Appendix B

Air Quality and Greenhouse Gas Study

Ventana at Duncan Canyon Specific Plan Amendment

Air Quality and Greenhouse Gas Study

prepared for

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1 Project Description

1.1 Introduction

This study analyzes the potential air quality and greenhouse gas (GHG) emissions impacts of the proposed Ventana at Duncan Canyon Specific Plan Amendment (herein referred to as "project" or "Specific Plan Amendment") in Fontana, California. Rincon Consultants, Inc. (Rincon) prepared this study under contract to City of Fontana. The purpose of this study is to analyze the project's air quality and GHG emissions impacts related to both temporary construction activity and long-term operation of the project. This technical study was prepared in support of a Supplemental Environmental Impact Report (EIR) for the *Ventana at Duncan Canyon Specific Plan*, analyzed in a previous Final EIR (State Clearinghouse Number 2005111048) that was approved by the City of Fontana on March 27, 2007.

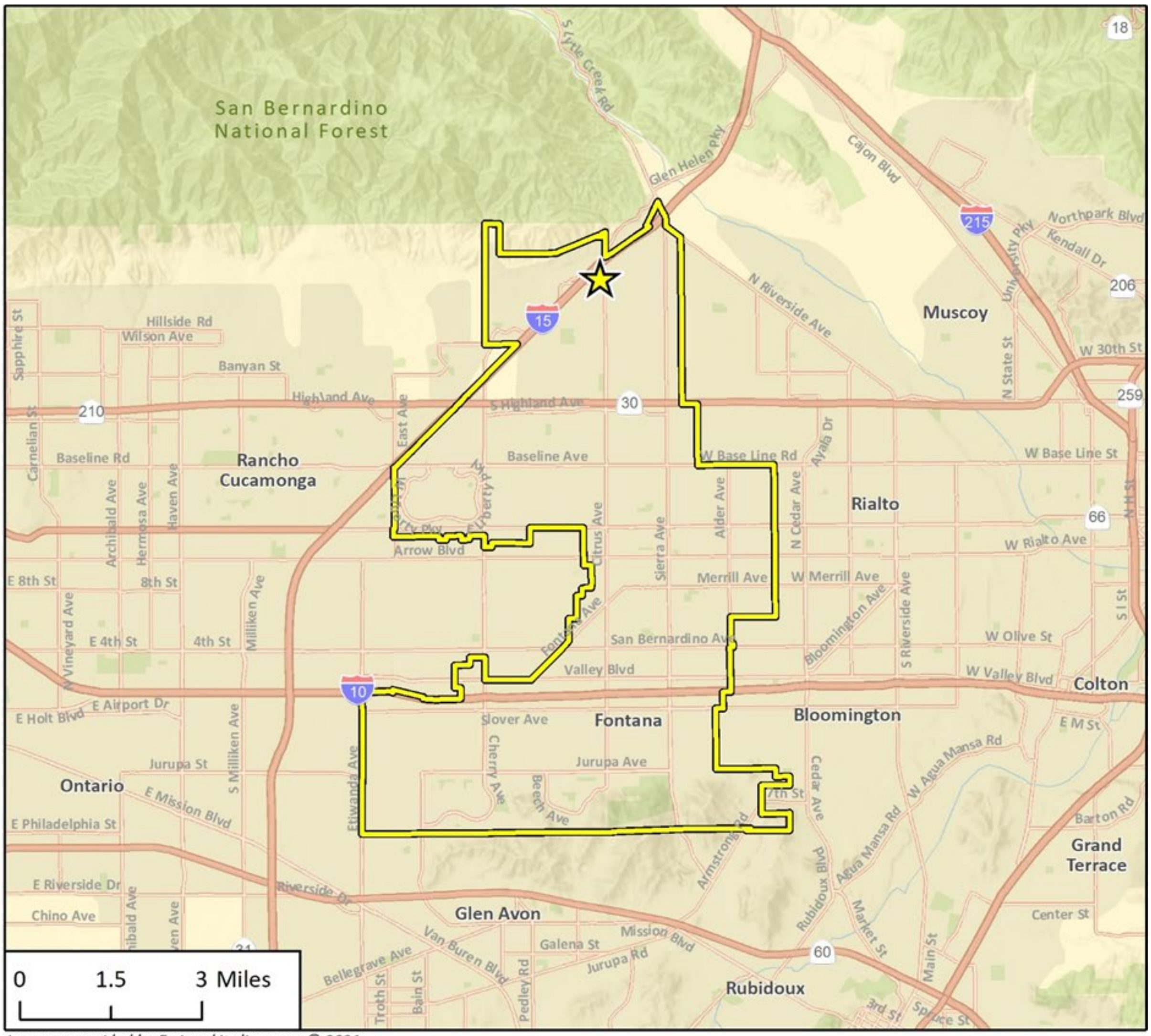
1.2 Project Summary

Project Location

The 102-acre Specific Plan Amendment area is east of Interstate 15 (I-15), west of Citrus Avenue, and both north and south of Duncan Canyon Road in the northern part of the City of Fontana, within San Bernardino County, California. The Specific Plan area is bound by I-15 to the north and west, Citrus Avenue to the east, and a Southern California Edison (SCE) transmission line corridor to the south. Figure 1 shows the regional context and Figure 2 shows the Specific Plan area in its vicinity context.

Regional access is available from the west via I-15. Regional access is also provided by nearby Interstate 210 (I-210), Interstate 10 (I-10), and Interstate 215 (I-215). Direct access is provided by Duncan Canyon Road, which bisects the project area to the west/east and Citrus Avenue, which provides north/south access. Citrus Avenue currently terminates to the north at the intersection of Duncan Canyon Road, while Duncan Canyon Road terminates to the east of Citrus Avenue.

Figure 1 Regional Location



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Project Location

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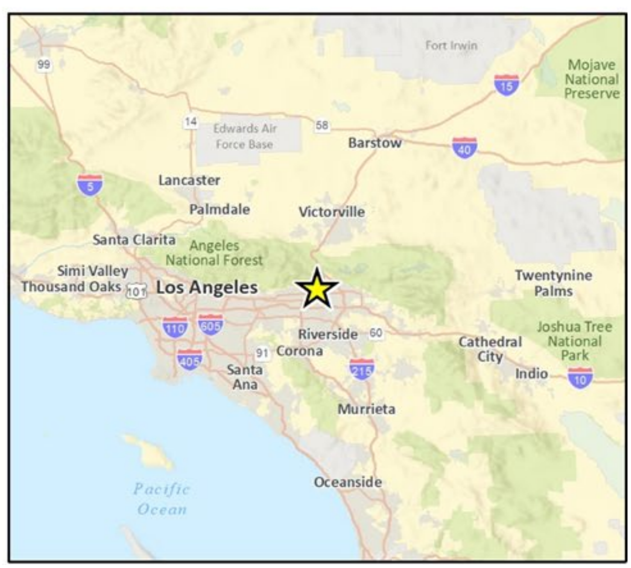

Figure 2 Project Site

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Project Background

The existing *Duncan Canyon at Ventana Specific Plan* (2007 Specific Plan) was established in March 2007 to create a unique master planned development that captured the City's vision for the "Regional Mixed Use" zoning classification in northern Fontana, and the City's vision for a Corporate Corridor along I-15. Ten distinct development areas, designated as "Planning Areas," were established to implement the goals and objectives of the 2007 Specific Plan.

The ten Planning Areas consisted of four types of land use designations including Commercial, Mixed Use, Medium Density Residential, and Medium-High Density Residential. The project included the development of up to 574,500 square feet of commercial uses; 842 dwelling units in three separate residential villages; a Corporate Office Corridor, including mid-rise office buildings, a multi-story hotel, quality business restaurants; a focal point "Piazza;" a ""campanile" tower feature; pedestrian corridors and bridges; and the construction of the realigned Lytle Creek Road on a 105-acre project site.

Project Description

The project includes a comprehensive Specific Plan Amendment to the 2007 Specific Plan. Six Planning Areas are proposed, instead of ten as previously analyzed, involving the following land uses: medium density residential, medium-high density residential, mixed-use entertainment, commercial uses, and open space. Planning Areas 5 and 6 are both split into A and B sub-parcels (i.e., 5a, 5b, 6a, and 6b). The Specific Plan Amendment would allow for development of 1,671 mid-rise multi-family dwelling units and 476,500 square feet of commercial use in phases by Planning Area, summarized in Table 1. There would be six phases with construction of certain Planning Areas overlapping. Accounting for the construction overlap, there would be four unique phases. Additionally, Duncan Canyon Road and Citrus Avenue (arterial roadways) and Lytle Creek Road (backbone road) would be developed during Phase 1. The arterial roadways are approximately 7.3-acres, and the backbone roads are approximately 10.5-acres for a total of 17.8-acres of roadway. See Figure 3 for the land use Planning Areas for the Specific Plan Amendment.

Planning Areas 1 and 3 would be developed first between the years 2022 to late 2023. The first phase would consist of 538 mid-rise dwelling units in Planning Area 1, which is approximately 20.7-acres located in the northeastern corner of the plan area. In Planning Area 3, 154,000 square feet of commercial retail use and 26,000 square feet of medical-dental office use would be constructed over 9.7-acres along the plan area's northwestern edge. The arterial and backbone roads would also be constructed during this phase to provide development flexibility for all planning areas.

Phase 2 would occur from late 2023 to early 2025 with development occurring only in Planning Area 2. The 13.2-acre parcel is located in the southeastern corner of the site south of Duncan Canyon Road and west of Citrus Avenue. Under Phase 2, 396 mid-rise dwelling units would be constructed.

The third phase of development would include Planning Areas 4, 5a, and 5b. Construction is anticipated to occur from 2025 to 2028. Planning Area 4 is approximately 24 acres and located on the outer western edge below Duncan Canyon Road. Land uses proposed in this area include 600 mid-rise dwelling units, 26,000 square feet of commercial retail use, a 31,200 square foot supermarket, a 20,800 square foot pharmacy with a drive-thru, and 26,000 square feet of high-turnover sit-down restaurant use. In Planning Areas 5a and 5b, the same land uses are proposed with both parcels totaling 46,250 square feet of commercial retail use, 10,853 square feet of high-turnover site down restaurant, and 15,417 square feet for a fast-food restaurant.

Phase four would be the final phase and it would include the development of Planning Areas 6a and 6b. Approximately 137 dwelling units and 74,000 square feet of medical-dental offices would be constructed in Planning Area 6a, while in Planning Area 6b only 26,000 square feet of commercial retail would be constructed. During this phase, 0.5 acre of open space would also be developed. These planning areas total 8.2-acres and are in the southeastern corner of the Specific Plan area.

Table 1 Project Summary for the Specific Plan Amendment

	Land Use Size	Acres
Phase 1 – Planning Areas 1 and 2		
Planning Area 1		
Mid-Rise Multi-Family Residences	538 dwelling units	20.7
Planning Area 2		
Commercial Retail (Strip Mall)	154,000 square feet	9.7
Medical-Dental Office	26,000 square feet	
Roadways		
Arterial Roadways (Duncan Canyon Road and Citrus Avenue)	10.5 acres	17.8
Backbone Road (Lytle Creek Road)	7.3 acres	
Phase 2 – Planning Area 3		
Mid-Rise Multi-Family Residences	396 dwelling units	13.2
Phase 3 – Planning Areas 4, 5a, and 5b		
Planning Area 4		
Mid-Rise Multi-Family Residences	600 dwelling units	25.0
Commercial Retail (Strip Mall)	26,000 square feet	
Supermarket	31,200 square feet	
Pharmacy with Drive-Through	20,800 square feet	
High Turnover Sit-Down Restaurant	26,000 square feet	
Planning Area 5a		
Commercial Retail (Strip Mall)	30,000 square feet	2.4
High Turnover Sit-Down Restaurant	20,000 square feet	
Fast-Food Restaurant with Drive-Through	10,000 square feet	
Planning Area 5b		
Commercial Retail (Strip Mall)	16,250 square feet	4.8
High Turnover Sit-Down Restaurant	10,833 square feet	
Fast-Food Restaurant with Drive-Through	5,417 square feet	

	Land Use Size	Acres
Phase 4 – Planning Areas 6a and 6b		
Planning Area 6a		
Mid-Rise Multi-Family Residences	137 dwelling units	5.7
Medical-Dental Office	74,000 square feet	
Planning Area 6b		
Commercial Retail (Strip Mall)	26,000 square feet	2.5
Totals		
Mid-Rise Multi-Family Residences	**1,671 dwelling units**	**101.5**
Commercial Retail (Strip Mall)	**252,250 square feet**	
Medical-Dental Office	**100,000 square feet**	
Supermarket	**31,200 square feet**	
Pharmacy with Drive-Through	**20,800 square feet**	
High Turnover Sit-Down Restaurant	**56,833 square feet**	
Fast-Food Restaurant with Drive-Through	**15,417 square feet**	
Arterial Roadways (Duncan Canyon Road and Citrus Avenue)	**10.5 acres**	
Backbone Road (Lytle Creek Road)	**7.3 acres**	

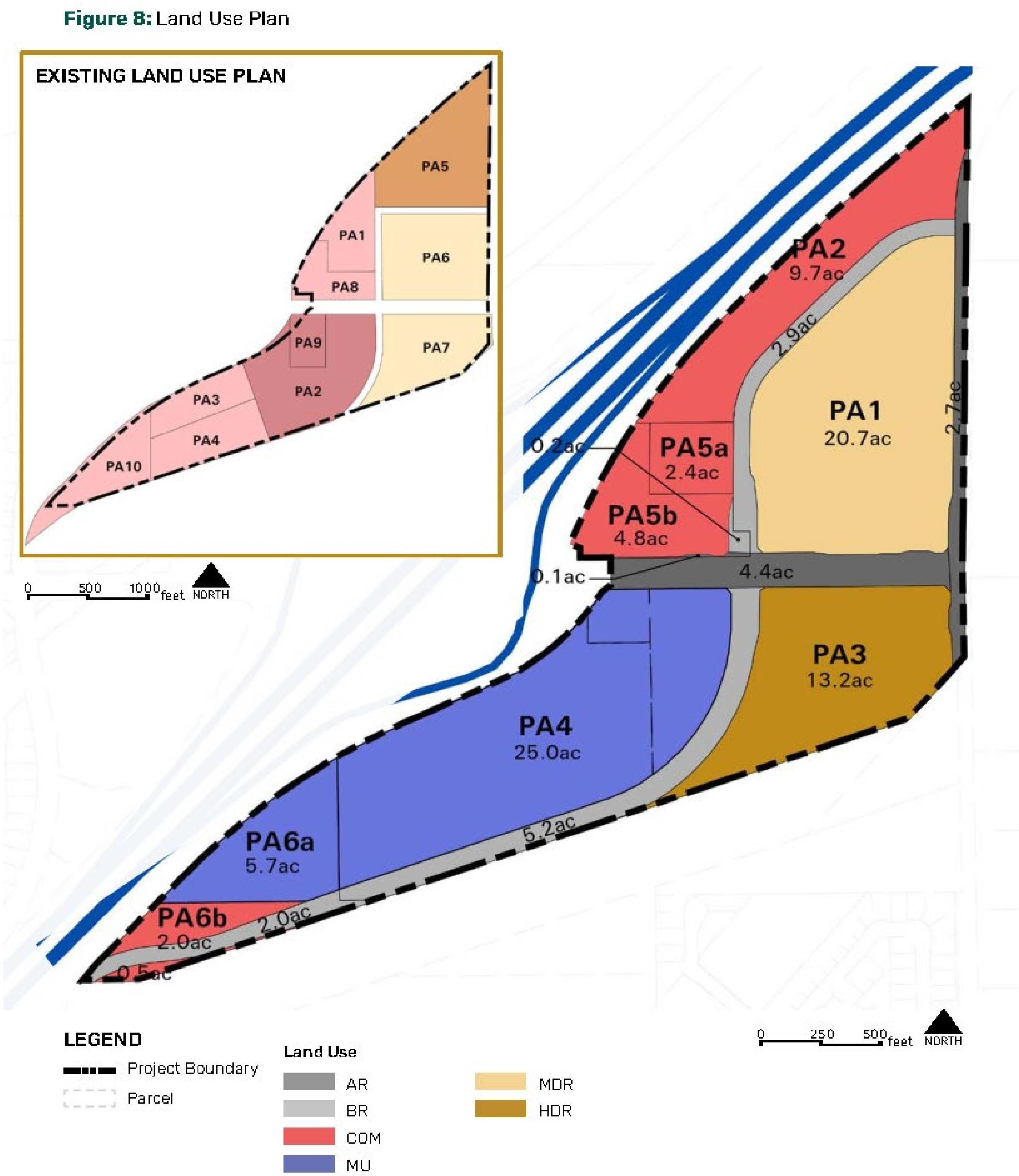
Construction

Construction is assumed to begin January 2022 and estimated to be completed in 2030 for a total construction period of approximately nine years. Construction activities would include site preparation, grading, building construction, paving, and architectural coating (i.e., painting). There would be no demolition phase since the site is vacant. Each Planning Area was assumed to be graded during its respective construction phase with no mass grading of the entire site. The total earthwork for the plan area is 150,000 cubic yards with each Planning Area being balanced on-site. All construction would occur within the current conceptual limits of the project. Detailed construction phasing and equipment assumptions are summarized in Section *3.1, Methodology*.

Operation

Planning Areas 1 and 3 would be operational in 2023. The remainder of the plan area would be fully built-out and operational by the year 2030.

Figure 3 Existing and Proposed Land Use Planning Areas



Ventana at Duncan Canyon Specific Plan Final Environmental Impact Report

Air Quality Mitigation

The Ventana at Duncan Canyon Specific Plan 2007 Final Environmental Impact Report (2007 EIR) determined the following air quality mitigation measures would be required:

- **Mitigation Measure 4.5.1:** Dust control during grading activities on the site shall implement best available control measures (BACMs) exceeding the minimum dust control requirements of SCAQMD Rule 403.

  Recommended construction activity mitigation includes:

- Apply water at least three times per day or other dust control compounds in accordance with manufacturer's specifications to prevent he formation of visible dust plumes beyond the project site boundary, or longer than 100 feet behind any piece of moving equipment.
- Prepare a high wind dust control plan and implement plan elements.
- Suspend all excavating and grading operations or limit the simultaneous disturbance area to as small an area as practical when winds exceed 25 mph.
- Stabilize previously disturbed areas if subsequent construction is delayed.
- Apply non-toxic soil stabilizers according to manufacturers' specification to all inactive construction areas (previously graded areas inactive for ten days or more).
- Install wheel washers where vehicles enter and exit the construction site onto paved roads or wash off trucks and any equipment leaving the site each trip.
- Appoint a construction relations officer to act as a community liaison concerning on-site construction activity including resolution of issues related to PM_{10} generation.
- All streets shall be swept at least once a day using SCAQMD Rule 1186 certified street sweepers or roadway washing trucks if visible soil materials are carried to adjacent streets (recommended water sweepers with reclaimed water).
- Pave road and road shoulders; and
- Traffic speeds on all unpaved roads to be reduced to 15 miles per hour (mph) or less

- **Mitigation Measure 4.5.2:** The following measures shall be implemented to reduce NO_x pollutant emissions during construction:
- Require 90-day low NO_x tune-ups for off-road equipment, according to manufacturer's specification. Such controls are expected to reduce daily NO_x emissions from all off-and-on-road equipment, but not to less-than-significance levels.
- Limit allowable idling to 5 minutes for trucks and heavy equipment before shutting the equipment down.
- Give preference to contractors using construction equipment that meet or exceed Tier 2 standards; use emulsified diesel fuels; construction equipment with oxidation catalysts, soot traps, or other verified/certified retrofit technologies, and other modern emissions control technology.
- Contractors shall use high-pressure-low-volume (HPLV) paint applicators with a minimum transfer efficiency of at least 50 percent or other application techniques with equivalent or higher transfer efficiency.

- Project construction shall use required coatings and solvents with VOC content lower than required under Rule 1113.
- The project shall construct/build with materials that do not require painting, to the extent feasible.
- The project shall use pre-painted construction materials, to the extent feasible.
- Alternative fueled off-road equipment, to the extent feasible.
- Use street sweepers that comply with SCAQMD Rules 1186 and 1186.1.
- Use electricity from power poles rather than temporary diesel or gasoline power generators.
- Configure construction parking to minimize traffic interference.
- Provide temporary traffic controls, such as a flag person, during all phases of construction to maintain smooth traffic flow.
- Provide dedicated turn lanes for movement of construction trucks and equipment on-and off-site.
- Schedule construction activities that affect traffic flow on the arterial system to off-peak hour to the extent practicable.
- Reroute construction trucks away from congested streets or sensitive receptors areas.
- Improve traffic flow by signal synchronization.

- **Mitigation Measure 4.5.3:** The following measures shall be implemented to reduce off-site emissions during construction:
- Encourage carpooling for construction workers.
- Limit land closures to off-peak travel periods.
- Park construction vehicles off traveled roadways.
- Wet down or cover dirt hauled off-site.
- Wash or sweep access points daily.
- Encourage receipt of construction materials during non-peak traffic hours.
- Sandbag construction sites for erosion control.
- Erect dust control fencing around individual project perimeters.

- **Mitigation Measure 4.5.4:**[1] The proposed project shall implement transportation control measures (TCMs) to reduce vehicular emissions to and from the site, which may include the following:
- **<u>Ridesharing Programs</u>**
- Area-wide Carpooling and Vanpooling – The developer/building managers shall provide information brochures on carpooling and vanpooling.
- Modified Work Schedules – The developer/building managers shall encourage commercial and office tenants to allow modified work schedules for employees.
- Park and Ride Facilities – The developer/building managers shall accommodate the parking of vehicles to promote carpooling and vanpooling. Ares for future bus stops shall be reserved, where feasible.

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[1] This specific mitigation measure is identified as Mitigation Measure 4.5.3. However, this is believed to be a typographical error and the correct numbering should be 4.5.4. This analysis calls out this measure as Mitigation Measure 4.5.4 to eliminate confusion.

- **<u>Parking Management</u>**
  - Off-street Parking Controls – Measures to discourage single-occupant vehicles shall be implement through parking controls.
  - Parking Management Programs – Measures to discourage single-occupant vehicles (SOV) shall be implemented.
- **<u>Non-Motorized Strategies</u>**
  - Bicycle Lanes and Storage Facilities – Bicycle paths and bike racks shall be provided on-site.
  - Pedestrian Improvements – Sidewalks and pedestrian walkways shall be provided throughout the site.
- **<u>Telecommunications</u>**
  - Adequate system connections in all homes – Telecommunication systems shall be provided in residential villages.
  - Wi-Fi "hot-spots" within the Community – High-speed wireless local area network shall be provided at select locations on-site. The developer shall incorporate the TCMs above to facilitate the option to select a non- SOV transportation option.

Greenhouse Gas Mitigation

The 2007 EIR did not analyze GHG impacts. There are no other measures in the 2007 EIR that are related to GHG or pertinent to the Specific Plan Amendment.

2 Air Quality Background

2.1 Local Climate and Meteorology

The Specific Plan area is within the South Coast Air Basin (SCAB), which is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The SCAB includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, in addition to the San Gorgonio Pass area in Riverside County. The regional climate in the SCAB is semi-arid and is characterized by warm summers, mild winters, infrequent seasonal rainfall, moderate daytime onshore breezes, and moderate humidity. The air quality within the SCAB is primarily influenced by meteorology and a wide range of emission sources, such as dense population centers, substantial vehicular traffic, and industry. The South Coast Air Quality and Management District (SCAQMD) monitors and regulates local air quality in Riverside County.

The predominant wind direction in the vicinity of project site is from the west and the average wind speed is approximately five miles per hour. The maximum average daily temperature in the project area is approximately 96 degrees Fahrenheit (ºF), and the minimum average daily temperature is approximately 40ºF. Total precipitation in the project area averages approximately 15 inches annually (Iowa Environmental Mesonet 2021, Weather & Climate 2021).

2.2 Air Pollutants of Primary Concern

Pollutants are emitted directly from a source (e.g., vehicle tailpipe, an exhaust stack of a factory, etc.) into the atmosphere; these pollutants include carbon monoxide (CO), nitrogen dioxide (NO_2), fine particulate matter (PM_{10} and $PM_{2.5}$), sulfur dioxide (SO_2), and lead (Pb).

Additionally, pollutants may be created indirectly through chemical reactions in the atmosphere. Ozone (O_3) is considered a secondary criteria pollutant because it is created by atmospheric chemical and photochemical reactions between volatile organic compounds (VOC) and nitrogen oxides (NO_X). The following subsections describe the characteristics, sources, and health and atmospheric effects of air pollutants.

Ozone

Ozone is produced by a photochemical reaction (triggered by sunlight) between NO_X and VOC. VOC are composed of non-methane hydrocarbons (with some specific exclusions), and NO_X is composed of different chemical combinations of nitrogen and oxygen, mainly nitric oxide and nitrogen dioxide. NO_X are formed during the combustion of fuels, while VOC are formed during combustion and evaporation of organic solvents. As a highly reactive molecule, ozone readily combines with many different components of the atmosphere. Consequently, high levels of ozone tend to exist only while high VOC and NO_X levels are present to sustain the ozone formation process. Once the precursors have been depleted, ozone levels rapidly decline. Because these reactions occur on a regional rather than local scale, ozone is considered a regional pollutant. In addition, because ozone requires sunlight to form, it mostly occurs in concentrations considered serious between the months of April and October. Ozone is a pungent, colorless, toxic gas with direct health effects on humans, including changes in breathing patterns, reduction of breathing capacity, increased susceptibility to infections, inflammation of lung tissue, and some immunological changes (SCAQMD 2005a). Groups most sensitive to ozone include children, the elderly, people with respiratory disorders, and people who exercise strenuously outdoors.

Carbon Monoxide

Carbon monoxide is a localized pollutant that is found in high concentrations only near its source. The major source of carbon monoxide, a colorless, odorless, poisonous gas, is the incomplete combustion of petroleum fuels by automobile traffic. Therefore, elevated concentrations are usually only found near areas of high traffic volumes. Other sources of carbon monoxide include the incomplete combustion of petroleum fuels at power plants and fuel combustion from wood stoves and fireplaces during the winter. The health effects of carbon monoxide are related to its affinity for hemoglobin in the blood. Carbon monoxide causes a number of health problems, including aggravation of some heart diseases (e.g., angina), reduced tolerance for exercise, impaired mental function, and impaired fetal development. At high levels of exposure, carbon monoxide reduces the amount of oxygen in the blood, leading to mortality (SCAQMD 2005a).

Nitrogen Dioxide

Nitrogen dioxide is a by-product of fuel combustion; the primary sources are motor vehicles and industrial boilers and furnaces. The principal form of NO_X produced by combustion is nitric oxide, but nitric oxide reacts rapidly to form nitrogen dioxide, creating the mixture of nitric oxide and nitrogen dioxide commonly called NO_X. Nitrogen dioxide is an acute irritant that can aggravate respiratory illnesses and symptoms, particularly in sensitive groups A relationship between nitrogen dioxide and chronic pulmonary fibrosis may exist, and an increase in bronchitis in young children at concentrations below 0.3 parts per million (ppm) may occur. Nitrogen dioxide absorbs blue light, gives a reddish-brown cast to the atmosphere, and reduces visibility (SCAQMD 2005a).

Sulfur Dioxide

Sulfur dioxide is included in a group of highly reactive gases known as “oxides of sulfur.” The largest sources of sulfur dioxide emissions are from fossil fuel combustion at power plants (73 percent) and other industrial facilities (20 percent). Smaller sources of sulfur dioxide emissions include industrial processes such as extracting metal from ore and the burning of fuels with a high sulfur content by locomotives, large ships, and off-road equipment. Sulfur dioxide is linked to a number of adverse effects on the respiratory system, including aggravation of respiratory diseases, such as asthma and emphysema, and reduced lung function (SCAQMD 2005a).

Particulate Matter

Suspended atmospheric PM_{10} and $PM_{2.5}$ is comprised of finely divided solids and liquids such as dust, soot, aerosols, fumes, and mists. The characteristics, sources, and potential health effects associated with PM_{10} and $PM_{2.5}$ can be very different. Major man-made sources of PM_{10} are agricultural operations, industrial processes, combustion of fossil fuels, construction, demolition operations, and entrainment of road dust into the atmosphere. Natural sources include windblown dust, wildfire smoke, and sea spray salt. Elevated levels of PM_{10} can cause respiratory irritation, reduced lung function, aggravation of cardiovascular disease, and cancer (United States Environmental Protection Agency [USEPA] 2020). $PM_{2.5}$ is generally associated with combustion processes as well as formation in the atmosphere as a secondary pollutant through chemical reactions. $PM_{2.5}$ is more likely to penetrate deeply into the lungs and poses a health threat to all groups, but particularly to the elderly, children, and those with respiratory problems (California Air Resources Board [CARB] 2021a). Elevated levels of $PM_{2.5}$ can cause respiratory stress and decreased lung function and increase the risk of long-term disease. More than half of $PM_{2.5}$ that is inhaled into the lungs remains there. These materials can damage health by interfering with the body's mechanisms for clearing the respiratory tract or by acting as carriers of an absorbed toxic substance. Suspended particulates can also reduce lung function, aggravate respiratory and cardiovascular diseases, increase mortality rates, and reduce lung function growth in children (SCAQMD 2005a).

Lead

Lead is a metal found naturally in the environment, as well as in manufacturing products. The major sources of lead emissions historically have been mobile and industrial sources. In the early 1970s, the USEPA set national regulations to gradually reduce the lead content in gasoline. As a result of the USEPA's regulatory efforts to remove lead from gasoline, atmospheric lead concentrations have declined substantially over the past several decades. The most dramatic reductions in lead emissions occurred prior to 1990 due to the removal of lead from gasoline sold for most highway vehicles. Lead emissions were further reduced substantially between 1990 and 2008, with reductions occurring in the metals industries at least in part as a result of national emissions standards for hazardous air pollutants (USEPA 2013). As a result of phasing out leaded gasoline, metal processing currently is the primary source of lead emissions. The highest level of lead in the air is generally found near lead smelters. Other stationary sources include waste incinerators, utilities, and lead-acid battery manufacturers. The health impacts of lead include behavioral and hearing disabilities in children and nervous system impairment (SCAQMD 2005a).

Toxic Air Contaminants

A toxic air contaminant (TACs) is an air pollutant that may cause or contribute to an increase in deaths or serious illness, or that may pose a present or potential hazard to human health. TACs include both organic and inorganic chemical substances that may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. TACs may result in long-term health effects such as cancer, birth defects, neurological damage, asthma, or genetic damage, or short-term acute effects such as eye watering, respiratory irritation, runny nose, throat pain, and headaches. TACs are considered either carcinogenic or non-carcinogenic based on the nature of the health effects associated with exposure. For carcinogenic TACs, potential health impacts are evaluated in terms of overall relative risk expressed as excess cancer cases per one million exposed individuals. Non-carcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

One of the main sources of TACs in California is diesel engine exhaust that contains solid material known as diesel particulate matter (DPM). More than 90 percent of DPM is less than one micron in diameter (about 1/70th the diameter of a human hair) and, therefore, is a subset of $PM_{2.5}$. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lungs (CARB 2021b).

TACs are different than criteria pollutants because ambient air quality standards have not been established for TACs. TACs occurring at extremely low levels may still cause health effects and it is typically difficult to identify levels of exposure that do not produce adverse health effects. TAC impacts are described by carcinogenic risk and by chronic (i.e., long duration) and acute (i.e., severe but of short duration) adverse effects on human health.

2.3 Air Quality Regulation

The federal and state governments have authority under the federal and State Clean Air Acts to regulate emissions of airborne pollutants and have established ambient air quality standards (AAQS) for the protection of public health. An air quality standard is defined as "the maximum amount of a pollutant averaged over a specified period of time that can be present in outdoor air without harming public health" (CARB 2019a). The USEPA is the federal agency designated to administer air quality regulation, while CARB is the state equivalent in California. Federal and state AAQS have been established for six criteria pollutants: ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, PM_{10}, $PM_{2.5}$, and lead. AAQS are designed to protect those segments of the public most susceptible to respiratory distress, such as children under the age of 14, the elderly (over the age of 65), persons engaged in strenuous work or exercise, and people with cardiovascular and chronic respiratory diseases (USEPA 2016). In addition, the State of California has established health-based ambient air quality standards for these and other pollutants, some of which are more stringent than the federal standards (CARB 2019b, 2019c). The federal and State Clean Air Acts are described in more detail below.

Federal Air Quality Regulations

The Clean Air Act (CAA) was enacted in 1970 and amended in 1977 and 1990 [42 United States Code (USC) 7401] for the purposes of protecting and enhancing the quality of the nation's air resources to benefit public health, welfare, and productivity. In 1971, to achieve the purposes of Section 109 of the CAA [42 USC 7409], the USEPA developed primary and secondary National Ambient Air Quality Standards (NAAQS). NAAQS have been designated for the following criteria pollutants of primary concern: O_3, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and Pb.

The primary NAAQS "in the judgment of the Administrator[2], based on such criteria and allowing an adequate margin of safety, are requisite to protect the public health," and the secondary standards are to "protect the public welfare from any known or anticipated adverse effects associated with the presence of such air pollutant in the ambient air" [42 USC 7409(b)(2)]. The USEPA classifies specific geographic areas as either "attainment" or "nonattainment" areas for each pollutant based on the comparison of measured data with the NAAQS. States are required to adopt enforceable plans, known as a State Implementation Plan (SIP), to achieve and maintain air quality meeting the NAAQS. State plans also must control emissions that drift across state lines and harm air quality in downwind states. Table 2 lists the current federal standards for regulated pollutants.

[2] The term "Administrator" means the Administrator of the USEPA.

Table 2 Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	NAAQS	CAAQS
Ozone	1-Hour	–	0.09 ppm
	8-Hour	0.070 ppm	0.070 ppm
Carbon Monoxide	8-Hour	9.0 ppm	9.0 ppm
	1-Hour	35.0 ppm	20.0 ppm
Nitrogen Dioxide	Annual	0.053 ppm	0.030 ppm
	1-Hour	0.100 ppm	0.18 ppm
Sulfur Dioxide	Annual	–	–
	24-Hour	–	0.04 ppm
	1-Hour	0.075 ppm	0.25 ppm
PM_{10}	Annual	–	20 µg/m^3
	24-Hour	150 µg/m^3	50 µg/m^3
PM_{25}	Annual	12 µg/m^3	12 µg/m^3
	24-Hour	35 µg/m^3	–
Lead	30-Day Average	–	1.5 µg/m^3
	3-Month Average	0.15 µg/m^3	–

NAAQS = National Ambient Air Quality Standards; CAAQS = California Ambient Air Quality Standards; ppm = parts per million; µg/m^3 = micrograms per cubic meter

Source: CARB 2016; USEPA 2016

To derive the NAAQS, the USEPA reviews data from integrated science assessments and risk/exposure assessments to determine the ambient pollutant concentrations at which human health impacts occur, then reduces these concentrations to establish a margin of safety (USEPA 2018). As a result, human health impacts caused by the air pollutants discussed above may affect people when ambient air pollutant concentrations are at or above the concentrations established by the NAAQS. Accordingly, ambient air pollutant concentrations below the NAAQS are considered to be protective of human health (CARB 2019a and 2019b). The NAAQS and the underlying science that forms the basis of the NAAQS are reviewed every five years to determine whether updates are necessary to continue protecting public health with an adequate margin of safety (USEPA 2015).

State Air Quality Regulations

California Clean Air Act

The California Clean Air Act (CCAA) was enacted in 1988 (California Health & Safety Code (H&SC) Section 39000 et seq.). Under the CCAA, the State has developed the California Ambient Air Quality Standards (CAAQS), which are generally more stringent than the NAAQS. Table 2 lists the current state standards for regulated pollutants. In addition to the federal criteria pollutants, the CAAQS also specify standards for visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride. Similar to the federal CAA, the CCAA classifies specific geographic areas as either “attainment” or “nonattainment” areas for each pollutant, based on the comparison of measured data within the CAAQS.

The SCAQMD is in non-attainment for the federal standards for ozone and $PM_{2.5}$ (particulate matter up to 2.5 microns in size) and the state standards for ozone, PM_{10} (particulate matter up to 10 microns in size), and $PM_{2.5}$. The Basin is designated unclassifiable or in attainment for all other federal and state standards. The health effects associated with criteria pollutants for which the Basin is in non-attainment are described.

Toxic Air Contaminants

In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health (Assembly Bill [AB] 1807: H&SC Sections 39650–39674). The Legislature established a two-step process to address the potential health effects from TACs. The first step is the risk assessment (or identification) phase. The second step is the risk management (or control) phase of the process.

The California Air Toxics Program establishes the process for the identification and control of TACs and includes provisions to make the public aware of significant toxic exposures and for reducing risk. Additionally, the Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, 1987, Connelly Bill) was enacted in 1987 and requires stationary sources to report the types and quantities of certain substances routinely released into the air. The goals of the Air Toxics "Hot Spots" Act are to collect emission data, identify facilities having localized impacts, ascertain health risks, notify nearby residents of significant risks, and reduce those significant risks to acceptable levels. The Children's Environmental Health Protection Act, California Senate Bill 25 (Chapter 731, Escutia, Statutes of 1999), focuses on children's exposure to air pollutants. The act requires CARB to review its air quality standards from a children's health perspective, evaluate the statewide air quality monitoring network, and develop any additional air toxic control measures needed to protect children's health.

The SCAQMD regulates TAC emissions in the SCAB. SCAQMD's Rule 1401, *New Source Review of Toxic Air Contaminants*, establishes limits for maximum individual cancer risk, cancer burden, and non-cancer acute and chronic hazard indices from new permit units, relocations, or modifications to existing permit units emitting various TACs.

State Implementation Plan

The SIP is a collection of documents that set forth the state's strategies for achieving the NAAQS. In California, the SIP is a compilation of new and previously submitted plans, programs (such as monitoring, modeling, and permitting), district rules, state regulations, and federal controls. The CARB is the lead agency for all purposes related to the SIP under state law. Local air districts and other agencies, such as the Department of Pesticide Regulation and the Bureau of Automotive Repair, prepare SIP elements and submit them to CARB for review and approval. CARB then forwards SIP revisions to the USEPA for approval and publication in the Federal Register. All of the items included in the California SIP are listed in the Code of Federal Regulations (CFR) at 40 CFR 52.220. As the regional air quality management district, the SCAQMD is responsible for preparing and implementing the portion of the SIP applicable to the portion of the SCAB within its jurisdiction. The air pollution control district for each county adopts rules, regulations, and programs to attain federal and state air quality standards and appropriates money (including permit fees) to achieve these objectives.

Regional Air Quality Regulations

As the local air quality management agency, the SCAQMD is required to monitor air pollutant levels to ensure that state and federal air quality standards are met and, if they are not met, to develop strategies to meet the standards. Depending on whether the standards are met or exceeded, the South Central Air Basin (SCAB) is classified as being in “attainment” or “nonattainment.” In areas designated as non-attainment for one or more air pollutants, a cumulative air quality impact exists for those air pollutants, and the human health impacts described in Section 2.2, *Air Pollutants of Primary Concern,* are already occurring in that area as part of the environmental baseline condition.

Under state law, air districts are required to prepare a plan for air quality improvement for pollutants for which the district is in non-compliance. The SCAQMD adopted the Final 2016 Air Quality Management in March 2017 to reach attainment for federal and state standards. It incorporates new scientific data and notable regulatory actions that have occurred since adoption of the 2012 AQMP, including the approval of the new federal 8-hour ozone standard of 0.070 ppm that was finalized in 2015. The Final 2016 AQMP addresses several state and federal planning requirements and incorporates new scientific information, primarily in the form of updated emissions inventories, ambient measurements, and meteorological air quality models (SCAQMD 2017a). The Southern California Association of Governments’ (SCAG) projections for socio-economic data (e.g., population, housing, employment by industry) and transportation activities from the 2016 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS) are integrated into the 2016 AQMP.

The plan builds upon the approaches taken in the 2012 AQMP for the attainment of federal PM and ozone standards and highlights the significant number of reductions to be achieved. It emphasizes the need for interagency planning to identify additional strategies to achieve reductions within the timeframes allowed under the federal Clean Air Act, especially in the area of mobile sources. The 2016 AQMP also includes a discussion of emerging issues and opportunities, such as fugitive toxic particulate emissions, zero-emission mobile source control strategies, and the interacting dynamics among climate, energy, and air pollution. The plan also demonstrates strategies for attainment of the new federal 8-hour ozone standard and vehicle miles traveled (VMT) emissions offsets, pursuant to recent USEPA requirements (SCAQMD 2017a).

Project-level significance thresholds established by local air districts set the level at which a project would cause or have a cumulatively considerable contribution to an exceedance of a federal or State ambient air quality standard. Therefore, if a project’s air pollutant emissions exceed the significance thresholds, the project could cause or contribute to the human health impacts.

To minimize potential impacts from project emissions, the SCAQMD implements rules and regulations for emissions that may be generated by various uses and activities. The rules and regulations detail pollution-reduction measures that must be implemented during construction and operation of projects. Rules and regulations relevant to the project include the following:

- **Rule 403 (Fugitive Dust).** This rule pertains to any activity or man-made condition capable of generating fugitive dust. The rule has best available control measures that are applicable to all construction activity sources. The new construction would be required to comply with all provisions of Rule 403, including the following measures (SCAQMD 2005b):
- All unpaved demolition and construction areas shall be wetted at least twice daily during excavation and construction, and temporary dust covers shall be used to reduce dust emissions and meet SCAQMD Rule 403.

- The construction area shall be kept sufficiently dampened to control dust caused by grading and hauling, and at all times provide reasonable control of dust caused by wind.
- All clearing, earth moving, or excavation activities shall be discontinued during periods of high winds (i.e., greater than 15 mph), so as to prevent excessive amounts of dust.
- All dirt/soil shall be secured by trimming, watering, or other appropriate means to prevent spillage and dust.
- All dirt/soil materials transported off-site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust.
- General contractors shall maintain and operate construction equipment so as to minimize exhaust emissions.
- Trucks having no current hauling activity shall not idle but be turned off.
- Exposed surfaces shall be maintained at a minimum soil moisture of 12 percent and vehicle speeds shall be limited to 15 miles per hour on unpaved roads.

- **Rule 1113 (Architectural Coatings).** This rule limits the content of VOCs in architectural coatings that are supplied, sold, offered for sale, and manufactured within the Air District. Effective January 1, 2019, all building envelope coatings were limited to a VOC content of 50 grams per liter (SCAQMD 2016).

In addition, the following California Code of Regulations would be applicable to the project:

- **Engine Idling.** In accordance with Section 2485 of Title 13 of the California Code of Regulations, the idling of all diesel-fueled commercial vehicles (weighing over 10,000 pounds) during construction shall be limited to five minutes at any location.
- **Emission Standards.** In accordance with Section 93115 of Title 17 of the California Code of Regulations, operation of any stationary, diesel-fueled, compression-ignition engines shall meet specified fuel and fuel additive requirements and emission standards.

Local Air Quality Regulations

City of Fontana General Plan

The Fontana Forward General Plan Update 2015-2035 (General Plan) was adopted on November 13, 2018. It lists several air quality policies as part of its Safety Element that supplement those of the SCAQMD. The following policies are applicable to the Specific Plan Amendment (City of Fontana 2018):

- **Policy 1.3**. Support local and regional initiatives to improve air quality in order to reduce asthma while actively discouraging development that may exacerbate asthma rates.

2.4 Current Air Quality

The SCAQMD operates a network of air quality monitoring stations throughout the SCAB. The purpose of the monitoring stations is to measure ambient concentrations of pollutants and determine whether ambient air quality meets the California and federal standards. The monitoring station located closest to the project site is the Fontana-Arrow Highway station (located at 14360 Arrow Boulevard in Fontana), approximately 5 miles southwest of the project site. This station was used for the 8-hour ozone, hourly ozone, PM_{10}, $PM_{2.5}$, and NO_2 measurements. Table 3 indicates the number of days that each of the standards has been exceeded at Fontana-Arrow Highway station. As shown therein, the federal and State eight-hour ozone standards, the state worst ozone hour standard, and the State PM_{10} standard were all exceeded in 2018, 2019, and 2020. The federal $PM_{2.5}$ standard was exceeded in 2019 and 2020. No other State or federal standards were exceeded at these monitoring stations.

Table 3 Ambient Air Quality at the Fontana-Arrow Highway Monitoring Station

Pollutant	2018	2019	2020
8 Hour Ozone (ppm), 8-Hour Average	0.111	0.109	0.112
Number of Days of State exceedances (>0.070 ppm)	72	71	89
Number of days of federal exceedances (>0.070 ppm)	69	67	89
Ozone (ppm), Worst Hour	0.141	0.124	0.151
Number of days of State exceedances (>0.09 ppm)	38	41	56
Nitrogen Dioxide (ppm) - Worst Hour	0.063	0.076	0.066
Number of days of State exceedances (>0.18 ppm)	0	0	0
Number of days of federal exceedances (>0.10 ppm)	0	0	0
Particulate Matter 10 microns, $\mu g/m^3$, Worst 24 Hours[1]	64.1	88.8	76.8
Number of days of State exceedances (>50 $\mu g/m^3$)	8	11	6
Number of days above federal standard (>150 $\mu g/m^3$)	0	0	0
Particulate Matter <2.5 microns, $\mu g/m^3$, Worst 24 Hours[2]	29.2	81.3	57.6
Number of days above federal standard (>35 $\mu g/m^3$)	0	3	4

Source: CARB 2021c

Sensitive Receptors

CARB and the Office of Environmental Health Hazard Assessment (OEHHA) have identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, infants (including in utero in the third trimester of pregnancy), and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis (CARB 2005; OEHHA 2015). Some land uses considered more sensitive to air pollution than others due to the types of population groups or activities involved are referred to as sensitive receptors. Examples of these sensitive receptors are residences, schools, hospitals, religious facilities, and daycare centers. SCAQMD Risk Assessment Procedures define receptors as any location outside the boundaries of a facility at which a person could experience repeated, continuous exposure. The procedures further note that sensitive receptors include any residence (e.g., private homes, condominiums, apartments, and living quarters), schools (including preschools and daycare centers), health facilities (e.g., hospitals, retirement and nursing homes, long-term care hospitals, hospices), as well as prisons, dormitories, or similar live-in housing where children, chronically ill individuals, or other sensitive persons could be exposed to TACs (SCAQMD 2017b).

Existing sensitive receptors near the Specific Plan area include a single-family residential neighborhood adjacent to the project’s western boundary and south of the Citrus Avenue and Duncan Canyon Road intersection. The Coyote Canyon neighborhood is east of the project site across I-15. The Specific Plan Amendment would also allow for siting of new sensitive receptors (e.g., mid-rise multi-family dwelling units).

3 Air Quality

3.1 Methodology

Note that the construction and operational emissions presented in the 2007 EIR were modeled using the URBan EMISsions (URBEMIS) computer program, specially URBEMIS 2002 (version 8.7.0). This version of the model incorporated EMission FACtors (EMFAC) 2002 for on-road mobile emissions and offroad emission factors from CARB's 2000 version of the OFFROAD model. In comparison, CalEEMod version 2020.4.0, which was published in July 2021, uses mobile emission factors from EMFAC2017 and offroad emission factors from OFFROAD 2011 for construction equipment. CalEEMod is a more refined, accurate model that incorporates cleaner technology (e.g., construction equipment equipped with engines that emit less pollutants due to filters and design), more stringent state regulations (e.g., the 2019 Title 24 building code for building energy efficiency), and improved vehicle standards (e.g., accounting for increased electric vehicles in the average fleet and lower emission factors due to engine design improvements). Therefore, model outputs from CalEEMod will show different results compared to results from the URBEMIS 2002 model because the model has newer inputs that incorporate the cleaner and more stringent standards that are required at the time of this analysis.

Construction

Construction emissions modeled include emissions generated by construction equipment and emissions generated by vehicle trips associated with construction, such as worker and vendor trips. According to the project applicant, construction in each Planning Area would occur in the following years:

- Phase 1 (Planning Areas 1 & 2): 2022 to late 2023
- Phase 2 (Planning Area 3): Late 2023 to early 2025
- Phase 3 (Planning Areas 4, 5a, and 5b): 2025 to 2028
- Phase 4 (Planning Areas 6a and 6b): To be established but modeled as occurring from 2028 to 2029

Each phase of construction was modeled subsequently with no breaks inbetween phase. Approximate dates were not provided for Planning Areas 6a and 6b; therefore, the default construction schedule are utlized. The default California Emissions Estimator Model (CalEEMod) construction schedules for Phase 2 and Phase 3 were also used since those schedules fit into the estimated schedule.

For Phase 1 (Planning Areas 1 & 2), the CalEEMod default scheduling assumptions would extend past the planned phase duration (2022 to late 2023). To compensate for the accelerated schedule, the default construction equipment were scaled (doubled) and the duration of site preparation, grading, building, and paving activities were halved. Architectural coatings would be applied as individual buildings and subphases were constructed; to reflect this, architectural coatings activities were assumed to overlap with building construction activities and the duration of architectural coating activities was assumed to be approximately half the length of building construction.

For Phase 2 (Planning Area 3), Phase 3 (Planning Areas 4, 5a, and 5b), and Phase 4 (Planning Areas 6a and 6b), the CalEEMod default scheduling assumptions are consistent with the planned phase durations. Construction activities included site preparation, grading, building, and paving activities. Like Phase 1, architectural coating activities were assumed to overlap with building construction activities and the duration of architectural coating activities were modeled as half the phase length of building construction. Equipment lists were generated by CalEEMod using default values.

In addition, this analysis assumes that the project would comply with all applicable regulatory standards. In particular, the project would comply with SCAQMD Rule 403 for dust control measures and Rule 1113 for architectural coating VOC limits, which are discussed under Section 2.3, *Air Quality Regulation*.

Operation

3.2 Significance Thresholds

To determine whether a project would result in a significant impact to air quality, Appendix G of the California Environmental Quality Act (CEQA) Guidelines requires consideration of whether a project would:

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

The SCAQMD has adopted guidelines for quantifying and determining the significance of air quality emissions.

