These measures build upon those identified in the First Update to the Climate Change Scoping Plan (2013). Although a number of these measures are currently established as policies and measures, some measures have not yet been formally proposed or adopted. It is expected that these measures or similar actions to reduce GHG emissions would be adopted as required to achieve statewide GHG emissions targets. As shown in Table 4: Project Consistency with Applicable CARB Scoping Plan Measures the project is consistent with most of the strategies, while others are not applicable to the project.

Table 4: Project Consistency with Applicable CARB Scoping Plan Measures

Scoping Plan Sector	Scoping Plan Measure	Implementing Regulations	Project Consistency
Transportation	California Cap-and-Trade Program Linked to Western Climate Initiative	Regulation for the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanism October 20, 2015 (CCR 95800)	**Consistent.** The Cap-and-Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers. However, the regulation indirectly affects people who use the products and services produced by these industrial sources when increased cost of products or services (such as electricity and fuel) are transferred to the consumers. The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap-and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the Program's first compliance period.
	California Light-Duty Vehicle Greenhouse Gas Standards	Pavley I 2005 Regulations to Control GHG Emissions from Motor Vehicles	**Consistent**. This measure applies to all new vehicles starting with model year 2012. The project would not conflict with its implementation as it would apply to all new passenger vehicles purchased in California. Passenger vehicles, model year 2012 and later, associated with construction and operation of the project would be required to comply with the Pavley emissions standards.
		2012 LEV III Amendments to the California Greenhouse Gas and Criteria Pollutant Exhaust and Evaporative Emission Standards	**Consistent.** The LEV III amendments provide reductions from new vehicles sold in California between 2017 and 2025. Passenger vehicles associated with the site would comply with LEV III standards.

Scoping Plan Sector	Scoping Plan Measure	Implementing Regulations	Project Consistency
	Low Carbon Fuel Standard	2009 readopted in 2015. Regulations to Achieve Greenhouse Gas Emission Reductions Subarticle 7. Low Carbon Fuel Standard CCR 95480	**Consistent.** This measure applies to transportation fuels utilized by vehicles in California. The project would not conflict with implementation of this measure. Motor vehicles associated with construction and operation of the project would utilize low carbon transportation fuels as required under this measure.
	Regional Transportation-Related Greenhouse Gas Targets	SB 375. Cal. Public Resources Code §§ 21155, 21155.1, 21155.2, 21159.28	**Consistent**. The project would provide development in the region that is consistent with the growth projections in the Regional Transportation Plan/Sustainable Communities Strategy (SCS) (Plan Bay Area 2040).
	Goods Movement	Goods Movement Action Plan January 2007	**Not applicable**. The project does not propose any changes to maritime, rail, or intermodal facilities or forms of transportation.
	Medium/Heavy-Duty Vehicle	2010 Amendments to the Truck and Bus Regulation, the Drayage Truck Regulation and the Tractor-Trailer Greenhouse Gas Regulation	**Consistent**. This measure applies to medium and heavy-duty vehicles that operate in the state. The project would not conflict with implementation of this measure. Medium and heavy-duty vehicles associated with construction and operation of the project would be required to comply with the requirements of this regulation.
	High Speed Rail	Funded under SB 862	**Not applicable**. This is a statewide measure that cannot be implemented by a project Applicant or Lead Agency.
Electricity and Natural Gas	Energy Efficiency	Title 20 Appliance Efficiency Regulation	**Consistent.** The project would not conflict with implementation of this measure. The project would comply with the latest energy efficiency standards.
		Title 24 Part 6 Energy Efficiency Standards for Residential and Non-Residential Building	
		Title 24 Part 11 California Green Building Code Standards	

Scoping Plan Sector	Scoping Plan Measure	Implementing Regulations	Project Consistency
	Renewable Portfolio Standard/Renewable Electricity Standard.	2010 Regulation to Implement the Renewable Electricity Standard (33% 2020)	**Consistent**. The project would obtain electricity from the electric utility company, PG&E. PG&E obtained 39 percent of its power supply from renewable sources in 2018. Therefore, the utility would provide power when needed on site that is composed of a greater percentage of renewable sources.
		SB 350 Clean Energy and Pollution Reduction Act of 2015 (50% 2030)	
	Million Solar Roofs Program	Tax incentive program	**Consistent.** This measure is to increase solar throughout California, which is being done by various electricity providers and existing solar programs. Future tenants within the project would be able to take advantage of incentives that are in place at the time of construction.
Water	Water	Title 24 Part 11 California Green Building Code Standards	**Consistent.** The project would comply with the California Green Building Standards Code, which requires a 20 percent reduction in indoor water use. The project would also comply with the City's Water-Efficient Landscape Ordinance (Chapter 15.11 of the San José Municipal Code).
		SBX 7-7—The Water Conservation Act of 2009	
		Model Water Efficient Landscape Ordinance	
Green Buildings	Green Building Strategy	Title 24 Part 11 California Green Building Code Standards	**Consistent.** The State goal is to increase the use of green building practices. The project would implement required green building strategies through existing regulation that requires the project to comply with various CalGreen requirements.
Industry	Industrial Emissions	2010 CARB Mandatory Reporting Regulation	**Consistent.** The project includes light industrial uses such as a warehouse. However, the project would comply with CARB Mandatory Reporting Regulation.
Recycling and Waste Management	Recycling and Waste	Title 24 Part 11 California Green Building Code Standards	**Consistent.** The project would not conflict with implementation of these measures. The project is required to achieve the recycling mandates via

Scoping Plan Sector	Scoping Plan Measure	Implementing Regulations	Project Consistency
		AB 341 Statewide 75 Percent Diversion Goal	compliance with the CALGreen code. The City has consistently achieved its state recycling mandates.
Forests	Sustainable Forests	Cap and Trade Offset Projects	**Not applicable.** The project site is an existing disturbed site located in an urban area. No forested lands exist on-site.
High Global Warming Potential	High Global Warming Potential Gases	CARB Refrigerant Management Program CCR 95380	**Not applicable**. The regulations are applicable to refrigerants used by large air conditioning systems and large commercial and industrial refrigerators and cold storage system. The project is not expected to use large systems subject to the refrigerant management regulations adopted by CARB.
Agriculture	Agriculture	Cap and Trade Offset Projects for Livestock and Rice Cultivation	**Not applicable**. The project site is an infill site. No grazing, feedlot or other agricultural activities that generate manure currently exist on-site or are proposed to be implemented by the project.

Source: California Air Resources Board (CARB), *California's 2017 Climate Change Scoping Plan*, 2017b and CARB, *Climate Change Scoping Plan*, December 2008.

As demonstrated in Table 4, the project would not conflict with the CARB Scoping Plan. As discussed above, the Scoping Plan reflects the 2030 target of a 40 percent reduction below 1990 levels, set by Executive Order B-30-15 and codified by SB 32. GHG emissions caused by long-term operation of the proposed would be less than significant.

Appendix B, Local Action, of the 2017 CARB Scoping Plan lists potential actions that support the State's climate goals. However, the Scoping Plan notes that the applicability and performance of the actions may vary across the regions. The document is organized into two categories (A) examples of plan-level GHG reduction actions that could be implemented by local governments and (B) examples of on-site project design features, mitigation measures, that could be required of individual projects under CEQA, if feasible, when the local jurisdiction is the lead agency.

The project would implement a number of the Standard Permit Conditions during construction. For example, a few of the construction measures include enforcing idling time restrictions on construction vehicles, use of added exhaust muffling and filtering devices, replant vegetation in disturbed areas as quickly as possible, and posting a publicly visible sign with the telephone number and person at the lead agency to contact regarding dust complaints. As indicated above, GHG reductions are also achieved as a result of State of California energy and water efficiency requirements for new non-residential developments. These efficiency improvements correspond to reductions in secondary GHG emissions. For example, in California, most of the electricity that powers homes is derived from natural gas combustion.