SCAQMD Significance Thresholds

The SCAQMD recommends quantitative regional significance thresholds for temporary construction activities and long-term project operation in the SCAB, shown in Table 4, are used to evaluate a project's potential air quality impacts (SCAQMD 2019).

Table 4 SCAQMD Regional Air Quality Significance Thresholds

Pollutant	Construction (Pounds per Day)	Operation (Pounds per Day)
NO_x	100	55
VOC	75	55
PM_{10}	150	150
$PM_{2.5}$	55	55
SO_x	150	150
CO	550	550

NO_x = Nitrogen Oxides; VOC = Volatile Organic Compounds; PM_{10} = Particulate Matter with a diameter no more than 10 microns; $PM_{2.5}$ = Particulate Matter with a diameter no more than 2.5 microns; SO_x = Sulfur Oxide; CO = Carbon Monoxide

Source: SCAQMD 2019

Localized Significance Thresholds

In addition to the above regional thresholds, the SCAQMD has developed Localized Significance Thresholds (LSTs) in response to the Governing Board's Environmental Justice Enhancement Initiative (1-4), which was prepared to update the *CEQA Air Quality Handbook* (1993). LSTs were devised in response to concern regarding exposure of individuals to criteria pollutants in local communities and have been developed for NO_X, CO, PM_{10}, and $PM_{2.5}$. LSTs represent the maximum emissions from a project that will not cause or contribute to an air quality exceedance of the most stringent applicable federal or State ambient air quality standard at the nearest sensitive receptor, taking into consideration ambient concentrations in each SRA, distance to the sensitive receptor, and project size. LSTs have been developed for emissions within construction areas up to five acres in size. However, LSTs only apply to on-site emissions sources and are not applicable to off-site mobile sources, such as cars on a roadway (SCAQMD 2008, 2009). For residential and retail projects the majority of operational emissions are associated with project-generated vehicle trips not stationary sources. Therefore, for these land use types, LSTs are typically applied only to construction emissions.

In order to minimize efforts, the SCAQMD developed mass rate lookup tables as a simple screening procedure. If a project's on-site emissions do not exceed the screening levels for any pollutant, it can be concluded that the project would not cause or contribute to an adverse localized air quality impact. Screening levels are provided for various distances between the project boundary and the nearest sensitive receptor and various project site acreages. Screening levels increase, as the project distance between the boundary and the nearest receiver increases. This is because air pollutant dispersion increases with distance. Screening levels increase, as the acreage increases. This is because the distance between construction sources and sensitive receptors increases with project acreage.

The LST mass rate lookup tables account for ambient pollutant concentrations based on the project's source receptor area (SRA). LSTs are provided for receptors at a distance of 82 feet (25 meters), 164 feet (50 meters), 328 feet (100 meters), 656 feet (200 meters), 1,640 feet (500 meters) from the project disturbance boundary to the sensitive receptors. The Specific Plan Amendment is in SRA-34 (Central San Bernardino Valley). The plan area totals approximately 102 acres, but construction would disturb the site by Planning Area in phases. All construction phase areas exceed five acres but the five-acre LSTs are conservatively used in this analysis. The border of certain phases of construction activity would occur immediately adjacent to nearest on-site sensitive receptors or between 328 to 656 feet to off-site sensitive (single-family residential buildings). According to the SCAQMD's publication, *Final LST Methodology*, projects with boundaries located closer than 82 feet to the nearest receptor should use the LSTs for receptors located at 82 feet. Therefore, the analysis uses the LST values for 82, 328, and 656 feet as shown in Table 5.

Table 5 SCAQMD LSTs for Construction

Pollutant	Receptor 82 feet (25 meters) Away (lbs/day)	Receptor 328 feet (100 meters) Away (lbs/day)	Receptor 656 feet (200 meters) Away (lbs/day)
Gradual conversion of NO_X to NO_2	270	378	486
CO	1,746	4,142	8532
PM_{10}	14	65	106
$PM_{2.5}$	8	17	35

Allowable Emissions for a 5-acres Site in SRA 34
SRA = source receptor area; lbs/day = pounds per day; NO_X/NO_2 = nitrogen oxides; CO = carbon monoxide; PM_{10} = particulate matter 10 micrometers in diameter or less; $PM_{2.5}$ = fine particulate matter 2.5 micrometers in diameter or less
Source: SCAQMD 2009

Toxic Air Contaminants Thresholds

SCAQMD has developed significance thresholds for the emissions of TACs based on health risks associated with elevated exposure to such compounds. For carcinogenic compounds, cancer risk is assessed in terms of incremental excess cancer risk. A project would result in a potentially significant impact if it would generate an incremental excess cancer risk of 10 in 1 million (1×10^{-6}) or a cancer burden of 0.5 excess cancer cases in areas exceeding 1 in 1 million risks. Additionally, non-carcinogenic health risks are assessed in terms of a hazard index. A project would result in a potentially significant impact if it would result in a chronic and acute hazard index greater than 1.0 (SCAQMD 2019).

3.3 Impact Analysis

Threshold 1:	Would the Specific Plan Amendment conflict with or obstruct implementation of the applicable air quality plan?

Impact AQ-1 THE VENTANA AT DUNCAN CANYON SPECIFIC PLAN AMENDMENT WOULD NOT CONFLICT WITH OR OBSTRUCT THE IMPLEMENTATION OF THE SCAQMD FINAL 2016 AIR QUALITY MANAGEMENT PLAN. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

A project may be inconsistent with the AQMP if it would generate population, housing, or employment growth exceeding forecasts used in the development of the AQMP. The 2016 AQMP, the most recent AQMP adopted by the SCAQMD, incorporates local city general plans and the SCAG's 2016 RTP/SCS socioeconomic forecast projections of regional population, housing, and employment growth (SCAQMD 2017a).[3]

SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties, and addresses regional issues relating to transportation, economy, community development, and environment. With regard to air quality planning, SCAG has prepared the RTP/SCS, a long-range transportation plan that uses growth forecasts to project trends for regional population, housing and employment growth out to 2040 to identify regional

[3] On September 3, 2020, SCAG's Regional Council formally adopted the 2020-2045 RTP/SCS (titled Connect SoCal). However, the SIP was adopted prior to this date and relies on the demographic and growth forecasts of the 2016-2040 RTP/SCS; therefore, these forecasts are utilized in the analysis of the project's consistency with the AQMP.

transportation strategies to address mobility needs. These growth forecasts form the basis for the land use and transportation control portions of the 2016 AQMP. The updated growth forecasts in SCAG's 2016 RTP/SCS estimate that the population City of Fontana would be 280,900 in 2040, which is an 80,700 person increase from 2012. The growth forecasts in SCAG's 2016 RTP/SCS also anticipate an increase of approximately 23,800 jobs in Fontana between 2012 and 2040 with the 2040 employment totaling 70,800 employees (SCAG 2016).

The proposed project would allow for development of 476,500 square feet of commercial use and 1,671 dwelling units. The population increase from the project were compared to the growth forecasts in the SCAG 2016 RTP/SCS for the City of Fontana.

The populations were estimated using available rates. The household size rate was assumed to be 4.07 persons per dwelling unit based on the City of Fontana's General Plan (City of Fontana 2017), which is sourced from the California Department of Finance's 2016 persons per household rate. For the commercial uses, the rate of 1,009 square feet per employee from the SCAG Employment Density Study Summary Report was used (SCAG 2001). These rates are also consistent with the service population rates used in the Traffic Study prepared by Urban Crossroads (2021). Based on these rates, there would be 6,801 residents and 473 employees. This would equate to a total of 7,274 persons.

The population increase would be within the anticipated growth increase of 80,700 persons. The anticipated employment under the Specific Plan Amendment would also be within the forecast growth of 23,800 employees.. Therefore, the project would not generate air pollution emissions that would impede or conflict with the 2016 AQMP. There would be no new or substantially more severe impacts than what was analyzed in the 2007 EIR. Impacts would be less than significant.

Threshold 2	Would the Specific Plan Amendment result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard?

Impact AQ-2 CONSTRUCTION OF THE VENTANA AT DUNCAN CANYON SPECIFIC PLAN AMENDMENT WOULD NOT RESULT IN A CUMULATIVELY CONSIDERABLE NET INCREASE OF A CRITERIA POLLUTANT FOR WHICH THE PROJECT REGION IS IN NON-ATTAINMENT UNDER AN APPLICABLE FEDERAL OR STATE AMBIENT AIR QUALITY STANDARD. HOWEVER, OPERATION OF THE SPECIFIC PLAN AMENDMENT WOULD RESULT IN A CUMULATIVELY CONSIDERABLE NET INCREASE OF A CRITERIA POLLUTANT FOR WHICH THE PROJECT REGION IS IN NON-ATTAINMENT UNDER AN APPLICABLE FEDERAL OR STATE AMBIENT AIR QUALITY STANDARD. MITIGATION MEASURE 4.5.4 FROM THE 2007 EIR WOULD BE REQUIRED. HOWEVER, EVEN WITH IMPLEMENTATION OF MITIGATION MEASURE 4.5.4 OPERATIONAL EMISSIONS WOULD STILL EXCEED SCAQMD THRESHOLDS. IMPACTS WOULD BE SIGNIFICANT AND UNAVOIDABLE.

Construction Emissions

The Specific Plan Amendment would allow for development of 1,671 mid-rise multi-family dwelling units and 476,500 square feet of commercial use in phases by Planning Area. Construction would involve site preparation, grading, building construction, paving, and architectural coating activities that have the potential to generate air pollutant emissions. Exhaust emissions would be associated with use of heavy-duty construction equipment and truck trips hauling debris, soils, and construction materials; fugitive dust (PM_{10}) emissions would primarily result from demolition and site preparation (e.g., grading) activities; During the finishing phase, paving operations, and the application of architectural coatings (e.g., paints) and other building materials would release VOCs.

Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions. The specific construction scheduling and the heavy-equipment use is not currently known.

As discussed in Section 3.1, *Construction Methodology*, construction emission estimates reflect the applicant-provided construction schedule. Details such as heavy equipment use, the number of construction workers, delivery trips, etc. are estimated using default assumptions in the CalEEMod based on site acreage; these assumptions were developed based on surveys of construction sites by SCAQMD. Table 6 summarizes the estimated maximum daily emissions of VOC, NO_x, CO, SO_2, PM_{10}, and $PM_{2.5}$ emissions per phase of construction. All construction-related criteria pollutant emissions would be below the SCAQMD regional thresholds. Nonetheless, future development allowed for by the Specific Plan Amendment would need to comply with all standard SCAQMD control measures to reduce fugitive PM_{10} dust and Mitigation Measures 4.5.1, 4.5.2, and 4.5.3 from the 2007 EIR. It is important to note that SCAQMD's recommended thresholds of significance were established for individual development projects. The thresholds do not apply to cumulative development or multiple projects. Therefore, it is conservative to compare phased construction emissions for a programmatic analysis to project-level thresholds. Based on the results shown in Table 6 construction allowed by the Specific Plan Amendment would not result in a cumulatively considerable net increase of any criteria pollutant any criteria pollutant for which the region is in non-attainment under an applicable federal or state ambient air quality standards. Impacts would be less than significant.

Table 6 Phased Construction Emissions

	Maximum Daily Emissions (lbs/day)					
Year	**VOC**	**NO_X**	**CO**	**PM_{10}**	**$PM_{2.5}$**	**SO_X**
Phase 1 – Planning Areas 1 & 2						
2022	7	78	65	<1	19	11
2023	35	42	71	<1	13	5
Phase 2 – Planning Area 3						
2023	3	35	29	<1	9	5
2024	19	32	30	<1	5	3
2025	19	16	29	<1	5	2
Phase 3 – Planning Areas 4 & 5						
2025	3	28	33	<1	9	5
2026	3	17	32	<1	7	2
2027	26	18	36	<1	8	3
2028	23	9	15	<1	1	0
Phase 4 – Planning Areas 6a & 6b						
2028	3	25	20	<1	9	5
2029	18	15	23	<1	3	1
SCAQMD Regional Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
Threshold Exceeded?	No	No	No	No	No	No

lbs/day = pounds per day; VOC = volatile organic compounds; NO_x = nitrogen oxide; CO = carbon monoxide; PM_{10} = particulate matter with a diameter no more than 10 microns; $PM_{2.5}$ = particulate matter with a diameter no more than 2.5 microns; SO_x = sulfur oxide

Source: Table 2.1 "Overall Construction-mitigated" emissions. Highest of Summer and Winter emissions results are shown for all emissions. See CalEEMod worksheets in Appendix A.

Operational Emissions

To determine whether a project would result in emissions that would violate an air quality standard or contribute substantially to an existing or projected air quality violation, a project's emissions are evaluated based on the quantitative emission thresholds established by the SCAQMD.

Table 7 summarizes the operational emissions by emission source (area and energy) from Phase 1, which includes Planning Areas 1 and 3, in the year 2023. Table 8 summarizes the operational emissions from the full buildout of the Specific Plan Amendment in the year 2030. As shown below, the operation of Planning Areas 1 and 2 would not exceed the SCAQMD's threshold for any criteria pollutant. Therefore, impacts would be less than significant. However, the full buildout VOC and NO_x emissions from the full buildout of the Specific Plan Amendment would exceed the SCAQMD thresholds.

Table 7 Planning Areas 1 and 2 Operational Emissions – 2023

	Maximum Daily Emissions (lbs./day)					
Emission Source	**VOC**	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Area	17	1	44	<1	<1	<1
Energy	<1	2	1	<1	<1	<1
Mobile	13	14	121	<1	27	7
Project Emissions	**31**	**17**	**167**	**<1**	**27**	**8**
SCAQMD Regional Thresholds	55	55	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No

lbs/day = pounds per day; VOC = volatile organic compounds; NO_x = nitrogen oxide; CO = carbon monoxide; PM_{10} = particulate matter with a diameter no more than 10 microns; $PM_{2.5}$ = particulate matter with a diameter no more than 2.5 microns; SO_x = sulfur oxide
Notes: Some numbers may not add up precisely due to rounding considerations.
Source: Table 2.2 "Overall Operation-Unmitigated" emissions. Highest of Summer and Winter emissions results are shown for all emissions. The mitigated emissions account for project sustainability features and/or compliance with specific regulatory standard, such as Rule 1113. See CalEEMod worksheets in Appendix A.

Table 8 Full Buildout Operational Emissions – 2030

	Maximum Daily Emissions (lbs./day)					
Emission Source	**VOC**	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Area	51	2	138	<1	<1	<1
Energy	1	12	7	<1	1	1
Mobile	52	44	401	1	129	35
Project Emissions	**104**	**58**	**546**	**1**	**130**	**36**
SCAQMD Regional Thresholds	55	55	550	150	150	55
Threshold Exceeded?	Yes	Yes	Yes	No	No	No

lbs/day = pounds per day; VOC = volatile organic compounds; NOx = nitrogen oxide; CO = carbon monoxide; PM_{10} = particulate matter with a diameter no more than 10 microns; $PM_{2.5}$ = particulate matter with a diameter no more than 2.5 microns; Sox = sulfur oxide
Notes: Some numbers may not add up precisely due to rounding considerations.
Source: Table 2.2 "Overall Operation-Unmitigated" emissions. Highest of Summer and Winter emissions results are shown for all emissions. The unmitigated emissions account for project sustainability features and/or compliance with specific regulatory standards (SCAQMD Rule 113). See CalEEMod worksheets in Appendix A.

As shown in Table 8, the VOC and NO_x emissions from the full buildout of the Specific Plan Amendment would be 104 and 58 pounds per day, respectively. The VOC and NO_x emissions would exceed the SCAQMD regional threshold of 55 pounds per day for VOC and NO_x. The exceedance is primarily due to emissions from mobile sources. Therefore, developments proposed under the Specific Plan Amendment would be required to implement Mitigation Measure 4.5.4, which requires the development of TCMs to reduce emissions from vehicles activity. However, the reductions from Mitigation Measure 4.5.4 cannot be quantified. Therefore, individual developments proposed under the Specific Plan Amendment would still potentially exceed SCAQMD regional thresholds, and impacts would be significant and unavoidable.

Mitigation Measure 4.5.4

The proposed project shall implement transportation control measures (TCMs) to reduce vehicular emissions to and from the site, which may include the following:

- **Ridesharing Programs**
  - Area-wide Carpooling and Vanpooling – The developer/building managers shall provide information brochures on carpooling and vanpooling.
  - Modified Work Schedules – The developer/building managers shall encourage commercial and office tenants to allow modified work schedules for employees.
  - Park and Ride Facilities – The developer/building managers shall accommodate the parking of vehicles to promote carpooling and vanpooling. Ares for future bus stops shall be reserved, where feasible.
- **Parking Management**
  - Off-street Parking Controls – Measures to discourage single-occupant vehicles shall be implemented through parking controls.
  - Parking Management Programs – Measures to discourage single-occupant vehicles (SOV) shall be implemented.
- **Non-Motorized Strategies**
  - Bicycle Lanes and Storage Facilities – Bicycle paths and bike racks shall be provided on-site.
  - Pedestrian Improvements – Sidewalks and pedestrian walkways shall be provided throughout the site.
- **Telecommunications**
  - Adequate system connections in all homes – Telecommunication systems shall be provided in residential villages.
  - Wi-Fi “hot-spots” within the Community – High-speed wireless local area network shall be provided at select locations on-site.
  - The developer shall incorporate the TCMs above to facilitate the option to select a non- SOV transportation option.

Significance After Mitigation

While incorporation of Mitigation Measure 4.5.4 would reduce impacts associated with mobile operational air quality emissions, the exact amount of VOC and NO_x emissions that would be reduced cannot be calculated since the measures would be implement by individual projects.

Therefore, the Specific Plan Amendment would potentially exceed SCAQMD regional even with mitigation. Therefore, impacts would be significant and unavoidable.

Infeasibility of Additional Health Risk Analysis

Pursuant to the *Sierra Club v. County of Fresno* ("Friant Ranch") (2018) California Supreme Court decision, an EIR should relate expected adverse air quality impacts to likely health consequences, or explain in meaningful detail why it is not feasible at the time of drafting to provide such an analysis. As explained below, it is not scientifically feasible at the time of drafting of this report to substantively connect this individual project's criteria pollutant impacts to likely health consequences.

The SCAQMD provided an amicus brief in connection with the Friant Ranch case that is included in Appendix A.3. With regard to the analysis of air quality-related health impacts, the SCAQMD, the air quality authority for the SCAB, explained that "EIRs must generally quantify a project's pollutant emissions, but in some cases, it is not feasible to correlate these emissions to specific, quantifiable health impacts (e.g., premature mortality; hospital admissions)." In such cases, a general description of the adverse health impacts resulting from the pollutants at issue may be sufficient.

The SCAQMD stated that from a scientific standpoint, it takes a large amount of additional precursor emissions to cause a modeled increase in ambient O_3 levels over an entire region. For example, the SCAQMD's 2012 AQMP showed that reducing NO_X by 432 tons per day and reducing VOC by 187 tons per day would reduce O_3 levels at the SCAQMD's monitor site with the highest levels by only 9 parts per billion (SCAQMD 2013). SCAQMD staff does not currently know of a way to accurately quantify O_3-related health impacts caused by NO_X or VOC precursor emissions from relatively small projects.

SCAQMD acknowledged that it may be feasible to analyze air quality related health impacts for projects on a regional scale with very high emissions of NO_X and VOCs, where impacts are regional. The example SCAQMD provided was for proposed Rule 1315, which authorized various newly permitted sources to use offsets from the "internal bank" of emission reductions. The CEQA analysis accounted for essentially all of the increases in emissions due to new or modified sources in the District between 2010 and 2030, or approximately 6,620 pounds per day of NO_X and 89,947 pounds per day of VOC, to expected health outcomes from O_3 (e.g., 20 premature deaths per year and 89,947 school absences in the year 2030 due to O_3).

The SCAQMD stated its staff does not currently know of a way to accurately quantify O_3-related health impacts from relatively small projects. Thus, a general description of the adverse health impacts resulting from the pollutants at issue, described in this report, is all that can be provided at this time. Please refer to Section 2.2, *Air Pollutants of Primary Concern*, for a description of general adverse health impacts resulting from O_3.

The San Joaquin Valley Air Pollution Control District (SJVAPCD) also submitted an amicus brief, which is included in Appendix A.3, and further addresses the scientific limitations regarding correlating an individual project's air quality emissions to specific health impacts. Human health impacts associated with criteria pollutants are analyzed and taken into consideration when the US EPA sets the NAAQS for each criteria pollutant (42 U.S.C. Section 7409(b)(1)). The health impact of a particular criteria pollutant is analyzed on a regional, not a facility level, based on how close the area is to complying with (attaining) the NAAQS. As discussed by the SJVAPCD, it is not feasible to conduct a criteria air pollutant analysis detailing health impacts, as currently available computer modeling tools are not equipped for this task.

In proposing a health risk type analysis for criteria air pollutants, it is important to understand how the relevant criteria pollutant (O_3) is formed, dispersed and regulated. Ground level O_3 (smog) is not directly emitted into the air but is instead formed when precursor pollutants, such as NO_X and VOC are emitted into the atmosphere and undergo complex chemical reactions in the process of sunlight. Once formed, O_3 can be transported long distances by wind. Because of the complexity of O_3 formation, a specific tonnage amount of NO_X or VOCs emitted in a particular area does not equate to a particular concentration of O_3 in that area. Even rural areas that have relatively low tonnages of emissions of NO_X or VOC can have high levels of O_3 concentrations simply due to wind transport. Conversely, areas that have substantially more NO_X and VOC emissions could experience lower concentrations of O_3 simply because sea breezes disperse the emissions (SJVAPCD 2014).

The disconnect between the tonnage of precursor pollutants and the concentration of O_3 formed is important, because it is not necessarily the tonnage of precursor pollutants that causes human health effects; rather, it is the concentration of resulting O_3 that causes these effects. The NAAQS, which are statutorily required to be set by USEPA at levels that are requisite to protect the public health, are established as concentrations of O_3 and not as tonnages of their precursor pollutants. Because the NAAQS are focused on achieving a particular concentration region-wide, the SJVAPCD's tools and plans for attaining the NAAQS are regional in nature.

The computer models used to simulate and predict an attainment date for O_3 are based on regional inventories of precursor pollutants and meteorology in the air basin. At a very basic level, the models simulate future O_3 levels based on predicted changes in precursor emissions basin-wide. The computer models are not designed to determine whether the emissions generated by an individual development project will affect the date that the air basin attains the NAAQS. Instead, the models help inform regional planning strategies based on the extent all of the emission-generating sources in the air basin must be controlled in order to reach attainment.

In the case of the project, operational emissions exceed the SCAQMD operational significance thresholds for VOC and NO_X. However, this does not mean that one can feasibly determine the concentration of O_3 that would be created at or near a project site on a particular day or month of the year, or the specific human health impacts that may occur. This is especially true for the project, where most of the criteria pollutant emissions derive not from a single "point source," but from mobile sources (cars and trucks) driving to and from the site, or from consumer product and architectural coating use that can occur in many individual areas of the project site.

In addition, it would be infeasible to model the impact on NAAQS attainment that these emissions from the project may have. As discussed above, the currently available tools are equipped to model the impact of all emission sources in the air basin on attainment. According to the SCAQMD's 2016 AQMP, basin-wide emissions in 2012 of VOC was 162.4 tons per day and 293.1 tons per day of NO_X, (SCAQMD 2017). Running the photochemical grid model used for predicting O_3 attainment with the emissions solely from a project (which equates to less than one percent for VOC and NO_x) would not yield valid information given the relatively small scale involved.

HEALTH CONSEQUENCES OF O_3

A summary discussion of air pollution and potential health effects was provided in Section 2.2, *Air Pollutants of Primary Concern*. In addition, the national and State criteria pollutants and the applicable ambient air quality standards were also provided in Section 2.3, *Air Quality Regulation*. As stated above, air pollution is a major public health concern, and the adverse health effects associated with air pollution are diverse. O_3 is a pungent, colorless, toxic gas with direct health effects on humans, including respiratory and eye irritation and possible changes in lung functions.

Groups most sensitive to O_3 include children, the elderly, persons with respiratory disorders, and people who exercise strenuously outdoors.

The adverse effects reported with short-term O_3 exposure are greater with increased activity, because activity increases the breathing rate and the volume of air reaching the lungs, resulting in an increased amount of O_3 reaching the lungs. Children may be a particularly vulnerable population to air pollution effects, because they spend more time outdoors, are generally more active, and have a higher ventilation rate than adults. A number of adverse health effects associated with ambient O_3 levels have been identified from laboratory and epidemiological studies. These include increased respiratory symptoms, damage to cells of the respiratory tract, decreases in lung function, increased susceptibility to respiratory infection, and increased risk of hospitalization.

The Children's Health Study, conducted by researchers at the University of Southern California, followed a cohort of children that live in 12 communities in southern California with differing levels of air pollution for several years. A publication from this study found that school absences in fourth graders for respiratory illnesses were associated with ambient O_3 levels. An increase of 20 parts per billion of O_3 was associated with an 83 percent increase in illness-related absence rates (Gilliland et al. 2004). The number of hospital admissions and emergency room visits for all respiratory causes (infections, respiratory failure, chronic bronchitis, etc.), including asthma, show a consistent increase as ambient O_3 levels increase in a community. These excess hospital admissions and emergency room visits are observed when hourly O_3 concentrations are as low as 0.08 to 0.10 ppm.

Numerous recent studies have found positive associations between increases in O_3 levels and excess risk of mortality. These associations persist even when other variables including season and levels of PM are accounted for. This indicates that O_3 mortality effects are independent of other pollutants (Bell et al. 2004). Several population-based studies suggest that asthmatics are more adversely affected by ambient O_3 levels, as evidenced by increased hospitalizations and emergency room visits. Laboratory studies have attempted to compare the degree of lung function change seen in age and gender-matched healthy individuals versus asthmatics and those with chronic obstructive pulmonary disease. While the degree of change evidenced did not differ significantly, that finding may not accurately reflect the true impact of exposure on these respiration-compromised individuals. Since the respiration-compromised group may have lower lung function to begin with, the same degree of change may represent a substantially greater adverse effect overall.

A publication from the Children's Health Study focused on children and outdoor exercise. In communities with high O_3 concentrations, the relative risk of developing asthma in children playing three or more sports was found to be over three times higher than in children playing no sports (McConnell et al. 2002). These findings indicate that new cases of asthma in children are associated with heavy exercise in communities with high levels of O_3. The susceptibility to O_3 observed under ambient conditions could be due to the combination of pollutants that coexist in the atmosphere or O_3 may actually sensitize these subgroups to the effects of other pollutants. A study of birth outcomes in southern California found an increased risk for birth defects in the aortic and pulmonary arteries associated with O_3 exposure in the second month of pregnancy (Ritz et al. 2000). In summary, acute adverse effects associated with O_3 exposures have been well documented, although the specific causal mechanism is still somewhat unclear. Additional research efforts are required to evaluate the long-term effects of air pollution and to determine the role of O_3 in influencing chronic effects.

The evidence linking these effects to air pollutants is derived from population based observational and field studies (epidemiological) as well as controlled laboratory studies involving human subjects and animals. There have been an increasing number of studies focusing on the mechanisms (that is, on learning how specific organs, cell types, and biochemicals are involved in the human body's response to air pollution) and specific pollutants responsible for individual effects. Yet the underlying biological pathways for these effects are not always clearly understood. Although individuals inhale pollutants as a mixture under ambient conditions, the regulatory framework and the control measures developed are mostly pollutant-specific. This is appropriate, in that different pollutants usually differ in their sources, their times and places of occurrence, the kinds of health effects they may cause, and their overall levels of health risk. Different pollutants, from the same or different sources, may sometimes act together to harm health more than they would acting separately. Nevertheless, as a practical matter, health scientists, as well as regulatory officials, usually must deal with one pollutant at a time in determining health effects and in adopting air quality standards. To meet the air quality standards, comprehensive plans are developed such as the SCAQMD's AQMP.

Conclusions

Consistent with the California Supreme Court's Friant Ranch decision, the above information provides additional details regarding the potential health effects from the project's significant and unavoidable criteria pollutant emissions. It also explains why it is not scientifically feasible at the time of drafting of this report to precisely connect this individual project's criteria pollutant impacts to likely health consequences.

In summary, project design features and mitigation are not available that would feasibly reduce impacts from operational VOC and NO_X emissions to a less-than-significant level. Therefore, impacts from operational emissions would be significant and unavoidable.

Threshold 3	Would the Specific Plan Amendment expose sensitive receptors to substantial pollutant concentrations?

Impact AQ-3 THE VENTANA AT DUNCAN CANYON SPECIFIC PLAN AMENDMENT WOULD NOT INCREASE CARBON MONOXIDE CONCENTRATIONS SUCH THAT IT WOULD CREATE CARBON MONOXIDE HOTSPOTS. CONSTRUCTION AND OPERATION OF THE PROJECT WOULD NOT RESULT IN EMISSIONS OF TACS SUFFICIENT TO EXCEED APPLICABLE HEALTH RISK CRITERIA. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

As discussed above, the sensitive receptors nearest to the project site are a single-family residential neighborhood adjacent to the project's western boundary and south of the Citrus Avenue and Duncan Canyon Road intersection. The project would also introduce new sensitive receptors to the area as residents.

Carbon Monoxide Hotspots

A carbon monoxide hotspot is a localized concentration of carbon monoxide that is above a carbon monoxide ambient air quality standard. Localized carbon monoxide hotspots can occur at intersections with heavy peak hour traffic. Specifically, hotspots can be created at intersections where traffic levels are sufficiently high such that the local carbon monoxide concentration exceeds the federal one-hour standard of 35.0 ppm or the federal and state eight-hour standard of 9.0 ppm (CARB 2016).

A detailed carbon monoxide analysis was conducted during the preparation of SCAQMD's 2003 AQMP. The locations selected for microscale modeling in the 2003 AQMP included high average daily traffic (ADT) intersections in the SCAB, those which would be expected to experience the highest CO concentrations. The highest CO concentration observed was at the intersection of

Wilshire Boulevard and Veteran Avenue on the west side of Los Angeles near the I-405. The concentration of CO at this intersection was 4.6 ppm, which is well below the state and federal standards. The Wilshire Boulevard/Veteran Avenue intersection has an ADT of approximately 100,000 vehicles per day (SCAQMD 2003).

The total existing ADT for the nearest major intersection to the Specific Plan area, Duncan Canyon Road, and I-15 northbound ramp, was estimated at 10,200 vehicles (Urban Crossroads 2021). In 2030, the traffic volume would increase to 17,550 average daily vehicles. In the opening year of Phase 1 (2023), the ADT at this intersection would increase to 22,150 vehicles with the project generating approximately 4,600 trips (21 percent of the total new trips). Both the existing and opening year ADT are below the 100,000-vehicle count on the Wilshire Boulevard/Veteran Avenue intersection that was already well below the CO standards. Project-generated local mobile-source CO emissions would not result in or substantially contribute to concentrations that exceed the one-hour or eight-hour CO standard. Therefore, impacts would be less than significant.

Localized Significance Thresholds

Table 9 summarizes maximum daily on-site emissions associated with construction of the project. The on-site construction emissions of NO_X, CO, PM_{10}, and $PM_{2.5}$ emissions would not exceed SCAQMD LST screening levels during any phase of construction. Therefore, the Specific Plan Amendment would not expose sensitive receptors to substantial criteria pollutant concentrations and impacts would be less than significant.

Table 9 On-site Construction Emissions

Year	Maximum On-site Emissions (lbs/day)[1]			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Phase 1 – Planning Areas 1 & 2				
2022	65	30	8	8
2023	31	35	1	1
Applicable LST; 5 acres at 200 meters[2]	**486**	**8,532**	**106**	**35**
Threshold Exceeded?	**No**	**No**	**No**	**No**
Phase 2 – Planning Area 3				
2023	34	27	9	5
2024	30	17	1	2
2025	14	17	0.4	0.5
Applicable LST; 5 acres at 25 meters[3]	**270**	**1,746**	**14**	**8**
Threshold Exceeded?	**No**	**No**	**No**	**No**
Phase 3 – Planning Areas 4 & 5				
2025	23	15	2	3
2026	13	16	1	1
2027	14	18	1	1
2028	8	12	-1	<1
Applicable LST; 5 acres at 25 meters[4]	**270**	**1,746**	**14**	**8**
Threshold Exceeded?	**No**	**No**	**No**	**No**

Year	Maximum On-site Emissions (lbs/day)[1]			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Phase 4 – Planning Areas 6a &6b				
2028	24	16	7	4
2029	14	18	<1	1
Applicable LST; 5 acres at 100 meters[5]	**378**	**4,142**	**65**	**17**
Threshold Exceeded?	**No**	**No**	**No**	**No**

SRA = source receptor area; lbs/day = pounds per day; NO_x/NO_2 = nitrogen oxides; CO = carbon monoxide; PM_{10} = particulate matter 10 micrometers in diameter or less; $PM_{2.5}$ = fine particulate matter 2.5 micrometers in diameter or less

[1]Emissions only account for on-site construction emissions.

[2]The applicable LST is the thresholds for a 5-acre site at a distance of 656 feet (200 meters) for SRA 34. The nearest sensitive receptors would be single-family residences located approximately 640 feet (195 feet) southeast of the Planning Area 1's eastern boundary at the intersection of Duncan Canyon Road and Citrus Avenue at

[3]The applicable LST is the thresholds for a 5-acre site at a distance of 82 feet (25 meters). The nearest sensitive receptors would be the multi-family residences in Planning Area 1 located approximately 80 feet (24 meters) north of the northern boundary of Planning Area 2.

[4] The applicable LST is the thresholds for a 5-acre site at a distance of 82 feet (25 meters). The nearest sensitive receptors would be the multi-family residences in Planning Area 1.

[5] The applicable LST is the thresholds for a 5-acre site at a distance of 328 feet (100 meters) for SRA 34. The nearest sensitive receptors would be single-family residences located approximately 450 feet (137 feet) northwest of the Planning Area 6A's western boundary across I-15.

Source: Table 2.1 "Overall Construction-mitigated" emissions. Highest of Summer and Winter emissions results are shown for all emissions. See CalEEMod worksheets in Appendix A.

Toxic Air Contaminants

Implementation of the Specific Plan Amendment would involve construction of residential, retail, hotel, and open space land uses. While such land uses are not typically associated with emissions of TACs, temporary TAC emissions may be associated with construction equipment and long-term stationary sources of TACs, such as diesel-powered emergency-use power generators may be associated with certain land uses. The type and quantity of TAC emissions emitted would depend upon the nature of the land use and the specific methods and operations that involve toxic air emissions. Given that compliance with applicable standards, TAC emissions generated from construction would not be anticipated to result in an increased risk to nearby sensitive receptors that would exceed applicable significance thresholds. Therefore, the proposed project would not increase the TAC emissions impacts compared to the previously approved project nor expose nearby sensitive receptors to new or significantly more severe TAC emissions.

Buildout of the Specific Plan Amendment may also involve the installation of new TAC sources. Pursuant to SCAQMD rules and regulations, including SCAQMD Rule 1401 (New Source Review of Toxic Air Contaminants), major stationary sources having the potential to emit TACs would be required to obtain permits from the SCAQMD. Permits may be issued provided the source is constructed and operated in accordance with applicable SCAQMD rules and regulations. Given that compliance with applicable standards and regulations would be required, TAC emissions from new stationary sources would not be anticipated to result in an increased risk to nearby sensitive receptors that would exceed applicable significance thresholds.

In addition to long-term exposure to stationary emission sources, development allowed by the Specific Plan Amendment would increase emissions from mobile sources. However, the Specific Plan is expected to have a lower VMT per service population compared to the baseline and cumulative scenarios. According to the Traffic Study, which analyzes the cumulative effect on VMT associated with the project, the baseline VMT per service population without the Specific Plan (i.e., under the existing Specific Plan) would be 12.81, the cumulative VMT per service population without the Specific Plan (i.e., under the existing Specific Plan) would be 13.17. With the Specific Plan, the baseline VMT per service population with the project would be 12.51 VMT per service population (a net decrease of 0.30), and the cumulative VMT per service population with the project would be 12.95 (a net decrease of 0.22). Buildout and operation of the project would locate new commercial and retail development near existing residences, which would shorten the miles traveled for similar services and goods. Therefore, the increase in traffic generated by the Specific Plan would not result in substantial mobile emissions as compared to the cumulative without Specific Plan scenario (Urban Crossroads 2021). The TAC emissions from project mobile sources would not be more severe than the existing conditions

Because land uses proposed under the Specific Plan Amendment are not associated with emissions of TACs and forecast growth would not result in the generation of mobile source TACs along area roadways in excess of applicable health risk screening criteria, operational impacts would be less than significant.

Threshold 4	Would the Specific Plan Amendment result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Impact AQ-4 THE VENTANA AT DUNCAN CANYON SPECIFIC PLAN AMENDMENT WOULD NOT GENERATE ODORS ADVERSELY AFFECTING A SUBSTANTIAL NUMBER OF PEOPLE DURING CONSTRUCTION OR OPERATION. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

For construction activities, odors would be short-term in nature and are subject to SCAQMD Rule 402 Nuisance (SCAQMD 1976). Construction activities would be temporary and transitory and associated odors would cease upon construction completion. Accordingly, the Specific Plan Amendment would not create objectionable odors affecting a substantial number of people during construction, and short-term impacts would be less than significant.

Common sources of operational odor complaints include sewage treatment plants, landfills, recycling facilities, and agricultural uses. The proposed plan would not include any of these uses. The plan would construct multi-family residences, commercial retail, medical-dental offices, sit-down restaurants, fast-food restaurants, pharmacies with a drive-thru, and a supermarket. These land uses are not considered typical nuisances for odor. Solid waste generated by the proposed on-site uses would be collected by a contracted waste hauler, ensuring that any odors resulting from on-site waste would be managed and collected in a manner to prevent the proliferation of odors. Operational odor impacts would be less than significant.

Given that construction-related odors would be temporary in nature and land uses allowed by Specific Plan Amendment are not associated with odor generation, this impact would be less than significant.

Cumulative	Would the Specific Plan Amendment contribute to cumulative air quality impacts?

Impact AQ-5 IMPACTS RELATED TO AIR QUALITY ARE A CUMULATIVE IMPACT AS EMISSIONS CONTRIBUTE TO EXISTING REGIONAL AIR POLLUTION IN THE ATMOSPHERE. THE VENTANA AT DUNCAN CANYON SPECIFIC PLAN AMENDMENT WOULD NOT CONFLICT WITH APPLICABLE PLANS NOR EXCEED SCAQMD REGIONAL CRITERIA POLLUTANT THRESHOLDS. THE SPECIFIC PLAN AMENDMENT WOULD ALSO NOT CONTRIBUTE TO TAC OR ODOR EMISSION IMPACTS. THEREFORE, THE SPECIFIC PLAN AMENDMENT'S CUMULATIVE IMPACTS WOULD NOT BE CUMULATIVELY CONSIDERABLE.

The cumulative context for air quality is regional. The SCAB is designated a nonattainment area for the federal and State 1-hour and 8-hour ozone standards, the State PM_{10} standards, the federal 24-hour $PM_{2.5}$ standard, and the federal and State annual $PM_{2.5}$ standard. SCAB is in attainment of all other federal and State standards. Despite the current nonattainment status and local air quality standard exceedances, air quality in the basin has generally improved since the inception of air pollutant monitoring in 1976. This improvement is mainly due to lower-polluting on-road motor vehicles, more stringent regulation of industrial sources, and the implementation of emission reduction strategies by the SCAQMD. This trend toward cleaner air has occurred in spite of continued population growth, as discussed in the 2012 AQMP for the SCAB (SCAQMD 2013):[4]

Despite this growth, air quality has improved significantly over the years, primarily due to the impacts of the region's air quality control program…PM_{10} levels have declined almost 50 percent since 1990, and $PM_{2.5}$ levels have also declined 50 percent since measurements began in 1999…the only air monitoring station that is currently exceeding or projected to exceed the 24-hour $PM_{2.5}$ standard from 2011 forward is the Mira Loma station in Western Riverside County. Similar improvements are observed with O_3, although the rate of O_3 decline has slowed in recent years.

The Specific Plan Amendment would contribute PM and the ozone precursors VOC and NO_X to the area during construction and operation. As described under *Impact AQ-2* above, regional emissions during construction would not exceed SCAQMD thresholds, would not contribute substantially to an existing or projected air quality violation, and would not be potentially significant. Therefore, the proposed Specific Plan Amendment would not have a significant and unavoidable cumulatively considerable contribution of VOC, NO_X, CO, SO_x, PM_{10}, or $PM_{2.5}$ from construction emissions. However, VOC and NO_x emissions from operation of the full buildout of the project would exceed the SCAQMD thresholds due to mobile emissions. However, VOC and NO_x emissions from operation of the full buildout of the project would exceed the SCAQMD thresholds due to mobile emissions. VOC emission would total 104 pounds per day with 50 percent of the emissions coming from mobile sources (52 pounds per day would be from mobile sources). NO_x emissions would total 58 pounds per day with mobile emissions accounting for approximately 76 percent (44 pounds per day would be from mobile sources. Compliance with Mitigation Measure 4.5.4 would help reduce this impact but implementation of said transportation control measures would need to happen on an individual project-by-project basis and the possible reductions cannot be quantified on a plan level. Therefore, even with mitigation, impacts would be significant and unavoidable, and the proposed project would have a significant and unavoidable cumulatively considerable contribution of VOC and NO_X, from operational emissions.

As identified in *Impact AQ-3*, the Specific Plan Amendment would not have a significant impact from CO hotspots or construction or operational emissions of TACs. As described under *Impact AQ-4*, the

[4] These trends are show in greater detail on SCAQMD's website at: http://www.aqmd.gov/home/air-quality/historical-air-quality-data.

land uses proposed as part of Specific Plan would not be associated with odor-generation. Therefore, while cumulative impacts associated with exposure of sensitive receptors to substantial pollutant concentrations or odors may be potentially significant, the proposed Specific Plan Amendment's contribution to such impacts would not be cumulatively considerable. In addition, the Specific Plan is not located near existing or planned projects that would generate TAC or odor emissions affecting a substantial number of people. SCAQMD Rule 402 Nuisance, which prohibits the discharge of air contaminants that would cause injury, detriment, nuisance, or annoyance to the public, would minimize the potential for nuisance odors. Therefore, no cumulative TAC or odor emissions impacts would occur.

4 Greenhouse Gas Emissions

4.1 Climate Change and Greenhouse Gases

Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period. The term "climate change" is often used interchangeably with the term "global warming," but climate change is preferred because it conveys those other changes are happening in addition to rising temperatures. The baseline against which these changes are measured originates in historical records that identify temperature changes that occurred in the past, such as during previous ice ages. The global climate is changing continuously, as evidenced in the geologic record which indicates repeated episodes of substantial warming and cooling. The rate of change has typically been incremental, with warming or cooling trends occurring over the course of thousands of years. The past 10,000 years have been marked by a period of incremental warming, as glaciers have steadily retreated across the globe. However, scientists have observed acceleration in the rate of warming over the past 150 years. The United Nations Intergovernmental Panel on Climate Change (IPCC) expressed that the rise and continued growth of atmospheric CO_2 concentrations is unequivocally due to human activities in the IPCC's Sixth Assessment Report (2021). Human influence has warmed the atmosphere, ocean, and land, which has led the climate to warm at an unprecedented rate in the last 2,000 years. It is estimated that between the period of 1850 through 2019, that a total of 2,390 gigatonnes of anthropogenic CO_2 was emitted. It is likely that anthropogenic activities have increased the global surface temperature by approximately 1.07 degrees Celsius between the years 2010 through 2019 (IPCC 2021).

Gases that absorb and re-emit infrared radiation in the atmosphere are called GHGs. The gases widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO_2), methane (CH_4), nitrous oxides (N_2O), fluorinated gases such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere, and natural processes, such as oceanic evaporation, largely determine its atmospheric concentrations.

GHGs are emitted by natural processes and human activities. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Emissions of CO_2 are usually by-products of fossil fuel combustion, and CH_4 results from off-gassing associated with agricultural practices and landfills. Human-made GHGs, many of which have greater heat-absorption potential than CO_2, include fluorinated gases and SF_6 (USEPA 2021).

Different types of GHGs have varying global warming potentials (GWP). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO_2) is used to relate the amount of heat absorbed to the amount of the gas emitted, referred to as "carbon dioxide equivalent" (CO_2e), which is the amount of GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of one. By contrast, methane has a GWP of 30, meaning its global warming effect is 30 times greater than CO2 on a molecule per molecule basis (Intergovernmental Panel on Climate Change 2021).

The accumulation of GHGs in the atmosphere regulates the earth's temperature. Without the natural heat-trapping effect of GHGs, the earth's surface would be about 33 degrees Celsius (°C) cooler (World Meteorological Organization 2020). However, since 1750, estimated concentrations of CO_2, CH_4, and N_2O in the atmosphere have increased by 36 percent, 148 percent, and 18 percent, respectively, primarily due to human activity (Forster et al. 2007). GHG emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation, have elevated the concentration of these gases in the atmosphere beyond the level of concentrations that occur naturally.

4.2 Greenhouse Gas Emissions Inventory

Global Emissions Inventory

Worldwide anthropogenic emissions of GHGs were approximately 49,000 million metric tons (MMT) CO_2e in 2010 (IPCC 2014). Carbon dioxide emissions from fossil fuel combustion and industrial processes contributed about 65 percent of total emissions in 2010. Of anthropogenic GHGs, CO_2 was the most abundant, accounting for over 75 percent of total 2010 emissions. Methane emissions accounted for 16 percent of the 2010 total, while N_2O and fluorinated gases accounted for 6 percent and 2 percent respectively (IPCC 2014).

United States Emissions Inventory

Total United States (U.S.) GHG emissions were 6,558 MMT of CO_2e in 2019. Emissions decreased by 1.7 percent from 2018 to 2019; since 1990, total U.S. emissions have increased by an average annual rate of 0.06 percent for a total increase of 1.8 percent between 1990 and 2019. The decrease from 2018 to 2019 reflects the combined influences of several long-term trends, including population changes, economic growth, energy market shifts, technological changes such as improvements in energy efficiency, and decrease carbon intensity of energy fuel choices. In 2019, the industrial and transportation end-use sectors accounted for 30 percent and 29 percent, respectively, of nationwide GHG emissions while the commercial and residential end-use sectors accounted for 16 percent and 15 percent of nationwide GHG emissions, respectively, with electricity emissions distributed among the various sectors (USEPA 2021).

California Emissions Inventory

Based on the CARB California Greenhouse Gas Inventory for 2000-2019, California produced 418.2 MMT of CO_2e in 2019, which is 7.2 MMT of CO_2e lower than 2018 levels. The major source of GHG emissions in California is the transportation sector, which comprises 40 percent of the state's total GHG emissions. The industrial sector is the second largest source, comprising 21 percent of the state's GHG emissions while electric power accounts for approximately 14 percent (CARB 2021d). The magnitude of California's total GHG emissions is due in part to its large size and large population compared to other states. However, a factor that reduces California's per capita fuel use and GHG emissions as compared to other states is its relatively mild climate. In 2016, the State of California achieved its 2020 GHG emission reduction target of reducing emissions to 1990 levels as emissions fell below 431 MMT of CO_2e (CARB 2021d). The annual 2030 statewide target emissions level is 260 MMT CO_2e (CARB 2017).

Local Emissions Inventory

The City of Fontana generated a total of 1,238,926 MT CO_2e in a 2008 GHG baseline inventory. Transportation GHG emissions were the largest contributor at approximately 51 percent of the total GHG emissions or 635,066 MT CO_2e. The second largest sector was building energy, which generated approximately 483,783 MT CO_2e or 39 percent of the total. The off-road equipment generated 73,650 MT CO_2e or 6 percent of the total. The remaining four percent of the total GHG emissions are generated from solid waste management (19,570 MT CO_2e), water conveyance (15, 265 CO_2e), wastewater treatment (7,842 MT CO_2e), and agriculture (3,850 MT CO_2e) (City of Fontana 2015).

4.3 Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources though potential impacts related to future air temperatures and precipitation patterns. Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. Each of the past three decades has been warmer than all the previous decades in the instrumental record, and the decade from 2000 through 2010 has been the warmest. The observed global mean surface temperature (GMST) from 2015 to 2017 was approximately 1.0°C higher than the average GMST over the period from 1880 to 1900 (National Oceanic and Atmospheric Administration 2020). Furthermore, several independently analyzed data records of global and regional Land-Surface Air Temperature (LSAT) obtained from station observations jointly indicate that LSAT and sea surface temperatures have increased. Due to past and current activities, anthropogenic GHG emissions are increasing global mean surface temperature at a rate of 0.2°C per decade. In addition to these findings, there are identifiable signs that global warming is currently taking place, including substantial ice loss in the Arctic over the past two decades (IPCC 2014 and 2018).

According to *California's Fourth Climate Change Assessment*, statewide temperatures from 1986 to 2016 were approximately 0.6 to 1.1°C higher than those recorded from 1901 to 1960. Potential impacts of climate change in California may include reduced water supply from snowpack, sea level rise, more extreme heat days per year, more large forest fires, and more drought years (State of California 2018). In addition to statewide projections, *California's Fourth Climate Change Assessment* includes regional reports that summarize climate impacts and adaptation solutions for nine regions of the state and regionally specific climate change case studies (State of California 2018). However, while there is growing scientific consensus about the possible effects of climate change at a global and statewide level, current scientific modeling tools are unable to predict what local impacts may occur with a similar degree of accuracy. A summary follows of some of the potential effects that could be experienced in California because of climate change.