Therefore, energy saving measures, such as Title 24, reduces GHG emissions from the power generation facilities by reducing load demand.

The project would be required to comply with existing regulations, including applicable measures from the City's General Plan, or would be directly affected by the outcomes (vehicle trips and energy consumption would be less carbon intensive due to statewide compliance with future low carbon fuel standard amendments and increasingly stringent Renewable Portfolio Standards). As such, the project would not conflict with any other state-level regulations pertaining to GHGs.

Regarding goals for 2050 under Executive Order S-3-05, at this time it is not possible to quantify the emissions savings from future regulatory measures, as they have not yet been developed; nevertheless, it can be anticipated that operation of the project would benefit from implementation of current and potential future regulations (e.g., improvements in vehicle emissions, SB 100/renewable electricity portfolio improvements, etc.) enacted to meet an 80 percent reduction below 1990 levels by 2050.

Plan Bay Area

The project would be consistent with the overall goals of Plan Bay Area 2040 to provide housing, healthy and safe communities, and climate protection with an overall goal to reduce VMT. As noted above, the project would develop the project site with light industrial uses consistent with the General Plan. The project would add some additional employment, trips related to employees that work directly at the project site. Thus, implementation of the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and this impact would be less than significant.

Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact.

5.3 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

Cumulative Setting

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (approximately one day), GHGs have much longer atmospheric lifetimes of one year to several thousand years that allow them to be dispersed around the globe.

Cumulative Impacts and Mitigation Measures

It is generally the case that an individual project of the project's size and nature is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory. GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective. The additive effect of project-related GHG emissions would not result in a reasonably foreseeable cumulatively considerable contribution to global climate change. In addition, the project as well as other cumulative related projects, would be subject to all applicable regulatory requirements, which would further reduce GHG emissions. As shown in Table 3 and Table 4, the project would be consistent with the 2030 GHG Reduction Strategy. Thus, the project would

not conflict with any GHG reduction plan. Therefore, the project's cumulative contribution of GHG emissions would be less than significant and the project's cumulative GHG impacts would also be less than cumulatively considerable.

Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact.

6 REFERENCES

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Appendix A

Greenhouse Gas Emissions Data

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Annual

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

Rue Ferrari Project (Construction + Ops)

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	302.77	1000sqft	6.95	302,775.00	0
Parking Lot	351.09	1000sqft	8.06	351,086.00	0
City Park	2.60	Acre	2.60	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Land use per 5/6/2021 site plan

Construction Phase - anticipated construction schedule

Demolition - 19,000 tons of concrete, 9,700 tons of asphalt

Grading - 5,000 cy import

Vehicle Trips - Estimated traffic data per TA Report

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Construction Off-road Equipment Mitigation - BAAQMD Dust Control Measures

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

Waste Mitigation - AB939

Fleet Mix - Updated fleet mix per land use

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

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

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	98.00
tblConstructionPhase	NumDays	300.00	149.00
tblFleetMix	HHD	6.3620e-003	0.60
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	5.0410e-003	0.17
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	2.8380e-003	0.00
tblFleetMix	MHD	7.8170e-003	0.23
tblFleetMix	OBUS	9.1200e-004	0.00
tblFleetMix	SBUS	9.2700e-004	0.00
tblFleetMix	UBUS	3.8900e-004	0.00
tblGrading	MaterialExported	0.00	5,000.00
tblLandUse	LandUseSquareFeet	302,770.00	302,775.00
tblLandUse	LandUseSquareFeet	351,090.00	351,086.00
tblLandUse	LandUseSquareFeet	113,256.00	0.00
tblVehicleTrips	CNW_TL	7.30	40.00
tblVehicleTrips	CNW_TTP	0.00	100.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	9.50	13.54
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00

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

tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	66.00	0.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	0.00	0.32
tblVehicleTrips	ST_TR	1.74	6.74
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	0.00	0.32
tblVehicleTrips	SU_TR	1.74	6.74
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	0.00	0.32
tblVehicleTrips	WD_TR	1.74	6.74

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	1.4347	3.1085	2.9100	8.1600e-003	0.8063	0.1219	0.9282	0.2232	0.1140	0.3372	0.0000	747.6908	747.6908	0.1016	0.0452	763.6925
2023	0.5617	0.0231	0.0502	1.1000e-004	7.2000e-003	1.2000e-003	8.4000e-003	1.9100e-003	1.2000e-003	3.1200e-003	0.0000	9.7609	9.7609	4.1000e-004	1.5000e-004	9.8167
Maximum	**1.4347**	**3.1085**	**2.9100**	**8.1600e-003**	**0.8063**	**0.1219**	**0.9282**	**0.2232**	**0.1140**	**0.3372**	**0.0000**	**747.6908**	**747.6908**	**0.1016**	**0.0452**	**763.6925**

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Annual

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

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	1.2572	1.0795	3.1264	8.1600e-003	0.4823	0.0188	0.5010	0.1331	0.0184	0.1515	0.0000	747.6904	747.6904	0.1016	0.0452	763.6921
2023	0.5591	3.7000e-003	0.0506	1.1000e-004	6.8200e-003	1.0000e-004	6.9300e-003	1.8200e-003	1.0000e-004	1.9200e-003	0.0000	9.7609	9.7609	4.1000e-004	1.5000e-004	9.8167
Maximum	**1.2572**	**1.0795**	**3.1264**	**8.1600e-003**	**0.4823**	**0.0188**	**0.5010**	**0.1331**	**0.0184**	**0.1515**	**0.0000**	**747.6904**	**747.6904**	**0.1016**	**0.0452**	**763.6921**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**9.02**	**65.41**	**-7.32**	**0.00**	**39.88**	**84.64**	**45.76**	**40.06**	**83.93**	**54.91**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**2-15-2022**	**5-14-2022**	1.4275	0.4044
2	**5-15-2022**	**8-14-2022**	0.7170	0.2822
3	**8-15-2022**	**11-14-2022**	1.3891	0.9035
4	**11-15-2022**	**2-14-2023**	1.5797	1.3027
5	**2-15-2023**	**5-14-2023**	0.0127	0.0122
		Highest	1.5797	1.3027

2.2 Overall Operational

Unmitigated Operational

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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	tons/yr										MT/yr					
Area	1.3709	5.0000e-005	6.0300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0117	0.0117	3.0000e-005	0.0000	0.0125
Energy	5.6200e-003	0.0511	0.0429	3.1000e-004		3.8800e-003	3.8800e-003		3.8800e-003	3.8800e-003	0.0000	164.9988	164.9988	0.0188	3.1600e-003	166.4110
Mobile	1.3081	5.6887	15.3614	0.0551	4.4299	0.0576	4.4875	1.1944	0.0545	1.2489	0.0000	5,228.4788	5,228.4788	0.2118	0.4296	5,361.7802
Waste						0.0000	0.0000		0.0000	0.0000	57.8159	0.0000	57.8159	3.4168	0.0000	143.2364
Water						0.0000	0.0000		0.0000	0.0000	22.2127	36.0562	58.2689	2.2873	0.0546	131.7152
Total	**2.6846**	**5.7398**	**15.4104**	**0.0554**	**4.4299**	**0.0615**	**4.4914**	**1.1944**	**0.0584**	**1.2528**	**80.0286**	**5,429.5455**	**5,509.5741**	**5.9347**	**0.4873**	**5,803.1554**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.3709	5.0000e-005	6.0300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0117	0.0117	3.0000e-005	0.0000	0.0125
Energy	5.6200e-003	0.0511	0.0429	3.1000e-004		3.8800e-003	3.8800e-003		3.8800e-003	3.8800e-003	0.0000	164.9988	164.9988	0.0188	3.1600e-003	166.4110
Mobile	1.3081	5.6887	15.3614	0.0551	4.4299	0.0576	4.4875	1.1944	0.0545	1.2489	0.0000	5,228.4788	5,228.4788	0.2118	0.4296	5,361.7802
Waste						0.0000	0.0000		0.0000	0.0000	28.9079	0.0000	28.9079	1.7084	0.0000	71.6182
Water						0.0000	0.0000		0.0000	0.0000	22.2127	36.0562	58.2689	2.2873	0.0546	131.7152

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Total	**2.6846**	**5.7398**	**15.4104**	**0.0554**	**4.4299**	**0.0615**	**4.4914**	**1.1944**	**0.0584**	**1.2528**	**51.1207**	**5,429.5455**	**5,480.6662**	**4.2263**	**0.4873**	**5,731.5372**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**36.12**	**0.00**	**0.52**	**28.79**	**0.00**	**1.23**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/15/2022	3/14/2022	5	20	
2	Site Preparation	Site Preparation	3/15/2022	3/28/2022	5	10	
3	Grading	Grading	3/29/2022	5/9/2022	5	30	
4	Building Construction	Building Construction	6/7/2022	12/30/2022	5	149	
5	Paving	Paving	5/10/2022	6/6/2022	5	20	
6	Architectural Coating	Architectural Coating	10/1/2022	2/15/2023	5	98	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 90

Acres of Paving: 8.06

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 454,163; Non-Residential Outdoor: 151,388; Striped Parking Area: 21,065

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40

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Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
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

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	2,838.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	494.00	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	275.00	107.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	55.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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

Use Cleaner Engines for Construction Equipment

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3071	0.0000	0.3071	0.0465	0.0000	0.0465	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0264	0.2572	0.2059	3.9000e-004		0.0124	0.0124		0.0116	0.0116	0.0000	33.9902	33.9902	9.5500e-003	0.0000	34.2289
Total	**0.0264**	**0.2572**	**0.2059**	**3.9000e-004**	**0.3071**	**0.0124**	**0.3195**	**0.0465**	**0.0116**	**0.0580**	**0.0000**	**33.9902**	**33.9902**	**9.5500e-003**	**0.0000**	**34.2289**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.7100e-003	0.2457	0.0516	9.0000e-004	0.0241	2.2100e-003	0.0263	6.6200e-003	2.1200e-003	8.7400e-003	0.0000	89.3117	89.3117	3.0700e-003	0.0142	93.6064
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Annual

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

Worker	4.0000e-004	2.9000e-004	3.6200e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9407	0.9407	3.0000e-005	3.0000e-005	0.9495
Total	**7.1100e-003**	**0.2460**	**0.0552**	**9.1000e-004**	**0.0253**	**2.2200e-003**	**0.0275**	**6.9400e-003**	**2.1300e-003**	**9.0600e-003**	**0.0000**	**90.2524**	**90.2524**	**3.1000e-003**	**0.0142**	**94.5559**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1313	0.0000	0.1313	0.0199	0.0000	0.0199	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6200e-003	0.0200	0.2328	3.9000e-004		6.2000e-004	6.2000e-004		6.2000e-004	6.2000e-004	0.0000	33.9902	33.9902	9.5500e-003	0.0000	34.2289
Total	**4.6200e-003**	**0.0200**	**0.2328**	**3.9000e-004**	**0.1313**	**6.2000e-004**	**0.1319**	**0.0199**	**6.2000e-004**	**0.0205**	**0.0000**	**33.9902**	**33.9902**	**9.5500e-003**	**0.0000**	**34.2289**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.7100e-003	0.2457	0.0516	9.0000e-004	0.0230	2.2100e-003	0.0252	6.3600e-003	2.1200e-003	8.4700e-003	0.0000	89.3117	89.3117	3.0700e-003	0.0142	93.6064
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Annual

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

Worker	4.0000e-004	2.9000e-004	3.6200e-003	1.0000e-005	1.1300e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	0.9407	0.9407	3.0000e-005	3.0000e-005	0.9495
Total	**7.1100e-003**	**0.2460**	**0.0552**	**9.1000e-004**	**0.0241**	**2.2200e-003**	**0.0263**	**6.6600e-003**	**2.1300e-003**	**8.7800e-003**	**0.0000**	**90.2524**	**90.2524**	**3.1000e-003**	**0.0142**	**94.5559**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1654	0.0985	1.9000e-004		8.0600e-003	8.0600e-003		7.4200e-003	7.4200e-003	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549
Total	**0.0159**	**0.1654**	**0.0985**	**1.9000e-004**	**0.0983**	**8.0600e-003**	**0.1064**	**0.0505**	**7.4200e-003**	**0.0579**	**0.0000**	**16.7197**	**16.7197**	**5.4100e-003**	**0.0000**	**16.8549**

Unmitigated Construction Off-Site

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

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

Worker	2.4000e-004	1.8000e-004	2.1700e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5644	0.5644	2.0000e-005	2.0000e-005	0.5697
Total	**2.4000e-004**	**1.8000e-004**	**2.1700e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5644**	**0.5644**	**2.0000e-005**	**2.0000e-005**	**0.5697**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0420	0.0000	0.0420	0.0216	0.0000	0.0216	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3300e-003	0.0101	0.1043	1.9000e-004		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549
Total	**2.3300e-003**	**0.0101**	**0.1043**	**1.9000e-004**	**0.0420**	**3.1000e-004**	**0.0423**	**0.0216**	**3.1000e-004**	**0.0219**	**0.0000**	**16.7197**	**16.7197**	**5.4100e-003**	**0.0000**	**16.8549**

Mitigated Construction Off-Site

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

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

Worker	2.4000e-004	1.8000e-004	2.1700e-003	1.0000e-005	6.8000e-004	0.0000	6.8000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5644	0.5644	2.0000e-005	2.0000e-005	0.5697
Total	**2.4000e-004**	**1.8000e-004**	**2.1700e-003**	**1.0000e-005**	**6.8000e-004**	**0.0000**	**6.8000e-004**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**0.5644**	**0.5644**	**2.0000e-005**	**2.0000e-005**	**0.5697**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1381	0.0000	0.1381	0.0548	0.0000	0.0548	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0544	0.5827	0.4356	9.3000e-004		0.0245	0.0245		0.0226	0.0226	0.0000	81.8019	81.8019	0.0265	0.0000	82.4633
Total	**0.0544**	**0.5827**	**0.4356**	**9.3000e-004**	**0.1381**	**0.0245**	**0.1626**	**0.0548**	**0.0226**	**0.0774**	**0.0000**	**81.8019**	**81.8019**	**0.0265**	**0.0000**	**82.4633**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1700e-003	0.0428	8.9800e-003	1.6000e-004	4.1900e-003	3.9000e-004	4.5800e-003	1.1500e-003	3.7000e-004	1.5200e-003	0.0000	15.5462	15.5462	5.3000e-004	2.4600e-003	16.2937
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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Worker	8.0000e-004	5.9000e-004	7.2400e-003	2.0000e-005	2.3800e-003	1.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.8814	1.8814	6.0000e-005	5.0000e-005	1.8991
Total	**1.9700e-003**	**0.0434**	**0.0162**	**1.8000e-004**	**6.5700e-003**	**4.0000e-004**	**6.9700e-003**	**1.7800e-003**	**3.8000e-004**	**2.1600e-003**	**0.0000**	**17.4276**	**17.4276**	**5.9000e-004**	**2.5100e-003**	**18.1928**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0590	0.0000	0.0590	0.0234	0.0000	0.0234	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0114	0.0495	0.4950	9.3000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	81.8018	81.8018	0.0265	0.0000	82.4632
Total	**0.0114**	**0.0495**	**0.4950**	**9.3000e-004**	**0.0590**	**1.5200e-003**	**0.0605**	**0.0234**	**1.5200e-003**	**0.0250**	**0.0000**	**81.8018**	**81.8018**	**0.0265**	**0.0000**	**82.4632**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1700e-003	0.0428	8.9800e-003	1.6000e-004	4.0000e-003	3.9000e-004	4.3900e-003	1.1100e-003	3.7000e-004	1.4700e-003	0.0000	15.5462	15.5462	5.3000e-004	2.4600e-003	16.2937
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