Air Quality

Scientists project that the annual average maximum daily temperatures in California could rise by 2.4 to 3.2°C in the next 50 years and by 3.1 to 4.9°C in the next century (State of California 2018). Higher temperatures are conducive to air pollution formation, and rising temperatures could therefore result in worsened air quality in California. As a result, climate change may increase the concentration of ground-level ozone, but the magnitude of the effect, and therefore its indirect effects, are uncertain. In addition, as temperatures have increased in recent years, the area burned by wildfires throughout the state has increased, and wildfires have occurred at higher elevations in the Sierra Nevada Mountains (State of California 2018). If higher temperatures continue to be accompanied by an increase in the incidence and extent of large wildfires, air quality could worsen. Severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the state. However, if higher temperatures are accompanied by wetter, rather than drier conditions, the rains could tend to temporarily clear the air of particulate pollution, which would effectively reduce the number of large wildfires and thereby ameliorate the pollution associated with them (California Natural Resources Agency 2009).

Water Supply

Analysis of paleoclimatic data (such as tree-ring reconstructions of stream flow and precipitation) indicates a history of naturally and widely varying hydrologic conditions in California and the west, including a pattern of recurring and extended droughts. Uncertainty remains with respect to the overall impact of climate change on future precipitation trends and water supplies in California. Year-to-year variability in statewide precipitation levels has increased since 1980, meaning that wet and dry precipitation extremes have become more common (California Department of Water Resources 2018). This uncertainty regarding future precipitation trends complicates the analysis of future water demand, especially where the relationship between climate change and its potential effect on water demand is not well understood. The average early spring snowpack in the western U.S., including the Sierra Nevada Mountains, decreased by about 10 percent during the last century. During the same period, sea level rose over 0.15 meter along the central and southern California coasts (State of California 2018). The Sierra snowpack provides the majority of California's water supply as snow that accumulates during wet winters is released slowly during the dry months of spring and summer. A warmer climate is predicted to reduce the fraction of precipitation that falls as snow and the amount of snowfall at lower elevations, thereby reducing the total snowpack (State of California 2018). Projections indicate that average spring snowpack in the Sierra Nevada and other mountain catchments in central and northern California will decline by approximately 66 percent from its historical average by 2050 (State of California 2018).

Hydrology and Sea Level Rise

Climate change could affect the intensity and frequency of storms and flooding (State of California 2018). Furthermore, climate change could induce substantial sea level rise in the coming century. Rising sea level increases the likelihood of and risk from flooding. The rate of increase of global mean sea levels between 1993 to 2020, observed by satellites, is approximately 3.3 millimeters per year, double the twentieth century trend of 1.6 millimeters per year (World Meteorological Organization 2013; National Aeronautics and Space Administration 2020). Global mean sea levels in 2013 were about 0.23 meter higher than those of 1880 (National Aeronautics and Space Administration 2020). Sea levels are rising faster now than in the previous two millennia, and the rise will probably accelerate, even with robust GHG emission control measures. The most recent IPCC report predicts a mean sea level rise of 0.25 to 0.94 meter by 2100 (IPCC 2018). A rise in sea levels could erode 31 to 67 percent of southern California beaches and cause flooding of approximately 370 miles of coastal highways during 100-year storm events. This would also jeopardize California’s water supply due to saltwater intrusion and induce groundwater flooding and/or exposure of buried infrastructure (State of California 2018). Furthermore, increased storm intensity and frequency could affect the ability of flood-control facilities, including levees, to handle storm events.

Agriculture

California has an over $50 billion annual agricultural industry that produces over a third of the country’s vegetables and two-thirds of the country’s fruits and nuts (California Department of Food and Agriculture 2020). Higher CO_2 levels can stimulate plant production and increase plant water-use efficiency. However, if temperatures rise and drier conditions prevail, certain regions of agricultural production could experience water shortages of up to 16 percent, which would increase water demand as hotter conditions lead to the loss of soil moisture. In addition, crop yield could be threatened by water-induced stress and extreme heat waves, and plants may be susceptible to new and changing pest and disease outbreaks (State of California 2018). Temperature increases could also change the time of year certain crops, such as wine grapes, bloom or ripen, and thereby affect their quality (California Climate Change Center 2006).

Ecosystems

Climate change and the potential resultant changes in weather patterns could have ecological effects on the global and local scales. Soil moisture is likely to decline in many regions as a result of higher temperatures, and intense rainstorms are likely to become more frequent. Rising temperatures could have four major impacts on plants and animals: timing of ecological events; geographic distribution and range of species; species composition and the incidence of nonnative species within communities; and ecosystem processes, such as carbon cycling and storage (Parmesan 2006; State of California 2018).

4.4 Regulatory and Legal Setting

Federal Regulations

Federal Clean Air Act

The U.S. Supreme Court determined in *Massachusetts et al. v. Environmental Protection Agency et al.* ([2007] 549 U.S. 05-1120) that the USEPA has the authority to regulate motor vehicle GHG emissions under the federal Clean Air Act. The USEPA issued a Final Rule for mandatory reporting of GHG emissions in October 2009. This Final Rule applies to fossil fuel suppliers, industrial gas suppliers, direct GHG emitters, and manufacturers of heavy-duty and off-road vehicles and vehicle engines and requires annual reporting of emissions. In 2012, the USEPA issued a Final Rule that established the GHG permitting thresholds that determine when Clean Air Act permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities.

In *Utility Air Regulatory Group v. Environmental Protection Agency* (134 Supreme Court 2427 [2014]), the U.S. Supreme Court held the USEPA may not treat GHGs as an air pollutant for purposes of determining whether a source can be considered a major source required to obtain a Prevention of Significant Deterioration or Title V permit. The Court also held that Prevention of Significant Deterioration permits otherwise required based on emissions of other pollutants may continue to require limitations on GHG emissions based on the application of Best Available Control Technology.

Safer Affordable Fuel-Efficient Vehicles Rule

On September 27, 2019, the USEPA and the National Highway Traffic Safety Administration published the SAFE Vehicles Rule Part One: One National Program. The SAFE Rule Part One revokes California's authority to set its own GHG emissions standards and to adopt its own zero-emission vehicle mandates. On April 30, 2020, the USEPA and the National Highway Traffic Safety Administration published Part Two of the SAFE Vehicles Rule, which revised corporate average fuel economy and CO_2 emissions standards for passenger cars and trucks of model years 2021-2026 such that the standards increase by approximately 1.5 percent each year through model year 2026 as compared to the approximately five percent annual increase required under the 2012 standards (National Highway Traffic Safety Administration 2020). To account for the effects of the SAFE Vehicles Rule, CARB released off-model adjustment factors on June 26, 2020, to adjust GHG emissions outputs from the EMFAC model (CARB 2020).

State Regulations

CARB is responsible for the coordination and oversight of state and local air pollution control programs in California. There are numerous regulations aimed at reducing the state's GHG emissions. These initiatives are summarized below. For more information on the Senate and Assembly Bills, executive orders, building codes, and reports discussed below, and to view reports and research referenced below, please refer to the following websites: https://www.energy.ca.gov/data-reports/reports/californias-fourth-climate-change-assessment, www.arb.ca.gov/cc/cc.htm, and https://www.dgs.ca.gov/BSC/Codes.

California Advanced Clean Cars Program

Assembly Bill (AB) 1493 (2002), California's Advanced Clean Cars program (referred to as "Pavley"), requires CARB to develop and adopt regulations to achieve "the maximum feasible and cost-effective reduction of GHG emissions from motor vehicles." On June 30, 2009, the USEPA granted the waiver of Clean Air Act preemption to California for its GHG emission standards for motor vehicles, beginning with the 2009 model year, which allows California to implement more stringent vehicle emission standards than those promulgated by the USEPA. Pavley I regulates model years from 2009 to 2016 and Pavley II, now referred to as "LEV (Low Emission Vehicle) III GHG," regulates model years from 2017 to 2025. The Advanced Clean Cars program coordinates the goals of the LEV, Zero Emissions Vehicles (ZEV), and Clean Fuels Outlet programs and would provide major reductions in GHG emissions. By 2025, the rules will be fully implemented, and new automobiles will emit 34 percent fewer GHGs and 75 percent fewer smog-forming emissions from their model year 2016 levels (CARB 2011).

California Global Warming Solutions Act of 2006 (Assembly Bill 32 and Senate Bill 32)

The "California Global Warming Solutions Act of 2006," (AB 32), outlines California's major legislative initiative for reducing GHG emissions. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 and requires CARB to prepare a Scoping Plan that outlines the main state strategies for reducing GHG emissions to meet the 2020 deadline. In addition, AB 32 requires CARB to adopt regulations to require reporting and verification of statewide GHG emissions. Based on this guidance, CARB approved a 1990 statewide GHG level and 2020 target of 431 MMT CO_2e, which was achieved in 2016. CARB approved the Scoping Plan on December 11, 2008, which included GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among others (CARB 2008). Many of the GHG reduction measures included in the Scoping Plan (e.g., Low Carbon Fuel Standard, Advanced Clean Car standards, and Cap-and-Trade) have been adopted since the Scoping Plan's approval.

The CARB approved the 2013 Scoping Plan update in May 2014. The update defined the CARB's climate change priorities for the next five years, set the groundwork to reach post-2020 statewide goals, and highlighted California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the original Scoping Plan. It also evaluated how to align the state's longer term GHG reduction strategies with other state policy priorities, including those for water, waste, natural resources, clean energy, transportation, and land use (CARB 2014).

On September 8, 2016, the governor signed Senate Bill (SB) 32 into law, extending the California Global Warming Solutions Act of 2006 by requiring the state to further reduce GHG emissions to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). On December 14, 2017, the CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program, and implementation of recently adopted policies and legislation, such as SB 1383 and SB 100 (discussed later). The 2017 Scoping Plan also puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies. As with the 2013 Scoping Plan update, the 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends that local governments adopt policies and locally appropriate quantitative thresholds consistent with statewide per capita goals of six MT CO_2e by 2030 and two MT CO_2e by 2050 (CARB 2017). As stated in the 2017 Scoping Plan, these goals may be appropriate for plan-level analyses (city, county, sub-regional, or regional level), but not for specific individual projects because they include all emissions sectors in the state (CARB 2017).

Senate Bill 375

The Sustainable Communities and Climate Protection Act of 2008 (SB 375), signed in August 2008, enhances the state's ability to reach AB 32 goals by directing the CARB to develop regional GHG emission reduction targets to be achieved from passenger vehicles by 2020 and 2035. SB 375 aligns regional transportation planning efforts, regional GHG reduction targets, and affordable housing allocations. Metropolitan Planning Organizations (MPOs) are required to adopt a Sustainable Communities Strategy (SCS), which allocates land uses in the MPO's Regional Transportation Plan (RTP). Qualified projects consistent with an approved SCS or Alternative Planning Strategy (categorized as "transit priority projects") can receive incentives to streamline CEQA processing.

On March 22, 2018, CARB adopted updated regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035. The Southern California Association of Governments (SCAG) was assigned targets of an 8 percent reduction in per capita GHG emissions from passenger vehicles by 2020 and a 19 percent reduction in per capita GHG emissions from passenger vehicles by 2035. In the SCAG region, SB 375 also provides the option for the coordinated development of subregional plans by the subregional councils of governments and the county transportation commissions to meet SB 375 requirements.

Senate Bill 1383

Adopted in September 2016, SB 1383 (Lara, Chapter 395, Statues of 2016) requires the CARB to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants. SB 1383 requires the strategy to achieve the following reduction targets by 2030:

- Methane – 40 percent below 2013 levels
- Hydrofluorocarbons – 40 percent below 2013 levels
- Anthropogenic black carbon – 50 percent below 2013 levels

SB 1383 also requires the California Department of Resources Recycling and Recovery (CalRecycle), in consultation with the CARB, to adopt regulations that achieve specified targets for reducing organic waste in landfills.

Senate Bill 100

Adopted on September 10, 2018, SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating the state's Renewables Portfolio Standard (RPS) Program, which was last updated by SB 350 in 2015. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

Executive Order B-55-18

On September 10, 2018, the former Governor Brown issued Executive Order (EO) B-55-18, which established a new statewide goal of achieving carbon neutrality by 2045 and maintaining net negative emissions thereafter. This goal is in addition to the existing statewide GHG reduction targets established by SB 375, SB 32, SB 1383, and SB 100.

California Building Standards Code

The California Code of Regulations (CCR) Title 24 is referred to as the California Building Standards Code. It consists of a compilation of several distinct standards and codes related to building construction including plumbing, electrical, interior acoustics, energy efficiency, and handicap accessibility for persons with physical and sensory disabilities. The current iteration is the 2019 Title 24 standards. The California Building Standards Code's energy-efficiency and green building standards are outlined below.

PART 6 – BUILDING ENERGY EFFICIENCY STANDARDS/ENERGY CODE

CCR Title 24, Part 6 is the Building Energy Efficiency Standards or California Energy Code. This code, originally enacted in 1978, establishes energy-efficiency standards for residential and non-residential buildings in order to reduce California's energy demand. New construction and major renovations must demonstrate their compliance with the current Energy Code through submittal and approval of a Title 24 Compliance Report to the local building permit review authority and the California Energy Commission (CEC). The 2019 Title 24 standards are the applicable building energy efficiency standards for the project because they became effective on January 1, 2020.

PART 11 – CALIFORNIA GREEN BUILDING STANDARDS

The California Green Building Standards Code, referred to as CALGreen, was added to Title 24 as Part 11, first in 2009 as a voluntary code, which then became mandatory effective January 1, 2011 (as part of the 2010 California Building Standards Code). The 2019 CALGreen includes mandatory minimum environmental performance standards for all ground-up new construction of residential and non-residential structures. It also includes voluntary tiers (Tiers I and II) with stricter environmental performance standards for these same categories of residential and non-residential buildings. Local jurisdictions must enforce the minimum mandatory CALGreen standards and may adopt additional amendments for stricter requirements.

The mandatory standards require:

- 20 percent reduction in indoor water use relative to specified baseline levels;[5]

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[5] Similar to the compliance reporting procedure for demonstrating Energy Code compliance in new buildings and major renovations, compliance with the CALGreen water-reduction requirements must be demonstrated through completion of water use reporting forms.

- 65 percent construction/demolition waste diverted from landfills;
- Inspections of energy systems to ensure optimal working efficiency;
- Low-pollutant emitting exterior and interior finish materials such as paints, carpets, vinyl flooring, and particleboards;
- Dedicated circuitry to facilitate installation of electric vehicle charging stations in newly constructed attached garages for single-family and duplex dwellings; and
- Installation of electric vehicle charging stations at least three percent of the parking spaces for all new multi-family developments with 17 or more units.

The voluntary standards require:

- **Tier I:** stricter energy efficiency requirements, stricter water conservation requirements for specific fixtures, 65 percent reduction in construction waste with third-party verification, 10 percent recycled content for building materials, 20 percent permeable paving, 20 percent cement reduction, and cool/solar reflective roof; and
- **Tier II:** stricter energy efficiency requirements, stricter water conservation requirements for specific fixtures, 75 percent reduction in construction waste with third-party verification, 15 percent recycled content for building materials, 30 percent permeable paving, 25 percent cement reduction, and cool/solar reflective roof.

California Integrated Waste Management Act (Assembly Bill 341)

The California Integrated Waste Management Act of 1989, as modified by AB 341 in 2011, requires each jurisdiction's source reduction and recycling element to include an implementation schedule that shows: (1) diversion of 25 percent of all solid waste by January 1, 1995, through source reduction, recycling, and composting activities and (2) diversion of 50 percent of all solid waste on and after January 1, 2000.

Executive Order N-79-20

On September 23, 2020, Governor Newsom issued EO N-79-20, which established the following new statewide goals:

- All new passenger cars and trucks sold in-state to be zero-emission by 2035;
- All medium- and heavy-duty vehicles in the state to be zero-emission by 2045 for all operations where feasible and by 2035 for drayage trucks; and
- All off-road vehicles and equipment to be zero-emission by 2035 where feasible.

EO N-79-20 directs CARB, the Governor's Office of Business and Economic Development, the CEC, the California Department of Transportation, and other state agencies to take steps toward drafting regulations and strategies and leveraging agency resources toward achieving these goals.

Buildings must demonstrate a 20 percent reduction in indoor water use by either showing a 20 percent reduction in the overall baseline water use as identified in CALGreen or a reduced per-plumbing-fixture water use rate.

Local Regulations

2020-2045 Regional Transportation Plan/Sustainable Communities Strategy

SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties, and addresses regional issues relating to transportation, the economy, community development and the environment. On September 3, 2020, SCAG's Regional Council formally adopted the 2020-2045 RTP/SCS (titled Connect SoCal). The 2020-2045 RTP/SCS builds upon the progress made through implementation of the 2016-2040 RTP/SCS and includes ten goals focused on promoting economic prosperity, improving mobility, protecting the environment, and supporting healthy/complete communities. The SCS implementation strategies include focusing growth near destinations and mobility options, promoting diverse housing choices, leveraging technology innovations, and supporting implementation of sustainability policies. The SCS establishes a land use vision of center focused placemaking, concentrating growth in and near Priority Growth Areas, transferring of development rights, urban greening, creating greenbelts and community separators, and implementing regional advance mitigation (SCAG 2020).

City of Fontana General Plan

The City of Fontana's General Plan (2018) does not have a specific GHG element. However, the following policies from the Infrastructure and Green Systems and the Sustainability and Resilience Elements would be applicable:

INFRASTRUCTURE AND GREEN SYSTEMS ELEMENT

- **Goal 2 Policy:** Encourage use of processed water from the IEUA systems using recycled water for all non-drinking water purposes.
- **Goal 3 Policy:** Support landscaping in public and private spaces with drought-resistant plants.
- **Goal 5 Policy:** Support incorporation of greywater systems in new developments
- **Goal 7 Policy:** Promote renewable energy and distributed energy systems in new development and retrofits of existing development to work towards the highest levels of low-carbon energy-efficiency.
- **Goal 8 Policy:** Continue to maximize landfill capacity by supporting recycling innovations, such as organic waste recycling for compost

SUSTAINABILITY AND RESILIENCE ELEMENT

- **Goal 3 Policy:** Promote renewable energy programs for government, Fontana business, and Fontana residences.
- **Goal 5 Policy:** Promote green building through guidelines, awards, and nonfinancial incentives.
- **Goal 6 Policy:** Promote energy-efficient development in Fontana
- **Goal 6 Policy:** Meet or exceed state goals for energy-efficient new construction.
- **Goal 7 Policy:** Continue to promote and implement best practices to conserve water.

5 Greenhouse Gas Impact Analysis

5.1 Methodology

Calculations of CO_2, CH_4, and N_2O emissions are provided to identify the magnitude of potential project effects. The analysis focuses on CO_2, CH_4, and N_2O because these make up 98 percent of all GHG emissions by volume and are the GHG emissions the project would emit in the largest quantities (IPCC 2014a). Emissions of all GHGs are converted into their equivalent GWP in terms of CO_2 (i.e., CO_2e). Minimal amounts of other GHGs (such as chlorofluorocarbons [CFCs]) would be emitted; however, these other GHG emissions would not substantially add to the total GHG emissions. GHG emissions associated with the Specific Plan Amendment were calculated using CalEEMod version 2020.4.0 (see Appendix A for calculations). Calculations are based on the methodologies discussed in the California Air Pollution Control Officers Association (CAPCOA) CEQA and Climate Change white paper (CAPCOA 2008).

Construction Emissions

Construction activities emit GHGs primarily though combustion of fuels (mostly diesel) in the engines of off-road construction equipment, on-road construction vehicles (e.g., water and material delivery trucks), and the commute vehicles of construction workers. Smaller amounts of GHGs are emitted indirectly through the energy required for water used for fugitive dust control and lighting for the construction activity. Every phase of the construction process, including site preparation, grading, building construction, paving, and architectural coating, emits GHG emissions in volumes proportional to the quantity and type of construction equipment used. Heavier equipment typically emits more GHGs per hour than lighter equipment because of its engine design and greater fuel consumption requirements.

CalEEMod estimates construction emissions by multiplying the time equipment is in operation by emission factors. Construction would begin in January 2022 and would be completed in 2029 based on CalEEMod default assumptions. The South Coast Air Quality Management District recommends amortizing construction-related emissions over a 30-year period in conjunction with the project's operational emissions (SCAQMD 2008b). This guidance is used in this analysis.

Operational Emissions

Area Source Emissions

Emissions associated with area sources, including consumer products, landscape maintenance, and architectural coating, were calculated in CalEEMod and utilize standard emission rates from CARB, USEPA, and emission factor values provided by the local air district (CAPCOA 2021, Appendix A).

Energy Use Emissions

GHGs are emitted on-site during the combustion of natural gas for space and water heating and off-site during the generation of electricity from fossil fuels in power plants. CalEEMod estimates GHG emissions from energy use by multiplying average rates of residential and non-residential energy consumption by the quantities of residential units and non-residential square footage entered in the land use module to obtain total projected energy use. This value is then multiplied by electricity and natural gas GHG emission factors applicable to the project location and utility provider.

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

The project would be served by SCE. Therefore, SCE's specific energy intensity factors (i.e., the amount of CO_2e per megawatt-hour) are used in the calculations of GHG emissions (CAPCOA 2021, Appendix D).

Mobile Source Emissions

For mobile sources, CO_2 N_2O, and CH_4 emissions were quantified in CalEEMod based on trip generation rates provided by Urban Crossroads. To calculate mobile source emissions, CalEEMod used CO_2 emission factors from the EMFAC2017 Emissions Inventory based on the aggregated model year and aggregated speed for the SCAQMD region and CH_4 and N_2O emission factors provided by CARB for the project's first year of full operations (CAPCOA 2021, Appendix D).

Water and Wastewater Emissions

Water used and wastewater produced by a project generate indirect GHG emissions. These emissions are a result of the energy used to supply, convey, and treat water and wastewater. In addition to the indirect GHG emissions associated with energy use, the wastewater treatment process itself can directly emit both CH_4 and N_2O.

The indoor and outdoor water use consumption data for each land use subtype comes from the Pacific Institute's *Waste Not, Want Not: The Potential for Urban Water Conservation in California* (2003).[6] Based on that report, a percentage of total water consumption was dedicated to landscape irrigation, which is used to determine outdoor water use. Wastewater generation was similarly based on a reported percentage of total indoor water use.

Solid Waste Emissions

The disposal of solid waste produces GHG emissions from the transportation of waste, anaerobic decomposition in landfills, and incineration. To calculate the GHG emissions generated by solid waste disposal, the total volume of solid waste was calculated using waste disposal rates identified by CalRecycle. The methods for quantifying GHG emissions from solid waste are based on the IPCC method, using the degradable organic content of waste. GHG emissions associated with the project's waste disposal were calculated using these parameters.

Service Population

The project's per person GHG emissions were calculated by dividing total GHG emissions by the project's service population (residents plus employees). Average household size varies throughout California; therefore, the service population attributed to this project is based on average household size data specific to Fontana. A household size of 4.07 persons per dwelling unit was used based on

[6] California Emissions Estimator Model User Guide, Appendix D (CAPCOA 2021)

the City of Fontana's General Plan (City of Fontana 2017), which is sourced from the California Department of Finance's 2016 persons per household rate. For the commercial uses, the rate of 1,009 square feet per employee from the SCAQMD Employment Density Study Summary Report was used (SCAQMD 2001). Table 10 summarizes the service population. Based on these rates, the full buildout of the Specific Plan would generate 6,801 residents and 473 employees for a total of 7,274 persons.

Table 10 Proposed Specific Plan Employment Forecasts

Land Use	Density Factor	Full Buildout Units	Full Buildout Service Population
Residential	4.07 Persons/DU	1,671 DR	6,801 Population
Commercial	1,009 SF/Employee	476,500 SF	473 Employees
Total	–	–	**7,274 Persons**

DU = dwelling unit; SF = square feet

These density factors are consistent with the Specific Plan's Traffic Study.

Source: City of Fontana 2017, SCAQMD 2001

5.2 Significance Thresholds

Based on Appendix G of the CEQA Guidelines, impacts related to GHG emissions from the Specific Plan Amendment would be significant if the project would:

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

The vast majority of individual projects do not generate sufficient GHG emissions to directly influence climate change. However, physical changes caused by a project can contribute incrementally to significant cumulative effects, even if individual changes resulting from a project are limited. As a result, the issue of climate change typically involves an analysis of whether a project's contribution towards an impact would be cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines Section 15064[h][1]).

According to *CEQA Guidelines* Section 15183.5, project analysis can tier off of a qualified GHG reduction plan, which allows for project-level evaluation of GHG emissions through the comparison of the project's consistency with the GHG reduction policies included in a qualified GHG reduction plan. This approach is considered by the Association of Environmental Professionals (AEP) in their white paper, *Beyond Newhall and 2020*, to be the most defensible approach presently available under CEQA to determine the significance of a project's GHG emissions (AEP 2016). However, the City of Fontana has not published a qualified GHG reduction plan. The City of Fontana Climate Action Plan published in August 2015 was only a draft and never formally adopted. In addition, the document did not address SB 32. Therefore, this approach is not currently feasible for this analysis.

In the absence of a qualified GHG reduction plan, the 2017 Scoping Plan recommends statewide targets that are appropriate at the plan-level. As discussed in the 2017 Scoping Plan goals, local jurisdictions may demonstrate consistency with Scoping Plan goals (i.e., SB 32's emission reduction target) by establishing communitywide emissions targets tied to the statewide per capita goals of 6 $MTCO_2e$ per capita by 2030. Based on SCAG Regional Growth Forecasts, the City of Fontana is anticipated to have a population of approximately 247,196 persons and 65,619 jobs in 2030. As shown in Table 11, the communitywide emissions target of 6 MT CO_2e may be equated to approximately 4.7 MT CO_2e/SP.

Table 11 GHG Performance Threshold Determination

Metric	Quantity
Service Population	
2030 Population	247,196 persons
2030 Employment	65,619 jobs
2030 Service Population	312,815 SP
2030 Communitywide Target Derivation	
Per Capita Target	6.0 MT CO_2e per capita
Mass Emissions Target[1]	1,483,176 MT CO_2e
Service Population Target[2]	4.7 MT CO_2e/SP

MT CO_2e = metric tons of carbon dioxide equivalent; SP = service population

[1]6.0 MT CO_2e per capita * 247,196 persons = 1,483,176 MT CO_2e

[2]1,483,176 MT CO_2e/312,815 SP = 4.7 MT CO_2e/SP

Source: 2020-2045 Growth Forecast (SCAG 2020)

5.3 Impact Analysis

Threshold 1: Would the Specific Plan Amendment generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

IMPACT GHG-1 CONSTRUCTION AND OPERATION OF THE PROPOSED VENTANA AT DUNCAN CANYON SPECIFIC PLAN AMENDMENT WOULD GENERATE TEMPORARY AND LONG-TERM INCREASES IN GHG EMISSIONS THAT WOULD NOT RESULT IN A SIGNIFICANT IMPACT ON THE ENVIRONMENT RELATED TO CLIMATE CHANGE. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Construction and operation development allowed by the Specific Plan Amendment would generate GHG emissions. This analysis considers the combined impact of GHG emissions from both construction and operation. Calculations of CO_2, CH_4, and N_2O emissions are provided to identify the magnitude of potential project effects.

Construction Emissions

Construction facilitated by the Specific Plan Amendment would generate temporary GHG emissions primarily from the operation of construction equipment on-site as well as from vehicles transporting construction workers to and from the project site and heavy trucks to transport building materials and soil export. As shown in Table 12, construction associated with the full buildout of the Specific Plan Amendment would generate 7,191 MT CO_2e. Amortized over a 30-year period per SCAQMD guidance, construction associated with the full buildout of the Specific Plan Amendment would generate 240 MT CO_2e per year.

Table 12 Construction GHG Emissions

Phase	Year	Project Emissions MT CO_2e
Phase 1	2022	1,920
	2023	1,294
Phase 2	2023	89
	2024	759
	2025	162
Phase 3	2025	598
	2026	1,061
	2027	690
	2028	63
Phase 4	2028	317
	2029	238
Total		**7,191**
Amortized over 30 Years		**240**

MT CO_2e = metric tons of carbon dioxide equivalent

Source: Appendix A CalEEMod worksheets

Combined Annual Emissions

Operation of the full buildout allowed by the Specific Plan Amendment would generate GHG emissions associated with area sources (e.g., landscape maintenance), energy and water usage, vehicle trips, and wastewater and solid waste generation. Annual operational emissions resulting from full buildout of the Specific Plan Amendment are summarized in Table 13.The GHG emissions combine the amortized construction emissions.

The full buildout of the Specific Plan Amendment would generate approximately 19,313 MT CO_2e. The emissions would be 2.7 MT CO_2e per year per service population. These emissions would be below the 4.7 MT CO_2e per service population level necessary to demonstrate consistency with the statewide 2030 GHG reduction targets established by SB 32. Therefore, the Specific Plan Amendment would be consistent with the statewide 2030 GHG reduction targets established by SB 32. Impacts would be less than significant.

Table 13 Full Buildout Combined Annual Emissions – 2030

Emission Source	Annual Emissions (MT CO_2e)
Construction[1]	**240**
Operational	**19,073**
Area	29
Energy	5,161
Mobile	11,612
Solid Waste	1,612
Water	659

Emission Source	Annual Emissions (MT CO_2e)
Total	**19,313**
Service Population	7,274
Emissions per Service Population	**2.7**
2017 CARB Scoping Plan Communitywide Threshold[2]	4.7
Exceed Threshold?	**No**

MT CO_2e = metric tons of carbon dioxide equivalent
[1] Amortized construction related GHG emissions over 30 years
[2] The 4.7 $MTCO_2e$/SP is a communitywide threshold derived from the 2017 CARB Scoping Plan
Source: Appendix A CalEEMod worksheets

Threshold 2:	Would the Specific Plan Amendment conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?

IMPACT GHG-2 THE VENTANA AT DUNCAN CANYON SPECIFIC PLAN AMENDMENT WOULD NOT CONFLICT WITH THE 2017 SCOPING PLAN NOR THE SCAG 2020-2045 RTP/SCS. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Several plans and policies have been adopted to reduce GHG emissions in the southern California region, including the State's 2017 Scoping Plan and SCAG's 2020-2045 RTP/SCS. The Ventana at Duncan Canyon Specific Plan Amendment's consistency with these plans is discussed in the following subsections.

2017 Scoping Plan

The principal state plans and policies are AB 32, the California Global Warming Solutions Act of 2006, and the subsequent legislation, SB 32. The quantitative goal of AB 32 is to reduce GHG emissions to 1990 levels by 2020 and the goal of SB 32 is to reduce GHG emissions to 40 percent below 1990 levels by 2030. Pursuant to the SB 32 goal, the 2017 Scoping Plan was created to outline goals and measures for the state to achieve the reductions. The 2017 Scoping Plan's strategies that are applicable to the Specific Plan Amendment include reducing fossil fuel use, energy demand, and VMT; maximizing recycling and diversion from landfills; and increasing water conservation. The Specific Plan would be consistent with these goals through project design, which includes complying with the latest Title 24 Green Building Code and Building Efficiency Energy Standards, providing EV parking spaces and charging equipment, and complying with the AB 341 waste diversion goal of 75 percent. Cumulative VMT would also decrease with development of the Specific Plan Amendment. In addition, the project would receive electricity from SCE, which is required to reduce GHG emissions by increasing procurement from eligible renewable energy by set target years. Furthermore, as discussed in Impact GHG-1, the Specific Plan Amendment would not exceed the 2030 communitywide service population threshold derived from the 2017 Scoping Plan recommendations for demonstrating consistency with the SB 2030 target. Therefore, the project would be not conflict with the 2017 Scoping Plan.

Connect SoCal: 2020-2045 SCAG RTP/SCS

The SCAG *Connect SoCal RTP/SCS* is forecast to help California reach its GHG reduction goals by reducing GHG emissions from passenger cars by 8 percent below 2005 levels by 2020 and

19 percent by 2035 in accordance with the most recent CARB targets adopted in March 2018. The 2020-2045 RTP/SCS includes ten goals with corresponding implementation strategies for focusing growth near destinations and mobility options, promoting diverse housing choices, leveraging technology innovations, and supporting implementation of sustainability policies. The project would also be consistent with relevant goals and strategies embodied in Chapter 3, *A Path to Greater Access, Mobility & Sustainability*, of the Connect SoCal (SCAG 2020). These strategies include similar measures to the 2017 Scoping Plan, such as encouraging use of electric vehicles. The project's consistency with the 2020-2045 RTP/SCS is discussed in Table 14. As shown therein, the Specific Plan Amendment would be consistent with the GHG emission reduction strategies contained in the 2020-2045 RTP/SCS.

Therefore, given the aforementioned, the Specific Plan Amendment is consistent with State and local policies for reducing GHG emissions and impacts would be less than significant.

Table 14 Project Consistency with Applicable SCAG 2020-2045 RTP/SCS Strategies

Reduction Strategy	Project Consistency
Focus Growth Near Destinations & Mobility Options.	
▪ Emphasize land use patterns that facilitate multimodal access to work, educational and other destinations ▪ Focus on a regional jobs/housing balance to reduce commute times and distances and expand job opportunities near transit and along center-focused main streets ▪ Plan for growth near transit investments and support implementation of first/last mile strategies ▪ Promote the redevelopment of underperforming retail developments and other outmoded nonresidential uses ▪ Prioritize infill and redevelopment of underutilized land to accommodate new growth, increase amenities and connectivity in existing neighborhoods ▪ Encourage design and transportation options that reduce the reliance on and number of solo car trips (this could include mixed uses or locating and orienting close to existing destinations) ▪ Identify ways to "right size" parking requirements and promote alternative parking strategies (e.g., shared parking or smart parking)	**Consistent.** The project would allow for high-density infill developments on vacant parcels. Medium density residences, high density residences, mixed-use, commercial use, and open space would be constructed in an urbanized area near existing residences and other commercial uses. Thus, providing additional amenities and services to the regional area. The project would also redevelop Duncan Canyon Road, Citrus Avenue, and Lytle Creek Road to provide more access to the site. Proposed land uses allowed by the project would be in close proximity to the City of Fontana's regional trails, which include existing bike lanes and walking trails that connect to parks and other commercial uses within the city. Notable destinations include the Fontana North Skate Park and the Fontana Park Aquatic Center, which are approximately 0.3 mile south of the plan site. The plan would also provide bus stops along Lytle Creek Road for the Omnitrans Route 82 and the bus stops would be approximately half a mile south of the plan's southern boundary. This bus route specifically provides stops in Fontana, Ontario, and Rancho Cucamonga. Omnitrans also services all of the urbanized southwestern sections of San Bernardino County with some services in Riverside and Los Angeles Counties. Furthermore, the project would be required to implement TCMs to reduce vehicular emissions from SOVs per Mitigation Measure 4.5.4 from the 2007 EIR, which require transportation control measures to reduce trips. Therefore, the proposed project would focus growth near destinations, and increase amenities and connectivity in existing neighborhoods.

Reduction Strategy	Project Consistency
Promote Diverse Housing Choices	
▪ Preserve and rehabilitate affordable housing and prevent displacement ▪ Identify funding opportunities for new workforce and affordable housing development ▪ Create incentives and reduce regulatory barriers for building context-sensitive accessory dwelling units to increase housing supply ▪ Provide support to local jurisdictions to streamline and lessen barriers to housing development that supports reduction of greenhouse gas emissions	**Consistent.** The project will add a total of 538 medium density and 396 high density residential units to Fontana's housing supply Furthermore, the project would integrate 19.4 acres of commercial uses which would provide nearby jobs and reduce vehicle trips.
Leverage Technology Innovations.	
▪ Promote low emission technologies such as neighborhood electric vehicles, shared rides hailing, car sharing, bike sharing and scooters by providing supportive and safe infrastructure such as dedicated lanes, charging and parking/drop-off space ▪ Improve access to services through technology—such as telework and telemedicine as well as other incentives such as a "mobility wallet," an app-based system for storing transit and other multi-modal payments ▪ Identify ways to incorporate "micro-power grids" in communities, for example solar energy, hydrogen fuel cell power storage and power generation	**Consistent.** Future development allowed under the project would need to comply with the electric vehicle requirements in the CALGreen code. In addition, Wi-Fi hotspots and adequate telecommunications in all future residences will be provided as required per Mitigation Measure 4.5.4 from the 2007 EIR. Thus, the project would promote low emission technologies and improve access to services through technology.
Support Implementation of Sustainability Policies.	
▪ Pursue funding opportunities to support local sustainable development implementation projects that reduce GHG emissions ▪ Support statewide legislation that reduces barriers to new construction and that incentivizes development near transit corridors and stations ▪ Support local jurisdictions in the establishment of Enhanced Infrastructure Financing Districts (EIFDs), Community Revitalization and Investment Authorities (CRIAs), or other tax increment or value capture tools to finance sustainable infrastructure and development projects, including parks and open space ▪ Work with local jurisdictions/communities to identify opportunities and assess barriers to implement sustainability strategies ▪ Enhance partnerships with other planning organizations to promote resources and best practices in the SCAG region ▪ Continue to support long range planning efforts by local jurisdictions ▪ Provide educational opportunities to local decision makers and staff on new tools, best practices and policies related to implementing the Sustainable Communities Strategy	**Not Applicable.** These measures are applicable to municipal actions as opposed to individual developments. The project would not conflict with any of these policies.

Reduction Strategy	Project Consistency
Promote a Green Region.	
▪ Support development of local climate adaptation and hazard mitigation plans, as well as project implementation that improves community resiliency to climate change and natural hazards ▪ Support local policies for renewable energy production, reduction of urban heat islands and carbon sequestration ▪ Integrate local food production into the regional landscape ▪ Promote more resource efficient development focused on conservation, recycling and reclamation ▪ Preserve, enhance and restore regional wildlife connectivity ▪ Reduce consumption of resource areas, including agricultural land ▪ Identify ways to improve access to public park space	**Consistent.** The project is an infill development that would involve construction of residences and commercial uses in an urbanized area and would therefore not interfere with regional wildlife connectivity or convert agricultural land. The project would comply with applicable conservation policies such as the Fontana General Plan, Title 24, and CALGreen. Therefore, the project would support development of a green region.

Source: SCAG 2020

Cumulative	Would the Specific Plan Amendment result in cumulative impacts related to greenhouse gas emissions?

IMPACT GHG-3 IMPACTS RELATED TO GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE ARE, BY DEFINITION, CUMULATIVE IMPACTS, AS THEY AFFECT THE ACCUMULATION OF GREENHOUSE GASES IN THE ATMOSPHERE. THE VENTANA AT DUNCAN CANYON SPECIFIC PLAN AMENDMENT WOULD BE CONSISTENT WITH APPLICABLE PLANS AND PROGRAMS AIMED AT REDUCING EMISSIONS. THEREFORE, THE SPECIFIC PLAN'S CUMULATIVE IMPACTS WOULD NOT BE CUMULATIVELY CONSIDERABLE.

The geographic scope for related projects considered in the cumulative impact analysis for GHG emissions is global because the impacts of climate change are experienced on a global scale regardless of the location of GHG emission sources. Therefore, GHG emissions and climate change are, by definition, cumulative impacts. As discussed under Section 2.3, *Potential Effects of Climate Change*, the adverse environmental impacts of cumulative GHG emissions, including sea level rise, increased average temperatures, more drought years, and more large forest fires, are already occurring. As a result, cumulative impacts related to GHG emissions are significant. Therefore, the issue of climate change involves an analysis of whether a project's contribution towards an impact is cumulatively considerable. Refer to Impacts GHG-1 and GHG-2 for detailed discussions of the impacts of the Specific Plan Amendment related to climate change and GHG emissions. As discussed therein, Specific Plan Amendment's impacts related to GHG emissions would be less than significant and would therefore not be cumulatively considerable.

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Appendix A

California Emissions Estimator Model (CalEEMod) Outputs and Amicus Briefs

Appendix A.1

CalEEMod Construction Outputs

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

Ventana Specific Plan Planning Areas 1 & 2

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	26.00	1000sqft	9.70	26,000.00	0
Other Asphalt Surfaces	17.50	Acre	17.50	762,300.00	0
Apartments Mid Rise	538.00	Dwelling Unit	20.70	538,000.00	1539
Strip Mall	154.00	1000sqft	0.00	154,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	473.62	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction and operation for Planning Areas 1 & 3. Adjusted intensity factor for SCE based on SB 100 2024 RPS target

Land Use - Planning Area 1 = 538 DUs on 20.7 acres. Planning Area 2 = 154 ksf strip mall & 26 ksf medical office. 17.5 acres of arterial and backbone roads

Construction Phase - No demolition phase. Construction would occur from 2022-late 2023. Used the CalEEMod phase length for a 25-acre site. Adjusting arch coating to overlap with building con and be half the phase length of build con

Off-road Equipment - Equipment quantities scaled up based on acerage used for construction length

Off-road Equipment - Equipment quantities scaled up based on acerage used for construction length

Off-road Equipment - Equipment quantities scaled up based on acerage used for construction length

Off-road Equipment - Equipment quantities scaled up based on acerage used for construction length

Off-road Equipment - Equipment quantities scaled up based on acerage used for construction length

Grading - Balanced onsite

Architectural Coating - SCAQMD Rule 1113

Vehicle Trips - Trip gen rates from TA with internal capture reduction adjustment. No pass-by adjustment included

Woodstoves - No woodstoves or hearths

Area Coating - SCAQMD Rule 1113

Water And Wastewater - No spectic tanks proposed and no faculative lagoons. 100% aerobic

Construction Off-road Equipment Mitigation - SCAQMD Rule 403, Mitigation Measure 4.5.1 requries 3x day watering

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	30.00	10.00
tblConstructionPhase	NumDays	75.00	35.00
tblConstructionPhase	NumDays	740.00	370.00
tblConstructionPhase	NumDays	55.00	185.00
tblConstructionPhase	NumDays	55.00	35.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	457.30	0.00
tblFireplaces	NumberNoFireplace	53.80	0.00
tblFireplaces	NumberWood	26.90	0.00
tblLandUse	LotAcreage	0.60	9.70
tblLandUse	LotAcreage	14.16	20.70
tblLandUse	LotAcreage	3.54	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	8.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblProjectCharacteristics	CH4IntensityFactor	0.033	0.029
tblProjectCharacteristics	CO2IntensityFactor	390.98	473.62
tblVehicleTrips	ST_TR	4.91	3.21
tblVehicleTrips	ST_TR	8.57	6.67
tblVehicleTrips	ST_TR	42.04	13.71
tblVehicleTrips	SU_TR	4.09	2.67
tblVehicleTrips	SU_TR	1.42	1.11
tblVehicleTrips	SU_TR	20.43	6.66
tblVehicleTrips	WD_TR	5.44	3.55
tblVehicleTrips	WD_TR	34.80	27.09
tblVehicleTrips	WD_TR	44.32	14.46
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00

tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	26.90	0.00
tblWoodstoves	NumberNoncatalytic	26.90	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.8456	6.3860	8.0496	0.0207	1.5743	0.2639	1.8382	0.5126	0.2469	0.7594	0.0000	1,889.8816	1,889.8816	0.2265	0.0816	1,919.8612
2023	3.2102	3.6307	6.0217	0.0154	0.9151	0.1476	1.0627	0.2454	0.1392	0.3846	0.0000	1,412.0482	1,412.0482	0.1371	0.0587	1,432.9702
Maximum	**3.2102**	**6.3860**	**8.0496**	**0.0207**	**1.5743**	**0.2639**	**1.8382**	**0.5126**	**0.2469**	**0.7594**	**0.0000**	**1,889.8816**	**1,889.8816**	**0.2265**	**0.0816**	**1,919.8612**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.8456	6.3860	8.0496	0.0207	1.2579	0.2639	1.5218	0.3729	0.2469	0.6198	0.0000	1,889.8808	1,889.8808	0.2265	0.0816	1,919.8603
2023	3.2102	3.6307	6.0217	0.0154	0.9151	0.1476	1.0627	0.2454	0.1392	0.3846	0.0000	1,412.0476	1,412.0476	0.1371	0.0587	1,432.9696
Maximum	**3.2102**	**6.3860**	**8.0496**	**0.0207**	**1.2579**	**0.2639**	**1.5218**	**0.3729**	**0.2469**	**0.6198**	**0.0000**	**1,889.8808**	**1,889.8808**	**0.2265**	**0.0816**	**1,919.8603**

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	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	12.71	0.00	10.91	18.42	0.00	12.21	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	1-3-2022	4-2-2022	2.3210	2.3210
2	4-3-2022	7-2-2022	1.6050	1.6050
3	7-3-2022	10-2-2022	1.6231	1.6231
4	10-3-2022	1-2-2023	1.6428	1.6428
5	1-3-2023	4-2-2023	2.3995	2.3995
6	4-3-2023	7-2-2023	2.4732	2.4732
7	7-3-2023	9-30-2023	1.5281	1.5281
		Highest	2.4732	2.4732

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.0735	0.0640	5.5520	2.9000e-004		0.0307	0.0307		0.0307	0.0307	0.0000	9.0678	9.0678	8.7300e-003	0.0000	9.2860
Energy	0.0440	0.3775	0.1693	2.4000e-003		0.0304	0.0304		0.0304	0.0304	0.0000	1,346.4099	1,346.4099	0.0641	0.0157	1,352.6852
Mobile	2.0289	2.3490	19.7021	0.0418	4.3158	0.0313	4.3471	1.1518	0.0291	1.1808	0.0000	3,904.0702	3,904.0702	0.2681	0.1814	3,964.8210
Waste						0.0000	0.0000		0.0000	0.0000	140.0597	0.0000	140.0597	8.2773	0.0000	346.9920
Water						0.0000	0.0000		0.0000	0.0000	17.5919	210.0035	227.5954	0.0734	0.0400	241.3596
Total	**5.1465**	**2.7905**	**25.4234**	**0.0445**	**4.3158**	**0.0924**	**4.4082**	**1.1518**	**0.0902**	**1.2419**	**157.6516**	**5,469.5514**	**5,627.2030**	**8.6917**	**0.2371**	**5,915.1439**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.0735	0.0640	5.5520	2.9000e-004		0.0307	0.0307		0.0307	0.0307	0.0000	9.0678	9.0678	8.7300e-003	0.0000	9.2860
Energy	0.0440	0.3775	0.1693	2.4000e-003		0.0304	0.0304		0.0304	0.0304	0.0000	1,346.4099	1,346.4099	0.0641	0.0157	1,352.6852
Mobile	2.0289	2.3490	19.7021	0.0418	4.3158	0.0313	4.3471	1.1518	0.0291	1.1808	0.0000	3,904.0702	3,904.0702	0.2681	0.1814	3,964.8210
Waste						0.0000	0.0000		0.0000	0.0000	140.0597	0.0000	140.0597	8.2773	0.0000	346.9920
Water						0.0000	0.0000		0.0000	0.0000	17.5919	210.0035	227.5954	0.0734	0.0400	241.3596
Total	**5.1465**	**2.7905**	**25.4234**	**0.0445**	**4.3158**	**0.0924**	**4.4082**	**1.1518**	**0.0902**	**1.2419**	**157.6516**	**5,469.5514**	**5,627.2030**	**8.6917**	**0.2371**	**5,915.1439**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/3/2022	1/14/2022	5	10	
2	Grading	Grading	1/15/2022	3/4/2022	5	35	
3	Building Construction	Building Construction	3/5/2022	8/4/2023	5	370	

4	Architectural Coating	Architectural Coating	1/9/2023	9/22/2023	5	185	
5	Paving	Paving	9/23/2023	11/10/2023	5	35	

Acres of Grading (Site Preparation Phase): 30

Acres of Grading (Grading Phase): 210

Acres of Paving: 17.5

Residential Indoor: 1,089,450; Residential Outdoor: 363,150; Non-Residential Indoor: 270,000; Non-Residential Outdoor: 90,000; Striped Parking Area: 45,738 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	6	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	8	8.00	97	0.37
Grading	Excavators	4	8.00	158	0.38
Grading	Graders	2	8.00	187	0.41
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Scrapers	4	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Cranes	2	7.00	231	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Architectural Coating	Air Compressors	2	6.00	78	0.48
Paving	Pavers	4	8.00	130	0.42
Paving	Paving Equipment	4	8.00	132	0.36
Paving	Rollers	4	8.00	80	0.38

Trips and VMT

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

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	14	35.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	16	40.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	765.00	212.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	153.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	12	30.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1966	0.0000	0.1966	0.1010	0.0000	0.1010	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.3308	0.1970	3.8000e-004		0.0161	0.0161		0.0148	0.0148	0.0000	33.4394	33.4394	0.0108	0.0000	33.7098
Total	**0.0317**	**0.3308**	**0.1970**	**3.8000e-004**	**0.1966**	**0.0161**	**0.2127**	**0.1010**	**0.0148**	**0.1159**	**0.0000**	**33.4394**	**33.4394**	**0.0108**	**0.0000**	**33.7098**

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.7000e-004	6.2100e-003	2.0000e-005	1.9200e-003	1.0000e-005	1.9300e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.5625	1.5625	4.0000e-005	4.0000e-005	1.5760
Total	**5.9000e-004**	**4.7000e-004**	**6.2100e-003**	**2.0000e-005**	**1.9200e-003**	**1.0000e-005**	**1.9300e-003**	**5.1000e-004**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**1.5625**	**1.5625**	**4.0000e-005**	**4.0000e-005**	**1.5760**

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					0.0767	0.0000	0.0767	0.0394	0.0000	0.0394	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.3308	0.1970	3.8000e-004		0.0161	0.0161		0.0148	0.0148	0.0000	33.4394	33.4394	0.0108	0.0000	33.7097
Total	**0.0317**	**0.3308**	**0.1970**	**3.8000e-004**	**0.0767**	**0.0161**	**0.0928**	**0.0394**	**0.0148**	**0.0542**	**0.0000**	**33.4394**	**33.4394**	**0.0108**	**0.0000**	**33.7097**