Worker	8.0000e-004	5.9000e-004	7.2400e-003	2.0000e-005	2.2600e-003	1.0000e-005	2.2700e-003	6.0000e-004	1.0000e-005	6.1000e-004	0.0000	1.8814	1.8814	6.0000e-005	5.0000e-005	1.8991
Total	**1.9700e-003**	**0.0434**	**0.0162**	**1.8000e-004**	**6.2600e-003**	**4.0000e-004**	**6.6600e-003**	**1.7100e-003**	**3.8000e-004**	**2.0800e-003**	**0.0000**	**17.4276**	**17.4276**	**5.9000e-004**	**2.5100e-003**	**18.1928**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1271	1.1634	1.2191	2.0100e-003		0.0603	0.0603		0.0567	0.0567	0.0000	172.6353	172.6353	0.0414	0.0000	173.6693
Total	**0.1271**	**1.1634**	**1.2191**	**2.0100e-003**		**0.0603**	**0.0603**		**0.0567**	**0.0567**	**0.0000**	**172.6353**	**172.6353**	**0.0414**	**0.0000**	**173.6693**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0176	0.4494	0.1314	1.7000e-003	0.0525	4.7100e-003	0.0572	0.0152	4.5100e-003	0.0197	0.0000	165.3391	165.3391	3.7400e-003	0.0244	172.7026
Worker	0.0549	0.0402	0.4944	1.3900e-003	0.1625	8.5000e-004	0.1633	0.0432	7.8000e-004	0.0440	0.0000	128.4838	128.4838	3.9400e-003	3.7100e-003	129.6893

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Total	**0.0725**	**0.4896**	**0.6258**	**3.0900e-003**	**0.2150**	**5.5600e-003**	**0.2205**	**0.0584**	**5.2900e-003**	**0.0637**	**0.0000**	**293.8229**	**293.8229**	**7.6800e-003**	**0.0281**	**302.3919**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0418	0.2007	1.3156	2.0100e-003		7.5800e-003	7.5800e-003		7.5800e-003	7.5800e-003	0.0000	172.6351	172.6351	0.0414	0.0000	173.6691
Total	**0.0418**	**0.2007**	**1.3156**	**2.0100e-003**		**7.5800e-003**	**7.5800e-003**		**7.5800e-003**	**7.5800e-003**	**0.0000**	**172.6351**	**172.6351**	**0.0414**	**0.0000**	**173.6691**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0176	0.4494	0.1314	1.7000e-003	0.0503	4.7100e-003	0.0550	0.0146	4.5100e-003	0.0191	0.0000	165.3391	165.3391	3.7400e-003	0.0244	172.7026
Worker	0.0549	0.0402	0.4944	1.3900e-003	0.1541	8.5000e-004	0.1549	0.0412	7.8000e-004	0.0419	0.0000	128.4838	128.4838	3.9400e-003	3.7100e-003	129.6893
Total	**0.0725**	**0.4896**	**0.6258**	**3.0900e-003**	**0.2043**	**5.5600e-003**	**0.2099**	**0.0558**	**5.2900e-003**	**0.0611**	**0.0000**	**293.8229**	**293.8229**	**7.6800e-003**	**0.0281**	**302.3919**

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3.6 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	tons/yr										MT/yr					
Off-Road	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0276	20.0276	6.4800e-003	0.0000	20.1895
Paving	0.0106					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0216**	**0.1113**	**0.1458**	**2.3000e-004**		**5.6800e-003**	**5.6800e-003**		**5.2200e-003**	**5.2200e-003**	**0.0000**	**20.0276**	**20.0276**	**6.4800e-003**	**0.0000**	**20.1895**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-004	2.9000e-004	3.6200e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9407	0.9407	3.0000e-005	3.0000e-005	0.9495
Total	**4.0000e-004**	**2.9000e-004**	**3.6200e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9407**	**0.9407**	**3.0000e-005**	**3.0000e-005**	**0.9495**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8000e-003	0.0122	0.1730	2.3000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	20.0275	20.0275	6.4800e-003	0.0000	20.1895
Paving	0.0106					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0134**	**0.0122**	**0.1730**	**2.3000e-004**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**	**0.0000**	**20.0275**	**20.0275**	**6.4800e-003**	**0.0000**	**20.1895**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-004	2.9000e-004	3.6200e-003	1.0000e-005	1.1300e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	0.9407	0.9407	3.0000e-005	3.0000e-005	0.9495
Total	**4.0000e-004**	**2.9000e-004**	**3.6200e-003**	**1.0000e-005**	**1.1300e-003**	**1.0000e-005**	**1.1300e-003**	**3.0000e-004**	**1.0000e-005**	**3.1000e-004**	**0.0000**	**0.9407**	**0.9407**	**3.0000e-005**	**3.0000e-005**	**0.9495**

Rue Ferrari Project (Construction + Ops) - Santa Clara County, Annual

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

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.0957					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6500e-003	0.0458	0.0589	1.0000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	8.2981	8.2981	5.4000e-004	0.0000	8.3116
Total	**1.1024**	**0.0458**	**0.0589**	**1.0000e-004**		**2.6600e-003**	**2.6600e-003**		**2.6600e-003**	**2.6600e-003**	**0.0000**	**8.2981**	**8.2981**	**5.4000e-004**	**0.0000**	**8.3116**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7900e-003	3.5100e-003	0.0431	1.2000e-004	0.0142	7.0000e-005	0.0143	3.7700e-003	7.0000e-005	3.8400e-003	0.0000	11.2100	11.2100	3.4000e-004	3.2000e-004	11.3152
Total	**4.7900e-003**	**3.5100e-003**	**0.0431**	**1.2000e-004**	**0.0142**	**7.0000e-005**	**0.0143**	**3.7700e-003**	**7.0000e-005**	**3.8400e-003**	**0.0000**	**11.2100**	**11.2100**	**3.4000e-004**	**3.2000e-004**	**11.3152**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.0957					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7000e-004	4.1800e-003	0.0596	1.0000e-004		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	8.2981	8.2981	5.4000e-004	0.0000	8.3116
Total	**1.0967**	**4.1800e-003**	**0.0596**	**1.0000e-004**		**1.3000e-004**	**1.3000e-004**		**1.3000e-004**	**1.3000e-004**	**0.0000**	**8.2981**	**8.2981**	**5.4000e-004**	**0.0000**	**8.3116**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7900e-003	3.5100e-003	0.0431	1.2000e-004	0.0134	7.0000e-005	0.0135	3.5900e-003	7.0000e-005	3.6600e-003	0.0000	11.2100	11.2100	3.4000e-004	3.2000e-004	11.3152
Total	**4.7900e-003**	**3.5100e-003**	**0.0431**	**1.2000e-004**	**0.0134**	**7.0000e-005**	**0.0135**	**3.5900e-003**	**7.0000e-005**	**3.6600e-003**	**0.0000**	**11.2100**	**11.2100**	**3.4000e-004**	**3.2000e-004**	**11.3152**

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

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5563					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0215	0.0299	5.0000e-005		1.1700e-003	1.1700e-003		1.1700e-003	1.1700e-003	0.0000	4.2129	4.2129	2.5000e-004	0.0000	4.2192
Total	**0.5595**	**0.0215**	**0.0299**	**5.0000e-005**		**1.1700e-003**	**1.1700e-003**		**1.1700e-003**	**1.1700e-003**	**0.0000**	**4.2129**	**4.2129**	**2.5000e-004**	**0.0000**	**4.2192**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2700e-003	1.5800e-003	0.0203	6.0000e-005	7.2000e-003	4.0000e-005	7.2300e-003	1.9100e-003	3.0000e-005	1.9500e-003	0.0000	5.5481	5.5481	1.6000e-004	1.5000e-004	5.5975
Total	**2.2700e-003**	**1.5800e-003**	**0.0203**	**6.0000e-005**	**7.2000e-003**	**4.0000e-005**	**7.2300e-003**	**1.9100e-003**	**3.0000e-005**	**1.9500e-003**	**0.0000**	**5.5481**	**5.5481**	**1.6000e-004**	**1.5000e-004**	**5.5975**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5563					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.9000e-004	2.1200e-003	0.0302	5.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	4.2129	4.2129	2.5000e-004	0.0000	4.2192
Total	**0.5568**	**2.1200e-003**	**0.0302**	**5.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**4.2129**	**4.2129**	**2.5000e-004**	**0.0000**	**4.2192**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2700e-003	1.5800e-003	0.0203	6.0000e-005	6.8200e-003	4.0000e-005	6.8600e-003	1.8200e-003	3.0000e-005	1.8600e-003	0.0000	5.5481	5.5481	1.6000e-004	1.5000e-004	5.5975
Total	**2.2700e-003**	**1.5800e-003**	**0.0203**	**6.0000e-005**	**6.8200e-003**	**4.0000e-005**	**6.8600e-003**	**1.8200e-003**	**3.0000e-005**	**1.8600e-003**	**0.0000**	**5.5481**	**5.5481**	**1.6000e-004**	**1.5000e-004**	**5.5975**

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4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.3081	5.6887	15.3614	0.0551	4.4299	0.0576	4.4875	1.1944	0.0545	1.2489	0.0000	5,228.4788	5,228.4788	0.2118	0.4296	5,361.7802
Unmitigated	1.3081	5.6887	15.3614	0.0551	4.4299	0.0576	4.4875	1.1944	0.0545	1.2489	0.0000	5,228.4788	5,228.4788	0.2118	0.4296	5,361.7802

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Parking Lot	112.35	112.35	112.35	1,635,799	1,635,799
Unrefrigerated Warehouse-No Rail	2,040.67	2,040.67	2040.67	10,057,564	10,057,564
Total	2,153.02	2,153.02	2,153.02	11,693,362	11,693,362

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	0	0	0

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Parking Lot	9.50	7.30	40.00	0.00	0.00	100.00	100	0	0
Unrefrigerated Warehouse-No Rai	13.54	7.30	7.30	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.571175	0.055403	0.188166	0.116095	0.020429	0.005041	0.007817	0.006362	0.000912	0.000389	0.024445	0.000927	0.002838
Parking Lot	0.000000	0.000000	0.000000	0.000000	0.000000	0.170000	0.230000	0.600000	0.000000	0.000000	0.000000	0.000000	0.000000
Unrefrigerated Warehouse-No Rail	0.571175	0.055403	0.188166	0.116095	0.020429	0.005041	0.007817	0.006362	0.000912	0.000389	0.024445	0.000927	0.002838

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	109.4179	109.4179	0.0177	2.1500e-003	110.4999
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	109.4179	109.4179	0.0177	2.1500e-003	110.4999
NaturalGas Mitigated	5.6200e-003	0.0511	0.0429	3.1000e-004		3.8800e-003	3.8800e-003		3.8800e-003	3.8800e-003	0.0000	55.5809	55.5809	1.0700e-003	1.0200e-003	55.9112
NaturalGas Unmitigated	5.6200e-003	0.0511	0.0429	3.1000e-004		3.8800e-003	3.8800e-003		3.8800e-003	3.8800e-003	0.0000	55.5809	55.5809	1.0700e-003	1.0200e-003	55.9112

5.2 Energy by Land Use - NaturalGas

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Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No	1.04155e+006	5.6200e-003	0.0511	0.0429	3.1000e-004		3.8800e-003	3.8800e-003		3.8800e-003	3.8800e-003	0.0000	55.5809	55.5809	1.0700e-003	1.0200e-003	55.9112
Total		**5.6200e-003**	**0.0511**	**0.0429**	**3.1000e-004**		**3.8800e-003**	**3.8800e-003**		**3.8800e-003**	**3.8800e-003**	**0.0000**	**55.5809**	**55.5809**	**1.0700e-003**	**1.0200e-003**	**55.9112**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No	1.04155e+006	5.6200e-003	0.0511	0.0429	3.1000e-004		3.8800e-003	3.8800e-003		3.8800e-003	3.8800e-003	0.0000	55.5809	55.5809	1.0700e-003	1.0200e-003	55.9112
Total		**5.6200e-003**	**0.0511**	**0.0429**	**3.1000e-004**		**3.8800e-003**	**3.8800e-003**		**3.8800e-003**	**3.8800e-003**	**0.0000**	**55.5809**	**55.5809**	**1.0700e-003**	**1.0200e-003**	**55.9112**

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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	122880	11.3693	1.8400e-003	2.2000e-004	11.4818
Unrefrigerated Warehouse-No	1.05971e+006	98.0486	0.0159	1.9200e-003	99.0181
Total		**109.4179**	**0.0177**	**2.1400e-003**	**110.4999**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	122880	11.3693	1.8400e-003	2.2000e-004	11.4818
Unrefrigerated Warehouse-No	1.05971e+006	98.0486	0.0159	1.9200e-003	99.0181
Total		**109.4179**	**0.0177**	**2.1400e-003**	**110.4999**

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6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.3709	5.0000e-005	6.0300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0117	0.0117	3.0000e-005	0.0000	0.0125
Unmitigated	1.3709	5.0000e-005	6.0300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0117	0.0117	3.0000e-005	0.0000	0.0125

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1652					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2052					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.6000e-004	5.0000e-005	6.0300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0117	0.0117	3.0000e-005	0.0000	0.0125
Total	**1.3709**	**5.0000e-005**	**6.0300e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0117**	**0.0117**	**3.0000e-005**	**0.0000**	**0.0125**

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Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1652					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2052					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.6000e-004	5.0000e-005	6.0300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0117	0.0117	3.0000e-005	0.0000	0.0125
Total	**1.3709**	**5.0000e-005**	**6.0300e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0117**	**0.0117**	**3.0000e-005**	**0.0000**	**0.0125**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	58.2689	2.2873	0.0546	131.7152

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

Unmitigated	58.2689	2.2873	0.0546	131.7152

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 3.09785	1.0032	1.6000e-004	2.0000e-005	1.0131
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	70.0156 / 0	57.2657	2.2871	0.0546	130.7021
Total		**58.2689**	**2.2873**	**0.0546**	**131.7152**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 3.09785	1.0032	1.6000e-004	2.0000e-005	1.0131
Parking Lot	0 / 0	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

Unrefrigerated Warehouse-No Rail	70.0156 / 0	57.2657	2.2871	0.0546	130.7021
Total		**58.2689**	**2.2873**	**0.0546**	**131.7152**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	28.9079	1.7084	0.0000	71.6182
Unmitigated	57.8159	3.4168	0.0000	143.2364

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			

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City Park	0.22	0.0447	2.6400e-003	0.0000	0.1106
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No	284.6	57.7712	3.4142	0.0000	143.1258
Total		**57.8159**	**3.4168**	**0.0000**	**143.2364**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.11	0.0223	1.3200e-003	0.0000	0.0553
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No	142.3	28.8856	1.7071	0.0000	71.5629
Total		**28.9079**	**1.7084**	**0.0000**	**71.6182**

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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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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix B

2030 Greenhouse Gas Reduction Strategy Checklist

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

DEPARTMENT OF PLANNING, BUILDING AND CODE ENFORCEMENT

Purpose of the Compliance Checklist

In 2020, the City adopted a Greenhouse Gas Reduction Strategy (GHGRS) that outlines the actions the City will undertake to achieve its proportional share of State greenhouse gas (GHG) emission reductions for the interim target year 2030. The purpose of the Greenhouse Gas Reduction Strategy Compliance Checklist (Checklist) is to:

- Implement GHG reduction strategies from the 2030 GHGRS to new development projects.
- Provide a streamlined review process for proposed new development projects that are subject to discretionary review and trigger environmental review pursuant to the California Environmental Quality Act (CEQA).