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.7000e-004	6.2100e-003	2.0000e-005	1.9200e-003	1.0000e-005	1.9300e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.5625	1.5625	4.0000e-005	4.0000e-005	1.5760
Total	**5.9000e-004**	**4.7000e-004**	**6.2100e-003**	**2.0000e-005**	**1.9200e-003**	**1.0000e-005**	**1.9300e-003**	**5.1000e-004**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**1.5625**	**1.5625**	**4.0000e-005**	**4.0000e-005**	**1.5760**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3221	0.0000	0.3221	0.1279	0.0000	0.1279	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1269	1.3595	1.0165	2.1700e-003		0.0572	0.0572		0.0526	0.0526	0.0000	190.8711	190.8711	0.0617	0.0000	192.4144
Total	**0.1269**	**1.3595**	**1.0165**	**2.1700e-003**	**0.3221**	**0.0572**	**0.3794**	**0.1279**	**0.0526**	**0.1805**	**0.0000**	**190.8711**	**190.8711**	**0.0617**	**0.0000**	**192.4144**

3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	2.3500e-003	1.9000e-003	0.0248	7.0000e-005	7.6800e-003	5.0000e-005	7.7300e-003	2.0400e-003	4.0000e-005	2.0800e-003	0.0000	6.2498	6.2498	1.7000e-004	1.7000e-004	6.3040
Total	**2.3500e-003**	**1.9000e-003**	**0.0248**	**7.0000e-005**	**7.6800e-003**	**5.0000e-005**	**7.7300e-003**	**2.0400e-003**	**4.0000e-005**	**2.0800e-003**	**0.0000**	**6.2498**	**6.2498**	**1.7000e-004**	**1.7000e-004**	**6.3040**

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					0.1256	0.0000	0.1256	0.0499	0.0000	0.0499	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1269	1.3595	1.0165	2.1700e-003		0.0572	0.0572		0.0526	0.0526	0.0000	190.8709	190.8709	0.0617	0.0000	192.4142
Total	**0.1269**	**1.3595**	**1.0165**	**2.1700e-003**	**0.1256**	**0.0572**	**0.1829**	**0.0499**	**0.0526**	**0.1025**	**0.0000**	**190.8709**	**190.8709**	**0.0617**	**0.0000**	**192.4142**

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	2.3500e-003	1.9000e-003	0.0248	7.0000e-005	7.6800e-003	5.0000e-005	7.7300e-003	2.0400e-003	4.0000e-005	2.0800e-003	0.0000	6.2498	6.2498	1.7000e-004	1.7000e-004	6.3040
Total	**2.3500e-003**	**1.9000e-003**	**0.0248**	**7.0000e-005**	**7.6800e-003**	**5.0000e-005**	**7.7300e-003**	**2.0400e-003**	**4.0000e-005**	**2.0800e-003**	**0.0000**	**6.2498**	**6.2498**	**1.7000e-004**	**1.7000e-004**	**6.3040**

3.4 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	0.3668	3.3574	3.5181	5.7900e-003		0.1739	0.1739		0.1637	0.1637	0.0000	498.2093	498.2093	0.1194	0.0000	501.1932
Total	**0.3668**	**3.3574**	**3.5181**	**5.7900e-003**		**0.1739**	**0.1739**		**0.1637**	**0.1637**	**0.0000**	**498.2093**	**498.2093**	**0.1194**	**0.0000**	**501.1932**

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0411	1.1129	0.3695	4.3600e-003	0.1437	0.0111	0.1548	0.0415	0.0106	0.0521	0.0000	425.3061	425.3061	0.0142	0.0617	444.0524
Worker	0.2762	0.2230	2.9176	7.9600e-003	0.9023	5.4900e-003	0.9078	0.2396	5.0600e-003	0.2447	0.0000	734.2435	734.2435	0.0202	0.0197	740.6114
Total	**0.3173**	**1.3359**	**3.2870**	**0.0123**	**1.0460**	**0.0166**	**1.0626**	**0.2811**	**0.0157**	**0.2968**	**0.0000**	**1,159.5496**	**1,159.5496**	**0.0344**	**0.0814**	**1,184.6638**

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	0.3668	3.3574	3.5181	5.7900e-003		0.1739	0.1739		0.1637	0.1637	0.0000	498.2087	498.2087	0.1194	0.0000	501.1926
Total	**0.3668**	**3.3574**	**3.5181**	**5.7900e-003**		**0.1739**	**0.1739**		**0.1637**	**0.1637**	**0.0000**	**498.2087**	**498.2087**	**0.1194**	**0.0000**	**501.1926**

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0411	1.1129	0.3695	4.3600e-003	0.1437	0.0111	0.1548	0.0415	0.0106	0.0521	0.0000	425.3061	425.3061	0.0142	0.0617	444.0524
Worker	0.2762	0.2230	2.9176	7.9600e-003	0.9023	5.4900e-003	0.9078	0.2396	5.0600e-003	0.2447	0.0000	734.2435	734.2435	0.0202	0.0197	740.6114
Total	**0.3173**	**1.3359**	**3.2870**	**0.0123**	**1.0460**	**0.0166**	**1.0626**	**0.2811**	**0.0157**	**0.2968**	**0.0000**	**1,159.5496**	**1,159.5496**	**0.0344**	**0.0814**	**1,184.6638**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2438	2.2297	2.5178	4.1800e-003		0.1085	0.1085		0.1021	0.1021	0.0000	359.2974	359.2974	0.0855	0.0000	361.4341
Total	**0.2438**	**2.2297**	**2.5178**	**4.1800e-003**		**0.1085**	**0.1085**		**0.1021**	**0.1021**	**0.0000**	**359.2974**	**359.2974**	**0.0855**	**0.0000**	**361.4341**

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0178	0.6259	0.2383	2.9900e-003	0.1036	3.4800e-003	0.1071	0.0299	3.3300e-003	0.0332	0.0000	292.4074	292.4074	9.8000e-003	0.0424	305.2779
Worker	0.1849	0.1422	1.9398	5.5500e-003	0.6505	3.7300e-003	0.6542	0.1728	3.4400e-003	0.1762	0.0000	515.4155	515.4155	0.0131	0.0131	519.6455
Total	**0.2027**	**0.7681**	**2.1781**	**8.5400e-003**	**0.7541**	**7.2100e-003**	**0.7613**	**0.2027**	**6.7700e-003**	**0.2094**	**0.0000**	**807.8228**	**807.8228**	**0.0229**	**0.0555**	**824.9235**

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	0.2438	2.2297	2.5178	4.1800e-003		0.1085	0.1085		0.1021	0.1021	0.0000	359.2969	359.2969	0.0855	0.0000	361.4337
Total	**0.2438**	**2.2297**	**2.5178**	**4.1800e-003**		**0.1085**	**0.1085**		**0.1021**	**0.1021**	**0.0000**	**359.2969**	**359.2969**	**0.0855**	**0.0000**	**361.4337**

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0178	0.6259	0.2383	2.9900e-003	0.1036	3.4800e-003	0.1071	0.0299	3.3300e-003	0.0332	0.0000	292.4074	292.4074	9.8000e-003	0.0424	305.2779
Worker	0.1849	0.1422	1.9398	5.5500e-003	0.6505	3.7300e-003	0.6542	0.1728	3.4400e-003	0.1762	0.0000	515.4155	515.4155	0.0131	0.0131	519.6455
Total	**0.2027**	**0.7681**	**2.1781**	**8.5400e-003**	**0.7541**	**7.2100e-003**	**0.7613**	**0.2027**	**6.7700e-003**	**0.2094**	**0.0000**	**807.8228**	**807.8228**	**0.0229**	**0.0555**	**824.9235**

3.5 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	2.6235					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0355	0.2411	0.3351	5.5000e-004		0.0131	0.0131		0.0131	0.0131	0.0000	47.2352	47.2352	2.8300e-003	0.0000	47.3058
Total	**2.6590**	**0.2411**	**0.3351**	**5.5000e-004**		**0.0131**	**0.0131**		**0.0131**	**0.0131**	**0.0000**	**47.2352**	**47.2352**	**2.8300e-003**	**0.0000**	**47.3058**

3.5 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0441	0.0339	0.4631	1.3300e-003	0.1553	8.9000e-004	0.1562	0.0412	8.2000e-004	0.0421	0.0000	123.0347	123.0347	3.1200e-003	3.1300e-003	124.0444
Total	**0.0441**	**0.0339**	**0.4631**	**1.3300e-003**	**0.1553**	**8.9000e-004**	**0.1562**	**0.0412**	**8.2000e-004**	**0.0421**	**0.0000**	**123.0347**	**123.0347**	**3.1200e-003**	**3.1300e-003**	**124.0444**

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	2.6235					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0355	0.2411	0.3351	5.5000e-004		0.0131	0.0131		0.0131	0.0131	0.0000	47.2351	47.2351	2.8300e-003	0.0000	47.3058
Total	**2.6590**	**0.2411**	**0.3351**	**5.5000e-004**		**0.0131**	**0.0131**		**0.0131**	**0.0131**	**0.0000**	**47.2351**	**47.2351**	**2.8300e-003**	**0.0000**	**47.3058**

3.5 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0441	0.0339	0.4631	1.3300e-003	0.1553	8.9000e-004	0.1562	0.0412	8.2000e-004	0.0421	0.0000	123.0347	123.0347	3.1200e-003	3.1300e-003	124.0444
Total	**0.0441**	**0.0339**	**0.4631**	**1.3300e-003**	**0.1553**	**8.9000e-004**	**0.1562**	**0.0412**	**8.2000e-004**	**0.0421**	**0.0000**	**123.0347**	**123.0347**	**3.1200e-003**	**3.1300e-003**	**124.0444**

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	tons/yr										MT/yr					
Off-Road	0.0362	0.3567	0.5105	8.0000e-004		0.0179	0.0179		0.0164	0.0164	0.0000	70.0940	70.0940	0.0227	0.0000	70.6608
Paving	0.0229					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0591**	**0.3567**	**0.5105**	**8.0000e-004**		**0.0179**	**0.0179**		**0.0164**	**0.0164**	**0.0000**	**70.0940**	**70.0940**	**0.0227**	**0.0000**	**70.6608**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6400e-003	1.2600e-003	0.0172	5.0000e-005	5.7600e-003	3.0000e-005	5.7900e-003	1.5300e-003	3.0000e-005	1.5600e-003	0.0000	4.5641	4.5641	1.2000e-004	1.2000e-004	4.6015
Total	**1.6400e-003**	**1.2600e-003**	**0.0172**	**5.0000e-005**	**5.7600e-003**	**3.0000e-005**	**5.7900e-003**	**1.5300e-003**	**3.0000e-005**	**1.5600e-003**	**0.0000**	**4.5641**	**4.5641**	**1.2000e-004**	**1.2000e-004**	**4.6015**

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	0.0362	0.3567	0.5105	8.0000e-004		0.0179	0.0179		0.0164	0.0164	0.0000	70.0940	70.0940	0.0227	0.0000	70.6607
Paving	0.0229					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0591**	**0.3567**	**0.5105**	**8.0000e-004**		**0.0179**	**0.0179**		**0.0164**	**0.0164**	**0.0000**	**70.0940**	**70.0940**	**0.0227**	**0.0000**	**70.6607**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6400e-003	1.2600e-003	0.0172	5.0000e-005	5.7600e-003	3.0000e-005	5.7900e-003	1.5300e-003	3.0000e-005	1.5600e-003	0.0000	4.5641	4.5641	1.2000e-004	1.2000e-004	4.6015
Total	**1.6400e-003**	**1.2600e-003**	**0.0172**	**5.0000e-005**	**5.7600e-003**	**3.0000e-005**	**5.7900e-003**	**1.5300e-003**	**3.0000e-005**	**1.5600e-003**	**0.0000**	**4.5641**	**4.5641**	**1.2000e-004**	**1.2000e-004**	**4.6015**

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	2.0289	2.3490	19.7021	0.0418	4.3158	0.0313	4.3471	1.1518	0.0291	1.1808	0.0000	3,904.0702	3,904.0702	0.2681	0.1814	3,964.8210
Unmitigated	2.0289	2.3490	19.7021	0.0418	4.3158	0.0313	4.3471	1.1518	0.0291	1.1808	0.0000	3,904.0702	3,904.0702	0.2681	0.1814	3,964.8210

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,909.90	1,726.98	1436.46	6,206,007	6,206,007
Medical Office Building	704.34	173.42	28.86	1,379,925	1,379,925
Other Asphalt Surfaces	0.00	0.00	0.00		
Strip Mall	2,226.84	2,111.34	1025.64	3,878,897	3,878,897
Total	4,841.08	4,011.74	2,490.96	11,464,829	11,464,829

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
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

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

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.543139	0.060749	0.184760	0.130258	0.023830	0.006353	0.011718	0.009137	0.000812	0.000509	0.024193	0.000750	0.003791
Medical Office Building	0.543139	0.060749	0.184760	0.130258	0.023830	0.006353	0.011718	0.009137	0.000812	0.000509	0.024193	0.000750	0.003791
Other Asphalt Surfaces	0.543139	0.060749	0.184760	0.130258	0.023830	0.006353	0.011718	0.009137	0.000812	0.000509	0.024193	0.000750	0.003791
Strip Mall	0.543139	0.060749	0.184760	0.130258	0.023830	0.006353	0.011718	0.009137	0.000812	0.000509	0.024193	0.000750	0.003791

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	910.6630	910.6630	0.0558	7.6900e-003	914.3490
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	910.6630	910.6630	0.0558	7.6900e-003	914.3490
NaturalGas Mitigated	0.0440	0.3775	0.1693	2.4000e-003		0.0304	0.0304		0.0304	0.0304	0.0000	435.7468	435.7468	8.3500e-003	7.9900e-003	438.3363
NaturalGas Unmitigated	0.0440	0.3775	0.1693	2.4000e-003		0.0304	0.0304		0.0304	0.0304	0.0000	435.7468	435.7468	8.3500e-003	7.9900e-003	438.3363

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	7.73761e+006	0.0417	0.3565	0.1517	2.2800e-003		0.0288	0.0288		0.0288	0.0288	0.0000	412.9082	412.9082	7.9100e-003	7.5700e-003	415.3619
Medical Office Building	89180	4.8000e-004	4.3700e-003	3.6700e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	4.7590	4.7590	9.0000e-005	9.0000e-005	4.7873
Other 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	0.0000
Strip Mall	338800	1.8300e-003	0.0166	0.0140	1.0000e-004		1.2600e-003	1.2600e-003		1.2600e-003	1.2600e-003	0.0000	18.0797	18.0797	3.5000e-004	3.3000e-004	18.1871
Total		**0.0440**	**0.3775**	**0.1693**	**2.4100e-003**		**0.0304**	**0.0304**		**0.0304**	**0.0304**	**0.0000**	**435.7468**	**435.7468**	**8.3500e-003**	**7.9900e-003**	**438.3363**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	7.73761e +006	0.0417	0.3565	0.1517	2.2800e-003		0.0288	0.0288		0.0288	0.0288	0.0000	412.9082	412.9082	7.9100e-003	7.5700e-003	415.3619
Medical Office Building	89180	4.8000e-004	4.3700e-003	3.6700e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	4.7590	4.7590	9.0000e-005	9.0000e-005	4.7873
Other 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	0.0000
Strip Mall	338800	1.8300e-003	0.0166	0.0140	1.0000e-004		1.2600e-003	1.2600e-003		1.2600e-003	1.2600e-003	0.0000	18.0797	18.0797	3.5000e-004	3.3000e-004	18.1871
Total		**0.0440**	**0.3775**	**0.1693**	**2.4100e-003**		**0.0304**	**0.0304**		**0.0304**	**0.0304**	**0.0000**	**435.7468**	**435.7468**	**8.3500e-003**	**7.9900e-003**	**438.3363**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	2.13049e +006	457.6931	0.0280	3.8700e-003	459.5456
Medical Office Building	238940	51.3316	3.1400e-003	4.3000e-004	51.5394
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	1.86956e +006	401.6384	0.0246	3.3900e-003	403.2640
Total		**910.6630**	**0.0558**	**7.6900e-003**	**914.3490**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	2.13049e +006	457.6931	0.0280	3.8700e-003	459.5456
Medical Office Building	238940	51.3316	3.1400e-003	4.3000e-004	51.5394
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	1.86956e +006	401.6384	0.0246	3.3900e-003	403.2640
Total		**910.6630**	**0.0558**	**7.6900e-003**	**914.3490**

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	3.0735	0.0640	5.5520	2.9000e-004		0.0307	0.0307		0.0307	0.0307	0.0000	9.0678	9.0678	8.7300e-003	0.0000	9.2860
Unmitigated	3.0735	0.0640	5.5520	2.9000e-004		0.0307	0.0307		0.0307	0.0307	0.0000	9.0678	9.0678	8.7300e-003	0.0000	9.2860

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	0.2624					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6438					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1674	0.0640	5.5520	2.9000e-004		0.0307	0.0307		0.0307	0.0307	0.0000	9.0678	9.0678	8.7300e-003	0.0000	9.2860
Total	**3.0735**	**0.0640**	**5.5520**	**2.9000e-004**		**0.0307**	**0.0307**		**0.0307**	**0.0307**	**0.0000**	**9.0678**	**9.0678**	**8.7300e-003**	**0.0000**	**9.2860**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2624					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6438					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1674	0.0640	5.5520	2.9000e-004		0.0307	0.0307		0.0307	0.0307	0.0000	9.0678	9.0678	8.7300e-003	0.0000	9.2860
Total	**3.0735**	**0.0640**	**5.5520**	**2.9000e-004**		**0.0307**	**0.0307**		**0.0307**	**0.0307**	**0.0000**	**9.0678**	**9.0678**	**8.7300e-003**	**0.0000**	**9.2860**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	227.5954	0.0734	0.0400	241.3596
Unmitigated	227.5954	0.0734	0.0400	241.3596

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	35.0529 / 22.0985	163.1994	0.0519	0.0282	172.9139
Medical Office Building	3.26249 / 0.621427	11.7637	4.6200e-003	2.6000e-003	12.6540
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	11.4072 / 6.99149	52.6323	0.0169	9.1900e-003	55.7917
Total		**227.5954**	**0.0734**	**0.0400**	**241.3596**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	35.0529 / 22.0985	163.1994	0.0519	0.0282	172.9139
Medical Office Building	3.26249 / 0.621427	11.7637	4.6200e-003	2.6000e-003	12.6540
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	11.4072 / 6.99149	52.6323	0.0169	9.1900e-003	55.7917
Total		**227.5954**	**0.0734**	**0.0400**	**241.3596**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	140.0597	8.2773	0.0000	346.9920
Unmitigated	140.0597	8.2773	0.0000	346.9920

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	247.48	50.2362	2.9689	0.0000	124.4581
Medical Office Building	280.8	56.9999	3.3686	0.0000	141.2148
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	161.7	32.8236	1.9398	0.0000	81.3192
Total		**140.0597**	**8.2773**	**0.0000**	**346.9920**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	247.48	50.2362	2.9689	0.0000	124.4581
Medical Office Building	280.8	56.9999	3.3686	0.0000	141.2148
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	161.7	32.8236	1.9398	0.0000	81.3192
Total		**140.0597**	**8.2773**	**0.0000**	**346.9920**

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

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

Equipment Type	Number

11.0 Vegetation

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

Ventana Specific Plan Planning Areas 1 & 2

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	26.00	1000sqft	9.70	26,000.00	0
Other Asphalt Surfaces	17.50	Acre	17.50	762,300.00	0
Apartments Mid Rise	538.00	Dwelling Unit	20.70	538,000.00	1539
Strip Mall	154.00	1000sqft	0.00	154,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	473.62	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction and operation for Planning Areas 1 & 3. Adjusted intensity factor for SCE based on SB 100 2024 RPS target

Land Use - Planning Area 1 = 538 DUs on 20.7 acres. Planning Area 2 = 154 ksf strip mall & 26 ksf medical office. 17.5 acres of arterial and backbone roads

Construction Phase - No demolition phase. Construction would occur from 2022-late 2023. Used the CalEEMod phase length for a 25-acre site. Adjusting arch coating to overlap with building con and be half the phase length of build con

Off-road Equipment - Equipment quantities scaled up based on acerage used for construction length

Off-road Equipment - Equipment quantities scaled up based on acerage used for construction length

Off-road Equipment - Equipment quantities scaled up based on acerage used for construction length

Off-road Equipment - Equipment quantities scaled up based on acerage used for construction length

Off-road Equipment - Equipment quantities scaled up based on acerage used for construction length

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

Grading - Balanced onsite

Architectural Coating - SCAQMD Rule 1113

Vehicle Trips - Trip gen rates from TA with internal capture reduction adjustment. No pass-by adjustment included

Woodstoves - No woodstoves or hearths

Area Coating - SCAQMD Rule 1113

Water And Wastewater - No spectic tanks proposed and no faculative lagoons. 100% aerobic

Construction Off-road Equipment Mitigation - SCAQMD Rule 403, Mitigation Measure 4.5.1 requries 3x day watering

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	30.00	10.00
tblConstructionPhase	NumDays	75.00	35.00
tblConstructionPhase	NumDays	740.00	370.00
tblConstructionPhase	NumDays	55.00	185.00
tblConstructionPhase	NumDays	55.00	35.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	457.30	0.00
tblFireplaces	NumberNoFireplace	53.80	0.00
tblFireplaces	NumberWood	26.90	0.00
tblLandUse	LotAcreage	0.60	9.70
tblLandUse	LotAcreage	14.16	20.70
tblLandUse	LotAcreage	3.54	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

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

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	8.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblProjectCharacteristics	CH4IntensityFactor	0.033	0.029
tblProjectCharacteristics	CO2IntensityFactor	390.98	473.62
tblVehicleTrips	ST_TR	4.91	3.21
tblVehicleTrips	ST_TR	8.57	6.67
tblVehicleTrips	ST_TR	42.04	13.71
tblVehicleTrips	SU_TR	4.09	2.67
tblVehicleTrips	SU_TR	1.42	1.11
tblVehicleTrips	SU_TR	20.43	6.66
tblVehicleTrips	WD_TR	5.44	3.55
tblVehicleTrips	WD_TR	34.80	27.09
tblVehicleTrips	WD_TR	44.32	14.46
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00

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

tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	26.90	0.00
tblWoodstoves	NumberNoncatalytic	26.90	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

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	7.3874	77.7839	65.3090	0.1718	39.7052	3.2725	42.9327	20.3086	3.0107	23.2779	0.0000	17,341.8330	17,341.8330	3.8991	0.8193	17,625.3423
2023	35.0579	41.0395	71.4291	0.1883	11.6186	1.6437	13.2623	3.1121	1.5546	4.6667	0.0000	19,027.5237	19,027.5237	1.6093	0.8091	19,308.8760
Maximum	**35.0579**	**77.7839**	**71.4291**	**0.1883**	**39.7052**	**3.2725**	**42.9327**	**20.3086**	**3.0107**	**23.2779**	**0.0000**	**19,027.5237**	**19,027.5237**	**3.8991**	**0.8193**	**19,308.8760**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	7.3874	77.7839	65.3090	0.1718	15.7237	3.2725	18.9512	7.9837	3.0107	10.9530	0.0000	17,341.8330	17,341.8330	3.8991	0.8193	17,625.3422
2023	35.0579	41.0395	71.4291	0.1883	11.6186	1.6437	13.2623	3.1121	1.5546	4.6667	0.0000	19,027.5237	19,027.5237	1.6093	0.8091	19,308.8760
Maximum	**35.0579**	**77.7839**	**71.4291**	**0.1883**	**15.7237**	**3.2725**	**18.9512**	**7.9837**	**3.0107**	**10.9530**	**0.0000**	**19,027.5237**	**19,027.5237**	**3.8991**	**0.8193**	**19,308.8760**

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	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	46.73	0.00	42.68	52.62	0.00	44.11	0.00	0.00	0.00	0.00	0.00	0.00

Ventana Specific Plan Planning Areas 1 & 2 - South Coast AQMD Air District, Summer

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	17.2633	0.5119	44.4157	2.3500e-003		0.2458	0.2458		0.2458	0.2458	0.0000	79.9644	79.9644	0.0770	0.0000	81.8885
Energy	0.2413	2.0686	0.9279	0.0132		0.1667	0.1667		0.1667	0.1667		2,631.9379	2,631.9379	0.0505	0.0483	2,647.5782
Mobile	13.0161	13.0504	121.1833	0.2617	26.5265	0.1888	26.7153	7.0686	0.1756	7.2442		26,938.9827	26,938.9827	1.7344	1.1546	27,326.4169
Total	**30.5206**	**15.6310**	**166.5269**	**0.2772**	**26.5265**	**0.6013**	**27.1278**	**7.0686**	**0.5881**	**7.6567**	**0.0000**	**29,650.8850**	**29,650.8850**	**1.8619**	**1.2029**	**30,055.8837**

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	17.2633	0.5119	44.4157	2.3500e-003		0.2458	0.2458		0.2458	0.2458	0.0000	79.9644	79.9644	0.0770	0.0000	81.8885
Energy	0.2413	2.0686	0.9279	0.0132		0.1667	0.1667		0.1667	0.1667		2,631.9379	2,631.9379	0.0505	0.0483	2,647.5782
Mobile	13.0161	13.0504	121.1833	0.2617	26.5265	0.1888	26.7153	7.0686	0.1756	7.2442		26,938.9827	26,938.9827	1.7344	1.1546	27,326.4169
Total	**30.5206**	**15.6310**	**166.5269**	**0.2772**	**26.5265**	**0.6013**	**27.1278**	**7.0686**	**0.5881**	**7.6567**	**0.0000**	**29,650.8850**	**29,650.8850**	**1.8619**	**1.2029**	**30,055.8837**

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	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/3/2022	1/14/2022	5	10	
2	Grading	Grading	1/15/2022	3/4/2022	5	35	
3	Building Construction	Building Construction	3/5/2022	8/4/2023	5	370	
4	Architectural Coating	Architectural Coating	1/9/2023	9/22/2023	5	185	
5	Paving	Paving	9/23/2023	11/10/2023	5	35	

Acres of Grading (Site Preparation Phase): 30

Acres of Grading (Grading Phase): 210

Acres of Paving: 17.5

Residential Indoor: 1,089,450; Residential Outdoor: 363,150; Non-Residential Indoor: 270,000; Non-Residential Outdoor: 90,000; Striped Parking Area: 45,738 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	6	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	8	8.00	97	0.37
Grading	Excavators	4	8.00	158	0.38
Grading	Graders	2	8.00	187	0.41
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Scrapers	4	8.00	367	0.48

Grading	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Cranes	2	7.00	231	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Architectural Coating	Air Compressors	2	6.00	78	0.48
Paving	Pavers	4	8.00	130	0.42
Paving	Paving Equipment	4	8.00	132	0.36
Paving	Rollers	4	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	14	35.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	16	40.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	765.00	212.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	153.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	12	30.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					39.3140	0.0000	39.3140	20.2049	0.0000	20.2049			0.0000			0.0000
Off-Road	6.3403	66.1670	39.3955	0.0761		3.2252	3.2252		2.9671	2.9671		7,372.1237	7,372.1237	2.3843		7,431.7311
Total	**6.3403**	**66.1670**	**39.3955**	**0.0761**	**39.3140**	**3.2252**	**42.5392**	**20.2049**	**2.9671**	**23.1720**		**7,372.1237**	**7,372.1237**	**2.3843**		**7,431.7311**

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	0.1205	0.0848	1.3360	3.5400e-003	0.3912	2.3400e-003	0.3936	0.1038	2.1500e-003	0.1059		360.2015	360.2015	9.3600e-003	8.5600e-003	362.9870
Total	**0.1205**	**0.0848**	**1.3360**	**3.5400e-003**	**0.3912**	**2.3400e-003**	**0.3936**	**0.1038**	**2.1500e-003**	**0.1059**		**360.2015**	**360.2015**	**9.3600e-003**	**8.5600e-003**	**362.9870**

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					15.3325	0.0000	15.3325	7.8799	0.0000	7.8799			0.0000			0.0000
Off-Road	6.3403	66.1670	39.3955	0.0761		3.2252	3.2252		2.9671	2.9671	0.0000	7,372.1237	7,372.1237	2.3843		7,431.7311
Total	**6.3403**	**66.1670**	**39.3955**	**0.0761**	**15.3325**	**3.2252**	**18.5576**	**7.8799**	**2.9671**	**10.8471**	**0.0000**	**7,372.1237**	**7,372.1237**	**2.3843**		**7,431.7311**

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	0.1205	0.0848	1.3360	3.5400e-003	0.3912	2.3400e-003	0.3936	0.1038	2.1500e-003	0.1059		360.2015	360.2015	9.3600e-003	8.5600e-003	362.9870
Total	**0.1205**	**0.0848**	**1.3360**	**3.5400e-003**	**0.3912**	**2.3400e-003**	**0.3936**	**0.1038**	**2.1500e-003**	**0.1059**		**360.2015**	**360.2015**	**9.3600e-003**	**8.5600e-003**	**362.9870**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.4072	0.0000	18.4072	7.3075	0.0000	7.3075			0.0000			0.0000
Off-Road	7.2497	77.6870	58.0830	0.1242		3.2698	3.2698		3.0082	3.0082		12,022.8211	12,022.8211	3.8884		12,120.0317
Total	**7.2497**	**77.6870**	**58.0830**	**0.1242**	**18.4072**	**3.2698**	**21.6770**	**7.3075**	**3.0082**	**10.3157**		**12,022.8211**	**12,022.8211**	**3.8884**		**12,120.0317**

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	0.1378	0.0969	1.5268	4.0500e-003	0.4471	2.6700e-003	0.4498	0.1186	2.4600e-003	0.1210		411.6589	411.6589	0.0107	9.7900e-003	414.8423
Total	**0.1378**	**0.0969**	**1.5268**	**4.0500e-003**	**0.4471**	**2.6700e-003**	**0.4498**	**0.1186**	**2.4600e-003**	**0.1210**		**411.6589**	**411.6589**	**0.0107**	**9.7900e-003**	**414.8423**

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.1788	0.0000	7.1788	2.8499	0.0000	2.8499			0.0000			0.0000
Off-Road	7.2497	77.6870	58.0830	0.1242		3.2698	3.2698		3.0082	3.0082	0.0000	12,022.8211	12,022.8211	3.8884		12,120.0317
Total	**7.2497**	**77.6870**	**58.0830**	**0.1242**	**7.1788**	**3.2698**	**10.4486**	**2.8499**	**3.0082**	**5.8581**	**0.0000**	**12,022.8211**	**12,022.8211**	**3.8884**		**12,120.0317**

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	0.1378	0.0969	1.5268	4.0500e-003	0.4471	2.6700e-003	0.4498	0.1186	2.4600e-003	0.1210		411.6589	411.6589	0.0107	9.7900e-003	414.8423
Total	**0.1378**	**0.0969**	**1.5268**	**4.0500e-003**	**0.4471**	**2.6700e-003**	**0.4498**	**0.1186**	**2.4600e-003**	**0.1210**		**411.6589**	**411.6589**	**0.0107**	**9.7900e-003**	**414.8423**

3.4 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	3.4125	31.2313	32.7268	0.0539		1.6180	1.6180		1.5223	1.5223		5,108.6672	5,108.6672	1.2239		5,139.2644
Total	**3.4125**	**31.2313**	**32.7268**	**0.0539**		**1.6180**	**1.6180**		**1.5223**	**1.5223**		**5,108.6672**	**5,108.6672**	**1.2239**		**5,139.2644**

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	0.3866	9.8647	3.3820	0.0405	1.3575	0.1032	1.4606	0.3908	0.0987	0.4895		4,360.1901	4,360.1901	0.1461	0.6321	4,552.2195
Worker	2.6347	1.8535	29.2002	0.0774	8.5509	0.0511	8.6020	2.2677	0.0470	2.3148		7,872.9757	7,872.9757	0.2045	0.1872	7,933.8584
Total	**3.0213**	**11.7182**	**32.5822**	**0.1179**	**9.9084**	**0.1543**	**10.0626**	**2.6586**	**0.1457**	**2.8043**		**12,233.1659**	**12,233.1659**	**0.3506**	**0.8193**	**12,486.0778**

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4125	31.2313	32.7268	0.0539		1.6180	1.6180		1.5223	1.5223	0.0000	5,108.667 2	5,108.667 2	1.2239		5,139.264 4
Total	**3.4125**	**31.2313**	**32.7268**	**0.0539**		**1.6180**	**1.6180**		**1.5223**	**1.5223**	**0.0000**	**5,108.667 2**	**5,108.667 2**	**1.2239**		**5,139.264 4**

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	0.3866	9.8647	3.3820	0.0405	1.3575	0.1032	1.4606	0.3908	0.0987	0.4895		4,360.190 1	4,360.190 1	0.1461	0.6321	4,552.219 5
Worker	2.6347	1.8535	29.2002	0.0774	8.5509	0.0511	8.6020	2.2677	0.0470	2.3148		7,872.975 7	7,872.975 7	0.2045	0.1872	7,933.858 4
Total	**3.0213**	**11.7182**	**32.5822**	**0.1179**	**9.9084**	**0.1543**	**10.0626**	**2.6586**	**0.1457**	**2.8043**		**12,233.16 59**	**12,233.16 59**	**0.3506**	**0.8193**	**12,486.07 78**

3.4 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	3.1455	28.7698	32.4880	0.0539		1.3995	1.3995		1.3169	1.3169		5,110.4199	5,110.4199	1.2157		5,140.8121
Total	**3.1455**	**28.7698**	**32.4880**	**0.0539**		**1.3995**	**1.3995**		**1.3169**	**1.3169**		**5,110.4199**	**5,110.4199**	**1.2157**		**5,140.8121**

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	0.2344	7.6956	3.0297	0.0386	1.3575	0.0448	1.4023	0.3908	0.0429	0.4337		4,155.8556	4,155.8556	0.1397	0.6016	4,338.6360
Worker	2.4438	1.6401	26.9076	0.0749	8.5509	0.0482	8.5991	2.2677	0.0443	2.3121		7,665.2935	7,665.2935	0.1835	0.1729	7,721.4082
Total	**2.6782**	**9.3357**	**29.9373**	**0.1135**	**9.9084**	**0.0930**	**10.0014**	**2.6586**	**0.0872**	**2.7458**		**11,821.1491**	**11,821.1491**	**0.3232**	**0.7746**	**12,060.0442**

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1455	28.7698	32.4880	0.0539		1.3995	1.3995		1.3169	1.3169	0.0000	5,110.4198	5,110.4198	1.2157		5,140.8121
Total	**3.1455**	**28.7698**	**32.4880**	**0.0539**		**1.3995**	**1.3995**		**1.3169**	**1.3169**	**0.0000**	**5,110.4198**	**5,110.4198**	**1.2157**		**5,140.8121**

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	0.2344	7.6956	3.0297	0.0386	1.3575	0.0448	1.4023	0.3908	0.0429	0.4337		4,155.8556	4,155.8556	0.1397	0.6016	4,338.6360
Worker	2.4438	1.6401	26.9076	0.0749	8.5509	0.0482	8.5991	2.2677	0.0443	2.3121		7,665.2935	7,665.2935	0.1835	0.1729	7,721.4082
Total	**2.6782**	**9.3357**	**29.9373**	**0.1135**	**9.9084**	**0.0930**	**10.0014**	**2.6586**	**0.0872**	**2.7458**		**11,821.1491**	**11,821.1491**	**0.3232**	**0.7746**	**12,060.0442**

3.5 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	28.3621					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3833	2.6060	3.6222	5.9400e-003		0.1416	0.1416		0.1416	0.1416		562.8961	562.8961	0.0337		563.7380
Total	**28.7455**	**2.6060**	**3.6222**	**5.9400e-003**		**0.1416**	**0.1416**		**0.1416**	**0.1416**		**562.8961**	**562.8961**	**0.0337**		**563.7380**

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	0.4888	0.3280	5.3815	0.0150	1.7102	9.6300e-003	1.7198	0.4536	8.8700e-003	0.4624		1,533.0587	1,533.0587	0.0367	0.0346	1,544.2817
Total	**0.4888**	**0.3280**	**5.3815**	**0.0150**	**1.7102**	**9.6300e-003**	**1.7198**	**0.4536**	**8.8700e-003**	**0.4624**		**1,533.0587**	**1,533.0587**	**0.0367**	**0.0346**	**1,544.2817**

3.5 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.3621					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3833	2.6060	3.6222	5.9400e-003		0.1416	0.1416		0.1416	0.1416	0.0000	562.8961	562.8961	0.0337		563.7380
Total	**28.7455**	**2.6060**	**3.6222**	**5.9400e-003**		**0.1416**	**0.1416**		**0.1416**	**0.1416**	**0.0000**	**562.8961**	**562.8961**	**0.0337**		**563.7380**

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	0.4888	0.3280	5.3815	0.0150	1.7102	9.6300e-003	1.7198	0.4536	8.8700e-003	0.4624		1,533.0587	1,533.0587	0.0367	0.0346	1,544.2817
Total	**0.4888**	**0.3280**	**5.3815**	**0.0150**	**1.7102**	**9.6300e-003**	**1.7198**	**0.4536**	**8.8700e-003**	**0.4624**		**1,533.0587**	**1,533.0587**	**0.0367**	**0.0346**	**1,544.2817**

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	2.0655	20.3833	29.1684	0.0456		1.0204	1.0204		0.9388	0.9388		4,415.1683	4,415.1683	1.4280		4,450.8672
Paving	1.3100					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.3755**	**20.3833**	**29.1684**	**0.0456**		**1.0204**	**1.0204**		**0.9388**	**0.9388**		**4,415.1683**	**4,415.1683**	**1.4280**		**4,450.8672**

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	0.0958	0.0643	1.0552	2.9400e-003	0.3353	1.8900e-003	0.3372	0.0889	1.7400e-003	0.0907		300.5998	300.5998	7.2000e-003	6.7800e-003	302.8003
Total	**0.0958**	**0.0643**	**1.0552**	**2.9400e-003**	**0.3353**	**1.8900e-003**	**0.3372**	**0.0889**	**1.7400e-003**	**0.0907**		**300.5998**	**300.5998**	**7.2000e-003**	**6.7800e-003**	**302.8003**

3.6 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0655	20.3833	29.1684	0.0456		1.0204	1.0204		0.9388	0.9388	0.0000	4,415.1683	4,415.1683	1.4280		4,450.8672
Paving	1.3100					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.3755**	**20.3833**	**29.1684**	**0.0456**		**1.0204**	**1.0204**		**0.9388**	**0.9388**	**0.0000**	**4,415.1683**	**4,415.1683**	**1.4280**		**4,450.8672**

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	0.0958	0.0643	1.0552	2.9400e-003	0.3353	1.8900e-003	0.3372	0.0889	1.7400e-003	0.0907		300.5998	300.5998	7.2000e-003	6.7800e-003	302.8003
Total	**0.0958**	**0.0643**	**1.0552**	**2.9400e-003**	**0.3353**	**1.8900e-003**	**0.3372**	**0.0889**	**1.7400e-003**	**0.0907**		**300.5998**	**300.5998**	**7.2000e-003**	**6.7800e-003**	**302.8003**

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	13.0161	13.0504	121.1833	0.2617	26.5265	0.1888	26.7153	7.0686	0.1756	7.2442		26,938.98 27	26,938.98 27	1.7344	1.1546	27,326.41 69
Unmitigated	13.0161	13.0504	121.1833	0.2617	26.5265	0.1888	26.7153	7.0686	0.1756	7.2442		26,938.98 27	26,938.98 27	1.7344	1.1546	27,326.41 69

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,909.90	1,726.98	1436.46	6,206,007	6,206,007
Medical Office Building	704.34	173.42	28.86	1,379,925	1,379,925
Other Asphalt Surfaces	0.00	0.00	0.00		
Strip Mall	2,226.84	2,111.34	1025.64	3,878,897	3,878,897
Total	4,841.08	4,011.74	2,490.96	11,464,829	11,464,829

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
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

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

	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
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.543139	0.060749	0.184760	0.130258	0.023830	0.006353	0.011718	0.009137	0.000812	0.000509	0.024193	0.000750	0.003791
Medical Office Building	0.543139	0.060749	0.184760	0.130258	0.023830	0.006353	0.011718	0.009137	0.000812	0.000509	0.024193	0.000750	0.003791
Other Asphalt Surfaces	0.543139	0.060749	0.184760	0.130258	0.023830	0.006353	0.011718	0.009137	0.000812	0.000509	0.024193	0.000750	0.003791
Strip Mall	0.543139	0.060749	0.184760	0.130258	0.023830	0.006353	0.011718	0.009137	0.000812	0.000509	0.024193	0.000750	0.003791

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	0.2413	2.0686	0.9279	0.0132		0.1667	0.1667		0.1667	0.1667		2,631.937 9	2,631.937 9	0.0505	0.0483	2,647.578 2
NaturalGas Unmitigated	0.2413	2.0686	0.9279	0.0132		0.1667	0.1667		0.1667	0.1667		2,631.937 9	2,631.937 9	0.0505	0.0483	2,647.578 2

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					
Apartments Mid Rise	21198.9	0.2286	1.9536	0.8313	0.0125		0.1580	0.1580		0.1580	0.1580		2,493.9911	2,493.9911	0.0478	0.0457	2,508.8117
Medical Office Building	244.329	2.6300e-003	0.0240	0.0201	1.4000e-004		1.8200e-003	1.8200e-003		1.8200e-003	1.8200e-003		28.7446	28.7446	5.5000e-004	5.3000e-004	28.9154
Other 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
Strip Mall	928.219	0.0100	0.0910	0.0764	5.5000e-004		6.9200e-003	6.9200e-003		6.9200e-003	6.9200e-003		109.2023	109.2023	2.0900e-003	2.0000e-003	109.8512
Total		**0.2413**	**2.0686**	**0.9279**	**0.0132**		**0.1667**	**0.1667**		**0.1667**	**0.1667**		**2,631.9379**	**2,631.9379**	**0.0504**	**0.0483**	**2,647.5782**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	21.1989	0.2286	1.9536	0.8313	0.0125		0.1580	0.1580		0.1580	0.1580		2,493.9911	2,493.9911	0.0478	0.0457	2,508.8117
Medical Office Building	0.244329	2.6300e-003	0.0240	0.0201	1.4000e-004		1.8200e-003	1.8200e-003		1.8200e-003	1.8200e-003		28.7446	28.7446	5.5000e-004	5.3000e-004	28.9154
Other 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
Strip Mall	0.928219	0.0100	0.0910	0.0764	5.5000e-004		6.9200e-003	6.9200e-003		6.9200e-003	6.9200e-003		109.2023	109.2023	2.0900e-003	2.0000e-003	109.8512
Total		**0.2413**	**2.0686**	**0.9279**	**0.0132**		**0.1667**	**0.1667**		**0.1667**	**0.1667**		**2,631.9379**	**2,631.9379**	**0.0504**	**0.0483**	**2,647.5782**

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	17.2633	0.5119	44.4157	2.3500e-003		0.2458	0.2458		0.2458	0.2458	0.0000	79.9644	79.9644	0.0770	0.0000	81.8885
Unmitigated	17.2633	0.5119	44.4157	2.3500e-003		0.2458	0.2458		0.2458	0.2458	0.0000	79.9644	79.9644	0.0770	0.0000	81.8885

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	1.4375					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	14.4864					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3394	0.5119	44.4157	2.3500e-003		0.2458	0.2458		0.2458	0.2458		79.9644	79.9644	0.0770		81.8885
Total	**17.2633**	**0.5119**	**44.4157**	**2.3500e-003**		**0.2458**	**0.2458**		**0.2458**	**0.2458**	**0.0000**	**79.9644**	**79.9644**	**0.0770**	**0.0000**	**81.8885**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.4375					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	14.4864					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3394	0.5119	44.4157	2.3500e-003		0.2458	0.2458		0.2458	0.2458		79.9644	79.9644	0.0770		81.8885
Total	**17.2633**	**0.5119**	**44.4157**	**2.3500e-003**		**0.2458**	**0.2458**		**0.2458**	**0.2458**	**0.0000**	**79.9644**	**79.9644**	**0.0770**	**0.0000**	**81.8885**

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

Ventana Specific Plan Planning Areas 1 & 2

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	26.00	1000sqft	9.70	26,000.00	0
Other Asphalt Surfaces	17.50	Acre	17.50	762,300.00	0
Apartments Mid Rise	538.00	Dwelling Unit	20.70	538,000.00	1539
Strip Mall	154.00	1000sqft	0.00	154,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	473.62	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction and operation for Planning Areas 1 & 3. Adjusted intensity factor for SCE based on SB 100 2024 RPS target

Land Use - Planning Area 1 = 538 DUs on 20.7 acres. Planning Area 2 = 154 ksf strip mall & 26 ksf medical office. 17.5 acres of arterial and backbone roads

Construction Phase - No demolition phase. Construction would occur from 2022-late 2023. Used the CalEEMod phase length for a 25-acre site. Adjusting arch coating to overlap with building con and be half the phase length of build con

Off-road Equipment - Equipment quantities scaled up based on acerage used for construction length

Off-road Equipment - Equipment quantities scaled up based on acerage used for construction length

Off-road Equipment - Equipment quantities scaled up based on acerage used for construction length

Off-road Equipment - Equipment quantities scaled up based on acerage used for construction length

Off-road Equipment - Equipment quantities scaled up based on acerage used for construction length

Grading - Balanced onsite

Architectural Coating - SCAQMD Rule 1113

Vehicle Trips - Trip gen rates from TA with internal capture reduction adjustment. No pass-by adjustment included

Woodstoves - No woodstoves or hearths

Area Coating - SCAQMD Rule 1113

Water And Wastewater - No spectic tanks proposed and no faculative lagoons. 100% aerobic

Construction Off-road Equipment Mitigation - SCAQMD Rule 403, Mitigation Measure 4.5.1 requries 3x day watering

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	30.00	10.00
tblConstructionPhase	NumDays	75.00	35.00
tblConstructionPhase	NumDays	740.00	370.00
tblConstructionPhase	NumDays	55.00	185.00
tblConstructionPhase	NumDays	55.00	35.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	457.30	0.00
tblFireplaces	NumberNoFireplace	53.80	0.00
tblFireplaces	NumberWood	26.90	0.00
tblLandUse	LotAcreage	0.60	9.70
tblLandUse	LotAcreage	14.16	20.70
tblLandUse	LotAcreage	3.54	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

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

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	8.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblProjectCharacteristics	CH4IntensityFactor	0.033	0.029
tblProjectCharacteristics	CO2IntensityFactor	390.98	473.62
tblVehicleTrips	ST_TR	4.91	3.21
tblVehicleTrips	ST_TR	8.57	6.67
tblVehicleTrips	ST_TR	42.04	13.71
tblVehicleTrips	SU_TR	4.09	2.67
tblVehicleTrips	SU_TR	1.42	1.11
tblVehicleTrips	SU_TR	20.43	6.66
tblVehicleTrips	WD_TR	5.44	3.55
tblVehicleTrips	WD_TR	34.80	27.09
tblVehicleTrips	WD_TR	44.32	14.46
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00

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

tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	26.90	0.00
tblWoodstoves	NumberNoncatalytic	26.90	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

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	7.3946	77.7930	62.6274	0.1673	39.7052	3.2725	42.9327	20.3086	3.0107	23.2779	0.0000	16,886.2264	16,886.2264	3.8992	0.8316	17,173.4367
2023	35.2108	41.6053	68.4585	0.1832	11.6186	1.6439	13.2625	3.1121	1.5548	4.6669	0.0000	18,501.2190	18,501.2190	1.6116	0.8233	18,786.8643
Maximum	**35.2108**	**77.7930**	**68.4585**	**0.1832**	**39.7052**	**3.2725**	**42.9327**	**20.3086**	**3.0107**	**23.2779**	**0.0000**	**18,501.2190**	**18,501.2190**	**3.8992**	**0.8316**	**18,786.8643**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	7.3946	77.7930	62.6274	0.1673	15.7237	3.2725	18.9512	7.9837	3.0107	10.9530	0.0000	16,886.2264	16,886.2264	3.8992	0.8316	17,173.4367
2023	35.2108	41.6053	68.4585	0.1832	11.6186	1.6439	13.2625	3.1121	1.5548	4.6669	0.0000	18,501.2190	18,501.2190	1.6116	0.8233	18,786.8643
Maximum	**35.2108**	**77.7930**	**68.4585**	**0.1832**	**15.7237**	**3.2725**	**18.9512**	**7.9837**	**3.0107**	**10.9530**	**0.0000**	**18,501.2190**	**18,501.2190**	**3.8992**	**0.8316**	**18,786.8643**

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	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	46.73	0.00	42.68	52.62	0.00	44.10	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	17.2633	0.5119	44.4157	2.3500e-003		0.2458	0.2458		0.2458	0.2458	0.0000	79.9644	79.9644	0.0770	0.0000	81.8885
Energy	0.2413	2.0686	0.9279	0.0132		0.1667	0.1667		0.1667	0.1667		2,631.9379	2,631.9379	0.0505	0.0483	2,647.5782
Mobile	12.4833	14.0298	117.8222	0.2495	26.5265	0.1890	26.7154	7.0686	0.1757	7.2443		25,693.2412	25,693.2412	1.7970	1.2018	26,096.3102
Total	**29.9878**	**16.6103**	**163.1658**	**0.2650**	**26.5265**	**0.6014**	**27.1279**	**7.0686**	**0.5882**	**7.6568**	**0.0000**	**28,405.1435**	**28,405.1435**	**1.9245**	**1.2501**	**28,825.7769**

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	17.2633	0.5119	44.4157	2.3500e-003		0.2458	0.2458		0.2458	0.2458	0.0000	79.9644	79.9644	0.0770	0.0000	81.8885
Energy	0.2413	2.0686	0.9279	0.0132		0.1667	0.1667		0.1667	0.1667		2,631.9379	2,631.9379	0.0505	0.0483	2,647.5782
Mobile	12.4833	14.0298	117.8222	0.2495	26.5265	0.1890	26.7154	7.0686	0.1757	7.2443		25,693.2412	25,693.2412	1.7970	1.2018	26,096.3102
Total	**29.9878**	**16.6103**	**163.1658**	**0.2650**	**26.5265**	**0.6014**	**27.1279**	**7.0686**	**0.5882**	**7.6568**	**0.0000**	**28,405.1435**	**28,405.1435**	**1.9245**	**1.2501**	**28,825.7769**

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	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/3/2022	1/14/2022	5	10	
2	Grading	Grading	1/15/2022	3/4/2022	5	35	
3	Building Construction	Building Construction	3/5/2022	8/4/2023	5	370	
4	Architectural Coating	Architectural Coating	1/9/2023	9/22/2023	5	185	
5	Paving	Paving	9/23/2023	11/10/2023	5	35	

Acres of Grading (Site Preparation Phase): 30

Acres of Grading (Grading Phase): 210

Acres of Paving: 17.5

Residential Indoor: 1,089,450; Residential Outdoor: 363,150; Non-Residential Indoor: 270,000; Non-Residential Outdoor: 90,000; Striped Parking Area: 45,738 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	6	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	8	8.00	97	0.37
Grading	Excavators	4	8.00	158	0.38
Grading	Graders	2	8.00	187	0.41
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Scrapers	4	8.00	367	0.48

Grading	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Cranes	2	7.00	231	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Architectural Coating	Air Compressors	2	6.00	78	0.48
Paving	Pavers	4	8.00	130	0.42
Paving	Paving Equipment	4	8.00	132	0.36
Paving	Rollers	4	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	14	35.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	16	40.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	765.00	212.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	153.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	12	30.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					39.3140	0.0000	39.3140	20.2049	0.0000	20.2049			0.0000			0.0000
Off-Road	6.3403	66.1670	39.3955	0.0761		3.2252	3.2252		2.9671	2.9671		7,372.1237	7,372.1237	2.3843		7,431.7311
Total	**6.3403**	**66.1670**	**39.3955**	**0.0761**	**39.3140**	**3.2252**	**42.5392**	**20.2049**	**2.9671**	**23.1720**		**7,372.1237**	**7,372.1237**	**2.3843**		**7,431.7311**

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	0.1268	0.0928	1.2077	3.3300e-003	0.3912	2.3400e-003	0.3936	0.1038	2.1500e-003	0.1059		339.2569	339.2569	9.4700e-003	9.0900e-003	342.2011
Total	**0.1268**	**0.0928**	**1.2077**	**3.3300e-003**	**0.3912**	**2.3400e-003**	**0.3936**	**0.1038**	**2.1500e-003**	**0.1059**		**339.2569**	**339.2569**	**9.4700e-003**	**9.0900e-003**	**342.2011**

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					15.3325	0.0000	15.3325	7.8799	0.0000	7.8799			0.0000			0.0000
Off-Road	6.3403	66.1670	39.3955	0.0761		3.2252	3.2252		2.9671	2.9671	0.0000	7,372.1237	7,372.1237	2.3843		7,431.7311
Total	**6.3403**	**66.1670**	**39.3955**	**0.0761**	**15.3325**	**3.2252**	**18.5576**	**7.8799**	**2.9671**	**10.8471**	**0.0000**	**7,372.1237**	**7,372.1237**	**2.3843**		**7,431.7311**

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	0.1268	0.0928	1.2077	3.3300e-003	0.3912	2.3400e-003	0.3936	0.1038	2.1500e-003	0.1059		339.2569	339.2569	9.4700e-003	9.0900e-003	342.2011
Total	**0.1268**	**0.0928**	**1.2077**	**3.3300e-003**	**0.3912**	**2.3400e-003**	**0.3936**	**0.1038**	**2.1500e-003**	**0.1059**		**339.2569**	**339.2569**	**9.4700e-003**	**9.0900e-003**	**342.2011**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.4072	0.0000	18.4072	7.3075	0.0000	7.3075			0.0000			0.0000
Off-Road	7.2497	77.6870	58.0830	0.1242		3.2698	3.2698		3.0082	3.0082		12,022.8211	12,022.8211	3.8884		12,120.0317
Total	**7.2497**	**77.6870**	**58.0830**	**0.1242**	**18.4072**	**3.2698**	**21.6770**	**7.3075**	**3.0082**	**10.3157**		**12,022.8211**	**12,022.8211**	**3.8884**		**12,120.0317**

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	0.1449	0.1060	1.3802	3.8100e-003	0.4471	2.6700e-003	0.4498	0.1186	2.4600e-003	0.1210		387.7222	387.7222	0.0108	0.0104	391.0869
Total	**0.1449**	**0.1060**	**1.3802**	**3.8100e-003**	**0.4471**	**2.6700e-003**	**0.4498**	**0.1186**	**2.4600e-003**	**0.1210**		**387.7222**	**387.7222**	**0.0108**	**0.0104**	**391.0869**

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.1788	0.0000	7.1788	2.8499	0.0000	2.8499			0.0000			0.0000
Off-Road	7.2497	77.6870	58.0830	0.1242		3.2698	3.2698		3.0082	3.0082	0.0000	12,022.8211	12,022.8211	3.8884		12,120.0317
Total	**7.2497**	**77.6870**	**58.0830**	**0.1242**	**7.1788**	**3.2698**	**10.4486**	**2.8499**	**3.0082**	**5.8581**	**0.0000**	**12,022.8211**	**12,022.8211**	**3.8884**		**12,120.0317**

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	0.1449	0.1060	1.3802	3.8100e-003	0.4471	2.6700e-003	0.4498	0.1186	2.4600e-003	0.1210		387.7222	387.7222	0.0108	0.0104	391.0869
Total	**0.1449**	**0.1060**	**1.3802**	**3.8100e-003**	**0.4471**	**2.6700e-003**	**0.4498**	**0.1186**	**2.4600e-003**	**0.1210**		**387.7222**	**387.7222**	**0.0108**	**0.0104**	**391.0869**

3.4 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	3.4125	31.2313	32.7268	0.0539		1.6180	1.6180		1.5223	1.5223		5,108.6672	5,108.6672	1.2239		5,139.2644
Total	**3.4125**	**31.2313**	**32.7268**	**0.0539**		**1.6180**	**1.6180**		**1.5223**	**1.5223**		**5,108.6672**	**5,108.6672**	**1.2239**		**5,139.2644**

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	0.3796	10.2952	3.5037	0.0406	1.3575	0.1035	1.4610	0.3908	0.0990	0.4899		4,362.3730	4,362.3730	0.1456	0.6330	4,554.6348
Worker	2.7718	2.0277	26.3969	0.0729	8.5509	0.0511	8.6020	2.2677	0.0470	2.3148		7,415.1862	7,415.1862	0.2069	0.1986	7,479.5376
Total	**3.1515**	**12.3229**	**29.9006**	**0.1135**	**9.9084**	**0.1546**	**10.0630**	**2.6586**	**0.1461**	**2.8046**		**11,777.5593**	**11,777.5593**	**0.3525**	**0.8316**	**12,034.1723**

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4125	31.2313	32.7268	0.0539		1.6180	1.6180		1.5223	1.5223	0.0000	5,108.6672	5,108.6672	1.2239		5,139.2644
Total	**3.4125**	**31.2313**	**32.7268**	**0.0539**		**1.6180**	**1.6180**		**1.5223**	**1.5223**	**0.0000**	**5,108.6672**	**5,108.6672**	**1.2239**		**5,139.2644**

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	0.3796	10.2952	3.5037	0.0406	1.3575	0.1035	1.4610	0.3908	0.0990	0.4899		4,362.3730	4,362.3730	0.1456	0.6330	4,554.6348
Worker	2.7718	2.0277	26.3969	0.0729	8.5509	0.0511	8.6020	2.2677	0.0470	2.3148		7,415.1862	7,415.1862	0.2069	0.1986	7,479.5376
Total	**3.1515**	**12.3229**	**29.9006**	**0.1135**	**9.9084**	**0.1546**	**10.0630**	**2.6586**	**0.1461**	**2.8046**		**11,777.5593**	**11,777.5593**	**0.3525**	**0.8316**	**12,034.1723**

3.4 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	3.1455	28.7698	32.4880	0.0539		1.3995	1.3995		1.3169	1.3169		5,110.4199	5,110.4199	1.2157		5,140.8121
Total	**3.1455**	**28.7698**	**32.4880**	**0.0539**		**1.3995**	**1.3995**		**1.3169**	**1.3169**		**5,110.4199**	**5,110.4199**	**1.2157**		**5,140.8121**

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	0.2244	8.0773	3.1275	0.0387	1.3575	0.0451	1.4025	0.3908	0.0431	0.4339		4,163.3694	4,163.3694	0.1390	0.6033	4,346.6140
Worker	2.5796	1.7936	24.3506	0.0706	8.5509	0.0482	8.5991	2.2677	0.0443	2.3121		7,220.4447	7,220.4447	0.1860	0.1834	7,279.7502
Total	**2.8039**	**9.8708**	**27.4781**	**0.1092**	**9.9084**	**0.0932**	**10.0016**	**2.6586**	**0.0874**	**2.7460**		**11,383.8141**	**11,383.8141**	**0.3251**	**0.7867**	**11,626.3641**

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1455	28.7698	32.4880	0.0539		1.3995	1.3995		1.3169	1.3169	0.0000	5,110.4198	5,110.4198	1.2157		5,140.8121
Total	**3.1455**	**28.7698**	**32.4880**	**0.0539**		**1.3995**	**1.3995**		**1.3169**	**1.3169**	**0.0000**	**5,110.4198**	**5,110.4198**	**1.2157**		**5,140.8121**

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	0.2244	8.0773	3.1275	0.0387	1.3575	0.0451	1.4025	0.3908	0.0431	0.4339		4,163.3694	4,163.3694	0.1390	0.6033	4,346.6140
Worker	2.5796	1.7936	24.3506	0.0706	8.5509	0.0482	8.5991	2.2677	0.0443	2.3121		7,220.4447	7,220.4447	0.1860	0.1834	7,279.7502
Total	**2.8039**	**9.8708**	**27.4781**	**0.1092**	**9.9084**	**0.0932**	**10.0016**	**2.6586**	**0.0874**	**2.7460**		**11,383.8141**	**11,383.8141**	**0.3251**	**0.7867**	**11,626.3641**

3.5 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	28.3621					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3833	2.6060	3.6222	5.9400e-003		0.1416	0.1416		0.1416	0.1416		562.8961	562.8961	0.0337		563.7380
Total	**28.7455**	**2.6060**	**3.6222**	**5.9400e-003**		**0.1416**	**0.1416**		**0.1416**	**0.1416**		**562.8961**	**562.8961**	**0.0337**		**563.7380**

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	0.5159	0.3587	4.8701	0.0141	1.7102	9.6300e-003	1.7198	0.4536	8.8700e-003	0.4624		1,444.0889	1,444.0889	0.0372	0.0367	1,455.9500
Total	**0.5159**	**0.3587**	**4.8701**	**0.0141**	**1.7102**	**9.6300e-003**	**1.7198**	**0.4536**	**8.8700e-003**	**0.4624**		**1,444.0889**	**1,444.0889**	**0.0372**	**0.0367**	**1,455.9500**

3.5 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.3621					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3833	2.6060	3.6222	5.9400e-003		0.1416	0.1416		0.1416	0.1416	0.0000	562.8961	562.8961	0.0337		563.7380
Total	**28.7455**	**2.6060**	**3.6222**	**5.9400e-003**		**0.1416**	**0.1416**		**0.1416**	**0.1416**	**0.0000**	**562.8961**	**562.8961**	**0.0337**		**563.7380**

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	0.5159	0.3587	4.8701	0.0141	1.7102	9.6300e-003	1.7198	0.4536	8.8700e-003	0.4624		1,444.0889	1,444.0889	0.0372	0.0367	1,455.9500
Total	**0.5159**	**0.3587**	**4.8701**	**0.0141**	**1.7102**	**9.6300e-003**	**1.7198**	**0.4536**	**8.8700e-003**	**0.4624**		**1,444.0889**	**1,444.0889**	**0.0372**	**0.0367**	**1,455.9500**

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	2.0655	20.3833	29.1684	0.0456		1.0204	1.0204		0.9388	0.9388		4,415.1683	4,415.1683	1.4280		4,450.8672
Paving	1.3100					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.3755**	**20.3833**	**29.1684**	**0.0456**		**1.0204**	**1.0204**		**0.9388**	**0.9388**		**4,415.1683**	**4,415.1683**	**1.4280**		**4,450.8672**

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	0.1012	0.0703	0.9549	2.7700e-003	0.3353	1.8900e-003	0.3372	0.0889	1.7400e-003	0.0907		283.1547	283.1547	7.3000e-003	7.1900e-003	285.4804
Total	**0.1012**	**0.0703**	**0.9549**	**2.7700e-003**	**0.3353**	**1.8900e-003**	**0.3372**	**0.0889**	**1.7400e-003**	**0.0907**		**283.1547**	**283.1547**	**7.3000e-003**	**7.1900e-003**	**285.4804**

3.6 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0655	20.3833	29.1684	0.0456		1.0204	1.0204		0.9388	0.9388	0.0000	4,415.1683	4,415.1683	1.4280		4,450.8672
Paving	1.3100					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.3755**	**20.3833**	**29.1684**	**0.0456**		**1.0204**	**1.0204**		**0.9388**	**0.9388**	**0.0000**	**4,415.1683**	**4,415.1683**	**1.4280**		**4,450.8672**

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	0.1012	0.0703	0.9549	2.7700e-003	0.3353	1.8900e-003	0.3372	0.0889	1.7400e-003	0.0907		283.1547	283.1547	7.3000e-003	7.1900e-003	285.4804
Total	**0.1012**	**0.0703**	**0.9549**	**2.7700e-003**	**0.3353**	**1.8900e-003**	**0.3372**	**0.0889**	**1.7400e-003**	**0.0907**		**283.1547**	**283.1547**	**7.3000e-003**	**7.1900e-003**	**285.4804**

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	12.4833	14.0298	117.8222	0.2495	26.5265	0.1890	26.7154	7.0686	0.1757	7.2443		25,693.24 12	25,693.24 12	1.7970	1.2018	26,096.31 02
Unmitigated	12.4833	14.0298	117.8222	0.2495	26.5265	0.1890	26.7154	7.0686	0.1757	7.2443		25,693.24 12	25,693.24 12	1.7970	1.2018	26,096.31 02

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,909.90	1,726.98	1436.46	6,206,007	6,206,007
Medical Office Building	704.34	173.42	28.86	1,379,925	1,379,925
Other Asphalt Surfaces	0.00	0.00	0.00		
Strip Mall	2,226.84	2,111.34	1025.64	3,878,897	3,878,897
Total	4,841.08	4,011.74	2,490.96	11,464,829	11,464,829

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
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

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

	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
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.543139	0.060749	0.184760	0.130258	0.023830	0.006353	0.011718	0.009137	0.000812	0.000509	0.024193	0.000750	0.003791
Medical Office Building	0.543139	0.060749	0.184760	0.130258	0.023830	0.006353	0.011718	0.009137	0.000812	0.000509	0.024193	0.000750	0.003791
Other Asphalt Surfaces	0.543139	0.060749	0.184760	0.130258	0.023830	0.006353	0.011718	0.009137	0.000812	0.000509	0.024193	0.000750	0.003791
Strip Mall	0.543139	0.060749	0.184760	0.130258	0.023830	0.006353	0.011718	0.009137	0.000812	0.000509	0.024193	0.000750	0.003791

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	0.2413	2.0686	0.9279	0.0132		0.1667	0.1667		0.1667	0.1667		2,631.9379	2,631.9379	0.0505	0.0483	2,647.5782
NaturalGas Unmitigated	0.2413	2.0686	0.9279	0.0132		0.1667	0.1667		0.1667	0.1667		2,631.9379	2,631.9379	0.0505	0.0483	2,647.5782

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					
Apartments Mid Rise	21198.9	0.2286	1.9536	0.8313	0.0125		0.1580	0.1580		0.1580	0.1580		2,493.9911	2,493.9911	0.0478	0.0457	2,508.8117
Medical Office Building	244.329	2.6300e-003	0.0240	0.0201	1.4000e-004		1.8200e-003	1.8200e-003		1.8200e-003	1.8200e-003		28.7446	28.7446	5.5000e-004	5.3000e-004	28.9154
Other 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
Strip Mall	928.219	0.0100	0.0910	0.0764	5.5000e-004		6.9200e-003	6.9200e-003		6.9200e-003	6.9200e-003		109.2023	109.2023	2.0900e-003	2.0000e-003	109.8512
Total		**0.2413**	**2.0686**	**0.9279**	**0.0132**		**0.1667**	**0.1667**		**0.1667**	**0.1667**		**2,631.9379**	**2,631.9379**	**0.0504**	**0.0483**	**2,647.5782**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	21.1989	0.2286	1.9536	0.8313	0.0125		0.1580	0.1580		0.1580	0.1580		2,493.991 1	2,493.991 1	0.0478	0.0457	2,508.811 7
Medical Office Building	0.244329	2.6300e-003	0.0240	0.0201	1.4000e-004		1.8200e-003	1.8200e-003		1.8200e-003	1.8200e-003		28.7446	28.7446	5.5000e-004	5.3000e-004	28.9154
Other 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
Strip Mall	0.928219	0.0100	0.0910	0.0764	5.5000e-004		6.9200e-003	6.9200e-003		6.9200e-003	6.9200e-003		109.2023	109.2023	2.0900e-003	2.0000e-003	109.8512
Total		**0.2413**	**2.0686**	**0.9279**	**0.0132**		**0.1667**	**0.1667**		**0.1667**	**0.1667**		**2,631.937 9**	**2,631.937 9**	**0.0504**	**0.0483**	**2,647.578 2**

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	17.2633	0.5119	44.4157	2.3500e-003		0.2458	0.2458		0.2458	0.2458	0.0000	79.9644	79.9644	0.0770	0.0000	81.8885
Unmitigated	17.2633	0.5119	44.4157	2.3500e-003		0.2458	0.2458		0.2458	0.2458	0.0000	79.9644	79.9644	0.0770	0.0000	81.8885

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	1.4375					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	14.4864					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3394	0.5119	44.4157	2.3500e-003		0.2458	0.2458		0.2458	0.2458		79.9644	79.9644	0.0770		81.8885
Total	**17.2633**	**0.5119**	**44.4157**	**2.3500e-003**		**0.2458**	**0.2458**		**0.2458**	**0.2458**	**0.0000**	**79.9644**	**79.9644**	**0.0770**	**0.0000**	**81.8885**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.4375					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	14.4864					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3394	0.5119	44.4157	2.3500e-003		0.2458	0.2458		0.2458	0.2458		79.9644	79.9644	0.0770		81.8885
Total	**17.2633**	**0.5119**	**44.4157**	**2.3500e-003**		**0.2458**	**0.2458**		**0.2458**	**0.2458**	**0.0000**	**79.9644**	**79.9644**	**0.0770**	**0.0000**	**81.8885**

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

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

Ventana Specific Plan Planning Area 3 Construction

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	396.00	Dwelling Unit	13.20	396,000.00	1133

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2030
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction of Planning Area 3

Land Use - Planning Area 3 = 396 DU on 13.2 acres

Construction Phase - Project would be built over approx 18 months. Using default schedule of 18 months. Adjusted arch coating to overlap with building con and be approx half the length

Off-road Equipment - Default equipment

Grading - Balanced onsite

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403, Mitigation Measure 4.5.1 required 3x daily watering

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblLandUse	LotAcreage	10.42	13.20

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					
2023	0.0559	0.5699	0.4530	1.0000e-003	0.2250	0.0242	0.2492	0.0980	0.0222	0.1203	0.0000	87.8502	87.8502	0.0275	8.0000e-005	88.5608
2024	0.3098	2.0936	3.3435	7.9200e-003	0.4992	0.0855	0.5847	0.1301	0.0803	0.2104	0.0000	718.1884	718.1884	0.0854	0.0213	726.6636
2025	1.2989	0.4130	0.7177	1.6000e-003	0.0808	0.0166	0.0975	0.0216	0.0156	0.0372	0.0000	144.8126	144.8126	0.0201	3.5700e-003	146.3807
Maximum	**1.2989**	**2.0936**	**3.3435**	**7.9200e-003**	**0.4992**	**0.0855**	**0.5847**	**0.1301**	**0.0803**	**0.2104**	**0.0000**	**718.1884**	**718.1884**	**0.0854**	**0.0213**	**726.6636**

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					
2023	0.0559	0.5699	0.4530	1.0000e-003	0.0900	0.0242	0.1142	0.0388	0.0222	0.0611	0.0000	87.8501	87.8501	0.0275	8.0000e-005	88.5607
2024	0.3098	2.0936	3.3435	7.9200e-003	0.4609	0.0855	0.5464	0.1219	0.0803	0.2023	0.0000	718.1880	718.1880	0.0854	0.0213	726.6632
2025	1.2989	0.4130	0.7177	1.6000e-003	0.0808	0.0166	0.0975	0.0216	0.0156	0.0372	0.0000	144.8126	144.8126	0.0201	3.5700e-003	146.3806
Maximum	**1.2989**	**2.0936**	**3.3435**	**7.9200e-003**	**0.4609**	**0.0855**	**0.5464**	**0.1219**	**0.0803**	**0.2023**	**0.0000**	**718.1880**	**718.1880**	**0.0854**	**0.0213**	**726.6632**

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	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	21.53	0.00	18.61	26.98	0.00	18.32	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	11-13-2023	2-12-2024	0.9402	0.9402
2	2-13-2024	5-12-2024	0.5780	0.5780
3	5-13-2024	8-12-2024	0.5878	0.5878
4	8-13-2024	11-12-2024	0.5904	0.5904
5	11-13-2024	2-12-2025	0.5751	0.5751
6	2-13-2025	5-12-2025	1.4467	1.4467
		Highest	1.4467	1.4467

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.9737	0.1497	6.5904	6.6400e-003		0.4008	0.4008		0.4008	0.4008	42.0628	87.5010	129.5638	0.1318	2.8500e-003	133.7094
Energy	0.0307	0.2624	0.1117	1.6800e-003		0.0212	0.0212		0.0212	0.0212	0.0000	582.0319	582.0319	0.0293	8.4200e-003	585.2727
Mobile	0.8978	0.9948	9.2013	0.0210	2.6349	0.0138	2.6486	0.7032	0.0128	0.7161	0.0000	2,054.3072	2,054.3072	0.1256	0.0858	2,083.0070
Waste						0.0000	0.0000		0.0000	0.0000	36.9768	0.0000	36.9768	2.1853	0.0000	91.6085
Water						0.0000	0.0000		0.0000	0.0000	8.1855	91.6288	99.8143	0.8485	0.0208	127.2208
Total	**3.9023**	**1.4069**	**15.9033**	**0.0293**	**2.6349**	**0.4358**	**3.0706**	**0.7032**	**0.4348**	**1.1381**	**87.2251**	**2,815.4689**	**2,902.6939**	**3.3204**	**0.1178**	**3,020.8185**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.9737	0.1497	6.5904	6.6400e-003		0.4008	0.4008		0.4008	0.4008	42.0628	87.5010	129.5638	0.1318	2.8500e-003	133.7094
Energy	0.0307	0.2624	0.1117	1.6800e-003		0.0212	0.0212		0.0212	0.0212	0.0000	582.0319	582.0319	0.0293	8.4200e-003	585.2727
Mobile	0.8978	0.9948	9.2013	0.0210	2.6349	0.0138	2.6486	0.7032	0.0128	0.7161	0.0000	2,054.3072	2,054.3072	0.1256	0.0858	2,083.0070
Waste						0.0000	0.0000		0.0000	0.0000	36.9768	0.0000	36.9768	2.1853	0.0000	91.6085
Water						0.0000	0.0000		0.0000	0.0000	8.1855	91.6288	99.8143	0.8485	0.0208	127.2208
Total	**3.9023**	**1.4069**	**15.9033**	**0.0293**	**2.6349**	**0.4358**	**3.0706**	**0.7032**	**0.4348**	**1.1381**	**87.2251**	**2,815.4689**	**2,902.6939**	**3.3204**	**0.1178**	**3,020.8185**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/13/2023	11/24/2023	5	10	
2	Grading	Grading	11/25/2023	1/5/2024	5	30	
3	Building Construction	Building Construction	1/6/2024	2/28/2025	5	300	

4	Architectural Coating	Architectural Coating	3/29/2025	4/25/2025	5	20	
5	Paving	Paving	3/1/2025	3/28/2025	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 90

Acres of Paving: 0

Residential Indoor: 801,900; Residential Outdoor: 267,300; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	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

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

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	285.00	42.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	57.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 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					
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	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7254	16.7254	5.4100e-003	0.0000	16.8606
Total	**0.0133**	**0.1376**	**0.0912**	**1.9000e-004**	**0.0983**	**6.3300e-003**	**0.1046**	**0.0505**	**5.8200e-003**	**0.0563**	**0.0000**	**16.7254**	**16.7254**	**5.4100e-003**	**0.0000**	**16.8606**

3.2 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	2.8000e-004	2.2000e-004	2.9400e-003	1.0000e-005	9.9000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.7824	0.7824	2.0000e-005	2.0000e-005	0.7888
Total	**2.8000e-004**	**2.2000e-004**	**2.9400e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**9.9000e-004**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.7824**	**0.7824**	**2.0000e-005**	**2.0000e-005**	**0.7888**

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					0.0383	0.0000	0.0383	0.0197	0.0000	0.0197	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7253	16.7253	5.4100e-003	0.0000	16.8606
Total	**0.0133**	**0.1376**	**0.0912**	**1.9000e-004**	**0.0383**	**6.3300e-003**	**0.0447**	**0.0197**	**5.8200e-003**	**0.0255**	**0.0000**	**16.7253**	**16.7253**	**5.4100e-003**	**0.0000**	**16.8606**

3.2 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	2.8000e-004	2.2000e-004	2.9400e-003	1.0000e-005	9.9000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.7824	0.7824	2.0000e-005	2.0000e-005	0.7888
Total	**2.8000e-004**	**2.2000e-004**	**2.9400e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**9.9000e-004**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.7824**	**0.7824**	**2.0000e-005**	**2.0000e-005**	**0.7888**

3.3 Grading - 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					
Fugitive Dust					0.1230	0.0000	0.1230	0.0465	0.0000	0.0465	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0415	0.4314	0.3506	7.8000e-004		0.0178	0.0178		0.0164	0.0164	0.0000	68.1690	68.1690	0.0221	0.0000	68.7202
Total	**0.0415**	**0.4314**	**0.3506**	**7.8000e-004**	**0.1230**	**0.0178**	**0.1408**	**0.0465**	**0.0164**	**0.0629**	**0.0000**	**68.1690**	**68.1690**	**0.0221**	**0.0000**	**68.7202**

3.3 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.8000e-004	6.0000e-004	8.1800e-003	2.0000e-005	2.7400e-003	2.0000e-005	2.7600e-003	7.3000e-004	1.0000e-005	7.4000e-004	0.0000	2.1734	2.1734	6.0000e-005	6.0000e-005	2.1912
Total	**7.8000e-004**	**6.0000e-004**	**8.1800e-003**	**2.0000e-005**	**2.7400e-003**	**2.0000e-005**	**2.7600e-003**	**7.3000e-004**	**1.0000e-005**	**7.4000e-004**	**0.0000**	**2.1734**	**2.1734**	**6.0000e-005**	**6.0000e-005**	**2.1912**

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					0.0480	0.0000	0.0480	0.0182	0.0000	0.0182	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0415	0.4314	0.3506	7.8000e-004		0.0178	0.0178		0.0164	0.0164	0.0000	68.1689	68.1689	0.0221	0.0000	68.7201
Total	**0.0415**	**0.4314**	**0.3506**	**7.8000e-004**	**0.0480**	**0.0178**	**0.0658**	**0.0182**	**0.0164**	**0.0345**	**0.0000**	**68.1689**	**68.1689**	**0.0221**	**0.0000**	**68.7201**

3.3 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.8000e-004	6.0000e-004	8.1800e-003	2.0000e-005	2.7400e-003	2.0000e-005	2.7600e-003	7.3000e-004	1.0000e-005	7.4000e-004	0.0000	2.1734	2.1734	6.0000e-005	6.0000e-005	2.1912
Total	**7.8000e-004**	**6.0000e-004**	**8.1800e-003**	**2.0000e-005**	**2.7400e-003**	**2.0000e-005**	**2.7600e-003**	**7.3000e-004**	**1.0000e-005**	**7.4000e-004**	**0.0000**	**2.1734**	**2.1734**	**6.0000e-005**	**6.0000e-005**	**2.1912**

3.3 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0628	0.0000	0.0628	0.0134	0.0000	0.0134	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.0500e-003	0.0809	0.0693	1.6000e-004		3.3400e-003	3.3400e-003		3.0700e-003	3.0700e-003	0.0000	13.6299	13.6299	4.4100e-003	0.0000	13.7401
Total	**8.0500e-003**	**0.0809**	**0.0693**	**1.6000e-004**	**0.0628**	**3.3400e-003**	**0.0661**	**0.0134**	**3.0700e-003**	**0.0165**	**0.0000**	**13.6299**	**13.6299**	**4.4100e-003**	**0.0000**	**13.7401**

3.3 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	1.1000e-004	1.5300e-003	0.0000	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4253	0.4253	1.0000e-005	1.0000e-005	0.4287
Total	**1.5000e-004**	**1.1000e-004**	**1.5300e-003**	**0.0000**	**5.5000e-004**	**0.0000**	**5.5000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.4253**	**0.4253**	**1.0000e-005**	**1.0000e-005**	**0.4287**

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					0.0245	0.0000	0.0245	5.2400e-003	0.0000	5.2400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.0500e-003	0.0809	0.0693	1.6000e-004		3.3400e-003	3.3400e-003		3.0700e-003	3.0700e-003	0.0000	13.6299	13.6299	4.4100e-003	0.0000	13.7401
Total	**8.0500e-003**	**0.0809**	**0.0693**	**1.6000e-004**	**0.0245**	**3.3400e-003**	**0.0278**	**5.2400e-003**	**3.0700e-003**	**8.3100e-003**	**0.0000**	**13.6299**	**13.6299**	**4.4100e-003**	**0.0000**	**13.7401**

3.3 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	1.1000e-004	1.5300e-003	0.0000	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4253	0.4253	1.0000e-005	1.0000e-005	0.4287
Total	**1.5000e-004**	**1.1000e-004**	**1.5300e-003**	**0.0000**	**5.5000e-004**	**0.0000**	**5.5000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.4253**	**0.4253**	**1.0000e-005**	**1.0000e-005**	**0.4287**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1891	1.7275	2.0774	3.4600e-003		0.0788	0.0788		0.0741	0.0741	0.0000	297.9261	297.9261	0.0705	0.0000	299.6874
Total	**0.1891**	**1.7275**	**2.0774**	**3.4600e-003**		**0.0788**	**0.0788**		**0.0741**	**0.0741**	**0.0000**	**297.9261**	**297.9261**	**0.0705**	**0.0000**	**299.6874**

3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.6900e-003	0.2065	0.0770	9.7000e-004	0.0340	1.1500e-003	0.0352	9.8200e-003	1.1000e-003	0.0109	0.0000	94.6707	94.6707	3.2200e-003	0.0137	98.8446
Worker	0.1068	0.0784	1.1182	3.3300e-003	0.4018	2.2100e-003	0.4040	0.1067	2.0300e-003	0.1087	0.0000	311.5364	311.5364	7.3300e-003	7.5300e-003	313.9629
Total	**0.1125**	**0.2850**	**1.1952**	**4.3000e-003**	**0.4358**	**3.3600e-003**	**0.4392**	**0.1165**	**3.1300e-003**	**0.1197**	**0.0000**	**406.2070**	**406.2070**	**0.0106**	**0.0213**	**412.8075**

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	0.1891	1.7275	2.0774	3.4600e-003		0.0788	0.0788		0.0741	0.0741	0.0000	297.9257	297.9257	0.0705	0.0000	299.6870
Total	**0.1891**	**1.7275**	**2.0774**	**3.4600e-003**		**0.0788**	**0.0788**		**0.0741**	**0.0741**	**0.0000**	**297.9257**	**297.9257**	**0.0705**	**0.0000**	**299.6870**

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.6900e-003	0.2065	0.0770	9.7000e-004	0.0340	1.1500e-003	0.0352	9.8200e-003	1.1000e-003	0.0109	0.0000	94.6707	94.6707	3.2200e-003	0.0137	98.8446
Worker	0.1068	0.0784	1.1182	3.3300e-003	0.4018	2.2100e-003	0.4040	0.1067	2.0300e-003	0.1087	0.0000	311.5364	311.5364	7.3300e-003	7.5300e-003	313.9629
Total	**0.1125**	**0.2850**	**1.1952**	**4.3000e-003**	**0.4358**	**3.3600e-003**	**0.4392**	**0.1165**	**3.1300e-003**	**0.1197**	**0.0000**	**406.2070**	**406.2070**	**0.0106**	**0.0213**	**412.8075**

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0294	0.2681	0.3458	5.8000e-004		0.0113	0.0113		0.0107	0.0107	0.0000	49.8627	49.8627	0.0117	0.0000	50.1557
Total	**0.0294**	**0.2681**	**0.3458**	**5.8000e-004**		**0.0113**	**0.0113**		**0.0107**	**0.0107**	**0.0000**	**49.8627**	**49.8627**	**0.0117**	**0.0000**	**50.1557**

3.4 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.3000e-004	0.0344	0.0127	1.6000e-004	5.6900e-003	1.9000e-004	5.8900e-003	1.6400e-003	1.8000e-004	1.8300e-003	0.0000	15.5513	15.5513	5.4000e-004	2.2600e-003	16.2380
Worker	0.0168	0.0118	0.1748	5.4000e-004	0.0672	3.5000e-004	0.0676	0.0179	3.2000e-004	0.0182	0.0000	50.8510	50.8510	1.1100e-003	1.1800e-003	51.2295
Total	**0.0177**	**0.0462**	**0.1874**	**7.0000e-004**	**0.0729**	**5.4000e-004**	**0.0735**	**0.0195**	**5.0000e-004**	**0.0200**	**0.0000**	**66.4023**	**66.4023**	**1.6500e-003**	**3.4400e-003**	**67.4675**

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	0.0294	0.2681	0.3458	5.8000e-004		0.0113	0.0113		0.0107	0.0107	0.0000	49.8626	49.8626	0.0117	0.0000	50.1557
Total	**0.0294**	**0.2681**	**0.3458**	**5.8000e-004**		**0.0113**	**0.0113**		**0.0107**	**0.0107**	**0.0000**	**49.8626**	**49.8626**	**0.0117**	**0.0000**	**50.1557**

3.4 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.3000e-004	0.0344	0.0127	1.6000e-004	5.6900e-003	1.9000e-004	5.8900e-003	1.6400e-003	1.8000e-004	1.8300e-003	0.0000	15.5513	15.5513	5.4000e-004	2.2600e-003	16.2380
Worker	0.0168	0.0118	0.1748	5.4000e-004	0.0672	3.5000e-004	0.0676	0.0179	3.2000e-004	0.0182	0.0000	50.8510	50.8510	1.1100e-003	1.1800e-003	51.2295
Total	**0.0177**	**0.0462**	**0.1874**	**7.0000e-004**	**0.0729**	**5.4000e-004**	**0.0735**	**0.0195**	**5.0000e-004**	**0.0200**	**0.0000**	**66.4023**	**66.4023**	**1.6500e-003**	**3.4400e-003**	**67.4675**

3.5 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2389					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0115	0.0181	3.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5567
Total	**1.2407**	**0.0115**	**0.0181**	**3.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5567**

3.5 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5600e-003	1.1000e-003	0.0163	5.0000e-005	6.2500e-003	3.0000e-005	6.2900e-003	1.6600e-003	3.0000e-005	1.6900e-003	0.0000	4.7303	4.7303	1.0000e-004	1.1000e-004	4.7655
Total	**1.5600e-003**	**1.1000e-003**	**0.0163**	**5.0000e-005**	**6.2500e-003**	**3.0000e-005**	**6.2900e-003**	**1.6600e-003**	**3.0000e-005**	**1.6900e-003**	**0.0000**	**4.7303**	**4.7303**	**1.0000e-004**	**1.1000e-004**	**4.7655**

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	1.2389					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0115	0.0181	3.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5567
Total	**1.2407**	**0.0115**	**0.0181**	**3.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5567**

3.5 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5600e-003	1.1000e-003	0.0163	5.0000e-005	6.2500e-003	3.0000e-005	6.2900e-003	1.6600e-003	3.0000e-005	1.6900e-003	0.0000	4.7303	4.7303	1.0000e-004	1.1000e-004	4.7655
Total	**1.5600e-003**	**1.1000e-003**	**0.0163**	**5.0000e-005**	**6.2500e-003**	**3.0000e-005**	**6.2900e-003**	**1.6600e-003**	**3.0000e-005**	**1.6900e-003**	**0.0000**	**4.7303**	**4.7303**	**1.0000e-004**	**1.1000e-004**	**4.7655**

3.6 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.1500e-003	0.0858	0.1458	2.3000e-004		4.1900e-003	4.1900e-003		3.8500e-003	3.8500e-003	0.0000	20.0193	20.0193	6.4700e-003	0.0000	20.1811
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.1500e-003**	**0.0858**	**0.1458**	**2.3000e-004**		**4.1900e-003**	**4.1900e-003**		**3.8500e-003**	**3.8500e-003**	**0.0000**	**20.0193**	**20.0193**	**6.4700e-003**	**0.0000**	**20.1811**

3.6 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	2.9000e-004	4.2800e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6500e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.2448	1.2448	3.0000e-005	3.0000e-005	1.2541
Total	**4.1000e-004**	**2.9000e-004**	**4.2800e-003**	**1.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6500e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.2448**	**1.2448**	**3.0000e-005**	**3.0000e-005**	**1.2541**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.1500e-003	0.0858	0.1458	2.3000e-004		4.1900e-003	4.1900e-003		3.8500e-003	3.8500e-003	0.0000	20.0192	20.0192	6.4700e-003	0.0000	20.1811
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.1500e-003**	**0.0858**	**0.1458**	**2.3000e-004**		**4.1900e-003**	**4.1900e-003**		**3.8500e-003**	**3.8500e-003**	**0.0000**	**20.0192**	**20.0192**	**6.4700e-003**	**0.0000**	**20.1811**

3.6 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	2.9000e-004	4.2800e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6500e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.2448	1.2448	3.0000e-005	3.0000e-005	1.2541
Total	**4.1000e-004**	**2.9000e-004**	**4.2800e-003**	**1.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6500e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.2448**	**1.2448**	**3.0000e-005**	**3.0000e-005**	**1.2541**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.8978	0.9948	9.2013	0.0210	2.6349	0.0138	2.6486	0.7032	0.0128	0.7161	0.0000	2,054.3072	2,054.3072	0.1256	0.0858	2,083.0070
Unmitigated	0.8978	0.9948	9.2013	0.0210	2.6349	0.0138	2.6486	0.7032	0.0128	0.7161	0.0000	2,054.3072	2,054.3072	0.1256	0.0858	2,083.0070

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	2,154.24	1,944.36	1619.64	6,997,937	6,997,937
Total	2,154.24	1,944.36	1,619.64	6,997,937	6,997,937

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
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.537356	0.064746	0.188411	0.126034	0.023886	0.006883	0.012812	0.008954	0.000819	0.000470	0.025457	0.000765	0.003406

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	278.1069	278.1069	0.0235	2.8500e-003	279.5416
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	278.1069	278.1069	0.0235	2.8500e-003	279.5416
NaturalGas Mitigated	0.0307	0.2624	0.1117	1.6800e-003		0.0212	0.0212		0.0212	0.0212	0.0000	303.9250	303.9250	5.8300e-003	5.5700e-003	305.7311
NaturalGas Unmitigated	0.0307	0.2624	0.1117	1.6800e-003		0.0212	0.0212		0.0212	0.0212	0.0000	303.9250	303.9250	5.8300e-003	5.5700e-003	305.7311

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	5.69534e+006	0.0307	0.2624	0.1117	1.6800e-003		0.0212	0.0212		0.0212	0.0212	0.0000	303.9250	303.9250	5.8300e-003	5.5700e-003	305.7311
Total		**0.0307**	**0.2624**	**0.1117**	**1.6800e-003**		**0.0212**	**0.0212**		**0.0212**	**0.0212**	**0.0000**	**303.9250**	**303.9250**	**5.8300e-003**	**5.5700e-003**	**305.7311**

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					
Apartments Mid Rise	5.69534e+006	0.0307	0.2624	0.1117	1.6800e-003		0.0212	0.0212		0.0212	0.0212	0.0000	303.9250	303.9250	5.8300e-003	5.5700e-003	305.7311
Total		**0.0307**	**0.2624**	**0.1117**	**1.6800e-003**		**0.0212**	**0.0212**		**0.0212**	**0.0212**	**0.0000**	**303.9250**	**303.9250**	**5.8300e-003**	**5.5700e-003**	**305.7311**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.56816e+006	278.1069	0.0235	2.8500e-003	279.5416
Total		**278.1069**	**0.0235**	**2.8500e-003**	**279.5416**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.56816e+006	278.1069	0.0235	2.8500e-003	279.5416
Total		**278.1069**	**0.0235**	**2.8500e-003**	**279.5416**

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	2.9737	0.1497	6.5904	6.6400e-003		0.4008	0.4008		0.4008	0.4008	42.0628	87.5010	129.5638	0.1318	2.8500e-003	133.7094
Unmitigated	2.9737	0.1497	6.5904	6.6400e-003		0.4008	0.4008		0.4008	0.4008	42.0628	87.5010	129.5638	0.1318	2.8500e-003	133.7094

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	0.1239					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.4310					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.2971	0.1027	2.5173	6.4200e-003		0.3781	0.3781		0.3781	0.3781	42.0628	80.8302	122.8929	0.1254	2.8500e-003	126.8797
Landscaping	0.1218	0.0470	4.0730	2.2000e-004		0.0227	0.0227		0.0227	0.0227	0.0000	6.6708	6.6708	6.3600e-003	0.0000	6.8297
Total	**2.9738**	**0.1497**	**6.5904**	**6.6400e-003**		**0.4008**	**0.4008**		**0.4008**	**0.4008**	**42.0628**	**87.5010**	**129.5638**	**0.1318**	**2.8500e-003**	**133.7094**

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1239					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.4310					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.2971	0.1027	2.5173	6.4200e-003		0.3781	0.3781		0.3781	0.3781	42.0628	80.8302	122.8929	0.1254	2.8500e-003	126.8797
Landscaping	0.1218	0.0470	4.0730	2.2000e-004		0.0227	0.0227		0.0227	0.0227	0.0000	6.6708	6.6708	6.3600e-003	0.0000	6.8297
Total	**2.9738**	**0.1497**	**6.5904**	**6.6400e-003**		**0.4008**	**0.4008**		**0.4008**	**0.4008**	**42.0628**	**87.5010**	**129.5638**	**0.1318**	**2.8500e-003**	**133.7094**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	99.8143	0.8485	0.0208	127.2208
Unmitigated	99.8143	0.8485	0.0208	127.2208

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	25.801 / 16.2658	99.8143	0.8485	0.0208	127.2208
Total		**99.8143**	**0.8485**	**0.0208**	**127.2208**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	25.801 / 16.2658	99.8143	0.8485	0.0208	127.2208
Total		**99.8143**	**0.8485**	**0.0208**	**127.2208**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	36.9768	2.1853	0.0000	91.6085
Unmitigated	36.9768	2.1853	0.0000	91.6085

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	182.16	36.9768	2.1853	0.0000	91.6085
Total		**36.9768**	**2.1853**	**0.0000**	**91.6085**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	182.16	36.9768	2.1853	0.0000	91.6085
Total		**36.9768**	**2.1853**	**0.0000**	**91.6085**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

Ventana Specific Plan Planning Area 3 Construction

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	396.00	Dwelling Unit	13.20	396,000.00	1133

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2030
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction of Planning Area 3

Land Use - Planning Area 3 = 396 DU on 13.2 acres

Construction Phase - Project would be built over approx 18 months. Using default schedule of 18 months. Adjusted arch coating to overlap with building con and be approx half the length

Off-road Equipment - Default equipment

Grading - Balanced onsite

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403, Mitigation Measure 4.5.1 required 3x daily watering

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblLandUse	LotAcreage	10.42	13.20

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					
2023	3.3856	34.5585	28.7546	0.0641	19.8582	1.4258	21.1254	10.1558	1.3117	11.3216	0.0000	6,211.8776	6,211.8776	1.9490	4.5200e-003	6,261.9505
2024	3.2778	32.4153	28.3791	0.0640	9.4271	1.3366	10.7638	3.7130	1.2297	4.9427	0.0000	6,205.8377	6,205.8377	1.9480	0.1776	6,255.7924
2025	124.2237	14.4852	25.3958	0.0605	3.4546	0.5529	4.0075	0.9223	0.5199	1.4422	0.0000	6,079.0194	6,079.0194	0.7167	0.1717	6,147.3072
Maximum	**124.2237**	**34.5585**	**28.7546**	**0.0641**	**19.8582**	**1.4258**	**21.1254**	**10.1558**	**1.3117**	**11.3216**	**0.0000**	**6,211.8776**	**6,211.8776**	**1.9490**	**0.1776**	**6,261.9505**

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					
2023	3.3856	34.5585	28.7546	0.0641	7.8674	1.4258	9.1346	3.9933	1.3117	5.1591	0.0000	6,211.8776	6,211.8776	1.9490	4.5200e-003	6,261.9504
2024	3.2778	32.4153	28.3791	0.0640	3.8130	1.3366	5.1496	1.4843	1.2297	2.7139	0.0000	6,205.8377	6,205.8377	1.9480	0.1776	6,255.7924
2025	124.2237	14.4852	25.3958	0.0605	3.4546	0.5529	4.0075	0.9223	0.5199	1.4422	0.0000	6,079.0194	6,079.0194	0.7167	0.1717	6,147.3072
Maximum	**124.2237**	**34.5585**	**28.7546**	**0.0641**	**7.8674**	**1.4258**	**9.1346**	**3.9933**	**1.3117**	**5.1591**	**0.0000**	**6,211.8776**	**6,211.8776**	**1.9490**	**0.1776**	**6,261.9504**

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	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	53.77	0.00	49.04	56.73	0.00	47.39	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	113.2605	8.5920	233.9707	0.5155		30.4310	30.4310		30.4310	30.4310	3,709.2997	7,186.8267	10,896.1264	11.1179	0.2518	11,249.0985
Energy	0.1683	1.4380	0.6119	9.1800e-003		0.1163	0.1163		0.1163	0.1163		1,835.7258	1,835.7258	0.0352	0.0337	1,846.6346
Mobile	5.4598	5.2917	54.1955	0.1259	15.5129	0.0797	15.5926	4.1343	0.0743	4.2085		13,574.6904	13,574.6904	0.7839	0.5243	13,750.5419
Total	**118.8886**	**15.3217**	**288.7781**	**0.6506**	**15.5129**	**30.6269**	**46.1399**	**4.1343**	**30.6215**	**34.7557**	**3,709.2997**	**22,597.2430**	**26,306.5427**	**11.9370**	**0.8098**	**26,846.2750**

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	113.2605	8.5920	233.9707	0.5155		30.4310	30.4310		30.4310	30.4310	3,709.2997	7,186.8267	10,896.1264	11.1179	0.2518	11,249.0985
Energy	0.1683	1.4380	0.6119	9.1800e-003		0.1163	0.1163		0.1163	0.1163		1,835.7258	1,835.7258	0.0352	0.0337	1,846.6346
Mobile	5.4598	5.2917	54.1955	0.1259	15.5129	0.0797	15.5926	4.1343	0.0743	4.2085		13,574.6904	13,574.6904	0.7839	0.5243	13,750.5419
Total	**118.8886**	**15.3217**	**288.7781**	**0.6506**	**15.5129**	**30.6269**	**46.1399**	**4.1343**	**30.6215**	**34.7557**	**3,709.2997**	**22,597.2430**	**26,306.5427**	**11.9370**	**0.8098**	**26,846.2750**

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	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/13/2023	11/24/2023	5	10	
2	Grading	Grading	11/25/2023	1/5/2024	5	30	
3	Building Construction	Building Construction	1/6/2024	2/28/2025	5	300	
4	Architectural Coating	Architectural Coating	3/29/2025	4/25/2025	5	20	
5	Paving	Paving	3/1/2025	3/28/2025	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 90

Acres of Paving: 0

Residential Indoor: 801,900; Residential Outdoor: 267,300; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	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

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

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
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	285.00	42.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	57.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 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					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**19.6570**	**1.2660**	**20.9230**	**10.1025**	**1.1647**	**11.2672**		**3,687.308 1**	**3,687.308 1**	**1.1926**		**3,717.121 9**

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	0.0575	0.0386	0.6331	1.7600e-003	0.2012	1.1300e-003	0.2023	0.0534	1.0400e-003	0.0544		180.3599	180.3599	4.3200e-003	4.0700e-003	181.6802
Total	**0.0575**	**0.0386**	**0.6331**	**1.7600e-003**	**0.2012**	**1.1300e-003**	**0.2023**	**0.0534**	**1.0400e-003**	**0.0544**		**180.3599**	**180.3599**	**4.3200e-003**	**4.0700e-003**	**181.6802**

3.2 Site Preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.6662	0.0000	7.6662	3.9400	0.0000	3.9400			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**7.6662**	**1.2660**	**8.9323**	**3.9400**	**1.1647**	**5.1047**	**0.0000**	**3,687.308 1**	**3,687.308 1**	**1.1926**		**3,717.121 9**

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	0.0575	0.0386	0.6331	1.7600e-003	0.2012	1.1300e-003	0.2023	0.0534	1.0400e-003	0.0544		180.3599	180.3599	4.3200e-003	4.0700e-003	181.6802
Total	**0.0575**	**0.0386**	**0.6331**	**1.7600e-003**	**0.2012**	**1.1300e-003**	**0.2023**	**0.0534**	**1.0400e-003**	**0.0544**		**180.3599**	**180.3599**	**4.3200e-003**	**4.0700e-003**	**181.6802**

3.3 Grading - 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					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**9.2036**	**1.4245**	**10.6281**	**3.6538**	**1.3105**	**4.9643**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