The 2030 GHGRS presents the City's comprehensive path to reduce GHG emissions to achieve the 2030 reduction target, based on SB 32, BAAQMD, and OPR. Additionally, the 2030 GHGRS leverages other important City plans and policies; including the General Plan, Climate Smart San José, and the City Municipal Code in identifying reductions strategies that achieve the City's target. CEQA Guidelines Section 15183.5 allows for public agencies to analyze and mitigate GHG emissions as part of a larger plan for the reduction of greenhouse gases. Accordingly, the City of San José's 2030 GHGRS represents San José's qualified climate action plan in compliance with CEQA.

As described in the 2030 GHGRS, these GHG reductions will occur through a combination of City initiatives in various plans and policies and will provide reductions from both existing and new developments. This Compliance Checklist specifically applies to proposed discretionary projects that require environmental review pursuant to CEQA. Therefore, the Checklist is a critical implementation tool in the City's overall strategy to reduce GHG emissions. Implementation of applicable reduction actions in new development projects will help the City achieve incremental reductions toward its target. Per the 2030 GHGRS, the City will monitor strategy implementation and make updates, as necessary, to maintain an appropriate trajectory to the 2030 GHG target.

Pursuant to CEQA Guidelines Sections 15064(h)(3), 15130(d), and 15183(b), a project's incremental contribution to a cumulative GHG emissions effect may be determined not to be cumulatively considerable if it complies with the requirements of the GHGRS.

Instructions for Compliance Checklist

Applicants shall complete the following sections to demonstrate conformance with the City of San José 2030 Greenhouse Gas Reduction Strategy for the proposed project. All projects must complete Section A. General Plan Policy Conformance and Section B. Greenhouse Gas Reduction Strategies. Projects that propose alternative GHG mitigation measures must also complete Section C. Alternative Project Measures and Additional GHG Reductions.

A. General Plan Policy Compliance

Projects need to demonstrate consistency with the Envision San José 2040 General Plan's relevant policies for Land Use & Design, Transportation, Green Building, and Water Conservation, enumerated in Table A. All applicants shall complete the following steps.

1. Complete Table A, Item #1 to demonstrate the project's consistency with the General Plan Land Use and Circulation Diagram.

2. Complete Table A, Items #2 through #4 to demonstrate the project's consistency with General Plan policies[1] related to green building; pedestrian, bicycle & transit site design; and water conservation and urban forestry, as applicable. For each policy listed, mark the relevant yes/no check boxes to indicate project consistency, and provide a qualitative description of how the policy is implemented in the proposed project or why the policy is not applicable to the proposed project. Qualitative descriptions can be included in Table A or provided as separate attachments. This explanation will provide the basis for analysis in the CEQA document.

B. Greenhouse Gas Reduction Strategies

Table B identifies the GHGRS strategies and recommended consistency options. Projects need to demonstrate consistency with the GHGRS reduction strategies listed in Table B or document why the strategies are not applicable or are infeasible. The corresponding GHGRS strategies are indicated in the table to provide additional context, with the full text of the strategies preceding Table B.

Residential projects must complete Table B, Part 1 and 2; Non-residential projects must complete Table B, Part 2 only. All applicants shall complete the following steps for Table B.

1. Review the project consistency options described in the column titled 'GHGRS Strategy and Consistency Options'.
2. Use the check boxes in the column titled "Project Conformance" to indicate if the strategy is 'Proposed', 'Not Applicable', 'Not Feasible', or if there is an 'Alternative Measure Proposed'.

[1]The lists in items # 2-4 do not represent all General Plan policies but allow projects to demonstrate consistency and achievement of policies that are related to quantified reduction estimates in the 2030 GHGRS.

3. Provide a qualitative analysis of the proposed project's compliance with the GHGRS strategies in the column titled "Description of Project Measure". This will be the basis for CEQA analysis to demonstrate compliance with the 2030 GHGRS and by extension, with SB
   32. The qualitative analysis should provide:

   a. A description of which consistency options are included as part of the proposed project, or

   b. A description of why the strategy is not applicable to the proposed project, or

   c. A description of why the consistency options are infeasible. If applicants select 'Not Feasible' or 'Alternative Measure Proposed', they must complete Table C to document what alternative project measures will be implemented to achieve a similar level of greenhouse gas reduction and how those reduction estimates were calculated.

C. Alternative Project Measures and Additional GHG Reductions

Projects that propose alternative GHG mitigation measures to those identified in Table B or propose to include additional GHG mitigation measures beyond those described in Tables A and B, shall provide a summary explanation of the proposed measures and demonstrate efficiency or greenhouse gas reductions achievable though the proposed measures. Documentation for these alternative or additional project measures shall be documented in Table C. Any applicants who select 'Not Feasible' or 'Alternative Measure Proposed' in Table B must complete the following steps for Table C.

1. In the column titled "Description of Proposed Measure" provide a qualitative description of what measure will be implemented, why it is proposed, and how it will reduce GHG emissions.

2. In the column titled "Description of GHG Reduction Estimate" demonstrate how the alternative project measure would achieve the same or greater level of greenhouse gas reductions as the GHGRS strategy it replaces. Documentation or calculation files can be attached separately.

3. In the column titled "Proposed Measure Implementation" identify how the measure will be implemented: incorporated as part of the project design or as an additional measure that is not part of the project (e.g., purchase of carbon offsets).

Compliance Checklist

Evaluation of Project Conformance with the 2030 Greenhouse Gas Reduction Strategy

Table A: General Plan Consistency

Development Type: ☐ Commercial ☐ Residential ☐ Office ☒ Other: *Industrial*

1) Consistency with the Land Use/Transportation Diagram (Land Use and Density)	Yes	No
Is the proposed Project consistent with the Land Use/Transportation Diagram?	☒	☐
If not, and the proposed project includes a General Plan Amendment, does the proposed amendment decrease GHG emissions (in absolute terms or per capita, per employee, per service population) below the level assumed in the GHGRS based on the existing planned land use? (The project could have a higher density, mix of uses, or other features that would reduce GHG emissions compared to the planned land use).[2]	☐	☐
If not, would the proposed project and the General Plan Amendment increase GHG emissions (in absolute terms or per capita, per employee, per service population)? Project is not consistent with GHGRS and further modeling will be required to determine if additional mitigation measures are necessary.	☐	☐

Response documentation:

The proposed project is consistent with the Land Use/Transportation Diagram.

[2] For example, a General Plan Amendment to change use from single-family residential to multi-family residential or a General Plan Amendment to change the use from regional-serving commercial to mixed-use urban in a transit-served area might reduce travel demand, and therefore GHG emissions from mobile sources.