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	0.0639	0.0429	0.7035	1.9600e-003	0.2236	1.2600e-003	0.2248	0.0593	1.1600e-003	0.0605		200.3998	200.3998	4.8000e-003	4.5200e-003	201.8669
Total	**0.0639**	**0.0429**	**0.7035**	**1.9600e-003**	**0.2236**	**1.2600e-003**	**0.2248**	**0.0593**	**1.1600e-003**	**0.0605**		**200.3998**	**200.3998**	**4.8000e-003**	**4.5200e-003**	**201.8669**

3.3 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.5894	0.0000	3.5894	1.4250	0.0000	1.4250			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**3.5894**	**1.4245**	**5.0139**	**1.4250**	**1.3105**	**2.7355**	**0.0000**	**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

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	0.0639	0.0429	0.7035	1.9600e-003	0.2236	1.2600e-003	0.2248	0.0593	1.1600e-003	0.0605		200.3998	200.3998	4.8000e-003	4.5200e-003	201.8669
Total	**0.0639**	**0.0429**	**0.7035**	**1.9600e-003**	**0.2236**	**1.2600e-003**	**0.2248**	**0.0593**	**1.1600e-003**	**0.0605**		**200.3998**	**200.3998**	**4.8000e-003**	**4.5200e-003**	**201.8669**

3.3 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286		6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**9.2036**	**1.3354**	**10.5390**	**3.6538**	**1.2286**	**4.8823**		**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

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	0.0597	0.0383	0.6562	1.9000e-003	0.2236	1.2100e-003	0.2248	0.0593	1.1100e-003	0.0604		196.0891	196.0891	4.3500e-003	4.2100e-003	197.4519
Total	**0.0597**	**0.0383**	**0.6562**	**1.9000e-003**	**0.2236**	**1.2100e-003**	**0.2248**	**0.0593**	**1.1100e-003**	**0.0604**		**196.0891**	**196.0891**	**4.3500e-003**	**4.2100e-003**	**197.4519**

3.3 Grading - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.5894	0.0000	3.5894	1.4250	0.0000	1.4250			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286	0.0000	6,009.748 7	6,009.748 7	1.9437		6,058.340 5
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**3.5894**	**1.3354**	**4.9248**	**1.4250**	**1.2286**	**2.6535**	**0.0000**	**6,009.748 7**	**6,009.748 7**	**1.9437**		**6,058.340 5**

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	0.0597	0.0383	0.6562	1.9000e-003	0.2236	1.2100e-003	0.2248	0.0593	1.1100e-003	0.0604		196.0891	196.0891	4.3500e-003	4.2100e-003	197.4519
Total	**0.0597**	**0.0383**	**0.6562**	**1.9000e-003**	**0.2236**	**1.2100e-003**	**0.2248**	**0.0593**	**1.1100e-003**	**0.0604**		**196.0891**	**196.0891**	**4.3500e-003**	**4.2100e-003**	**197.4519**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.698 9	2,555.698 9	0.6044		2,570.807 7
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.698 9**	**2,555.698 9**	**0.6044**		**2,570.807 7**

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	0.0453	1.5315	0.5904	7.5300e-003	0.2689	8.9000e-003	0.2778	0.0774	8.5100e-003	0.0859		811.4855	811.4855	0.0277	0.1177	847.2374
Worker	0.8501	0.5461	9.3515	0.0271	3.1856	0.0172	3.2028	0.8448	0.0158	0.8607		2,794.269 1	2,794.269 1	0.0619	0.0600	2,813.689 3
Total	**0.8955**	**2.0777**	**9.9418**	**0.0346**	**3.4546**	**0.0261**	**3.4807**	**0.9223**	**0.0243**	**0.9466**		**3,605.754 6**	**3,605.754 6**	**0.0896**	**0.1776**	**3,660.926 7**

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

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	0.0453	1.5315	0.5904	7.5300e-003	0.2689	8.9000e-003	0.2778	0.0774	8.5100e-003	0.0859		811.4855	811.4855	0.0277	0.1177	847.2374
Worker	0.8501	0.5461	9.3515	0.0271	3.1856	0.0172	3.2028	0.8448	0.0158	0.8607		2,794.2691	2,794.2691	0.0619	0.0600	2,813.6893
Total	**0.8955**	**2.0777**	**9.9418**	**0.0346**	**3.4546**	**0.0261**	**3.4807**	**0.9223**	**0.0243**	**0.9466**		**3,605.7546**	**3,605.7546**	**0.0896**	**0.1776**	**3,660.9267**

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

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	0.0444	1.5243	0.5815	7.3900e-003	0.2689	8.9300e-003	0.2779	0.0774	8.5400e-003	0.0860		796.6949	796.6949	0.0278	0.1156	831.8494
Worker	0.7964	0.4912	8.7297	0.0262	3.1856	0.0164	3.2020	0.8448	0.0151	0.8599		2,725.8501	2,725.8501	0.0559	0.0561	2,743.9598
Total	**0.8407**	**2.0155**	**9.3112**	**0.0336**	**3.4546**	**0.0253**	**3.4799**	**0.9223**	**0.0236**	**0.9459**		**3,522.5450**	**3,522.5450**	**0.0837**	**0.1717**	**3,575.8092**

3.4 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

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	0.0444	1.5243	0.5815	7.3900e-003	0.2689	8.9300e-003	0.2779	0.0774	8.5400e-003	0.0860		796.6949	796.6949	0.0278	0.1156	831.8494
Worker	0.7964	0.4912	8.7297	0.0262	3.1856	0.0164	3.2020	0.8448	0.0151	0.8599		2,725.8501	2,725.8501	0.0559	0.0561	2,743.9598
Total	**0.8407**	**2.0155**	**9.3112**	**0.0336**	**3.4546**	**0.0253**	**3.4799**	**0.9223**	**0.0236**	**0.9459**		**3,522.5450**	**3,522.5450**	**0.0837**	**0.1717**	**3,575.8092**

3.5 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	123.8936					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**124.0644**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1593	0.0982	1.7459	5.2300e-003	0.6371	3.2800e-003	0.6404	0.1690	3.0200e-003	0.1720		545.1700	545.1700	0.0112	0.0112	548.7920
Total	**0.1593**	**0.0982**	**1.7459**	**5.2300e-003**	**0.6371**	**3.2800e-003**	**0.6404**	**0.1690**	**3.0200e-003**	**0.1720**		**545.1700**	**545.1700**	**0.0112**	**0.0112**	**548.7920**

3.5 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	123.8936					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**124.0644**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1593	0.0982	1.7459	5.2300e-003	0.6371	3.2800e-003	0.6404	0.1690	3.0200e-003	0.1720		545.1700	545.1700	0.0112	0.0112	548.7920
Total	**0.1593**	**0.0982**	**1.7459**	**5.2300e-003**	**0.6371**	**3.2800e-003**	**0.6404**	**0.1690**	**3.0200e-003**	**0.1720**		**545.1700**	**545.1700**	**0.0112**	**0.0112**	**548.7920**

3.6 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9152**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

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	0.0419	0.0259	0.4595	1.3800e-003	0.1677	8.6000e-004	0.1685	0.0445	7.9000e-004	0.0453		143.4658	143.4658	2.9400e-003	2.9500e-003	144.4189
Total	**0.0419**	**0.0259**	**0.4595**	**1.3800e-003**	**0.1677**	**8.6000e-004**	**0.1685**	**0.0445**	**7.9000e-004**	**0.0453**		**143.4658**	**143.4658**	**2.9400e-003**	**2.9500e-003**	**144.4189**

3.6 Paving - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9152**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

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	0.0419	0.0259	0.4595	1.3800e-003	0.1677	8.6000e-004	0.1685	0.0445	7.9000e-004	0.0453		143.4658	143.4658	2.9400e-003	2.9500e-003	144.4189
Total	**0.0419**	**0.0259**	**0.4595**	**1.3800e-003**	**0.1677**	**8.6000e-004**	**0.1685**	**0.0445**	**7.9000e-004**	**0.0453**		**143.4658**	**143.4658**	**2.9400e-003**	**2.9500e-003**	**144.4189**

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	5.4598	5.2917	54.1955	0.1259	15.5129	0.0797	15.5926	4.1343	0.0743	4.2085		13,574.6904	13,574.6904	0.7839	0.5243	13,750.5419
Unmitigated	5.4598	5.2917	54.1955	0.1259	15.5129	0.0797	15.5926	4.1343	0.0743	4.2085		13,574.6904	13,574.6904	0.7839	0.5243	13,750.5419

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	2,154.24	1,944.36	1619.64	6,997,937	6,997,937
Total	2,154.24	1,944.36	1,619.64	6,997,937	6,997,937

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
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.537356	0.064746	0.188411	0.126034	0.023886	0.006883	0.012812	0.008954	0.000819	0.000470	0.025457	0.000765	0.003406

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	0.1683	1.4380	0.6119	9.1800e-003		0.1163	0.1163		0.1163	0.1163		1,835.7258	1,835.7258	0.0352	0.0337	1,846.6346
NaturalGas Unmitigated	0.1683	1.4380	0.6119	9.1800e-003		0.1163	0.1163		0.1163	0.1163		1,835.7258	1,835.7258	0.0352	0.0337	1,846.6346

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					
Apartments Mid Rise	15603.7	0.1683	1.4380	0.6119	9.1800e-003		0.1163	0.1163		0.1163	0.1163		1,835.7258	1,835.7258	0.0352	0.0337	1,846.6346
Total		**0.1683**	**1.4380**	**0.6119**	**9.1800e-003**		**0.1163**	**0.1163**		**0.1163**	**0.1163**		**1,835.7258**	**1,835.7258**	**0.0352**	**0.0337**	**1,846.6346**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	15.6037	0.1683	1.4380	0.6119	9.1800e-003		0.1163	0.1163		0.1163	0.1163		1,835.7258	1,835.7258	0.0352	0.0337	1,846.6346
Total		**0.1683**	**1.4380**	**0.6119**	**9.1800e-003**		**0.1163**	**0.1163**		**0.1163**	**0.1163**		**1,835.7258**	**1,835.7258**	**0.0352**	**0.0337**	**1,846.6346**

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	113.2605	8.5920	233.9707	0.5155		30.4310	30.4310		30.4310	30.4310	3,709.2997	7,186.8267	10,896.1264	11.1179	0.2518	11,249.0985
Unmitigated	113.2605	8.5920	233.9707	0.5155		30.4310	30.4310		30.4310	30.4310	3,709.2997	7,186.8267	10,896.1264	11.1179	0.2518	11,249.0985

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	0.6789					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.8408					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	103.7663	8.2163	201.3865	0.5138		30.2498	30.2498		30.2498	30.2498	3,709.2997	7,128.0000	10,837.2997	11.0619	0.2518	11,188.8707
Landscaping	0.9746	0.3756	32.5842	1.7300e-003		0.1812	0.1812		0.1812	0.1812		58.8267	58.8267	0.0561		60.2279
Total	**113.2606**	**8.5920**	**233.9707**	**0.5155**		**30.4310**	**30.4310**		**30.4310**	**30.4310**	**3,709.2997**	**7,186.8267**	**10,896.1264**	**11.1179**	**0.2518**	**11,249.0986**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6789					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.8408					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	103.7663	8.2163	201.3865	0.5138		30.2498	30.2498		30.2498	30.2498	3,709.2997	7,128.0000	10,837.2997	11.0619	0.2518	11,188.8707
Landscaping	0.9746	0.3756	32.5842	1.7300e-003		0.1812	0.1812		0.1812	0.1812		58.8267	58.8267	0.0561		60.2279
Total	**113.2606**	**8.5920**	**233.9707**	**0.5155**		**30.4310**	**30.4310**		**30.4310**	**30.4310**	**3,709.2997**	**7,186.8267**	**10,896.1264**	**11.1179**	**0.2518**	**11,249.0986**

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

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

Ventana Specific Plan Planning Area 3 Construction

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	396.00	Dwelling Unit	13.20	396,000.00	1133

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2030
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction of Planning Area 3

Land Use - Planning Area 3 = 396 DU on 13.2 acres

Construction Phase - Project would be built over approx 18 months. Using default schedule of 18 months. Adjusted arch coating to overlap with building con and be approx half the length

Off-road Equipment - Default equipment

Grading - Balanced onsite

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403, Mitigation Measure 4.5.1 required 3x daily watering

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblLandUse	LotAcreage	10.42	13.20

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					
2023	3.3892	34.5625	28.6878	0.0639	19.8582	1.4258	21.1254	10.1558	1.3117	11.3216	0.0000	6,200.2475	6,200.2475	1.9491	4.7900e-003	6,250.4038
2024	3.2813	32.4189	28.3170	0.0639	9.4271	1.3366	10.7638	3.7130	1.2297	4.9427	0.0000	6,194.4648	6,194.4648	1.9481	0.1816	6,244.4967
2025	124.2336	14.6065	24.5941	0.0590	3.4546	0.5529	4.0075	0.9223	0.5199	1.4422	0.0000	5,922.6134	5,922.6134	0.7167	0.1754	5,992.0134
Maximum	**124.2336**	**34.5625**	**28.6878**	**0.0639**	**19.8582**	**1.4258**	**21.1254**	**10.1558**	**1.3117**	**11.3216**	**0.0000**	**6,200.2475**	**6,200.2475**	**1.9491**	**0.1816**	**6,250.4038**

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					
2023	3.3892	34.5625	28.6878	0.0639	7.8674	1.4258	9.1346	3.9933	1.3117	5.1591	0.0000	6,200.2475	6,200.2475	1.9491	4.7900e-003	6,250.4038
2024	3.2813	32.4189	28.3170	0.0639	3.8130	1.3366	5.1496	1.4843	1.2297	2.7139	0.0000	6,194.4648	6,194.4648	1.9481	0.1816	6,244.4967
2025	124.2336	14.6065	24.5941	0.0590	3.4546	0.5529	4.0075	0.9223	0.5199	1.4422	0.0000	5,922.6134	5,922.6134	0.7167	0.1754	5,992.0134
Maximum	**124.2336**	**34.5625**	**28.6878**	**0.0639**	**7.8674**	**1.4258**	**9.1346**	**3.9933**	**1.3117**	**5.1591**	**0.0000**	**6,200.2475**	**6,200.2475**	**1.9491**	**0.1816**	**6,250.4038**

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	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	53.77	0.00	49.04	56.73	0.00	47.39	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	113.2605	8.5920	233.9707	0.5155		30.4310	30.4310		30.4310	30.4310	3,709.2997	7,186.8267	10,896.1264	11.1179	0.2518	11,249.0985
Energy	0.1683	1.4380	0.6119	9.1800e-003		0.1163	0.1163		0.1163	0.1163		1,835.7258	1,835.7258	0.0352	0.0337	1,846.6346
Mobile	5.2568	5.6843	52.6664	0.1202	15.5129	0.0798	15.5927	4.1343	0.0743	4.2086		12,950.1889	12,950.1889	0.8036	0.5435	13,132.2415
Total	**118.6857**	**15.7143**	**287.2490**	**0.6448**	**15.5129**	**30.6270**	**46.1399**	**4.1343**	**30.6215**	**34.7558**	**3,709.2997**	**21,972.7414**	**25,682.0411**	**11.9566**	**0.8289**	**26,227.9746**

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	113.2605	8.5920	233.9707	0.5155		30.4310	30.4310		30.4310	30.4310	3,709.2997	7,186.8267	10,896.1264	11.1179	0.2518	11,249.0985
Energy	0.1683	1.4380	0.6119	9.1800e-003		0.1163	0.1163		0.1163	0.1163		1,835.7258	1,835.7258	0.0352	0.0337	1,846.6346
Mobile	5.2568	5.6843	52.6664	0.1202	15.5129	0.0798	15.5927	4.1343	0.0743	4.2086		12,950.1889	12,950.1889	0.8036	0.5435	13,132.2415
Total	**118.6857**	**15.7143**	**287.2490**	**0.6448**	**15.5129**	**30.6270**	**46.1399**	**4.1343**	**30.6215**	**34.7558**	**3,709.2997**	**21,972.7414**	**25,682.0411**	**11.9566**	**0.8289**	**26,227.9746**

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	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/13/2023	11/24/2023	5	10	
2	Grading	Grading	11/25/2023	1/5/2024	5	30	
3	Building Construction	Building Construction	1/6/2024	2/28/2025	5	300	
4	Architectural Coating	Architectural Coating	3/29/2025	4/25/2025	5	20	
5	Paving	Paving	3/1/2025	3/28/2025	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 90

Acres of Paving: 0

Residential Indoor: 801,900; Residential Outdoor: 267,300; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	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
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	285.00	42.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	57.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 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					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**19.6570**	**1.2660**	**20.9230**	**10.1025**	**1.1647**	**11.2672**		**3,687.308 1**	**3,687.308 1**	**1.1926**		**3,717.121 9**

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	0.0607	0.0422	0.5730	1.6600e-003	0.2012	1.1300e-003	0.2023	0.0534	1.0400e-003	0.0544		169.8928	169.8928	4.3800e-003	4.3200e-003	171.2882
Total	**0.0607**	**0.0422**	**0.5730**	**1.6600e-003**	**0.2012**	**1.1300e-003**	**0.2023**	**0.0534**	**1.0400e-003**	**0.0544**		**169.8928**	**169.8928**	**4.3800e-003**	**4.3200e-003**	**171.2882**

3.2 Site Preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.6662	0.0000	7.6662	3.9400	0.0000	3.9400			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**7.6662**	**1.2660**	**8.9323**	**3.9400**	**1.1647**	**5.1047**	**0.0000**	**3,687.308 1**	**3,687.308 1**	**1.1926**		**3,717.121 9**

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	0.0607	0.0422	0.5730	1.6600e-003	0.2012	1.1300e-003	0.2023	0.0534	1.0400e-003	0.0544		169.8928	169.8928	4.3800e-003	4.3200e-003	171.2882
Total	**0.0607**	**0.0422**	**0.5730**	**1.6600e-003**	**0.2012**	**1.1300e-003**	**0.2023**	**0.0534**	**1.0400e-003**	**0.0544**		**169.8928**	**169.8928**	**4.3800e-003**	**4.3200e-003**	**171.2882**

3.3 Grading - 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					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**9.2036**	**1.4245**	**10.6281**	**3.6538**	**1.3105**	**4.9643**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

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	0.0674	0.0469	0.6366	1.8400e-003	0.2236	1.2600e-003	0.2248	0.0593	1.1600e-003	0.0605		188.7698	188.7698	4.8600e-003	4.7900e-003	190.3203
Total	**0.0674**	**0.0469**	**0.6366**	**1.8400e-003**	**0.2236**	**1.2600e-003**	**0.2248**	**0.0593**	**1.1600e-003**	**0.0605**		**188.7698**	**188.7698**	**4.8600e-003**	**4.7900e-003**	**190.3203**

3.3 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.5894	0.0000	3.5894	1.4250	0.0000	1.4250			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.477 7	6,011.477 7	1.9442		6,060.083 6
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**3.5894**	**1.4245**	**5.0139**	**1.4250**	**1.3105**	**2.7355**	**0.0000**	**6,011.477 7**	**6,011.477 7**	**1.9442**		**6,060.083 6**

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	0.0674	0.0469	0.6366	1.8400e-003	0.2236	1.2600e-003	0.2248	0.0593	1.1600e-003	0.0605		188.7698	188.7698	4.8600e-003	4.7900e-003	190.3203
Total	**0.0674**	**0.0469**	**0.6366**	**1.8400e-003**	**0.2236**	**1.2600e-003**	**0.2248**	**0.0593**	**1.1600e-003**	**0.0605**		**188.7698**	**188.7698**	**4.8600e-003**	**4.7900e-003**	**190.3203**

3.3 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286		6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**9.2036**	**1.3354**	**10.5390**	**3.6538**	**1.2286**	**4.8823**		**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

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	0.0632	0.0419	0.5942	1.7900e-003	0.2236	1.2100e-003	0.2248	0.0593	1.1100e-003	0.0604		184.7161	184.7161	4.4100e-003	4.4600e-003	186.1562
Total	**0.0632**	**0.0419**	**0.5942**	**1.7900e-003**	**0.2236**	**1.2100e-003**	**0.2248**	**0.0593**	**1.1100e-003**	**0.0604**		**184.7161**	**184.7161**	**4.4100e-003**	**4.4600e-003**	**186.1562**

3.3 Grading - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.5894	0.0000	3.5894	1.4250	0.0000	1.4250			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286	0.0000	6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**3.5894**	**1.3354**	**4.9248**	**1.4250**	**1.2286**	**2.6535**	**0.0000**	**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

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	0.0632	0.0419	0.5942	1.7900e-003	0.2236	1.2100e-003	0.2248	0.0593	1.1100e-003	0.0604		184.7161	184.7161	4.4100e-003	4.4600e-003	186.1562
Total	**0.0632**	**0.0419**	**0.5942**	**1.7900e-003**	**0.2236**	**1.2100e-003**	**0.2248**	**0.0593**	**1.1100e-003**	**0.0604**		**184.7161**	**184.7161**	**4.4100e-003**	**4.4600e-003**	**186.1562**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

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	0.0433	1.6075	0.6095	7.5400e-003	0.2689	8.9400e-003	0.2779	0.0774	8.5600e-003	0.0860		812.9768	812.9768	0.0275	0.1180	848.8183
Worker	0.9001	0.5970	8.4666	0.0255	3.1856	0.0172	3.2028	0.8448	0.0158	0.8607		2,632.2047	2,632.2047	0.0629	0.0636	2,652.7252
Total	**0.9434**	**2.2045**	**9.0761**	**0.0331**	**3.4546**	**0.0261**	**3.4807**	**0.9223**	**0.0244**	**0.9467**		**3,445.1815**	**3,445.1815**	**0.0904**	**0.1816**	**3,501.5434**

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

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	0.0433	1.6075	0.6095	7.5400e-003	0.2689	8.9400e-003	0.2779	0.0774	8.5600e-003	0.0860		812.9768	812.9768	0.0275	0.1180	848.8183
Worker	0.9001	0.5970	8.4666	0.0255	3.1856	0.0172	3.2028	0.8448	0.0158	0.8607		2,632.2047	2,632.2047	0.0629	0.0636	2,652.7252
Total	**0.9434**	**2.2045**	**9.0761**	**0.0331**	**3.4546**	**0.0261**	**3.4807**	**0.9223**	**0.0244**	**0.9467**		**3,445.1815**	**3,445.1815**	**0.0904**	**0.1816**	**3,501.5434**

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

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	0.0423	1.6000	0.6003	7.4000e-003	0.2689	8.9700e-003	0.2779	0.0774	8.5800e-003	0.0860		798.1811	798.1811	0.0276	0.1159	833.4229
Worker	0.8458	0.5368	7.9091	0.0247	3.1856	0.0164	3.2020	0.8448	0.0151	0.8599		2,567.9580	2,567.9580	0.0568	0.0594	2,587.0924
Total	**0.8881**	**2.1368**	**8.5094**	**0.0321**	**3.4546**	**0.0254**	**3.4799**	**0.9223**	**0.0237**	**0.9460**		**3,366.1391**	**3,366.1391**	**0.0845**	**0.1754**	**3,420.5153**

3.4 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

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	0.0423	1.6000	0.6003	7.4000e-003	0.2689	8.9700e-003	0.2779	0.0774	8.5800e-003	0.0860		798.1811	798.1811	0.0276	0.1159	833.4229
Worker	0.8458	0.5368	7.9091	0.0247	3.1856	0.0164	3.2020	0.8448	0.0151	0.8599		2,567.9580	2,567.9580	0.0568	0.0594	2,587.0924
Total	**0.8881**	**2.1368**	**8.5094**	**0.0321**	**3.4546**	**0.0254**	**3.4799**	**0.9223**	**0.0237**	**0.9460**		**3,366.1391**	**3,366.1391**	**0.0845**	**0.1754**	**3,420.5153**

3.5 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	123.8936					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**124.0644**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1692	0.1074	1.5818	4.9300e-003	0.6371	3.2800e-003	0.6404	0.1690	3.0200e-003	0.1720		513.5916	513.5916	0.0114	0.0119	517.4185
Total	**0.1692**	**0.1074**	**1.5818**	**4.9300e-003**	**0.6371**	**3.2800e-003**	**0.6404**	**0.1690**	**3.0200e-003**	**0.1720**		**513.5916**	**513.5916**	**0.0114**	**0.0119**	**517.4185**

3.5 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	123.8936					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**124.0644**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1692	0.1074	1.5818	4.9300e-003	0.6371	3.2800e-003	0.6404	0.1690	3.0200e-003	0.1720		513.5916	513.5916	0.0114	0.0119	517.4185
Total	**0.1692**	**0.1074**	**1.5818**	**4.9300e-003**	**0.6371**	**3.2800e-003**	**0.6404**	**0.1690**	**3.0200e-003**	**0.1720**		**513.5916**	**513.5916**	**0.0114**	**0.0119**	**517.4185**

3.6 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.745 2	2,206.745 2	0.7137		2,224.587 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9152**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.745 2**	**2,206.745 2**	**0.7137**		**2,224.587 8**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0445	0.0283	0.4163	1.3000e-003	0.1677	8.6000e-004	0.1685	0.0445	7.9000e-004	0.0453		135.1557	135.1557	2.9900e-003	3.1300e-003	136.1628
Total	**0.0445**	**0.0283**	**0.4163**	**1.3000e-003**	**0.1677**	**8.6000e-004**	**0.1685**	**0.0445**	**7.9000e-004**	**0.0453**		**135.1557**	**135.1557**	**2.9900e-003**	**3.1300e-003**	**136.1628**

3.6 Paving - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9152**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0445	0.0283	0.4163	1.3000e-003	0.1677	8.6000e-004	0.1685	0.0445	7.9000e-004	0.0453		135.1557	135.1557	2.9900e-003	3.1300e-003	136.1628
Total	**0.0445**	**0.0283**	**0.4163**	**1.3000e-003**	**0.1677**	**8.6000e-004**	**0.1685**	**0.0445**	**7.9000e-004**	**0.0453**		**135.1557**	**135.1557**	**2.9900e-003**	**3.1300e-003**	**136.1628**

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	5.2568	5.6843	52.6664	0.1202	15.5129	0.0798	15.5927	4.1343	0.0743	4.2086		12,950.1889	12,950.1889	0.8036	0.5435	13,132.2415
Unmitigated	5.2568	5.6843	52.6664	0.1202	15.5129	0.0798	15.5927	4.1343	0.0743	4.2086		12,950.1889	12,950.1889	0.8036	0.5435	13,132.2415

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	2,154.24	1,944.36	1619.64	6,997,937	6,997,937
Total	2,154.24	1,944.36	1,619.64	6,997,937	6,997,937

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
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.537356	0.064746	0.188411	0.126034	0.023886	0.006883	0.012812	0.008954	0.000819	0.000470	0.025457	0.000765	0.003406

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	0.1683	1.4380	0.6119	9.1800e-003		0.1163	0.1163		0.1163	0.1163		1,835.7258	1,835.7258	0.0352	0.0337	1,846.6346
NaturalGas Unmitigated	0.1683	1.4380	0.6119	9.1800e-003		0.1163	0.1163		0.1163	0.1163		1,835.7258	1,835.7258	0.0352	0.0337	1,846.6346

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					
Apartments Mid Rise	15603.7	0.1683	1.4380	0.6119	9.1800e-003		0.1163	0.1163		0.1163	0.1163		1,835.7258	1,835.7258	0.0352	0.0337	1,846.6346
Total		**0.1683**	**1.4380**	**0.6119**	**9.1800e-003**		**0.1163**	**0.1163**		**0.1163**	**0.1163**		**1,835.7258**	**1,835.7258**	**0.0352**	**0.0337**	**1,846.6346**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	15.6037	0.1683	1.4380	0.6119	9.1800e-003		0.1163	0.1163		0.1163	0.1163		1,835.7258	1,835.7258	0.0352	0.0337	1,846.6346
Total		**0.1683**	**1.4380**	**0.6119**	**9.1800e-003**		**0.1163**	**0.1163**		**0.1163**	**0.1163**		**1,835.7258**	**1,835.7258**	**0.0352**	**0.0337**	**1,846.6346**

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	113.2605	8.5920	233.9707	0.5155		30.4310	30.4310		30.4310	30.4310	3,709.2997	7,186.8267	10,896.1264	11.1179	0.2518	11,249.0985
Unmitigated	113.2605	8.5920	233.9707	0.5155		30.4310	30.4310		30.4310	30.4310	3,709.2997	7,186.8267	10,896.1264	11.1179	0.2518	11,249.0985

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	0.6789					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.8408					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	103.7663	8.2163	201.3865	0.5138		30.2498	30.2498		30.2498	30.2498	3,709.2997	7,128.0000	10,837.2997	11.0619	0.2518	11,188.8707
Landscaping	0.9746	0.3756	32.5842	1.7300e-003		0.1812	0.1812		0.1812	0.1812		58.8267	58.8267	0.0561		60.2279
Total	**113.2606**	**8.5920**	**233.9707**	**0.5155**		**30.4310**	**30.4310**		**30.4310**	**30.4310**	**3,709.2997**	**7,186.8267**	**10,896.1264**	**11.1179**	**0.2518**	**11,249.0986**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6789					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.8408					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	103.7663	8.2163	201.3865	0.5138		30.2498	30.2498		30.2498	30.2498	3,709.2997	7,128.0000	10,837.2997	11.0619	0.2518	11,188.8707
Landscaping	0.9746	0.3756	32.5842	1.7300e-003		0.1812	0.1812		0.1812	0.1812		58.8267	58.8267	0.0561		60.2279
Total	**113.2606**	**8.5920**	**233.9707**	**0.5155**		**30.4310**	**30.4310**		**30.4310**	**30.4310**	**3,709.2997**	**7,186.8267**	**10,896.1264**	**11.1179**	**0.2518**	**11,249.0986**

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

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Annual

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

Ventana Specific Plan Planning Area 4 & 5 Construction

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Pharmacy/Drugstore with Drive Thru	20.8	1000sqft	0	20,800.00	0
Fast Food Restaurant with Drive Thru	15.42	1000sqft	0	15,417.00	0
High Turnover (Sit Down Restaurant)	56.83	1000sqft	0	56,833.00	0
Apartments Mid Rise	600	Dwelling Unit	25	600,000.00	1716
Strip Mall	72.25	1000sqft	7.2	72,250.00	0
Supermarket	31.2	1000sqft	0	31,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2030
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	531.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction of Planning Area 4 & 5

Land Use - Planning Area 4 & 5 = 600 DU, 72.25 ksf strip mall, 31.2 ksf supermarket, 20.8 ksf pharmacy, 56.833 ksf high turnover resturant, 15.417 ksf fast food.

Construction Phase - Project would be constructed from 2025 to 2028 (3 years). Adjusted arch coat to overlap with build con and be approx half the length of phase

Off-road Equipment -

Off-road Equipment - Default equipment the same between 34 and 50 acres. Using the default assumptions

Grading - Balanced onsite

Architectural Coating - SCAQMD Rule 1113

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Annual

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

Construction Off-road Equipment Mitigation - SCAQMD Rule 403, Mitigation Measure 4.5.1 3x daily watering

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	35	250
tblFleetMix	HHD	0	8.95E-03
tblFleetMix	HHD	0	8.95E-03
tblFleetMix	HHD	0	8.95E-03
tblFleetMix	HHD	0	8.95E-03
tblFleetMix	HHD	0	8.95E-03
tblFleetMix	HHD	0	8.95E-03
tblFleetMix	LDA	0	0.54
tblFleetMix	LDA	0	0.54
tblFleetMix	LDA	0	0.54
tblFleetMix	LDA	0	0.54
tblFleetMix	LDA	0	0.54
tblFleetMix	LDA	0	0.54
tblFleetMix	LDT1	0	0.06
tblFleetMix	LDT1	0	0.06
tblFleetMix	LDT1	0	0.06
tblFleetMix	LDT1	0	0.06
tblFleetMix	LDT1	0	0.06
tblFleetMix	LDT1	0	0.06
tblFleetMix	LDT2	0	0.19
tblFleetMix	LDT2	0	0.19
tblFleetMix	LDT2	0	0.19
tblFleetMix	LDT2	0	0.19
tblFleetMix	LDT2	0	0.19
tblFleetMix	LDT2	0	0.19
tblFleetMix	LHD1	0	0.02

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Annual

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

tblFleetMix	LHD1	0	0.02
tblFleetMix	LHD1	0	0.02
tblFleetMix	LHD1	0	0.02
tblFleetMix	LHD1	0	0.02
tblFleetMix	LHD1	0	0.02
tblFleetMix	LHD2	0	6.88E-03
tblFleetMix	LHD2	0	6.88E-03
tblFleetMix	LHD2	0	6.88E-03
tblFleetMix	LHD2	0	6.88E-03
tblFleetMix	LHD2	0	6.88E-03
tblFleetMix	LHD2	0	6.88E-03
tblFleetMix	MCY	0	0.03
tblFleetMix	MCY	0	0.03
tblFleetMix	MCY	0	0.03
tblFleetMix	MCY	0	0.03
tblFleetMix	MCY	0	0.03
tblFleetMix	MCY	0	0.03
tblFleetMix	MDV	0	0.13
tblFleetMix	MDV	0	0.13
tblFleetMix	MDV	0	0.13
tblFleetMix	MDV	0	0.13
tblFleetMix	MDV	0	0.13
tblFleetMix	MDV	0	0.13
tblFleetMix	MH	0	3.41E-03
tblFleetMix	MH	0	3.41E-03
tblFleetMix	MH	0	3.41E-03
tblFleetMix	MH	0	3.41E-03
tblFleetMix	MH	0	3.41E-03
tblFleetMix	MH	0	3.41E-03

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Annual

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

tblFleetMix	MHD	0	0.01
tblFleetMix	MHD	0	0.01
tblFleetMix	MHD	0	0.01
tblFleetMix	MHD	0	0.01
tblFleetMix	MHD	0	0.01
tblFleetMix	MHD	0	0.01
tblFleetMix	OBUS	0	8.19E-04
tblFleetMix	OBUS	0	8.19E-04
tblFleetMix	OBUS	0	8.19E-04
tblFleetMix	OBUS	0	8.19E-04
tblFleetMix	OBUS	0	8.19E-04
tblFleetMix	OBUS	0	8.19E-04
tblFleetMix	SBUS	0	7.65E-04
tblFleetMix	SBUS	0	7.65E-04
tblFleetMix	SBUS	0	7.65E-04
tblFleetMix	SBUS	0	7.65E-04
tblFleetMix	SBUS	0	7.65E-04
tblFleetMix	SBUS	0	7.65E-04
tblFleetMix	UBUS	0	4.70E-04
tblFleetMix	UBUS	0	4.70E-04
tblFleetMix	UBUS	0	4.70E-04
tblFleetMix	UBUS	0	4.70E-04
tblFleetMix	UBUS	0	4.70E-04
tblFleetMix	UBUS	0	4.70E-04

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Annual

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	tons/yr										MT/yr					
2025	0.2522	1.9501	2.5137	6.50E-03	0.8151	0.0744	0.8895	0.3144	0.069	0.3834	0	590.6389	590.6389	0.0988	0.0158	597.8206
2026	0.36	2.2156	4.031	0.0113	0.7978	0.0751	0.8728	0.2137	0.0706	0.2843	0	1,045.67	1,045.67	0.0894	0.0427	1,060.62
2027	2.4678	1.3625	2.6365	7.31E-03	0.556	0.0475	0.6035	0.1487	0.045	0.1937	0	681.419	681.419	0.0524	0.0249	690.1542
2028	0.5842	0.1829	0.3673	7.00E-04	0.0303	8.74E-03	0.0391	8.05E-03	8.15E-03	0.0162	0	62.9584	62.9584	0.0121	4.50E-04	63.3952
Maximum	**2.4678**	**2.2156**	**4.031**	**0.0113**	**0.8151**	**0.0751**	**0.8895**	**0.3144**	**0.0706**	**0.3834**	**0**	**1,045.67**	**1,045.67**	**0.0988**	**0.0427**	**1,060.62**

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					
2025	0.2522	1.9501	2.5137	6.50E-03	0.4968	0.0744	0.5712	0.1705	0.069	0.2395	0	590.6385	590.6385	0.0988	0.0158	597.8202
2026	0.36	2.2156	4.031	0.0113	0.7978	0.0751	0.8728	0.2137	0.0706	0.2843	0	1,045.67	1,045.67	0.0894	0.0427	1,060.62
2027	2.4678	1.3625	2.6365	7.31E-03	0.556	0.0475	0.6035	0.1487	0.045	0.1937	0	681.4188	681.4188	0.0524	0.0249	690.154
2028	0.5842	0.1829	0.3673	7.00E-04	0.0303	8.74E-03	0.0391	8.05E-03	8.15E-03	0.0162	0	62.9583	62.9583	0.0121	4.50E-04	63.3952
Maximum	**2.4678**	**2.2156**	**4.031**	**0.0113**	**0.7978**	**0.0751**	**0.8728**	**0.2137**	**0.0706**	**0.2843**	**0**	**1,045.67**	**1,045.67**	**0.0988**	**0.0427**	**1,060.62**

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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	N20	CO2e
Percent Reduction	**0**	**0**	**0**	**0**	**14.47**	**0**	**13.24**	**21.01**	**0**	**16.4**	**0**	**0**	**0**	**0**	**0**	**0**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**4-28-2025**	**7-27-2025**	0.9462	0.9462
2	**7-28-2025**	**10-27-2025**	0.7406	0.7406
3	**10-28-2025**	**1-27-2026**	0.6561	0.6561
4	**1-28-2026**	**4-27-2026**	0.6342	0.6342
5	**4-28-2026**	**7-27-2026**	0.6339	0.6339
6	**7-28-2026**	**10-27-2026**	0.644	0.644
7	**10-28-2026**	**1-27-2027**	0.6498	0.6498
8	**1-28-2027**	**4-27-2027**	0.8859	0.8859
9	**4-28-2027**	**7-27-2027**	1.3812	1.3812
10	**7-28-2027**	**10-27-2027**	0.7892	0.7892
11	**10-28-2027**	**1-27-2028**	0.7897	0.7897
12	**1-28-2028**	**4-27-2028**	0.5258	0.5258
13	**4-28-2028**	**7-27-2028**	0.0034	0.0034
		Highest	1.3812	1.3812

2.2 Overall Operational

Unmitigated Operational

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

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

Area	5.307	0.2268	9.9879	0.0101		0.6072	0.6072		0.6072	0.6072	63.7314	132.5821	196.3136	0.1997	4.33E-03	202.5952
Energy	0.1571	1.4026	1.0134	8.57E-03		0.1085	0.1085		0.1085	0.1085	0	3,479.08	3,479.08	0.1492	0.043	3,495.62
Mobile	7.8347	7.2489	65.4852	0.127	15.533	0.0889	15.6219	4.1457	0.0827	4.2285	0	12,418.19	12,418.19	0.9299	0.6147	12,624.62
Waste						0	0		0	0	293.1758	0	293.1758	17.3262	0	726.3306
Water						0	0		0	0	22.7426	306.5795	329.322	2.3549	0.0575	405.3177
Total	**13.2989**	**8.8783**	**76.4865**	**0.1456**	**15.533**	**0.8047**	**16.3377**	**4.1457**	**0.7985**	**4.9442**	**379.6498**	**16,336.43**	**16,716.08**	**20.9598**	**0.7195**	**17,454.48**

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	5.307	0.2268	9.9879	0.0101		0.6072	0.6072		0.6072	0.6072	63.7314	132.5821	196.3136	0.1997	4.33E-03	202.5952
Energy	0.1571	1.4026	1.0134	8.57E-03		0.1085	0.1085		0.1085	0.1085	0	3,479.08	3,479.08	0.1492	0.043	3,495.62
Mobile	7.8347	7.2489	65.4852	0.127	15.533	0.0889	15.6219	4.1457	0.0827	4.2285	0	12,418.19	12,418.19	0.9299	0.6147	12,624.62
Waste						0	0		0	0	293.1758	0	293.1758	17.3262	0	726.3306
Water						0	0		0	0	22.7426	306.5795	329.322	2.3549	0.0575	405.3177
Total	**13.2989**	**8.8783**	**76.4865**	**0.1456**	**15.533**	**0.8047**	**16.3377**	**4.1457**	**0.7985**	**4.9442**	**379.6498**	**16,336.43**	**16,716.08**	**20.9598**	**0.7195**	**17,454.48**

	ROG	**NOx**	**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**

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Annual

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

Percent Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/28/2025	5/30/2025	5	20	
2	Grading	Grading	6/2/2025	8/22/2025	5	45	
3	Building Construction	Building Construction	8/25/2025	7/23/2027	5	500	
4	Paving	Paving	3/13/2028	4/28/2028	5	35	
5	Architectural Coating	Architectural Coating	3/29/2027	3/10/2028	5	250	

Acres of Grading (Site Preparation Phase): 30

Acres of Grading (Grading Phase): 135

Acres of Paving: 0

Residential Indoor: 1,215,000; Residential Outdoor: 405,000; Non-Residential Indoor: 294,750; Non-Residential Outdoor: 98,250; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8	247	0.4
Site Preparation	Tractors/Loaders/Backhoes	4	8	97	0.37
Grading	Excavators	2	8	158	0.38
Grading	Graders	1	8	187	0.41
Grading	Rubber Tired Dozers	1	8	247	0.4
Grading	Scrapers	2	8	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8	97	0.37
Building Construction	Cranes	1	7	231	0.29
Building Construction	Forklifts	3	8	89	0.2

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

Building Construction	Generator Sets	1	8	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7	97	0.37
Building Construction	Welders	1	8	46	0.45
Paving	Pavers	2	8	130	0.42
Paving	Paving Equipment	2	8	132	0.36
Paving	Rollers	2	8	80	0.38
Architectural Coating	Air Compressors	1	6	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18	0	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT
Grading	8	20	0	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT
Building Construction	9	502	96	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT
Paving	6	15	0	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	100	0	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2025

Unmitigated Construction On-Site

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

Fugitive Dust					0.2457	0	0.2457	0.1263	0	0.1263	0	0	0	0	0	0
Off-Road	0.0309	0.3154	0.2239	4.80E-04		0.0136	0.0136		0.0125	0.0125	0	41.8337	41.8337	0.0135	0	42.172
Total	**0.0309**	**0.3154**	**0.2239**	**4.80E-04**	**0.2457**	**0.0136**	**0.2593**	**0.1263**	**0.0125**	**0.1388**	**0**	**41.8337**	**41.8337**	**0.0135**	**0**	**42.172**

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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker	6.20E-04	4.30E-04	6.42E-03	2.00E-05	2.47E-03	1.00E-05	2.48E-03	6.60E-04	1.00E-05	6.70E-04	0	1.8672	1.8672	4.00E-05	4.00E-05	1.8811
Total	**6.20E-04**	**4.30E-04**	**6.42E-03**	**2.00E-05**	**2.47E-03**	**1.00E-05**	**2.48E-03**	**6.60E-04**	**1.00E-05**	**6.70E-04**	**0**	**1.8672**	**1.8672**	**4.00E-05**	**4.00E-05**	**1.8811**

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					0.0958	0	0.0958	0.0493	0	0.0493	0	0	0	0	0	0
Off-Road	0.0309	0.3154	0.2239	4.80E-04		0.0136	0.0136		0.0125	0.0125	0	41.8337	41.8337	0.0135	0	42.1719
Total	**0.0309**	**0.3154**	**0.2239**	**4.80E-04**	**0.0958**	**0.0136**	**0.1094**	**0.0493**	**0.0125**	**0.0618**	**0**	**41.8337**	**41.8337**	**0.0135**	**0**	**42.1719**

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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker	6.20E-04	4.30E-04	6.42E-03	2.00E-05	2.47E-03	1.00E-05	2.48E-03	6.60E-04	1.00E-05	6.70E-04	0	1.8672	1.8672	4.00E-05	4.00E-05	1.8811
Total	**6.20E-04**	**4.30E-04**	**6.42E-03**	**2.00E-05**	**2.47E-03**	**1.00E-05**	**2.48E-03**	**6.60E-04**	**1.00E-05**	**6.70E-04**	**0**	**1.8672**	**1.8672**	**4.00E-05**	**4.00E-05**	**1.8811**

3.3 Grading - 2025

Unmitigated Construction On-Site

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

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Annual

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

Fugitive Dust					0.2761	0	0.2761	0.1096	0	0.1096	0	0	0	0	0	0
Off-Road	0.087	0.8383	0.7899	1.86E-03		0.0339	0.0339		0.0312	0.0312	0	163.5186	163.5186	0.0529	0	164.8408
Total	**0.087**	**0.8383**	**0.7899**	**1.86E-03**	**0.2761**	**0.0339**	**0.31**	**0.1096**	**0.0312**	**0.1408**	**0**	**163.5186**	**163.5186**	**0.0529**	**0**	**164.8408**

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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker	1.64E-03	1.16E-03	0.0171	5.00E-05	6.58E-03	3.00E-05	6.62E-03	1.75E-03	3.00E-05	1.78E-03	0	4.9793	4.9793	1.10E-04	1.20E-04	5.0164
Total	**1.64E-03**	**1.16E-03**	**0.0171**	**5.00E-05**	**6.58E-03**	**3.00E-05**	**6.62E-03**	**1.75E-03**	**3.00E-05**	**1.78E-03**	**0**	**4.9793**	**4.9793**	**1.10E-04**	**1.20E-04**	**5.0164**

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					

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Annual

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

Fugitive Dust					0.1077	0	0.1077	0.0428	0	0.0428	0	0	0	0	0	0
Off-Road	0.087	0.8383	0.7899	1.86E-03		0.0339	0.0339		0.0312	0.0312	0	163.5184	163.5184	0.0529	0	164.8406
Total	**0.087**	**0.8383**	**0.7899**	**1.86E-03**	**0.1077**	**0.0339**	**0.1416**	**0.0428**	**0.0312**	**0.074**	**0**	**163.5184**	**163.5184**	**0.0529**	**0**	**164.8406**

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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker	1.64E-03	1.16E-03	0.0171	5.00E-05	6.58E-03	3.00E-05	6.62E-03	1.75E-03	3.00E-05	1.78E-03	0	4.9793	4.9793	1.10E-04	1.20E-04	5.0164
Total	**1.64E-03**	**1.16E-03**	**0.0171**	**5.00E-05**	**6.58E-03**	**3.00E-05**	**6.62E-03**	**1.75E-03**	**3.00E-05**	**1.78E-03**	**0**	**4.9793**	**4.9793**	**1.10E-04**	**1.20E-04**	**5.0164**

3.4 Building Construction - 2025

Unmitigated Construction On-Site

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

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Annual

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

Off-Road	0.0636	0.5798	0.7479	1.25E-03		0.0245	0.0245		0.0231	0.0231	0	107.8426	107.8426	0.0254	0	108.4763
Total	**0.0636**	**0.5798**	**0.7479**	**1.25E-03**		**0.0245**	**0.0245**		**0.0231**	**0.0231**	**0**	**107.8426**	**107.8426**	**0.0254**	**0**	**108.4763**

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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	4.60E-03	0.17	0.0627	7.90E-04	0.0282	9.50E-04	0.0291	8.12E-03	9.10E-04	9.03E-03	0	76.8783	76.8783	2.67E-03	0.0112	80.2728
Worker	0.0638	0.0449	0.6657	2.05E-03	0.2561	1.34E-03	0.2575	0.068	1.24E-03	0.0693	0	193.7192	193.7192	4.22E-03	4.49E-03	195.1613
Total	**0.0684**	**0.215**	**0.7285**	**2.84E-03**	**0.2843**	**2.29E-03**	**0.2866**	**0.0761**	**2.15E-03**	**0.0783**	**0**	**270.5975**	**270.5975**	**6.89E-03**	**0.0157**	**275.4341**

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	0.0636	0.5798	0.7479	1.25E-03		0.0245	0.0245		0.0231	0.0231	0	107.8424	107.8424	0.0254	0	108.4762

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Annual

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

Total	**0.0636**	**0.5798**	**0.7479**	**1.25E-03**		**0.0245**	**0.0245**		**0.0231**	**0.0231**	**0**	**107.8424**	**107.8424**	**0.0254**	**0**	**108.4762**

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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	4.60E-03	0.17	0.0627	7.90E-04	0.0282	9.50E-04	0.0291	8.12E-03	9.10E-04	9.03E-03	0	76.8783	76.8783	2.67E-03	0.0112	80.2728
Worker	0.0638	0.0449	0.6657	2.05E-03	0.2561	1.34E-03	0.2575	0.068	1.24E-03	0.0693	0	193.7192	193.7192	4.22E-03	4.49E-03	195.1613
Total	**0.0684**	**0.215**	**0.7285**	**2.84E-03**	**0.2843**	**2.29E-03**	**0.2866**	**0.0761**	**2.15E-03**	**0.0783**	**0**	**270.5975**	**270.5975**	**6.89E-03**	**0.0157**	**275.4341**

3.4 Building Construction - 2026

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	0.1785	1.6273	2.0991	3.52E-03		0.0689	0.0689		0.0648	0.0648	0	302.6549	302.6549	0.0711	0	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.52E-03**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0**	**302.6549**	**302.6549**	**0.0711**	**0**	**304.4335**

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Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Annual

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	tons/yr										MT/yr					
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0.0127	0.4738	0.1739	2.16E-03	0.079	2.66E-03	0.0817	0.0228	2.55E-03	0.0253	0	211.711	211.711	7.51E-03	0.0308	221.0714
Worker	0.1689	0.1146	1.758	5.58E-03	0.7187	3.58E-03	0.7223	0.1909	3.30E-03	0.1942	0	531.3045	531.3045	0.0108	0.0119	535.1107
Total	**0.1815**	**0.5883**	**1.932**	**7.74E-03**	**0.7978**	**6.24E-03**	**0.804**	**0.2137**	**5.85E-03**	**0.2195**	**0**	**743.0155**	**743.0155**	**0.0183**	**0.0427**	**756.1821**