2) Implementation of Green Building Measures	Yes	No
***MS-2.2**: Encourage maximized use of on-site generation of renewable energy for all new and existing buildings.*	☒	☐
Not applicable	☐	☐
Describe how the project is consistent or why the measure is not applicable. *The project would be solar-ready by including building roof space and conduit infrastructure for a "Future PV Array" per California Code. The project would also enroll in San José Clean Energy (SJCE) GreenSource program which includes 55 percent renewable energy.*		
***MS-2.3**: Encourage consideration of solar orientation, including building placement, landscaping, design and construction techniques for new construction to minimize energy consumption.*	☒	☐
Not applicable	☐	☐
Describe how the project is consistent or why the measure is not applicable. *The project would comply with the latest energy efficiency standards. The State goal is to increase the use of green building practices. The project would implement required green building strategies through existing regulation that requires the project to comply with various CalGreen requirements. Additionally, the project would be enrolled in San José Clean Energy (SJCE) GreenSource program which includes 55 percent renewable energy.*		
***MS-2.7**: Encourage the installation of solar panels or other clean energy power generation sources over parking areas.*	☒	☐
Not applicable	☐	☐
Describe how the project is consistent or why the measure is not applicable. *This measure is to increase solar throughout California, which is being done by various electricity providers and existing solar programs. The project would be solar-ready by including building roof space and conduit infrastructure for a "Future PV Array" per California Code. Future tenants within the project would be able to take advantage of incentives that are in place at the time of construction.*		
***MS-2.11**: Require new development to incorporate green building practices, including those required by the Green Building Ordinance. Specifically, target reduced energy use through construction techniques (e.g., design of building envelopes and systems to maximize energy performance), through architectural design (e.g., design to maximize cross ventilation and interior daylight) and through site design techniques (e.g., orienting buildings on sites to maximize the effectiveness of passive solar design).*	☒	☐
Not applicable	☐	☐
Describe how the project is consistent or why the measure is not applicable. *The State goal is to increase the use of green building practices. The project would implement required green building strategies through existing regulation that requires the project to comply with various CalGreen requirements to reduce energy use. Per section 4.6 Energy, the project would use approximately 1,572 MWh per year which is approximately 0.01 percent of Santa Clara County's total electricity use. The project anticipated natural gas usage would be approximately 10,416 therms of natural gas per year or 0.002 percent of the County's natural gas demand. Therefore, the project would have a nominal electricity demand compared to the County.*		
***MS-16.2**: Promote neighborhood-based distributed clean/renewable energy generation to improve local energy security and to reduce the amount of energy wasted in transmitting electricity over long distances.*	☒	☐
Not applicable	☐	☐

Describe how the project is consistent or why the measure is not applicable. *The project would be solar-ready by ensuring roof space and conduit infrastructure for "Future PV Array" per California Code. Additionally, the project would be enrolled in San José Clean Energy (SJCE) GreenSource program which includes 55 percent renewable energy.*		
3) Pedestrian, Bicycle & Transit Site Design Measures	**Yes**	**No**
***CD-2.1**: Promote the Circulation Goals and Policies in the Envision San José 2040 General Plan. Create streets that promote pedestrian and bicycle transportation by following applicable goals and policies in the Circulation section of the Envision San José 2040 General Plan.*	☒	☐
a) Design the street network for its safe shared use by pedestrians, bicyclists, and vehicles. Include elements that increase driver awareness.	☒	☐
b) Create a comfortable and safe pedestrian environment by implementing wider sidewalks, shade structures, attractive street furniture, street trees, reduced traffic speeds, pedestrian-oriented lighting, mid-block pedestrian crossings, pedestrian-activated crossing lights, bulb-outs and curb extensions at intersections, and on-street parking that buffers pedestrians from vehicles.	☒	☐
c) Consider support for reduced parking requirements, alternative parking arrangements, and Transportation Demand Management strategies to reduce area dedicated to parking and increase area dedicated to employment, housing, parks, public art, or other amenities. Encourage de-coupled parking to ensure that the value and cost of parking are considered in real estate and business transactions.	☒	☐
Not applicable	☐	☐
Describe how the project is consistent or why the measure is not applicable. *The proposed project is in an industrial area. However, the project includes infrastructure improvements that would improve bicyclist and pedestrian experiences. Additionally, the proposed project would include 30 bicycle racks and is located near transit stops.*		
***CD-2.5**: Integrate Green Building Goals and Policies of the Envision San José 2040 General Plan into site design to create healthful environments. Consider factors such as shaded parking areas, pedestrian connections, minimization of impervious surfaces, incorporation of stormwater treatment measures, appropriate building orientations, etc.*	☒	☐
Not applicable	☐	☐
Describe how the project is consistent or why the measure is not applicable. *The proposed project would include landscaping and shading of the parking areas and walkways. Additionally, 16 percent of the site would be pervious. The project would comply with all applicable stormwater regulations.*		
***CD-2.11**: Within the Downtown and Urban Village Overlay areas, consistent with the minimum density requirements of the pertaining Land Use/Transportation Diagram designation, avoid the construction of surface parking lots except as an interim use, so that long-term development of the site will result in a cohesive urban form. In these areas, whenever possible, use structured parking, rather than surface parking, to fulfill parking requirements. Encourage the incorporation of alternative uses, such as parks, above parking structures.*	☐	☐
Not Applicable	☒	☐
Describe how the project is consistent or why the measure is not applicable. *The proposed project is not located within the Downtown or Urban Village Overlay areas.*		
***CD-3.2**: Prioritize pedestrian and bicycle connections to transit, community facilities (including schools), commercial areas, and other areas serving daily needs. Ensure that the design of new facilities can accommodate significant anticipated future increases in bicyde and pedestrian activity.*	☒	☐
Not applicable	☐	☐

Describe how the project is consistent or why the measure is not applicable. *The proposed project would include 30 bicycle parking spaces as well as bicycle and pedestrian access on the driveways. The project would include infrastructure improvements through MM TRANS-1 that would increase multimodal connectivity, pedestrian and bicycle networks. These improvements would result in fewer GHG emissions related to employee trips and increased walkability around the area and to the nearby trail.*		
***CD-3.4**: Encourage pedestrian cross-access connections between adjacent properties and require pedestrian and bicycle connections to streets and other public spaces, with particular attention and priority given to providing convenient access to transit facilities. Provide pedestrian and vehicular connections with cross-access easements within and between new and existing developments to encourage walking and minimize interruptions by parking areas and curb cuts.*	☒	☐
Not applicable	☐	☐
Describe how the project is consistent or why the measure is not applicable. *As discussed above, the proposed project would include bicycle parking spaces as well as multi modal access for bicyclists and pedestrian to access the site. The project would include day use lockers. This would promote safety and encourage employees to use alternative sources of transportation.*		
***LU-3.5**: Balance the need for parking to support a thriving Downtown with the need to minimize the impacts of parking upon a vibrant pedestrian and transit oriented urban environment. Provide for the needs of bicyclists and pedestrians, including adequate bicycle parking areas and design measures to promote bicyclist and pedestrian safety.*	☒	☐
Not applicable	☒	☐
Describe how the project is consistent or why the measure is not applicable. *The project is not located in the Downtown area.*		
***TR-2.8:** Require new development to provide on-site facilities such as bicycle storage and showers, provide connections to existing and planned facilities, dedicate land to expand existing facilities or provide new facilities such as sidewalks and/or bicycle lanes/paths, or share in the cost of improvements.*	☒	☐
Not applicable	☐	☐
Describe how the project is consistent or why the measure is not applicable. *The project includes to proposed (per Mitigation Measure TRANS-1) bicycle lane facilities, bicycle parking and day use storage lockers.*		
***TR-7.1:** Require large employers to develop TDM programs to reduce the vehicle trips and vehicle miles generated by their employees through the use of shuttles, provision for car-sharing, bicycle sharing, carpool, parking strategies, transit incentives and other measures.*	☒	☐
Not applicable	☐	☐
Describe how the project is consistent or why the measure is not applicable. *The project would include VMT reduction measures for employees such as increasing multimodal connectivity, pedestrian and bicycle network improvements. These infrastructure improvements would result in fewer GHG emissions related to employee trips.*		
***TR-8.5:** Promote participation in car share programs to minimize the need for parking spaces in new and existing development.*	☒	☐
Not applicable	☐	☐
Describe how the project is consistent or why the measure is not applicable. *The project would include VMT reduction measures for employees such as increasing multimodal connectivity, pedestrian and bicycle network improvements. The project includes 29 clean air/vanpool spaces and 30 bike parking spaces.*		