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	0.1784	1.6273	2.0991	3.52E-03		0.0689	0.0689		0.0648	0.0648	0	302.6545	302.6545	0.0711	0	304.4331
Total	**0.1784**	**1.6273**	**2.0991**	**3.52E-03**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0**	**302.6545**	**302.6545**	**0.0711**	**0**	**304.4331**

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Annual

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	tons/yr										MT/yr					
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0.0127	0.4738	0.1739	2.16E-03	0.079	2.66E-03	0.0817	0.0228	2.55E-03	0.0253	0	211.711	211.711	7.51E-03	0.0308	221.0714
Worker	0.1689	0.1146	1.758	5.58E-03	0.7187	3.58E-03	0.7223	0.1909	3.30E-03	0.1942	0	531.3045	531.3045	0.0108	0.0119	535.1107
Total	**0.1815**	**0.5883**	**1.932**	**7.74E-03**	**0.7978**	**6.24E-03**	**0.804**	**0.2137**	**5.85E-03**	**0.2195**	**0**	**743.0155**	**743.0155**	**0.0183**	**0.0427**	**756.1821**

3.4 Building Construction - 2027

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	0.0998	0.9103	1.1742	1.97E-03		0.0385	0.0385		0.0362	0.0362	0	169.3012	169.3012	0.0398	0	170.2961
Total	**0.0998**	**0.9103**	**1.1742**	**1.97E-03**		**0.0385**	**0.0385**		**0.0362**	**0.0362**	**0**	**169.3012**	**169.3012**	**0.0398**	**0**	**170.2961**

Unmitigated Construction Off-Site

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Annual

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					
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	6.95E-03	0.2631	0.0963	1.18E-03	0.0442	1.48E-03	0.0457	0.0128	1.42E-03	0.0142	0	116.0691	116.0691	4.20E-03	0.0169	121.2083
Worker	0.0892	0.0586	0.9311	3.03E-03	0.4021	1.88E-03	0.4039	0.1068	1.73E-03	0.1085	0	291.0847	291.0847	5.51E-03	6.30E-03	293.1008
Total	**0.0962**	**0.3217**	**1.0274**	**4.21E-03**	**0.4462**	**3.36E-03**	**0.4496**	**0.1195**	**3.15E-03**	**0.1227**	**0**	**407.1537**	**407.1537**	**9.71E-03**	**0.0232**	**414.3091**

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	0.0998	0.9103	1.1742	1.97E-03		0.0385	0.0385		0.0362	0.0362	0	169.301	169.301	0.0398	0	170.2959
Total	**0.0998**	**0.9103**	**1.1742**	**1.97E-03**		**0.0385**	**0.0385**		**0.0362**	**0.0362**	**0**	**169.301**	**169.301**	**0.0398**	**0**	**170.2959**

Mitigated Construction Off-Site

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Annual

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					
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	6.95E-03	0.2631	0.0963	1.18E-03	0.0442	1.48E-03	0.0457	0.0128	1.42E-03	0.0142	0	116.0691	116.0691	4.20E-03	0.0169	121.2083
Worker	0.0892	0.0586	0.9311	3.03E-03	0.4021	1.88E-03	0.4039	0.1068	1.73E-03	0.1085	0	291.0847	291.0847	5.51E-03	6.30E-03	293.1008
Total	**0.0962**	**0.3217**	**1.0274**	**4.21E-03**	**0.4462**	**3.36E-03**	**0.4496**	**0.1195**	**3.15E-03**	**0.1227**	**0**	**407.1537**	**407.1537**	**9.71E-03**	**0.0232**	**414.3091**

3.5 Paving - 2028

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	0.016	0.1502	0.2551	4.00E-04		7.32E-03	7.32E-03		6.74E-03	6.74E-03	0	35.0337	35.0337	0.0113	0	35.317
Paving	0					0	0		0	0	0	0	0	0	0	0
Total	**0.016**	**0.1502**	**0.2551**	**4.00E-04**		**7.32E-03**	**7.32E-03**		**6.74E-03**	**6.74E-03**	**0**	**35.0337**	**35.0337**	**0.0113**	**0**	**35.317**

Unmitigated Construction Off-Site

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Annual

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					
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker	6.10E-04	3.90E-04	6.36E-03	2.00E-05	2.88E-03	1.00E-05	2.89E-03	7.60E-04	1.00E-05	7.80E-04	0	2.0469	2.0469	4.00E-05	4.00E-05	2.0607
Total	**6.10E-04**	**3.90E-04**	**6.36E-03**	**2.00E-05**	**2.88E-03**	**1.00E-05**	**2.89E-03**	**7.60E-04**	**1.00E-05**	**7.80E-04**	**0**	**2.0469**	**2.0469**	**4.00E-05**	**4.00E-05**	**2.0607**

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	0.016	0.1502	0.2551	4.00E-04		7.32E-03	7.32E-03		6.74E-03	6.74E-03	0	35.0337	35.0337	0.0113	0	35.3169
Paving	0					0	0		0	0	0	0	0	0	0	0
Total	**0.016**	**0.1502**	**0.2551**	**4.00E-04**		**7.32E-03**	**7.32E-03**		**6.74E-03**	**6.74E-03**	**0**	**35.0337**	**35.0337**	**0.0113**	**0**	**35.3169**

Mitigated Construction Off-Site

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Annual

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					
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker	6.10E-04	3.90E-04	6.36E-03	2.00E-05	2.88E-03	1.00E-05	2.89E-03	7.60E-04	1.00E-05	7.80E-04	0	2.0469	2.0469	4.00E-05	4.00E-05	2.0607
Total	**6.10E-04**	**3.90E-04**	**6.36E-03**	**2.00E-05**	**2.88E-03**	**1.00E-05**	**2.89E-03**	**7.60E-04**	**1.00E-05**	**7.80E-04**	**0**	**2.0469**	**2.0469**	**4.00E-05**	**4.00E-05**	**2.0607**

3.6 Architectural Coating - 2027

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	2.2304					0	0		0	0	0	0	0	0	0	0
Off-Road	0.0171	0.1146	0.1809	3.00E-04		5.15E-03	5.15E-03		5.15E-03	5.15E-03	0	25.5325	25.5325	1.39E-03	0	25.5674
Total	**2.2475**	**0.1146**	**0.1809**	**3.00E-04**		**5.15E-03**	**5.15E-03**		**5.15E-03**	**5.15E-03**	**0**	**25.5325**	**25.5325**	**1.39E-03**	**0**	**25.5674**

Unmitigated Construction Off-Site

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Annual

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					
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker	0.0244	0.016	0.2541	8.30E-04	0.1097	5.10E-04	0.1102	0.0291	4.70E-04	0.0296	0	79.4315	79.4315	1.50E-03	1.72E-03	79.9817
Total	**0.0244**	**0.016**	**0.2541**	**8.30E-04**	**0.1097**	**5.10E-04**	**0.1102**	**0.0291**	**4.70E-04**	**0.0296**	**0**	**79.4315**	**79.4315**	**1.50E-03**	**1.72E-03**	**79.9817**

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	2.2304					0	0		0	0	0	0	0	0	0	0
Off-Road	0.0171	0.1146	0.1809	3.00E-04		5.15E-03	5.15E-03		5.15E-03	5.15E-03	0	25.5325	25.5325	1.39E-03	0	25.5673
Total	**2.2475**	**0.1146**	**0.1809**	**3.00E-04**		**5.15E-03**	**5.15E-03**		**5.15E-03**	**5.15E-03**	**0**	**25.5325**	**25.5325**	**1.39E-03**	**0**	**25.5673**

Mitigated Construction Off-Site

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Annual

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					
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker	0.0244	0.016	0.2541	8.30E-04	0.1097	5.10E-04	0.1102	0.0291	4.70E-04	0.0296	0	79.4315	79.4315	1.50E-03	1.72E-03	79.9817
Total	**0.0244**	**0.016**	**0.2541**	**8.30E-04**	**0.1097**	**5.10E-04**	**0.1102**	**0.0291**	**4.70E-04**	**0.0296**	**0**	**79.4315**	**79.4315**	**1.50E-03**	**1.72E-03**	**79.9817**

3.6 Architectural Coating - 2028

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	0.5576					0	0		0	0	0	0	0	0	0	0
Off-Road	4.27E-03	0.0286	0.0452	7.00E-05		1.29E-03	1.29E-03		1.29E-03	1.29E-03	0	6.3831	6.3831	3.50E-04	0	6.3918
Total	**0.5619**	**0.0286**	**0.0452**	**7.00E-05**		**1.29E-03**	**1.29E-03**		**1.29E-03**	**1.29E-03**	**0**	**6.3831**	**6.3831**	**3.50E-04**	**0**	**6.3918**

Unmitigated Construction Off-Site

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Annual

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					
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker	5.76E-03	3.69E-03	0.0606	2.00E-04	0.0274	1.20E-04	0.0276	7.28E-03	1.10E-04	7.39E-03	0	19.4946	19.4946	3.50E-04	4.10E-04	19.6257
Total	**5.76E-03**	**3.69E-03**	**0.0606**	**2.00E-04**	**0.0274**	**1.20E-04**	**0.0276**	**7.28E-03**	**1.10E-04**	**7.39E-03**	**0**	**19.4946**	**19.4946**	**3.50E-04**	**4.10E-04**	**19.6257**

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	0.5576					0	0		0	0	0	0	0	0	0	0
Off-Road	4.27E-03	0.0286	0.0452	7.00E-05		1.29E-03	1.29E-03		1.29E-03	1.29E-03	0	6.3831	6.3831	3.50E-04	0	6.3918
Total	**0.5619**	**0.0286**	**0.0452**	**7.00E-05**		**1.29E-03**	**1.29E-03**		**1.29E-03**	**1.29E-03**	**0**	**6.3831**	**6.3831**	**3.50E-04**	**0**	**6.3918**

Mitigated Construction Off-Site

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Annual

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					
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker	5.76E-03	3.69E-03	0.0606	2.00E-04	0.0274	1.20E-04	0.0276	7.28E-03	1.10E-04	7.39E-03	0	19.4946	19.4946	3.50E-04	4.10E-04	19.6257
Total	**5.76E-03**	**3.69E-03**	**0.0606**	**2.00E-04**	**0.0274**	**1.20E-04**	**0.0276**	**7.28E-03**	**1.10E-04**	**7.39E-03**	**0**	**19.4946**	**19.4946**	**3.50E-04**	**4.10E-04**	**19.6257**

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	7.8347	7.2489	65.4852	0.127	15.533	0.0889	15.6219	4.1457	0.0827	4.2285	0	12,418.19	12,418.19	0.9299	0.6147	12,624.62
Unmitigated	7.8347	7.2489	65.4852	0.127	15.533	0.0889	15.6219	4.1457	0.0827	4.2285	0	12,418.19	12,418.19	0.9299	0.6147	12,624.62

4.2 Trip Summary Information

	Average Daily Trip Rate	Unmitigated	Mitigated

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Summer

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

Ventana Specific Plan Planning Area 4 & 5 Construction

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Pharmacy/Drugstore with Drive Thru	20.8	1000sqft	0	20,800.00	0
Fast Food Restaurant with Drive Thru	15.42	1000sqft	0	15,417.00	0
High Turnover (Sit Down Restaurant)	56.83	1000sqft	0	56,833.00	0
Apartments Mid Rise	600	Dwelling Unit	25	600,000.00	1716
Strip Mall	72.25	1000sqft	7.2	72,250.00	0
Supermarket	31.2	1000sqft	0	31,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2030
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	531.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction of Planning Area 4 & 5

Land Use - Planning Area 4 & 5 = 600 DU, 72.25 ksf strip mall, 31.2 ksf supermarket, 20.8 ksf pharmacy, 56.833 ksf high turnover resturant, 15.417 ksf fast food.

Construction Phase - Project would be constructed from 2025 to 2028 (3 years). Adjusted arch coat to overlap with build con and be approx half the length of phase

Off-road Equipment -

Off-road Equipment - Default equipment the same between 34 and 50 acres. Using the default assumptions

Grading - Balanced onsite

Architectural Coating - SCAQMD Rule 1113

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Summer

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

Construction Off-road Equipment Mitigation - SCAQMD Rule 403, Mitigation Measure 4.5.1 3x daily watering

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	35	250
tblFleetMix	HHD	0	8.95E-03
tblFleetMix	HHD	0	8.95E-03
tblFleetMix	HHD	0	8.95E-03
tblFleetMix	HHD	0	8.95E-03
tblFleetMix	HHD	0	8.95E-03
tblFleetMix	HHD	0	8.95E-03
tblFleetMix	LDA	0	0.54
tblFleetMix	LDA	0	0.54
tblFleetMix	LDA	0	0.54
tblFleetMix	LDA	0	0.54
tblFleetMix	LDA	0	0.54
tblFleetMix	LDA	0	0.54
tblFleetMix	LDT1	0	0.06
tblFleetMix	LDT1	0	0.06
tblFleetMix	LDT1	0	0.06
tblFleetMix	LDT1	0	0.06
tblFleetMix	LDT1	0	0.06
tblFleetMix	LDT1	0	0.06
tblFleetMix	LDT2	0	0.19
tblFleetMix	LDT2	0	0.19
tblFleetMix	LDT2	0	0.19
tblFleetMix	LDT2	0	0.19
tblFleetMix	LDT2	0	0.19
tblFleetMix	LDT2	0	0.19
tblFleetMix	LHD1	0	0.02

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Summer

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

tblFleetMix	LHD1	0	0.02
tblFleetMix	LHD1	0	0.02
tblFleetMix	LHD1	0	0.02
tblFleetMix	LHD1	0	0.02
tblFleetMix	LHD1	0	0.02
tblFleetMix	LHD2	0	6.88E-03
tblFleetMix	LHD2	0	6.88E-03
tblFleetMix	LHD2	0	6.88E-03
tblFleetMix	LHD2	0	6.88E-03
tblFleetMix	LHD2	0	6.88E-03
tblFleetMix	LHD2	0	6.88E-03
tblFleetMix	MCY	0	0.03
tblFleetMix	MCY	0	0.03
tblFleetMix	MCY	0	0.03
tblFleetMix	MCY	0	0.03
tblFleetMix	MCY	0	0.03
tblFleetMix	MCY	0	0.03
tblFleetMix	MDV	0	0.13
tblFleetMix	MDV	0	0.13
tblFleetMix	MDV	0	0.13
tblFleetMix	MDV	0	0.13
tblFleetMix	MDV	0	0.13
tblFleetMix	MDV	0	0.13
tblFleetMix	MH	0	3.41E-03
tblFleetMix	MH	0	3.41E-03
tblFleetMix	MH	0	3.41E-03
tblFleetMix	MH	0	3.41E-03
tblFleetMix	MH	0	3.41E-03
tblFleetMix	MH	0	3.41E-03

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Summer

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

tblFleetMix	MHD	0	0.01
tblFleetMix	MHD	0	0.01
tblFleetMix	MHD	0	0.01
tblFleetMix	MHD	0	0.01
tblFleetMix	MHD	0	0.01
tblFleetMix	MHD	0	0.01
tblFleetMix	OBUS	0	8.19E-04
tblFleetMix	OBUS	0	8.19E-04
tblFleetMix	OBUS	0	8.19E-04
tblFleetMix	OBUS	0	8.19E-04
tblFleetMix	OBUS	0	8.19E-04
tblFleetMix	OBUS	0	8.19E-04
tblFleetMix	SBUS	0	7.65E-04
tblFleetMix	SBUS	0	7.65E-04
tblFleetMix	SBUS	0	7.65E-04
tblFleetMix	SBUS	0	7.65E-04
tblFleetMix	SBUS	0	7.65E-04
tblFleetMix	SBUS	0	7.65E-04
tblFleetMix	UBUS	0	4.70E-04
tblFleetMix	UBUS	0	4.70E-04
tblFleetMix	UBUS	0	4.70E-04
tblFleetMix	UBUS	0	4.70E-04
tblFleetMix	UBUS	0	4.70E-04
tblFleetMix	UBUS	0	4.70E-04

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, 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					
2025	2.9571	27.9774	32.7902	0.0899	19.8582	1.132	20.946	10.1558	1.0415	11.1566	0	9,178.81	9,178.81	1.9471	0.3631	9,306.09
2026	2.7879	16.7153	31.8612	0.0882	6.2259	0.5754	6.8012	1.6651	0.541	2.2061	0	9,035.38	9,035.38	0.7539	0.3528	9,159.36
2027	25.4346	17.9123	35.6095	0.0982	7.3436	0.6303	7.9739	1.9615	0.5956	2.5571	0	10,099.96	10,099.96	0.7777	0.3609	10,226.94
2028	22.7094	8.6015	14.9678	0.0241	1.1178	0.4192	1.1741	0.2964	0.3857	0.4302	0	2,341.55	2,341.55	0.716	0.0169	2,360.20
Maximum	**25.4346**	**27.9774**	**35.6095**	**0.0982**	**19.8582**	**1.132**	**20.946**	**10.1558**	**1.0415**	**11.1566**	**0**	**10,099.96**	**10,099.96**	**1.9471**	**0.3631**	**10,226.94**

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					
2025	2.9571	27.9774	32.7902	0.0899	7.8674	1.132	8.9553	3.9933	1.0415	4.9941	0	9,178.81	9,178.81	1.9471	0.3631	9,306.09
2026	2.7879	16.7153	31.8612	0.0882	6.2259	0.5754	6.8012	1.6651	0.541	2.2061	0	9,035.38	9,035.38	0.7539	0.3528	9,159.36
2027	25.4346	17.9123	35.6095	0.0982	7.3436	0.6303	7.9739	1.9615	0.5956	2.5571	0	10,099.96	10,099.96	0.7777	0.3609	10,226.94
2028	22.7094	8.6015	14.9678	0.0241	1.1178	0.4192	1.1741	0.2964	0.3857	0.4302	0	2,341.55	2,341.55	0.716	0.0169	2,360.20
Maximum	**25.4346**	**27.9774**	**35.6095**	**0.0982**	**7.8674**	**1.132**	**8.9553**	**3.9933**	**1.0415**	**4.9941**	**0**	**10,099.96**	**10,099.96**	**1.9471**	**0.3631**	**10,226.94**

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, 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	N20	CO2e
Percent Reduction	**0**	**0**	**0**	**0**	**34.71**	**0**	**32.5**	**43.77**	**0**	**37.69**	**0**	**0**	**0**	**0**	**0**	**0**

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	175.9985	13.0183	354.521	0.781		46.1076	46.1076		46.1076	46.1076	5,620.15	10,889.17	16,509.33	16.8454	0.3815	17,044.13
Energy	0.8607	7.6854	5.5527	0.047		0.5947	0.5947		0.5947	0.5947		9,389.38	9,389.38	0.18	0.1721	9,445.18
Mobile	56.04	44.0656	426.1283	0.8558	102.7938	0.5807	103.3745	27.3951	0.5403	27.9354		92,245.34	92,245.34	6.4822	4.2654	93,678.47
Total	**232.8991**	**64.7694**	**786.2021**	**1.6837**	**102.7938**	**47.2829**	**150.0767**	**27.3951**	**47.2425**	**74.6377**	**5,620.15**	**112,523.90**	**118,144.05**	**23.5076**	**4.819**	**120,167.78**

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					

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Summer

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

Area	175.9985	13.0183	354.521	0.781		46.1076	46.1076		46.1076	46.1076	5,620.15	10,889.17	16,509.33	16.8454	0.3815	17,044.13
Energy	0.8607	7.6854	5.5527	0.047		0.5947	0.5947		0.5947	0.5947		9,389.38	9,389.38	0.18	0.1721	9,445.18
Mobile	56.04	44.0656	426.1283	0.8558	102.7938	0.5807	103.3745	27.3951	0.5403	27.9354		92,245.34	92,245.34	6.4822	4.2654	93,678.47
Total	**232.8991**	**64.7694**	**786.2021**	**1.6837**	**102.7938**	**47.2829**	**150.0767**	**27.3951**	**47.2425**	**74.6377**	**5,620.15**	**112,523.90**	**118,144.05**	**23.5076**	**4.819**	**120,167.78**

	ROG	NOx	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/28/2025	5/30/2025	5	20	
2	Grading	Grading	6/2/2025	8/22/2025	5	45	
3	Building Construction	Building Construction	8/25/2025	7/23/2027	5	500	
4	Paving	Paving	3/13/2028	4/28/2028	5	35	
5	Architectural Coating	Architectural Coating	3/29/2027	3/10/2028	5	250	

Acres of Grading (Site Preparation Phase): 30

Acres of Grading (Grading Phase): 135

Acres of Paving: 0

Residential Indoor: 1,215,000; Residential Outdoor: 405,000; Non-Residential Indoor: 294,750; Non-Residential Outdoor: 98,250; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Summer

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

Site Preparation	Rubber Tired Dozers	3	8	247	0.4
Site Preparation	Tractors/Loaders/Backhoes	4	8	97	0.37
Grading	Excavators	2	8	158	0.38
Grading	Graders	1	8	187	0.41
Grading	Rubber Tired Dozers	1	8	247	0.4
Grading	Scrapers	2	8	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8	97	0.37
Building Construction	Cranes	1	7	231	0.29
Building Construction	Forklifts	3	8	89	0.2
Building Construction	Generator Sets	1	8	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7	97	0.37
Building Construction	Welders	1	8	46	0.45
Paving	Pavers	2	8	130	0.42
Paving	Paving Equipment	2	8	132	0.36
Paving	Rollers	2	8	80	0.38
Architectural Coating	Air Compressors	1	6	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18	0	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT
Grading	8	20	0	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT
Building Construction	9	502	96	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT
Paving	6	15	0	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	100	0	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Summer

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

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.657	0	19.657	10.1025	0	10.1025			0			0
Off-Road	2.4727	25.2339	17.9118	0.0381		1.0868	1.0868		0.9999	0.9999		3,689.10	3,689.10	1.1931		3,718.93
Total	**2.4727**	**25.2339**	**17.9118**	**0.0381**	**19.657**	**1.0868**	**20.7438**	**10.1025**	**0.9999**	**11.1023**		**3,689.10**	**3,689.10**	**1.1931**		**3,718.93**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.0503	0.031	0.5514	1.65E-03	0.2012	1.04E-03	0.2022	0.0534	9.50E-04	0.0543		172.159	172.159	3.53E-03	3.54E-03	173.3027
Total	**0.0503**	**0.031**	**0.5514**	**1.65E-03**	**0.2012**	**1.04E-03**	**0.2022**	**0.0534**	**9.50E-04**	**0.0543**		**172.159**	**172.159**	**3.53E-03**	**3.54E-03**	**173.3027**

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Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, 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					
Fugitive Dust					7.6662	0	7.6662	3.94	0	3.94			0			0
Off-Road	2.4727	25.2339	17.9118	0.0381		1.0868	1.0868		0.9999	0.9999	0	3,689.10	3,689.10	1.1931		3,718.93
Total	**2.4727**	**25.2339**	**17.9118**	**0.0381**	**7.6662**	**1.0868**	**8.753**	**3.94**	**0.9999**	**4.9398**	**0**	**3,689.10**	**3,689.10**	**1.1931**		**3,718.93**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.0503	0.031	0.5514	1.65E-03	0.2012	1.04E-03	0.2022	0.0534	9.50E-04	0.0543		172.159	172.159	3.53E-03	3.54E-03	173.3027
Total	**0.0503**	**0.031**	**0.5514**	**1.65E-03**	**0.2012**	**1.04E-03**	**0.2022**	**0.0534**	**9.50E-04**	**0.0543**		**172.159**	**172.159**	**3.53E-03**	**3.54E-03**	**173.3027**

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Summer

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

3.3 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0	9.2036	3.6538	0	3.6538			0			0
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404		6,008.28	6,008.28	1.9432		6,056.86
Total	**2.9012**	**27.9429**	**26.3311**	**0.0621**	**9.2036**	**1.1309**	**10.3345**	**3.6538**	**1.0404**	**4.6942**		**6,008.28**	**6,008.28**	**1.9432**		**6,056.86**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.0559	0.0345	0.6126	1.84E-03	0.2236	1.15E-03	0.2247	0.0593	1.06E-03	0.0604		191.2877	191.2877	3.92E-03	3.94E-03	192.5586
Total	**0.0559**	**0.0345**	**0.6126**	**1.84E-03**	**0.2236**	**1.15E-03**	**0.2247**	**0.0593**	**1.06E-03**	**0.0604**		**191.2877**	**191.2877**	**3.92E-03**	**3.94E-03**	**192.5586**

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Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, 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					
Fugitive Dust					3.5894	0	3.5894	1.425	0	1.425			0			0
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404	0	6,008.28	6,008.28	1.9432		6,056.86
Total	**2.9012**	**27.9429**	**26.3311**	**0.0621**	**3.5894**	**1.1309**	**4.7203**	**1.425**	**1.0404**	**2.4654**	**0**	**6,008.28**	**6,008.28**	**1.9432**		**6,056.86**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.0559	0.0345	0.6126	1.84E-03	0.2236	1.15E-03	0.2247	0.0593	1.06E-03	0.0604		191.2877	191.2877	3.92E-03	3.94E-03	192.5586
Total	**0.0559**	**0.0345**	**0.6126**	**1.84E-03**	**0.2236**	**1.15E-03**	**0.2247**	**0.0593**	**1.06E-03**	**0.0604**		**191.2877**	**191.2877**	**3.92E-03**	**3.94E-03**	**192.5586**

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Summer

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

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.027		0.5276	0.5276		0.4963	0.4963		2,556.47	2,556.47	0.601		2,571.50
Total	**1.3674**	**12.4697**	**16.0847**	**0.027**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.47**	**2,556.47**	**0.601**		**2,571.50**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0.1014	3.4841	1.3291	0.0169	0.6147	0.0204	0.6351	0.177	0.0195	0.1965		1,821.02	1,821.02	0.0635	0.2643	1,901.37
Worker	1.4027	0.8652	15.3765	0.0461	5.6112	0.0289	5.6401	1.4881	0.0266	1.5147		4,801.32	4,801.32	0.0985	0.0988	4,833.22
Total	**1.5041**	**4.3493**	**16.7056**	**0.063**	**6.2259**	**0.0493**	**6.2752**	**1.6651**	**0.0461**	**1.7112**		**6,622.34**	**6,622.34**	**0.1619**	**0.3631**	**6,734.59**

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, 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	1.3674	12.4697	16.0847	0.027		0.5276	0.5276		0.4963	0.4963	0	2,556.47	2,556.47	0.601		2,571.50
Total	**1.3674**	**12.4697**	**16.0847**	**0.027**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0**	**2,556.47**	**2,556.47**	**0.601**		**2,571.50**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0.1014	3.4841	1.3291	0.0169	0.6147	0.0204	0.6351	0.177	0.0195	0.1965		1,821.02	1,821.02	0.0635	0.2643	1,901.37
Worker	1.4027	0.8652	15.3765	0.0461	5.6112	0.0289	5.6401	1.4881	0.0266	1.5147		4,801.32	4,801.32	0.0985	0.0988	4,833.22
Total	**1.5041**	**4.3493**	**16.7056**	**0.063**	**6.2259**	**0.0493**	**6.2752**	**1.6651**	**0.0461**	**1.7112**		**6,622.34**	**6,622.34**	**0.1619**	**0.3631**	**6,734.59**

3.4 Building Construction - 2026

Unmitigated Construction On-Site

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, 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	1.3674	12.4697	16.0847	0.027		0.5276	0.5276		0.4963	0.4963		2,556.47	2,556.47	0.601		2,571.50
Total	**1.3674**	**12.4697**	**16.0847**	**0.027**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.47**	**2,556.47**	**0.601**		**2,571.50**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0.0993	3.4594	1.313	0.0166	0.6147	0.0204	0.6351	0.177	0.0195	0.1965		1,786.87	1,786.87	0.0636	0.2596	1,865.82
Worker	1.3212	0.7862	14.4635	0.0447	5.6112	0.0274	5.6386	1.4881	0.0253	1.5134		4,692.04	4,692.04	0.0894	0.0932	4,722.04
Total	**1.4205**	**4.2457**	**15.7765**	**0.0612**	**6.2259**	**0.0478**	**6.2737**	**1.6651**	**0.0447**	**1.7098**		**6,478.90**	**6,478.90**	**0.153**	**0.3528**	**6,587.86**

Mitigated Construction On-Site

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, 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	1.3674	12.4697	16.0847	0.027		0.5276	0.5276		0.4963	0.4963	0	2,556.47	2,556.47	0.601		2,571.50
Total	**1.3674**	**12.4697**	**16.0847**	**0.027**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0**	**2,556.47**	**2,556.47**	**0.601**		**2,571.50**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0.0993	3.4594	1.313	0.0166	0.6147	0.0204	0.6351	0.177	0.0195	0.1965		1,786.87	1,786.87	0.0636	0.2596	1,865.82
Worker	1.3212	0.7862	14.4635	0.0447	5.6112	0.0274	5.6386	1.4881	0.0253	1.5134		4,692.04	4,692.04	0.0894	0.0932	4,722.04
Total	**1.4205**	**4.2457**	**15.7765**	**0.0612**	**6.2259**	**0.0478**	**6.2737**	**1.6651**	**0.0447**	**1.7098**		**6,478.90**	**6,478.90**	**0.153**	**0.3528**	**6,587.86**

3.4 Building Construction - 2027

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

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Summer

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

Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.027		0.5276	0.5276		0.4963	0.4963		2,556.47	2,556.47	0.601		2,571.50
Total	**1.3674**	**12.4697**	**16.0847**	**0.027**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.47**	**2,556.47**	**0.601**		**2,571.50**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0.0976	3.4342	1.2996	0.0162	0.6147	0.0203	0.635	0.177	0.0194	0.1964		1,751.25	1,751.25	0.0635	0.2547	1,828.75
Worker	1.2468	0.7196	13.6892	0.0434	5.6112	0.0258	5.637	1.4881	0.0237	1.5118		4,595.37	4,595.37	0.0817	0.0885	4,623.79
Total	**1.3444**	**4.1538**	**14.9888**	**0.0596**	**6.2259**	**0.0461**	**6.2719**	**1.6651**	**0.0431**	**1.7082**		**6,346.62**	**6,346.62**	**0.1451**	**0.3432**	**6,452.53**

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	1.3674	12.4697	16.0847	0.027		0.5276	0.5276		0.4963	0.4963	0	2,556.47	2,556.47	0.601		2,571.50
Total	**1.3674**	**12.4697**	**16.0847**	**0.027**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0**	**2,556.47**	**2,556.47**	**0.601**		**2,571.50**

<u>Mitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0.0976	3.4342	1.2996	0.0162	0.6147	0.0203	0.635	0.177	0.0194	0.1964		1,751.25	1,751.25	0.0635	0.2547	1,828.75
Worker	1.2468	0.7196	13.6892	0.0434	5.6112	0.0258	5.637	1.4881	0.0237	1.5118		4,595.37	4,595.37	0.0817	0.0885	4,623.79
Total	**1.3444**	**4.1538**	**14.9888**	**0.0596**	**6.2259**	**0.0461**	**6.2719**	**1.6651**	**0.0431**	**1.7082**		**6,346.62**	**6,346.62**	**0.1451**	**0.3432**	**6,452.53**

3.5 Paving - 2028

<u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.578	0.0228		0.4185	0.4185		0.385	0.385		2,206.75	2,206.75	0.7137		2,224.59

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Summer

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

Paving	0					0	0		0	0			0			0
Total	**0.9152**	**8.5816**	**14.578**	**0.0228**		**0.4185**	**0.4185**		**0.385**	**0.385**		**2,206.75**	**2,206.75**	**0.7137**		**2,224.59**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.0352	0.0198	0.3898	1.26E-03	0.1677	7.20E-04	0.1684	0.0445	6.60E-04	0.0451		134.8012	134.8012	2.24E-03	2.53E-03	135.6104
Total	**0.0352**	**0.0198**	**0.3898**	**1.26E-03**	**0.1677**	**7.20E-04**	**0.1684**	**0.0445**	**6.60E-04**	**0.0451**		**134.8012**	**134.8012**	**2.24E-03**	**2.53E-03**	**135.6104**

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	0.9152	8.5816	14.578	0.0228		0.4185	0.4185		0.385	0.385	0	2,206.75	2,206.75	0.7137		2,224.59

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Summer

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

Paving	0					0	0		0	0			0			0
Total	**0.9152**	**8.5816**	**14.578**	**0.0228**		**0.4185**	**0.4185**		**0.385**	**0.385**	**0**	**2,206.75**	**2,206.75**	**0.7137**		**2,224.59**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.0352	0.0198	0.3898	1.26E-03	0.1677	7.20E-04	0.1684	0.0445	6.60E-04	0.0451		134.8012	134.8012	2.24E-03	2.53E-03	135.6104
Total	**0.0352**	**0.0198**	**0.3898**	**1.26E-03**	**0.1677**	**7.20E-04**	**0.1684**	**0.0445**	**6.60E-04**	**0.0451**		**134.8012**	**134.8012**	**2.24E-03**	**2.53E-03**	**135.6104**

3.6 Architectural Coating - 2027

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	22.3036					0	0		0	0			0			0

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Summer

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

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	0.1709	1.1455	1.8091	2.97E-03		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**22.4745**	**1.1455**	**1.8091**	**2.97E-03**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.2484	0.1433	2.7269	8.65E-03	1.1178	5.14E-03	1.1229	0.2964	4.73E-03	0.3012		915.4132	915.4132	0.0163	0.0176	921.0731
Total	**0.2484**	**0.1433**	**2.7269**	**8.65E-03**	**1.1178**	**5.14E-03**	**1.1229**	**0.2964**	**4.73E-03**	**0.3012**		**915.4132**	**915.4132**	**0.0163**	**0.0176**	**921.0731**

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	22.3036					0	0		0	0			0			0

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Summer

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

Off-Road	0.1709	1.1455	1.8091	2.97E-03		0.0515	0.0515		0.0515	0.0515	0	281.4481	281.4481	0.0154		281.8319
Total	**22.4745**	**1.1455**	**1.8091**	**2.97E-03**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.2484	0.1433	2.7269	8.65E-03	1.1178	5.14E-03	1.1229	0.2964	4.73E-03	0.3012		915.4132	915.4132	0.0163	0.0176	921.0731
Total	**0.2484**	**0.1433**	**2.7269**	**8.65E-03**	**1.1178**	**5.14E-03**	**1.1229**	**0.2964**	**4.73E-03**	**0.3012**		**915.4132**	**915.4132**	**0.0163**	**0.0176**	**921.0731**

3.6 Architectural Coating - 2028

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	22.3036					0	0		0	0			0			0

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Summer

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

Off-Road	0.1709	1.1455	1.8091	2.97E-03		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**22.4745**	**1.1455**	**1.8091**	**2.97E-03**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.2349	0.1322	2.5987	8.43E-03	1.1178	4.79E-03	1.1226	0.2964	4.41E-03	0.3008		898.6745	898.6745	0.015	0.0169	904.0696
Total	**0.2349**	**0.1322**	**2.5987**	**8.43E-03**	**1.1178**	**4.79E-03**	**1.1226**	**0.2964**	**4.41E-03**	**0.3008**		**898.6745**	**898.6745**	**0.015**	**0.0169**	**904.0696**

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	22.3036					0	0		0	0			0			0

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Summer

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

Off-Road	0.1709	1.1455	1.8091	2.97E-03		0.0515	0.0515		0.0515	0.0515	0	281.4481	281.4481	0.0154		281.8319
Total	**22.4745**	**1.1455**	**1.8091**	**2.97E-03**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.2349	0.1322	2.5987	8.43E-03	1.1178	4.79E-03	1.1226	0.2964	4.41E-03	0.3008		898.6745	898.6745	0.015	0.0169	904.0696
Total	**0.2349**	**0.1322**	**2.5987**	**8.43E-03**	**1.1178**	**4.79E-03**	**1.1226**	**0.2964**	**4.41E-03**	**0.3008**		**898.6745**	**898.6745**	**0.015**	**0.0169**	**904.0696**

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

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

Ventana Specific Plan Planning Area 4 & 5 Construction

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Pharmacy/Drugstore with Drive Thru	20.8	1000sqft	0	20,800.00	0
Fast Food Restaurant with Drive Thru	15.42	1000sqft	0	15,417.00	0
High Turnover (Sit Down Restaurant)	56.83	1000sqft	0	56,833.00	0
Apartments Mid Rise	600	Dwelling Unit	25	600,000.00	1716
Strip Mall	72.25	1000sqft	7.2	72,250.00	0
Supermarket	31.2	1000sqft	0	31,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2030
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	531.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction of Planning Area 4 & 5

Land Use - Planning Area 4 & 5 = 600 DU, 72.25 ksf strip mall, 31.2 ksf supermarket, 20.8 ksf pharmacy, 56.833 ksf high turnover resturant, 15.417 ksf fast food.

Construction Phase - Project would be constructed from 2025 to 2028 (3 years). Adjusted arch coat to overlap with build con and be approx half the length of phase

Off-road Equipment -

Off-road Equipment - Default equipment the same between 34 and 50 acres. Using the default assumptions

Grading - Balanced onsite

Architectural Coating - SCAQMD Rule 1113

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Winter

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

Construction Off-road Equipment Mitigation - SCAQMD Rule 403, Mitigation Measure 4.5.1 3x daily watering

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	35	250
tblFleetMix	HHD	0	8.95E-03
tblFleetMix	HHD	0	8.95E-03
tblFleetMix	HHD	0	8.95E-03
tblFleetMix	HHD	0	8.95E-03
tblFleetMix	HHD	0	8.95E-03
tblFleetMix	HHD	0	8.95E-03
tblFleetMix	LDA	0	0.54
tblFleetMix	LDA	0	0.54
tblFleetMix	LDA	0	0.54
tblFleetMix	LDA	0	0.54
tblFleetMix	LDA	0	0.54
tblFleetMix	LDA	0	0.54
tblFleetMix	LDT1	0	0.06
tblFleetMix	LDT1	0	0.06
tblFleetMix	LDT1	0	0.06
tblFleetMix	LDT1	0	0.06
tblFleetMix	LDT1	0	0.06
tblFleetMix	LDT1	0	0.06
tblFleetMix	LDT2	0	0.19
tblFleetMix	LDT2	0	0.19
tblFleetMix	LDT2	0	0.19
tblFleetMix	LDT2	0	0.19
tblFleetMix	LDT2	0	0.19
tblFleetMix	LDT2	0	0.19
tblFleetMix	LHD1	0	0.02

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Winter

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

tblFleetMix	LHD1	0	0.02
tblFleetMix	LHD1	0	0.02
tblFleetMix	LHD1	0	0.02
tblFleetMix	LHD1	0	0.02
tblFleetMix	LHD1	0	0.02
tblFleetMix	LHD2	0	6.88E-03
tblFleetMix	LHD2	0	6.88E-03
tblFleetMix	LHD2	0	6.88E-03
tblFleetMix	LHD2	0	6.88E-03
tblFleetMix	LHD2	0	6.88E-03
tblFleetMix	LHD2	0	6.88E-03
tblFleetMix	MCY	0	0.03
tblFleetMix	MCY	0	0.03
tblFleetMix	MCY	0	0.03
tblFleetMix	MCY	0	0.03
tblFleetMix	MCY	0	0.03
tblFleetMix	MCY	0	0.03
tblFleetMix	MDV	0	0.13
tblFleetMix	MDV	0	0.13
tblFleetMix	MDV	0	0.13
tblFleetMix	MDV	0	0.13
tblFleetMix	MDV	0	0.13
tblFleetMix	MDV	0	0.13
tblFleetMix	MH	0	3.41E-03
tblFleetMix	MH	0	3.41E-03
tblFleetMix	MH	0	3.41E-03
tblFleetMix	MH	0	3.41E-03
tblFleetMix	MH	0	3.41E-03
tblFleetMix	MH	0	3.41E-03

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Winter

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

tblFleetMix	MHD	0	0.01
tblFleetMix	MHD	0	0.01
tblFleetMix	MHD	0	0.01
tblFleetMix	MHD	0	0.01
tblFleetMix	MHD	0	0.01
tblFleetMix	MHD	0	0.01
tblFleetMix	OBUS	0	8.19E-04
tblFleetMix	OBUS	0	8.19E-04
tblFleetMix	OBUS	0	8.19E-04
tblFleetMix	OBUS	0	8.19E-04
tblFleetMix	OBUS	0	8.19E-04
tblFleetMix	OBUS	0	8.19E-04
tblFleetMix	SBUS	0	7.65E-04
tblFleetMix	SBUS	0	7.65E-04
tblFleetMix	SBUS	0	7.65E-04
tblFleetMix	SBUS	0	7.65E-04
tblFleetMix	SBUS	0	7.65E-04
tblFleetMix	SBUS	0	7.65E-04
tblFleetMix	UBUS	0	4.70E-04
tblFleetMix	UBUS	0	4.70E-04
tblFleetMix	UBUS	0	4.70E-04
tblFleetMix	UBUS	0	4.70E-04
tblFleetMix	UBUS	0	4.70E-04
tblFleetMix	UBUS	0	4.70E-04

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, 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					
2025	2.9606	27.9806	31.388	0.0873	19.8582	1.132	20.946	10.1558	1.0415	11.1566	0	8,904.10	8,904.10	1.9472	0.3697	9,033.38
2026	2.8696	16.9602	30.5504	0.0856	6.2259	0.5754	6.8013	1.6651	0.5411	2.2062	0	8,767.20	8,767.20	0.7552	0.359	8,893.07
2027	25.5321	18.163	34.1213	0.0952	7.3436	0.6304	7.974	1.9615	0.5957	2.5572	0	9,784.49	9,784.49	0.7793	0.3678	9,913.58
2028	22.7261	8.6033	14.9316	0.024	1.1178	0.4192	1.1741	0.2964	0.3857	0.4302	0	2,333.75	2,333.75	0.716	0.0178	2,352.44
Maximum	**25.5321**	**27.9806**	**34.1213**	**0.0952**	**19.8582**	**1.132**	**20.946**	**10.1558**	**1.0415**	**11.1566**	**0**	**9,784.49**	**9,784.49**	**1.9472**	**0.3697**	**9,913.58**

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					
2025	2.9606	27.9806	31.388	0.0873	7.8674	1.132	8.9553	3.9933	1.0415	4.9941	0	8,904.10	8,904.10	1.9472	0.3697	9,033.38
2026	2.8696	16.9602	30.5504	0.0856	6.2259	0.5754	6.8013	1.6651	0.5411	2.2062	0	8,767.20	8,767.20	0.7552	0.359	8,893.07
2027	25.5321	18.163	34.1213	0.0952	7.3436	0.6304	7.974	1.9615	0.5957	2.5572	0	9,784.49	9,784.49	0.7793	0.3678	9,913.58
2028	22.7261	8.6033	14.9316	0.024	1.1178	0.4192	1.1741	0.2964	0.3857	0.4302	0	2,333.75	2,333.75	0.716	0.0178	2,352.44
Maximum	**25.5321**	**27.9806**	**34.1213**	**0.0952**	**7.8674**	**1.132**	**8.9553**	**3.9933**	**1.0415**	**4.9941**	**0**	**9,784.49**	**9,784.49**	**1.9472**	**0.3697**	**9,913.58**

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, 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	N20	CO2e
Percent Reduction	**0**	**0**	**0**	**0**	**34.71**	**0**	**32.5**	**43.77**	**0**	**37.69**	**0**	**0**	**0**	**0**	**0**	**0**

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	175.9985	13.0183	354.521	0.781		46.1076	46.1076		46.1076	46.1076	5,620.15	10,889.17	16,509.33	16.8454	0.3815	17,044.13
Energy	0.8607	7.6854	5.5527	0.047		0.5947	0.5947		0.5947	0.5947		9,389.38	9,389.38	0.18	0.1721	9,445.18
Mobile	52.7512	47.3355	427.8778	0.8179	102.7938	0.5812	103.375	27.3951	0.5408	27.9359		88,140.51	88,140.51	6.7814	4.4364	89,632.08
Total	**229.6104**	**68.0392**	**787.9515**	**1.6458**	**102.7938**	**47.2834**	**150.0772**	**27.3951**	**47.243**	**74.6381**	**5,620.15**	**108,419.06**	**114,039.21**	**23.8067**	**4.99**	**116,121.40**

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					

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Winter

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

Area	175.9985	13.0183	354.521	0.781		46.1076	46.1076		46.1076	46.1076	5,620.15	10,889.17	16,509.33	16.8454	0.3815	17,044.13
Energy	0.8607	7.6854	5.5527	0.047		0.5947	0.5947		0.5947	0.5947		9,389.38	9,389.38	0.18	0.1721	9,445.18
Mobile	52.7512	47.3355	427.8778	0.8179	102.7938	0.5812	103.375	27.3951	0.5408	27.9359		88,140.51	88,140.51	6.7814	4.4364	89,632.08
Total	**229.6104**	**68.0392**	**787.9515**	**1.6458**	**102.7938**	**47.2834**	**150.0772**	**27.3951**	**47.243**	**74.6381**	**5,620.15**	**108,419.06**	**114,039.21**	**23.8067**	**4.99**	**116,121.40**

	ROG	NOx	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/28/2025	5/30/2025	5	20	
2	Grading	Grading	6/2/2025	8/22/2025	5	45	
3	Building Construction	Building Construction	8/25/2025	7/23/2027	5	500	
4	Paving	Paving	3/13/2028	4/28/2028	5	35	
5	Architectural Coating	Architectural Coating	3/29/2027	3/10/2028	5	250	

Acres of Grading (Site Preparation Phase): 30

Acres of Grading (Grading Phase): 135

Acres of Paving: 0

Residential Indoor: 1,215,000; Residential Outdoor: 405,000; Non-Residential Indoor: 294,750; Non-Residential Outdoor: 98,250; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Winter

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

Site Preparation	Rubber Tired Dozers	3	8	247	0.4
Site Preparation	Tractors/Loaders/Backhoes	4	8	97	0.37
Grading	Excavators	2	8	158	0.38
Grading	Graders	1	8	187	0.41
Grading	Rubber Tired Dozers	1	8	247	0.4
Grading	Scrapers	2	8	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8	97	0.37
Building Construction	Cranes	1	7	231	0.29
Building Construction	Forklifts	3	8	89	0.2
Building Construction	Generator Sets	1	8	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7	97	0.37
Building Construction	Welders	1	8	46	0.45
Paving	Pavers	2	8	130	0.42
Paving	Paving Equipment	2	8	132	0.36
Paving	Rollers	2	8	80	0.38
Architectural Coating	Air Compressors	1	6	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18	0	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT
Grading	8	20	0	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT
Building Construction	9	502	96	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT
Paving	6	15	0	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	100	0	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Date: 6/24/2021 1:13 PM

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Winter

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

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.657	0	19.657	10.1025	0	10.1025			0			0
Off-Road	2.4727	25.2339	17.9118	0.0381		1.0868	1.0868		0.9999	0.9999		3,689.10	3,689.10	1.1931		3,718.93
Total	**2.4727**	**25.2339**	**17.9118**	**0.0381**	**19.657**	**1.0868**	**20.7438**	**10.1025**	**0.9999**	**11.1023**		**3,689.10**	**3,689.10**	**1.1931**		**3,718.93**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.0534	0.0339	0.4995	1.56E-03	0.2012	1.04E-03	0.2022	0.0534	9.50E-04	0.0543		162.1868	162.1868	3.59E-03	3.75E-03	163.3953
Total	**0.0534**	**0.0339**	**0.4995**	**1.56E-03**	**0.2012**	**1.04E-03**	**0.2022**	**0.0534**	**9.50E-04**	**0.0543**		**162.1868**	**162.1868**	**3.59E-03**	**3.75E-03**	**163.3953**

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, 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					
Fugitive Dust					7.6662	0	7.6662	3.94	0	3.94			0			0
Off-Road	2.4727	25.2339	17.9118	0.0381		1.0868	1.0868		0.9999	0.9999	0	3,689.10	3,689.10	1.1931		3,718.93
Total	**2.4727**	**25.2339**	**17.9118**	**0.0381**	**7.6662**	**1.0868**	**8.753**	**3.94**	**0.9999**	**4.9398**	**0**	**3,689.10**	**3,689.10**	**1.1931**		**3,718.93**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.0534	0.0339	0.4995	1.56E-03	0.2012	1.04E-03	0.2022	0.0534	9.50E-04	0.0543		162.1868	162.1868	3.59E-03	3.75E-03	163.3953
Total	**0.0534**	**0.0339**	**0.4995**	**1.56E-03**	**0.2012**	**1.04E-03**	**0.2022**	**0.0534**	**9.50E-04**	**0.0543**		**162.1868**	**162.1868**	**3.59E-03**	**3.75E-03**	**163.3953**

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Winter

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

3.3 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0	9.2036	3.6538	0	3.6538			0			0
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404		6,008.28	6,008.28	1.9432		6,056.86
Total	**2.9012**	**27.9429**	**26.3311**	**0.0621**	**9.2036**	**1.1309**	**10.3345**	**3.6538**	**1.0404**	**4.6942**		**6,008.28**	**6,008.28**	**1.9432**		**6,056.86**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.0594	0.0377	0.555	1.73E-03	0.2236	1.15E-03	0.2247	0.0593	1.06E-03	0.0604		180.2076	180.2076	3.99E-03	4.17E-03	181.5504
Total	**0.0594**	**0.0377**	**0.555**	**1.73E-03**	**0.2236**	**1.15E-03**	**0.2247**	**0.0593**	**1.06E-03**	**0.0604**		**180.2076**	**180.2076**	**3.99E-03**	**4.17E-03**	**181.5504**

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, 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					
Fugitive Dust					3.5894	0	3.5894	1.425	0	1.425			0			0
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404	0	6,008.28	6,008.28	1.9432		6,056.86
Total	**2.9012**	**27.9429**	**26.3311**	**0.0621**	**3.5894**	**1.1309**	**4.7203**	**1.425**	**1.0404**	**2.4654**	**0**	**6,008.28**	**6,008.28**	**1.9432**		**6,056.86**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.0594	0.0377	0.555	1.73E-03	0.2236	1.15E-03	0.2247	0.0593	1.06E-03	0.0604		180.2076	180.2076	3.99E-03	4.17E-03	181.5504
Total	**0.0594**	**0.0377**	**0.555**	**1.73E-03**	**0.2236**	**1.15E-03**	**0.2247**	**0.0593**	**1.06E-03**	**0.0604**		**180.2076**	**180.2076**	**3.99E-03**	**4.17E-03**	**181.5504**