4) Water Conservation and Urban Forestry Measures	Yes	No
***MS-3.1**: Require water-efficient landscaping, which conforms to the State's Model Water Efficient Landscape Ordinance, for all new commercial, institutional, industrial and developer-installed residential development unless for recreation needs or other area functions.*	☒	☐
Not applicable	☐	☐
Describe how the project is consistent or why the measure is not applicable. *The proposed Project would comply with the State's Model Water Efficient Landscape Ordinance and the City's Water-Efficient Landscape Ordinance (Chapter 15.11 of the San José Municipal Code). Project landscaping would include all water efficient landscaping.*		
***MS-3.2**: Promote the use of green building technology or techniques that can help reduce the depletion of the City's potable water supply, as building codes permit. For example, promote the use of captured rainwater, graywater, or recycled water as the preferred source for non-potable water needs such as irrigation and building cooling, consistent with Building Codes or other regulations.*	☒	☐
Not applicable	☐	☐
Describe how the project is consistent or why the measure is not applicable. *The project includes low-flow fixtures and appliances. These measures are required by City Code. The project would comply with measures to increase water efficiency and green building techniques per building codes.*		
***MS-19.4**: Require the use of recycled water wherever feasible and cost-effective to serve existing and new development.*	☐	☐
Not applicable	☒	☐
Describe how the project is consistent or why the measure is not applicable. *The City provides recycled water in the vicinity of the project site. The project would utilize recycled water for the outdoor landscaping based on availability.*		
***MS-21.3**: Ensure that San José's Community Forest is comprised of species that have low water requirements and are well adapted to its Mediterranean climate. Select and plant diverse species to prevent monocultures that are vulnerable to pest invasions. Furthermore, consider the appropriate placement of tree species and their lifespan to ensure the perpetuation of the Community Forest.*	☒	☐
Not applicable	☐	☐
Describe how the project is consistent or why the measure is not applicable. *The project would comply with City landscaping requirements through plan check and design review processes. This would include water-efficient landscaping, pest resistance, and diversity requirements.*		
***MS-26.1**: As a condition of new development, require the planting and maintenance of both street trees and trees on private property to achieve a level of tree coverage in compliance with and that implements City laws, policies or guidelines.*	☒	☐
Not applicable	☐	☐
Describe how the project is consistent or why the measure is not applicable. *The project would comply with City landscaping requirements and criteria to incorporate existing trees with new landscaping.*		
***ER-8.7**: Encourage stormwater reuse for beneficial uses in existing infrastructure and future development through the installation of rain barrels, cisterns, or other water storage and reuse facilities.*	☒	☐
Not applicable	☐	☐

Describe how the project is consistent or why the measure is not applicable.

The Municipal Regional Permit (MRP) allows development projects to use infiltration, evapotranspiration, harvesting and use, or biotreatment to treat full water quality design flow or volume of stormwater runoff, as specified in MRP Provision C.3.d. Project applicants are no longer required to evaluate the feasibility of infiltration of rainwater harvesting and use before proceeding to biotreatment. If a project applicant desires to use rainwater harvesting systems to meet LID treatment requirements, there must be sufficient demand on the project site to use the water quality design volume, i.e., 80% of the average annual rainfall runoff, from the collection area. Appendix I from SCVURPPP provides guidance on how to estimate the required landscaping or toilet flushing demand to meet C.3.d requirements. If the project appears to have sufficient demand for captured rainwater, Appendix I provides guidance on sizing the cistern (or other storage facility) to achieve the appropriate combination of drawdown time and cistern volume.

GHGRS Strategies

GHGRS #1: The City will implement the San José Clean Energy program to provide residents and businesses access to cleaner energy at competitive rates.

GHGRS #2: The City will implement its building reach code ordinance (adopted September 2019) and its prohibition of natural gas infrastructure ordinance (adopted October 2019) to guide the city's new construction toward zero net carbon (ZNC) buildings.

GHGRS #3: The City will expand development of rooftop solar energy through the provision of technical assistance and supportive financial incentives to make progress toward the Climate Smart San José goal of becoming a one-gigawatt solar city.

GHGRS #4: The City will support a transition to building decarbonization through increased efficiency improvements in the existing building stock and reduced use of natural gas appliances and equipment.

GHGRS #5: As an expansion to Climate Smart San José, the City will update its Zero Waste Strategic Plan and reassess zero waste strategies. Throughout the development of the update, the City will continue to divert 90 percent of waste away from landfills through source reduction, recycling, food recovery and composting, and other strategies.

GHGRS #6: The City will continue to be a partner in the Caltrain Modernization Project to enhance local transit opportunities while simultaneously improving the city's air quality.

GHGRS #7: The City will expand its water conservation efforts to achieve and sustain long-term per capita reductions that ensure a reliable water supply with a changing climate, through regional partnerships, sustainable landscape designs, green infrastructure, and water-efficient technology and systems.

Table B: 2030 Greenhouse Gas Reduction Strategy Compliance

GHGRS Strategy and Consistency Options	Description of Project Measure	Project Conformance
PART 2: RESIDENTIAL AND NON-RESIDENTIAL PROJECTS		
Renewable Energy Development 1. Install solar panels, solar hot water, or other clean energy power generation sources on development sites, or 2. Participate in community solar programs to support development of renewable energy in the community, or 3. Participate in San José Clean Energy at the Total Green level (i.e., 100% carbon-free electricity) for electricity accounts associated with the project. **Supports Strategies**: GHGRS #1, GHGRS #3	**Alternative Measure Proposed.** The project would be enrolled in San José Clean Energy (SJCE) GreenSource program which includes 55 percent renewable energy. Additionally, the project would be solar-ready by including building roof space and conduit infrastructure for a "Future PV Array" per California Code.	☐See Part 1 (Residential projects only) ☐Proposed ☐Not Applicable ☐Not Feasible ☒ Alternative Measure Proposed
Building Retrofits – Natural Gas[3] This strategy only applies to projects that include a retrofit of an existing building. If the proposed project does not include a retrofit, select "Not Applicable" in the Project Conformance column. 1. Replace an existing natural gas appliance with an electric alternative (e.g., space heater, water heater, clothes dryer), or 2. Replace an existing natural gas appliance with a high-efficiency model **Supports Strategies:** GHGRS #4	**Not Applicable.** The project does not include a retrofit. Therefore, this strategy is not applicable to the project.	☐Proposed ☒ Not Applicable ☐Not Feasible ☐Alternative Measure Proposed
Zero Waste Goal 1. Provide space for organic waste (e.g., food scraps, yard waste) collection containers, and/or	**Consistent.** The proposed development includes an exterior trash enclosure with space for recycling and organic waste collection. Additionally, construction and demolition waste would be diverted to meet City requirements.	☒ Proposed ☐Not Applicable ☐Not Feasible ☐Alternative Measure Proposed

[3] GHGRS Strategy #4 applies to existing building retrofits and not to new construction; Strategy #2 applies to new construction to reduce natural gas related GHG emissions.

2. Exceed the City's construction & demolition waste diversion requirement. **Supports Strategies:** GHGRS #5		
Caltrain Modernization 1. For projects located within ½ mile of a Caltrain station, establish a program through which to provide project tenants and/or residents with free or reduced Caltrain passes or 2. Develop a program that provides project tenants and/or residents with options to reduce their vehicle miles traveled (e.g., a TDM program), which could include transit passes, bike lockers and showers, or other strategies to reduce project related VMT. **Supports Strategies:** GHGRS #6	**Not Applicable.** The proposed project is not located within ½ mile of a Caltrain station. Therefore, this strategy is not applicable to the project.	☐Proposed ☒ Not Applicable ☐Not Feasible ☐Alterative Measure Proposed
Water Conservation 1. Install high-efficiency appliances/fixtures to reduce water use, and/or include water-sensitive landscape design, and/or 2. Provide access to reclaimed water for outdoor water use on the project site. **Supports Strategies:** GHGRS #7	**Proposed**. The proposed project would comply with water conservation per the California Green Building Standards Code, which requires a 20 percent reduction in indoor water use. The project would include low flow appliances and fixtures. The project would also comply with the City's Water-Efficient Landscape Ordinance (Chapter 15.11 of the San José Municipal Code).	☒ Proposed ☐Not Applicable ☐Not Feasible ☐Alternative Measure Proposed