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Winter

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

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.027		0.5276	0.5276		0.4963	0.4963		2,556.47	2,556.47	0.601		2,571.50
Total	**1.3674**	**12.4697**	**16.0847**	**0.027**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.47**	**2,556.47**	**0.601**		**2,571.50**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0.0966	3.6571	1.3722	0.0169	0.6147	0.0205	0.6352	0.177	0.0196	0.1966		1,824.41	1,824.41	0.0631	0.265	1,904.97
Worker	1.4898	0.9456	13.9311	0.0434	5.6112	0.0289	5.6401	1.4881	0.0266	1.5147		4,523.21	4,523.21	0.1001	0.1047	4,556.91
Total	**1.5864**	**4.6027**	**15.3033**	**0.0603**	**6.2259**	**0.0494**	**6.2753**	**1.6651**	**0.0462**	**1.7113**		**6,347.62**	**6,347.62**	**0.1632**	**0.3697**	**6,461.88**

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, 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					
Off-Road	1.3674	12.4697	16.0847	0.027		0.5276	0.5276		0.4963	0.4963	0	2,556.47	2,556.47	0.601		2,571.50
Total	**1.3674**	**12.4697**	**16.0847**	**0.027**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0**	**2,556.47**	**2,556.47**	**0.601**		**2,571.50**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0.0966	3.6571	1.3722	0.0169	0.6147	0.0205	0.6352	0.177	0.0196	0.1966		1,824.41	1,824.41	0.0631	0.265	1,904.97
Worker	1.4898	0.9456	13.9311	0.0434	5.6112	0.0289	5.6401	1.4881	0.0266	1.5147		4,523.21	4,523.21	0.1001	0.1047	4,556.91
Total	**1.5864**	**4.6027**	**15.3033**	**0.0603**	**6.2259**	**0.0494**	**6.2753**	**1.6651**	**0.0462**	**1.7113**		**6,347.62**	**6,347.62**	**0.1632**	**0.3697**	**6,461.88**

3.4 Building Construction - 2026

Unmitigated Construction On-Site

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, 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					
Off-Road	1.3674	12.4697	16.0847	0.027		0.5276	0.5276		0.4963	0.4963		2,556.47	2,556.47	0.601		2,571.50
Total	**1.3674**	**12.4697**	**16.0847**	**0.027**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.47**	**2,556.47**	**0.601**		**2,571.50**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0.0945	3.6315	1.3556	0.0166	0.6147	0.0205	0.6352	0.177	0.0196	0.1965		1,790.24	1,790.24	0.0633	0.2603	1,869.39
Worker	1.4076	0.859	13.1102	0.0421	5.6112	0.0274	5.6386	1.4881	0.0253	1.5134		4,420.48	4,420.48	0.091	0.0987	4,452.18
Total	**1.5022**	**4.4905**	**14.4658**	**0.0587**	**6.2259**	**0.0479**	**6.2738**	**1.6651**	**0.0448**	**1.7099**		**6,210.72**	**6,210.72**	**0.1543**	**0.359**	**6,321.57**

Mitigated Construction On-Site

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, 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					
Off-Road	1.3674	12.4697	16.0847	0.027		0.5276	0.5276		0.4963	0.4963	0	2,556.47	2,556.47	0.601		2,571.50
Total	**1.3674**	**12.4697**	**16.0847**	**0.027**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0**	**2,556.47**	**2,556.47**	**0.601**		**2,571.50**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0.0945	3.6315	1.3556	0.0166	0.6147	0.0205	0.6352	0.177	0.0196	0.1965		1,790.24	1,790.24	0.0633	0.2603	1,869.39
Worker	1.4076	0.859	13.1102	0.0421	5.6112	0.0274	5.6386	1.4881	0.0253	1.5134		4,420.48	4,420.48	0.091	0.0987	4,452.18
Total	**1.5022**	**4.4905**	**14.4658**	**0.0587**	**6.2259**	**0.0479**	**6.2738**	**1.6651**	**0.0448**	**1.7099**		**6,210.72**	**6,210.72**	**0.1543**	**0.359**	**6,321.57**

3.4 Building Construction - 2027

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

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Winter

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

Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.027		0.5276	0.5276		0.4963	0.4963		2,556.47	2,556.47	0.601		2,571.50
Total	**1.3674**	**12.4697**	**16.0847**	**0.027**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.47**	**2,556.47**	**0.601**		**2,571.50**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0.0927	3.6053	1.3416	0.0163	0.6147	0.0204	0.6351	0.177	0.0195	0.1965		1,754.60	1,754.60	0.0632	0.2554	1,832.29
Worker	1.3321	0.7859	12.4132	0.0409	5.6112	0.0258	5.637	1.4881	0.0237	1.5118		4,329.51	4,329.51	0.0833	0.0937	4,359.53
Total	**1.4248**	**4.3913**	**13.7548**	**0.0572**	**6.2259**	**0.0462**	**6.272**	**1.6651**	**0.0432**	**1.7083**		**6,084.11**	**6,084.11**	**0.1464**	**0.3491**	**6,191.82**

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	1.3674	12.4697	16.0847	0.027		0.5276	0.5276		0.4963	0.4963	0	2,556.47	2,556.47	0.601		2,571.50
Total	**1.3674**	**12.4697**	**16.0847**	**0.027**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0**	**2,556.47**	**2,556.47**	**0.601**		**2,571.50**

<u>Mitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0.0927	3.6053	1.3416	0.0163	0.6147	0.0204	0.6351	0.177	0.0195	0.1965		1,754.60	1,754.60	0.0632	0.2554	1,832.29
Worker	1.3321	0.7859	12.4132	0.0409	5.6112	0.0258	5.637	1.4881	0.0237	1.5118		4,329.51	4,329.51	0.0833	0.0937	4,359.53
Total	**1.4248**	**4.3913**	**13.7548**	**0.0572**	**6.2259**	**0.0462**	**6.272**	**1.6651**	**0.0432**	**1.7083**		**6,084.11**	**6,084.11**	**0.1464**	**0.3491**	**6,191.82**

3.5 Paving - 2028

<u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.578	0.0228		0.4185	0.4185		0.385	0.385		2,206.75	2,206.75	0.7137		2,224.59

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Winter

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

Paving	0					0	0		0	0			0			0
Total	**0.9152**	**8.5816**	**14.578**	**0.0228**		**0.4185**	**0.4185**		**0.385**	**0.385**		**2,206.75**	**2,206.75**	**0.7137**		**2,224.59**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.0377	0.0217	0.3536	1.19E-03	0.1677	7.20E-04	0.1684	0.0445	6.60E-04	0.0451		127.0023	127.0023	2.29E-03	2.68E-03	127.8571
Total	**0.0377**	**0.0217**	**0.3536**	**1.19E-03**	**0.1677**	**7.20E-04**	**0.1684**	**0.0445**	**6.60E-04**	**0.0451**		**127.0023**	**127.0023**	**2.29E-03**	**2.68E-03**	**127.8571**

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	0.9152	8.5816	14.578	0.0228		0.4185	0.4185		0.385	0.385	0	2,206.75	2,206.75	0.7137		2,224.59

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Winter

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

Paving	0					0	0		0	0			0			0
Total	**0.9152**	**8.5816**	**14.578**	**0.0228**		**0.4185**	**0.4185**		**0.385**	**0.385**	**0**	**2,206.75**	**2,206.75**	**0.7137**		**2,224.59**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.0377	0.0217	0.3536	1.19E-03	0.1677	7.20E-04	0.1684	0.0445	6.60E-04	0.0451		127.0023	127.0023	2.29E-03	2.68E-03	127.8571
Total	**0.0377**	**0.0217**	**0.3536**	**1.19E-03**	**0.1677**	**7.20E-04**	**0.1684**	**0.0445**	**6.60E-04**	**0.0451**		**127.0023**	**127.0023**	**2.29E-03**	**2.68E-03**	**127.8571**

3.6 Architectural Coating - 2027

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	22.3036					0	0		0	0			0			0

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Winter

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

Off-Road	0.1709	1.1455	1.8091	2.97E-03		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**22.4745**	**1.1455**	**1.8091**	**2.97E-03**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.2654	0.1566	2.4727	8.15E-03	1.1178	5.14E-03	1.1229	0.2964	4.73E-03	0.3012		862.452	862.452	0.0166	0.0187	868.4315
Total	**0.2654**	**0.1566**	**2.4727**	**8.15E-03**	**1.1178**	**5.14E-03**	**1.1229**	**0.2964**	**4.73E-03**	**0.3012**		**862.452**	**862.452**	**0.0166**	**0.0187**	**868.4315**

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	22.3036					0	0		0	0			0			0

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Winter

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

Off-Road	0.1709	1.1455	1.8091	2.97E-03		0.0515	0.0515		0.0515	0.0515	0	281.4481	281.4481	0.0154		281.8319
Total	**22.4745**	**1.1455**	**1.8091**	**2.97E-03**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.2654	0.1566	2.4727	8.15E-03	1.1178	5.14E-03	1.1229	0.2964	4.73E-03	0.3012		862.452	862.452	0.0166	0.0187	868.4315
Total	**0.2654**	**0.1566**	**2.4727**	**8.15E-03**	**1.1178**	**5.14E-03**	**1.1229**	**0.2964**	**4.73E-03**	**0.3012**		**862.452**	**862.452**	**0.0166**	**0.0187**	**868.4315**

3.6 Architectural Coating - 2028

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	22.3036					0	0		0	0			0			0

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Winter

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

Off-Road	0.1709	1.1455	1.8091	2.97E-03		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**22.4745**	**1.1455**	**1.8091**	**2.97E-03**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.2516	0.1444	2.3572	7.94E-03	1.1178	4.79E-03	1.1226	0.2964	4.41E-03	0.3008		846.6816	846.6816	0.0153	0.0178	852.381
Total	**0.2516**	**0.1444**	**2.3572**	**7.94E-03**	**1.1178**	**4.79E-03**	**1.1226**	**0.2964**	**4.41E-03**	**0.3008**		**846.6816**	**846.6816**	**0.0153**	**0.0178**	**852.381**

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	22.3036					0	0		0	0			0			0

Ventana Specific Plan Planning Area 4 & 5 Construction - South Coast AQMD Air District, Winter

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

Off-Road	0.1709	1.1455	1.8091	2.97E-03		0.0515	0.0515		0.0515	0.0515	0	281.4481	281.4481	0.0154		281.8319
Total	**22.4745**	**1.1455**	**1.8091**	**2.97E-03**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.2516	0.1444	2.3572	7.94E-03	1.1178	4.79E-03	1.1226	0.2964	4.41E-03	0.3008		846.6816	846.6816	0.0153	0.0178	852.381
Total	**0.2516**	**0.1444**	**2.3572**	**7.94E-03**	**1.1178**	**4.79E-03**	**1.1226**	**0.2964**	**4.41E-03**	**0.3008**		**846.6816**	**846.6816**	**0.0153**	**0.0178**	**852.381**

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

Ventana Specific Plan Planning Area 6 Construction

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	74	1000sqft	0	74,000.00	0
Other Non-Asphalt Surfaces	0.5	Acre	0.5	21,780.00	0
Apartments Mid Rise	137	Dwelling Unit	5.7	137,000.00	392
Strip Mall	26	1000sqft	2	26,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2030
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	531.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Planning Area 6 construction only

Land Use - Planning Area 6a = 137 Du, 74 ksf of medical office on 5.7 acres Planning Area 6b = 26 ksf of strip mall on 2.0 acres. 0.5 acres of open space

Construction Phase - Default construction schedule. Adjusted arch coating to overlap with building construction and be approx half the length of building con

Off-road Equipment - Default equipment

Grading - balanced onsite

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403, Mitigation Measure 4.5.1 3x watering daily

Table Name	Column Name	Default Value	New Value

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, Annual

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

tblAreaCoating	Area_Parking	0	1307
tblConstructionPhase	NumDays	20	115
tblFleetMix	HHD	0	8.95E-03
tblFleetMix	HHD	0	8.95E-03
tblFleetMix	HHD	0	8.95E-03
tblFleetMix	HHD	0	8.95E-03
tblFleetMix	LDA	0	0.54
tblFleetMix	LDA	0	0.54
tblFleetMix	LDA	0	0.54
tblFleetMix	LDA	0	0.54
tblFleetMix	LDT1	0	0.06
tblFleetMix	LDT1	0	0.06
tblFleetMix	LDT1	0	0.06
tblFleetMix	LDT1	0	0.06
tblFleetMix	LDT2	0	0.19
tblFleetMix	LDT2	0	0.19
tblFleetMix	LDT2	0	0.19
tblFleetMix	LDT2	0	0.19
tblFleetMix	LHD1	0	0.02
tblFleetMix	LHD1	0	0.02
tblFleetMix	LHD1	0	0.02
tblFleetMix	LHD1	0	0.02
tblFleetMix	LHD2	0	6.88E-03
tblFleetMix	LHD2	0	6.88E-03
tblFleetMix	LHD2	0	6.88E-03
tblFleetMix	LHD2	0	6.88E-03
tblFleetMix	MCY	0	0.03
tblFleetMix	MCY	0	0.03
tblFleetMix	MCY	0	0.03

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, Annual

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

tblFleetMix	MCY	0	0.03
tblFleetMix	MDV	0	0.13
tblFleetMix	MDV	0	0.13
tblFleetMix	MDV	0	0.13
tblFleetMix	MDV	0	0.13
tblFleetMix	MH	0	3.41E-03
tblFleetMix	MH	0	3.41E-03
tblFleetMix	MH	0	3.41E-03
tblFleetMix	MH	0	3.41E-03
tblFleetMix	MHD	0	0.01
tblFleetMix	MHD	0	0.01
tblFleetMix	MHD	0	0.01
tblFleetMix	MHD	0	0.01
tblFleetMix	OBUS	0	8.19E-04
tblFleetMix	OBUS	0	8.19E-04
tblFleetMix	OBUS	0	8.19E-04
tblFleetMix	OBUS	0	8.19E-04
tblFleetMix	SBUS	0	7.65E-04
tblFleetMix	SBUS	0	7.65E-04
tblFleetMix	SBUS	0	7.65E-04
tblFleetMix	SBUS	0	7.65E-04
tblFleetMix	UBUS	0	4.70E-04
tblFleetMix	UBUS	0	4.70E-04
tblFleetMix	UBUS	0	4.70E-04
tblFleetMix	UBUS	0	4.70E-04

2.0 Emissions Summary

2.1 Overall Construction

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, Annual

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

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					
2028	0.1445	1.2234	1.5876	3.48E-03	0.2903	0.0482	0.3386	0.1173	0.0451	0.1624	0	313.2799	313.2799	0.0534	7.18E-03	316.7549
2029	0.999	0.8171	1.2312	2.61E-03	0.1028	0.0329	0.1357	0.0275	0.0311	0.0586	0	235.8507	235.8507	0.0352	5.19E-03	238.2778
Maximum	**0.999**	**1.2234**	**1.5876**	**3.48E-03**	**0.2903**	**0.0482**	**0.3386**	**0.1173**	**0.0451**	**0.1624**	**0**	**313.2799**	**313.2799**	**0.0534**	**7.18E-03**	**316.7549**

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					
2028	0.1445	1.2234	1.5876	3.48E-03	0.1872	0.0482	0.2354	0.0656	0.0451	0.1107	0	313.2796	313.2796	0.0534	7.18E-03	316.7547
2029	0.999	0.8171	1.2312	2.61E-03	0.1028	0.0329	0.1357	0.0275	0.0311	0.0586	0	235.8505	235.8505	0.0352	5.19E-03	238.2777
Maximum	**0.999**	**1.2234**	**1.5876**	**3.48E-03**	**0.1872**	**0.0482**	**0.2354**	**0.0656**	**0.0451**	**0.1107**	**0**	**313.2796**	**313.2796**	**0.0534**	**7.18E-03**	**316.7547**

	ROG	**NOx**	**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**	**0**	**0**	**0**	**26.24**	**0**	**21.75**	**35.7**	**0**	**23.39**	**0**	**0**	**0**	**0**	**0**	**0**

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, Annual

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**5-15-2028**	**8-14-2028**	0.5782	0.5782
2	**8-15-2028**	**11-14-2028**	0.5152	0.5152
3	**11-15-2028**	**2-14-2029**	0.7892	0.7892
4	**2-15-2029**	**5-14-2029**	1.0203	1.0203
5	**5-15-2029**	**8-14-2029**	0.2471	0.2471
		Highest	1.0203	1.0203

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.4383	0.0518	2.2813	2.30E-03		0.1387	0.1387		0.1387	0.1387	14.552	30.2743	44.8263	0.0456	9.90E-04	46.2607
Energy	0.0123	0.106	0.0514	6.70E-04		8.50E-03	8.50E-03		8.50E-03	8.50E-03	0	492.919	492.919	0.0254	5.02E-03	495.0498
Mobile	1.3823	1.4376	13.1943	0.0287	3.567	0.0192	3.5862	0.952	0.0178	0.9699	0	2,801.25	2,801.25	0.1824	0.1233	2,842.55
Waste						0	0		0	0	180.5645	0	180.5645	10.6711	0	447.341
Water						0	0		0	0	6.3887	86.2642	92.6529	0.6615	0.0161	114.0017
Total	**2.8329**	**1.5955**	**15.527**	**0.0316**	**3.567**	**0.1663**	**3.7333**	**0.952**	**0.165**	**1.117**	**201.5052**	**3,410.71**	**3,612.22**	**11.586**	**0.1454**	**3,945.20**

Mitigated Operational

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, Annual

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	1.4383	0.0518	2.2813	2.30E-03		0.1387	0.1387		0.1387	0.1387	14.552	30.2743	44.8263	0.0456	9.90E-04	46.2607
Energy	0.0123	0.106	0.0514	6.70E-04		8.50E-03	8.50E-03		8.50E-03	8.50E-03	0	492.919	492.919	0.0254	5.02E-03	495.0498
Mobile	1.3823	1.4376	13.1943	0.0287	3.567	0.0192	3.5862	0.952	0.0178	0.9699	0	2,801.25	2,801.25	0.1824	0.1233	2,842.55
Waste						0	0		0	0	180.5645	0	180.5645	10.6711	0	447.341
Water						0	0		0	0	6.3887	86.2642	92.6529	0.6615	0.0161	114.0017
Total	**2.8329**	**1.5955**	**15.527**	**0.0316**	**3.567**	**0.1663**	**3.7333**	**0.952**	**0.165**	**1.117**	**201.5052**	**3,410.71**	**3,612.22**	**11.586**	**0.1454**	**3,945.20**

	ROG	**NOx**	**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**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/15/2028	5/26/2028	5	10	
2	Grading	Grading	5/27/2028	6/23/2028	5	20	
3	Building Construction	Building Construction	6/24/2028	5/11/2029	5	230	
4	Paving	Paving	6/9/2029	7/6/2029	5	20	
5	Architectural Coating	Architectural Coating	1/1/2029	6/8/2029	5	115	

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, Annual

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): 20

Acres of Paving: 0.5

Residential Indoor: 277,425; Residential Outdoor: 92,475; Non-Residential Indoor: 150,000; Non-Residential Outdoor: 50,000; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8	247	0.4
Site Preparation	Tractors/Loaders/Backhoes	4	8	97	0.37
Grading	Excavators	1	8	158	0.38
Grading	Graders	1	8	187	0.41
Grading	Rubber Tired Dozers	1	8	247	0.4
Grading	Tractors/Loaders/Backhoes	3	8	97	0.37
Building Construction	Cranes	1	7	231	0.29
Building Construction	Forklifts	3	8	89	0.2
Building Construction	Generator Sets	1	8	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7	97	0.37
Building Construction	Welders	1	8	46	0.45
Paving	Pavers	2	8	130	0.42
Paving	Paving Equipment	2	8	132	0.36
Paving	Rollers	2	8	80	0.38
Architectural Coating	Air Compressors	1	6	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18	0	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT
Grading	6	15	0	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, Annual

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

Building Construction	9	140	35	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT
Paving	6	15	0	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	28	0	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2028

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	0.0983	0.0505	0	0.0505	0	0	0	0	0	0
Off-Road	0.0124	0.1262	0.0896	1.90E-04		5.43E-03	5.43E-03		5.00E-03	5.00E-03	0	16.7335	16.7335	5.41E-03	0	16.8688
Total	**0.0124**	**0.1262**	**0.0896**	**1.90E-04**	**0.0983**	**5.43E-03**	**0.1037**	**0.0505**	**5.00E-03**	**0.0555**	**0**	**16.7335**	**16.7335**	**5.41E-03**	**0**	**16.8688**

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					

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, Annual

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

Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker	2.10E-04	1.30E-04	2.18E-03	1.00E-05	9.90E-04	0	9.90E-04	2.60E-04	0	2.70E-04	0	0.7018	0.7018	1.00E-05	1.00E-05	0.7065
Total	**2.10E-04**	**1.30E-04**	**2.18E-03**	**1.00E-05**	**9.90E-04**	**0**	**9.90E-04**	**2.60E-04**	**0**	**2.70E-04**	**0**	**0.7018**	**0.7018**	**1.00E-05**	**1.00E-05**	**0.7065**

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					0.0383	0	0.0383	0.0197	0	0.0197	0	0	0	0	0	0
Off-Road	0.0124	0.1262	0.0896	1.90E-04		5.43E-03	5.43E-03		5.00E-03	5.00E-03	0	16.7335	16.7335	5.41E-03	0	16.8688
Total	**0.0124**	**0.1262**	**0.0896**	**1.90E-04**	**0.0383**	**5.43E-03**	**0.0438**	**0.0197**	**5.00E-03**	**0.0247**	**0**	**16.7335**	**16.7335**	**5.41E-03**	**0**	**16.8688**

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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker	2.10E-04	1.30E-04	2.18E-03	1.00E-05	9.90E-04	0	9.90E-04	2.60E-04	0	2.70E-04	0	0.7018	0.7018	1.00E-05	1.00E-05	0.7065
Total	**2.10E-04**	**1.30E-04**	**2.18E-03**	**1.00E-05**	**9.90E-04**	**0**	**9.90E-04**	**2.60E-04**	**0**	**2.70E-04**	**0**	**0.7018**	**0.7018**	**1.00E-05**	**1.00E-05**	**0.7065**

3.3 Grading - 2028

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					0.0708	0	0.0708	0.0343	0	0.0343	0	0	0	0	0	0
Off-Road	0.0152	0.1532	0.1454	3.00E-04		6.24E-03	6.24E-03		5.74E-03	5.74E-03	0	26.0698	26.0698	8.43E-03	0	26.2806
Total	**0.0152**	**0.1532**	**0.1454**	**3.00E-04**	**0.0708**	**6.24E-03**	**0.0771**	**0.0343**	**5.74E-03**	**0.04**	**0**	**26.0698**	**26.0698**	**8.43E-03**	**0**	**26.2806**

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					

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, Annual

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

Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker	3.50E-04	2.20E-04	3.63E-03	1.00E-05	1.65E-03	1.00E-05	1.65E-03	4.40E-04	1.00E-05	4.40E-04	0	1.1697	1.1697	2.00E-05	2.00E-05	1.1775
Total	**3.50E-04**	**2.20E-04**	**3.63E-03**	**1.00E-05**	**1.65E-03**	**1.00E-05**	**1.65E-03**	**4.40E-04**	**1.00E-05**	**4.40E-04**	**0**	**1.1697**	**1.1697**	**2.00E-05**	**2.00E-05**	**1.1775**

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					0.0276	0	0.0276	0.0134	0	0.0134	0	0	0	0	0	0
Off-Road	0.0152	0.1532	0.1454	3.00E-04		6.24E-03	6.24E-03		5.74E-03	5.74E-03	0	26.0698	26.0698	8.43E-03	0	26.2806
Total	**0.0152**	**0.1532**	**0.1454**	**3.00E-04**	**0.0276**	**6.24E-03**	**0.0339**	**0.0134**	**5.74E-03**	**0.0191**	**0**	**26.0698**	**26.0698**	**8.43E-03**	**0**	**26.2806**

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					

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, Annual

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

Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker	3.50E-04	2.20E-04	3.63E-03	1.00E-05	1.65E-03	1.00E-05	1.65E-03	4.40E-04	1.00E-05	4.40E-04	0	1.1697	1.1697	2.00E-05	2.00E-05	1.1775
Total	**3.50E-04**	**2.20E-04**	**3.63E-03**	**1.00E-05**	**1.65E-03**	**1.00E-05**	**1.65E-03**	**4.40E-04**	**1.00E-05**	**4.40E-04**	**0**	**1.1697**	**1.1697**	**2.00E-05**	**2.00E-05**	**1.1775**

3.4 Building Construction - 2028

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	0.0923	0.8417	1.0857	1.82E-03		0.0356	0.0356		0.0335	0.0335	0	156.5456	156.5456	0.0368	0	157.4656
Total	**0.0923**	**0.8417**	**1.0857**	**1.82E-03**		**0.0356**	**0.0356**		**0.0335**	**0.0335**	**0**	**156.5456**	**156.5456**	**0.0368**	**0**	**157.4656**

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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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

Vendor	2.31E-03	0.0881	0.0322	3.90E-04	0.0149	5.00E-04	0.0154	4.30E-03	4.80E-04	4.78E-03	0	38.3698	38.3698	1.42E-03	5.59E-03	40.0706
Worker	0.0218	0.0139	0.2289	7.60E-04	0.1037	4.50E-04	0.1041	0.0275	4.20E-04	0.028	0	73.6897	73.6897	1.31E-03	1.55E-03	74.1852
Total	**0.0241**	**0.1021**	**0.2611**	**1.15E-03**	**0.1186**	**9.50E-04**	**0.1195**	**0.0318**	**9.00E-04**	**0.0327**	**0**	**112.0594**	**112.0594**	**2.73E-03**	**7.14E-03**	**114.2558**

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	0.0923	0.8417	1.0857	1.82E-03		0.0356	0.0356		0.0335	0.0335	0	156.5454	156.5454	0.0368	0	157.4654
Total	**0.0923**	**0.8417**	**1.0857**	**1.82E-03**		**0.0356**	**0.0356**		**0.0335**	**0.0335**	**0**	**156.5454**	**156.5454**	**0.0368**	**0**	**157.4654**

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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	2.31E-03	0.0881	0.0322	3.90E-04	0.0149	5.00E-04	0.0154	4.30E-03	4.80E-04	4.78E-03	0	38.3698	38.3698	1.42E-03	5.59E-03	40.0706

Worker	0.0218	0.0139	0.2289	7.60E-04	0.1037	4.50E-04	0.1041	0.0275	4.20E-04	0.028	0	73.6897	73.6897	1.31E-03	1.55E-03	74.1852
Total	**0.0241**	**0.1021**	**0.2611**	**1.15E-03**	**0.1186**	**9.50E-04**	**0.1195**	**0.0318**	**9.00E-04**	**0.0327**	**0**	**112.0594**	**112.0594**	**2.73E-03**	**7.14E-03**	**114.2558**

3.4 Building Construction - 2029

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	0.065	0.5923	0.764	1.28E-03		0.0251	0.0251		0.0236	0.0236	0	110.1617	110.1617	0.0259	0	110.8091
Total	**0.065**	**0.5923**	**0.764**	**1.28E-03**		**0.0251**	**0.0251**		**0.0236**	**0.0236**	**0**	**110.1617**	**110.1617**	**0.0259**	**0**	**110.8091**

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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	1.60E-03	0.0616	0.0225	2.70E-04	0.0105	3.50E-04	0.0108	3.03E-03	3.30E-04	3.36E-03	0	26.4893	26.4893	1.00E-03	3.86E-03	27.6649
Worker	0.0145	9.08E-03	0.1541	5.20E-04	0.073	3.00E-04	0.0733	0.0194	2.70E-04	0.0197	0	51.0012	51.0012	8.50E-04	1.05E-03	51.3351

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

Total	**0.0161**	**0.0707**	**0.1766**	**7.90E-04**	**0.0834**	**6.50E-04**	**0.0841**	**0.0224**	**6.00E-04**	**0.023**	**0**	**77.4905**	**77.4905**	**1.85E-03**	**4.91E-03**	**78.9999**

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	0.065	0.5923	0.764	1.28E-03		0.0251	0.0251		0.0236	0.0236	0	110.1616	110.1616	0.0259	0	110.809
Total	**0.065**	**0.5923**	**0.764**	**1.28E-03**		**0.0251**	**0.0251**		**0.0236**	**0.0236**	**0**	**110.1616**	**110.1616**	**0.0259**	**0**	**110.809**

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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	1.60E-03	0.0616	0.0225	2.70E-04	0.0105	3.50E-04	0.0108	3.03E-03	3.30E-04	3.36E-03	0	26.4893	26.4893	1.00E-03	3.86E-03	27.6649
Worker	0.0145	9.08E-03	0.1541	5.20E-04	0.073	3.00E-04	0.0733	0.0194	2.70E-04	0.0197	0	51.0012	51.0012	8.50E-04	1.05E-03	51.3351
Total	**0.0161**	**0.0707**	**0.1766**	**7.90E-04**	**0.0834**	**6.50E-04**	**0.0841**	**0.0224**	**6.00E-04**	**0.023**	**0**	**77.4905**	**77.4905**	**1.85E-03**	**4.91E-03**	**78.9999**

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, Annual

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

3.5 Paving - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.15E-03	0.0858	0.1458	2.30E-04		4.19E-03	4.19E-03		3.85E-03	3.85E-03	0	20.0193	20.0193	6.47E-03	0	20.1811
Paving	0					0	0		0	0	0	0	0	0	0	0
Total	**9.15E-03**	**0.0858**	**0.1458**	**2.30E-04**		**4.19E-03**	**4.19E-03**		**3.85E-03**	**3.85E-03**	**0**	**20.0193**	**20.0193**	**6.47E-03**	**0**	**20.1811**

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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker	3.30E-04	2.00E-04	3.48E-03	1.00E-05	1.65E-03	1.00E-05	1.65E-03	4.40E-04	1.00E-05	4.40E-04	0	1.1504	1.1504	2.00E-05	2.00E-05	1.1579
Total	**3.30E-04**	**2.00E-04**	**3.48E-03**	**1.00E-05**	**1.65E-03**	**1.00E-05**	**1.65E-03**	**4.40E-04**	**1.00E-05**	**4.40E-04**	**0**	**1.1504**	**1.1504**	**2.00E-05**	**2.00E-05**	**1.1579**

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, Annual

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	tons/yr										MT/yr					
Off-Road	9.15E-03	0.0858	0.1458	2.30E-04		4.19E-03	4.19E-03		3.85E-03	3.85E-03	0	20.0192	20.0192	6.47E-03	0	20.1811
Paving	0					0	0		0	0	0	0	0	0	0	0
Total	**9.15E-03**	**0.0858**	**0.1458**	**2.30E-04**		**4.19E-03**	**4.19E-03**		**3.85E-03**	**3.85E-03**	**0**	**20.0192**	**20.0192**	**6.47E-03**	**0**	**20.1811**

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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker	3.30E-04	2.00E-04	3.48E-03	1.00E-05	1.65E-03	1.00E-05	1.65E-03	4.40E-04	1.00E-05	4.40E-04	0	1.1504	1.1504	2.00E-05	2.00E-05	1.1579
Total	**3.30E-04**	**2.00E-04**	**3.48E-03**	**1.00E-05**	**1.65E-03**	**1.00E-05**	**1.65E-03**	**4.40E-04**	**1.00E-05**	**4.40E-04**	**0**	**1.1504**	**1.1504**	**2.00E-05**	**2.00E-05**	**1.1579**

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, Annual

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

3.6 Architectural Coating - 2029

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	0.8952					0	0		0	0	0	0	0	0	0	0
Off-Road	9.82E-03	0.0659	0.104	1.70E-04		2.96E-03	2.96E-03		2.96E-03	2.96E-03	0	14.6812	14.6812	8.00E-04	0	14.7012
Total	**0.905**	**0.0659**	**0.104**	**1.70E-04**		**2.96E-03**	**2.96E-03**		**2.96E-03**	**2.96E-03**	**0**	**14.6812**	**14.6812**	**8.00E-04**	**0**	**14.7012**

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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker	3.51E-03	2.20E-03	0.0373	1.30E-04	0.0177	7.00E-05	0.0177	4.69E-03	7.00E-05	4.76E-03	0	12.3477	12.3477	2.10E-04	2.50E-04	12.4285
Total	**3.51E-03**	**2.20E-03**	**0.0373**	**1.30E-04**	**0.0177**	**7.00E-05**	**0.0177**	**4.69E-03**	**7.00E-05**	**4.76E-03**	**0**	**12.3477**	**12.3477**	**2.10E-04**	**2.50E-04**	**12.4285**

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, Annual

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	tons/yr										MT/yr					
Archit. Coating	0.8952					0	0		0	0	0	0	0	0	0	0
Off-Road	9.82E-03	0.0659	0.104	1.70E-04		2.96E-03	2.96E-03		2.96E-03	2.96E-03	0	14.6812	14.6812	8.00E-04	0	14.7012
Total	**0.905**	**0.0659**	**0.104**	**1.70E-04**		**2.96E-03**	**2.96E-03**		**2.96E-03**	**2.96E-03**	**0**	**14.6812**	**14.6812**	**8.00E-04**	**0**	**14.7012**

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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker	3.51E-03	2.20E-03	0.0373	1.30E-04	0.0177	7.00E-05	0.0177	4.69E-03	7.00E-05	4.76E-03	0	12.3477	12.3477	2.10E-04	2.50E-04	12.4285
Total	**3.51E-03**	**2.20E-03**	**0.0373**	**1.30E-04**	**0.0177**	**7.00E-05**	**0.0177**	**4.69E-03**	**7.00E-05**	**4.76E-03**	**0**	**12.3477**	**12.3477**	**2.10E-04**	**2.50E-04**	**12.4285**

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

Ventana Specific Plan Planning Area 6 Construction

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	74	1000sqft	0	74,000.00	0
Other Non-Asphalt Surfaces	0.5	Acre	0.5	21,780.00	0
Apartments Mid Rise	137	Dwelling Unit	5.7	137,000.00	392
Strip Mall	26	1000sqft	2	26,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2030
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	531.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Planning Area 6 construction only

Land Use - Planning Area 6a = 137 Du, 74 ksf of medical office on 5.7 acres Planning Area 6b = 26 ksf of strip mall on 2.0 acres. 0.5 acres of open space

Construction Phase - Default construction schedule. Adjusted arch coating to overlap with building construction and be approx half the length of building con

Off-road Equipment - Default equipment

Grading - balanced onsite

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403, Mitigation Measure 4.5.1 3x watering daily

Table Name	Column Name	Default Value	New Value

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, Summer

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

tblAreaCoating	Area_Parking	0	1307
tblConstructionPhase	NumDays	20	115
tblFleetMix	HHD	0	8.95E-03
tblFleetMix	HHD	0	8.95E-03
tblFleetMix	HHD	0	8.95E-03
tblFleetMix	HHD	0	8.95E-03
tblFleetMix	LDA	0	0.54
tblFleetMix	LDA	0	0.54
tblFleetMix	LDA	0	0.54
tblFleetMix	LDA	0	0.54
tblFleetMix	LDT1	0	0.06
tblFleetMix	LDT1	0	0.06
tblFleetMix	LDT1	0	0.06
tblFleetMix	LDT1	0	0.06
tblFleetMix	LDT2	0	0.19
tblFleetMix	LDT2	0	0.19
tblFleetMix	LDT2	0	0.19
tblFleetMix	LDT2	0	0.19
tblFleetMix	LHD1	0	0.02
tblFleetMix	LHD1	0	0.02
tblFleetMix	LHD1	0	0.02
tblFleetMix	LHD1	0	0.02
tblFleetMix	LHD2	0	6.88E-03
tblFleetMix	LHD2	0	6.88E-03
tblFleetMix	LHD2	0	6.88E-03
tblFleetMix	LHD2	0	6.88E-03
tblFleetMix	MCY	0	0.03
tblFleetMix	MCY	0	0.03
tblFleetMix	MCY	0	0.03

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, Summer

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

tblFleetMix	MCY	0	0.03
tblFleetMix	MDV	0	0.13
tblFleetMix	MDV	0	0.13
tblFleetMix	MDV	0	0.13
tblFleetMix	MDV	0	0.13
tblFleetMix	MH	0	3.41E-03
tblFleetMix	MH	0	3.41E-03
tblFleetMix	MH	0	3.41E-03
tblFleetMix	MH	0	3.41E-03
tblFleetMix	MHD	0	0.01
tblFleetMix	MHD	0	0.01
tblFleetMix	MHD	0	0.01
tblFleetMix	MHD	0	0.01
tblFleetMix	OBUS	0	8.19E-04
tblFleetMix	OBUS	0	8.19E-04
tblFleetMix	OBUS	0	8.19E-04
tblFleetMix	OBUS	0	8.19E-04
tblFleetMix	SBUS	0	7.65E-04
tblFleetMix	SBUS	0	7.65E-04
tblFleetMix	SBUS	0	7.65E-04
tblFleetMix	SBUS	0	7.65E-04
tblFleetMix	UBUS	0	4.70E-04
tblFleetMix	UBUS	0	4.70E-04
tblFleetMix	UBUS	0	4.70E-04
tblFleetMix	UBUS	0	4.70E-04

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, Summer

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

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					
2028	2.515	25.2577	20.1933	0.0446	19.8582	1.0877	20.9459	10.1558	1.0006	11.1565	0	4,440.71	4,440.71	1.1958	0.1147	4,491.02
2029	17.5132	15.0571	22.5374	0.0494	2.102	0.5939	2.6959	0.5625	0.5617	1.1242	0	4,937.07	4,937.07	0.7158	0.1167	4,988.41
Maximum	**17.5132**	**25.2577**	**22.5374**	**0.0494**	**19.8582**	**1.0877**	**20.9459**	**10.1558**	**1.0006**	**11.1565**	**0**	**4,937.07**	**4,937.07**	**1.1958**	**0.1167**	**4,988.41**

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					
2028	2.515	25.2577	20.1933	0.0446	7.8674	1.0877	8.9551	3.9933	1.0006	4.994	0	4,440.71	4,440.71	1.1958	0.1147	4,491.02
2029	17.5132	15.0571	22.5374	0.0494	2.102	0.5939	2.6959	0.5625	0.5617	1.1242	0	4,937.07	4,937.07	0.7158	0.1167	4,988.41
Maximum	**17.5132**	**25.2577**	**22.5374**	**0.0494**	**7.8674**	**1.0877**	**8.9551**	**3.9933**	**1.0006**	**4.994**	**0**	**4,937.07**	**4,937.07**	**1.1958**	**0.1167**	**4,988.41**

	ROG	**NOx**	**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**	**0**	**0**	**0**	**54.6**	**0**	**50.72**	**57.49**	**0**	**50.18**	**0**	**0**	**0**	**0**	**0**	**0**

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, Summer

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	41.4279	2.9726	80.9546	0.1783		10.5279	10.5279		10.5279	10.5279	1,283.27	2,486.37	3,769.64	3.8464	0.0871	3,891.76
Energy	0.0674	0.581	0.2819	3.68E-03		0.0466	0.0466		0.0466	0.0466		735.3352	735.3352	0.0141	0.0135	739.7049
Mobile	9.7363	8.7827	88.3426	0.1967	24.0634	0.127	24.1904	6.413	0.1183	6.5313		21,203.27	21,203.27	1.2982	0.8638	21,493.14
Total	**51.2316**	**12.3363**	**169.5791**	**0.3787**	**24.0634**	**10.7015**	**34.7649**	**6.413**	**10.6928**	**17.1058**	**1,283.27**	**24,424.98**	**25,708.25**	**5.1587**	**0.9644**	**26,124.60**

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	41.4279	2.9726	80.9546	0.1783		10.5279	10.5279		10.5279	10.5279	1,283.27	2,486.37	3,769.64	3.8464	0.0871	3,891.76
Energy	0.0674	0.581	0.2819	3.68E-03		0.0466	0.0466		0.0466	0.0466		735.3352	735.3352	0.0141	0.0135	739.7049
Mobile	9.7363	8.7827	88.3426	0.1967	24.0634	0.127	24.1904	6.413	0.1183	6.5313		21,203.27	21,203.27	1.2982	0.8638	21,493.14
Total	**51.2316**	**12.3363**	**169.5791**	**0.3787**	**24.0634**	**10.7015**	**34.7649**	**6.413**	**10.6928**	**17.1058**	**1,283.27**	**24,424.98**	**25,708.25**	**5.1587**	**0.9644**	**26,124.60**

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, 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	N20	CO2e
Percent Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/15/2028	5/26/2028	5	10	
2	Grading	Grading	5/27/2028	6/23/2028	5	20	
3	Building Construction	Building Construction	6/24/2028	5/11/2029	5	230	
4	Paving	Paving	6/9/2029	7/6/2029	5	20	
5	Architectural Coating	Architectural Coating	1/1/2029	6/8/2029	5	115	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 20

Acres of Paving: 0.5

Residential Indoor: 277,425; Residential Outdoor: 92,475; Non-Residential Indoor: 150,000; Non-Residential Outdoor: 50,000; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8	247	0.4
Site Preparation	Tractors/Loaders/Backhoes	4	8	97	0.37
Grading	Excavators	1	8	158	0.38
Grading	Graders	1	8	187	0.41
Grading	Rubber Tired Dozers	1	8	247	0.4
Grading	Tractors/Loaders/Backhoes	3	8	97	0.37

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, Summer

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

Building Construction	Cranes	1	7	231	0.29
Building Construction	Forklifts	3	8	89	0.2
Building Construction	Generator Sets	1	8	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7	97	0.37
Building Construction	Welders	1	8	46	0.45
Paving	Pavers	2	8	130	0.42
Paving	Paving Equipment	2	8	132	0.36
Paving	Rollers	2	8	80	0.38
Architectural Coating	Air Compressors	1	6	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18	0	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT
Grading	6	15	0	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT
Building Construction	9	140	35	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT
Paving	6	15	0	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	28	0	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2028

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

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, 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					19.657	0	19.657	10.1025	0	10.1025			0			0
Off-Road	2.4727	25.2339	17.9118	0.0381		1.0868	1.0868		0.9999	0.9999		3,689.10	3,689.10	1.1931		3,718.93
Total	**2.4727**	**25.2339**	**17.9118**	**0.0381**	**19.657**	**1.0868**	**20.7438**	**10.1025**	**0.9999**	**11.1023**		**3,689.10**	**3,689.10**	**1.1931**		**3,718.93**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.0423	0.0238	0.4678	1.52E-03	0.2012	8.60E-04	0.2021	0.0534	7.90E-04	0.0542		161.7614	161.7614	2.69E-03	3.03E-03	162.7325
Total	**0.0423**	**0.0238**	**0.4678**	**1.52E-03**	**0.2012**	**8.60E-04**	**0.2021**	**0.0534**	**7.90E-04**	**0.0542**		**161.7614**	**161.7614**	**2.69E-03**	**3.03E-03**	**162.7325**

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

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, 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					7.6662	0	7.6662	3.94	0	3.94			0			0
Off-Road	2.4727	25.2339	17.9118	0.0381		1.0868	1.0868		0.9999	0.9999	0	3,689.10	3,689.10	1.1931		3,718.93
Total	**2.4727**	**25.2339**	**17.9118**	**0.0381**	**7.6662**	**1.0868**	**8.753**	**3.94**	**0.9999**	**4.9398**	**0**	**3,689.10**	**3,689.10**	**1.1931**		**3,718.93**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.0423	0.0238	0.4678	1.52E-03	0.2012	8.60E-04	0.2021	0.0534	7.90E-04	0.0542		161.7614	161.7614	2.69E-03	3.03E-03	162.7325
Total	**0.0423**	**0.0238**	**0.4678**	**1.52E-03**	**0.2012**	**8.60E-04**	**0.2021**	**0.0534**	**7.90E-04**	**0.0542**		**161.7614**	**161.7614**	**2.69E-03**	**3.03E-03**	**162.7325**

3.3 Grading - 2028

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

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, 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					7.0826	0	7.0826	3.4247	0	3.4247			0			0
Off-Road	1.5227	15.3148	14.5402	0.0297		0.6236	0.6236		0.5737	0.5737		2,873.71	2,873.71	0.9294		2,896.94
Total	**1.5227**	**15.3148**	**14.5402**	**0.0297**	**7.0826**	**0.6236**	**7.7062**	**3.4247**	**0.5737**	**3.9984**		**2,873.71**	**2,873.71**	**0.9294**		**2,896.94**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.0352	0.0198	0.3898	1.26E-03	0.1677	7.20E-04	0.1684	0.0445	6.60E-04	0.0451		134.8012	134.8012	2.24E-03	2.53E-03	135.6104
Total	**0.0352**	**0.0198**	**0.3898**	**1.26E-03**	**0.1677**	**7.20E-04**	**0.1684**	**0.0445**	**6.60E-04**	**0.0451**		**134.8012**	**134.8012**	**2.24E-03**	**2.53E-03**	**135.6104**

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

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, 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					2.7622	0	2.7622	1.3357	0	1.3357			0			0
Off-Road	1.5227	15.3148	14.5402	0.0297		0.6236	0.6236		0.5737	0.5737	0	2,873.71	2,873.71	0.9294		2,896.94
Total	**1.5227**	**15.3148**	**14.5402**	**0.0297**	**2.7622**	**0.6236**	**3.3858**	**1.3357**	**0.5737**	**1.9093**	**0**	**2,873.71**	**2,873.71**	**0.9294**		**2,896.94**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.0352	0.0198	0.3898	1.26E-03	0.1677	7.20E-04	0.1684	0.0445	6.60E-04	0.0451		134.8012	134.8012	2.24E-03	2.53E-03	135.6104
Total	**0.0352**	**0.0198**	**0.3898**	**1.26E-03**	**0.1677**	**7.20E-04**	**0.1684**	**0.0445**	**6.60E-04**	**0.0451**		**134.8012**	**134.8012**	**2.24E-03**	**2.53E-03**	**135.6104**

3.4 Building Construction - 2028

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

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, Summer

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

Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.027		0.5276	0.5276		0.4963	0.4963		2,556.47	2,556.47	0.601		2,571.50
Total	**1.3674**	**12.4697**	**16.0847**	**0.027**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.47**	**2,556.47**	**0.601**		**2,571.50**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0.0351	1.2442	0.4704	5.79E-03	0.2241	7.36E-03	0.2315	0.0645	7.04E-03	0.0716		626.0886	626.0886	0.0232	0.0911	653.8272
Worker	0.3289	0.1851	3.6382	0.0118	1.5649	6.71E-03	1.5716	0.415	6.17E-03	0.4212		1,258.14	1,258.14	0.0209	0.0236	1,265.70
Total	**0.3639**	**1.4293**	**4.1086**	**0.0176**	**1.789**	**0.0141**	**1.8031**	**0.4795**	**0.0132**	**0.4927**		**1,884.23**	**1,884.23**	**0.0441**	**0.1147**	**1,919.52**

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	1.3674	12.4697	16.0847	0.027		0.5276	0.5276		0.4963	0.4963	0	2,556.47	2,556.47	0.601		2,571.50
Total	**1.3674**	**12.4697**	**16.0847**	**0.027**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0**	**2,556.47**	**2,556.47**	**0.601**		**2,571.50**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0.0351	1.2442	0.4704	5.79E-03	0.2241	7.36E-03	0.2315	0.0645	7.04E-03	0.0716		626.0886	626.0886	0.0232	0.0911	653.8272
Worker	0.3289	0.1851	3.6382	0.0118	1.5649	6.71E-03	1.5716	0.415	6.17E-03	0.4212		1,258.14	1,258.14	0.0209	0.0236	1,265.70
Total	**0.3639**	**1.4293**	**4.1086**	**0.0176**	**1.789**	**0.0141**	**1.8031**	**0.4795**	**0.0132**	**0.4927**		**1,884.23**	**1,884.23**	**0.0441**	**0.1147**	**1,919.52**

3.4 Building Construction - 2029

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	1.3674	12.4697	16.0847	0.027		0.5276	0.5276		0.4963	0.4963		2,556.47	2,556.47	0.601		2,571.50

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, 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
Total	**1.3674**	**12.4697**	**16.0847**	**0.027**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.47**	**2,556.47**	**0.601**		**2,571.50**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0.0346	1.2362	0.4676	5.68E-03	0.2241	7.32E-03	0.2314	0.0645	7.00E-03	0.0715		614.2201	614.2201	0.0233	0.0895	641.4641
Worker	0.3104	0.1715	3.48	0.0115	1.5649	6.26E-03	1.5711	0.415	5.76E-03	0.4208		1,237.44	1,237.44	0.0193	0.0227	1,244.68
Total	**0.345**	**1.4076**	**3.9476**	**0.0172**	**1.789**	**0.0136**	**1.8026**	**0.4795**	**0.0128**	**0.4923**		**1,851.66**	**1,851.66**	**0.0426**	**0.1121**	**1,886.14**

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	1.3674	12.4697	16.0847	0.027		0.5276	0.5276		0.4963	0.4963	0	2,556.47	2,556.47	0.601		2,571.50
Total	**1.3674**	**12.4697**	**16.0847**	**0.027**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0**	**2,556.47**	**2,556.47**	**0.601**		**2,571.50**

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, 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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0.0346	1.2362	0.4676	5.68E-03	0.2241	7.32E-03	0.2314	0.0645	7.00E-03	0.0715		614.2201	614.2201	0.0233	0.0895	641.4641
Worker	0.3104	0.1715	3.48	0.0115	1.5649	6.26E-03	1.5711	0.415	5.76E-03	0.4208		1,237.44	1,237.44	0.0193	0.0227	1,244.68
Total	**0.345**	**1.4076**	**3.9476**	**0.0172**	**1.789**	**0.0136**	**1.8026**	**0.4795**	**0.0128**	**0.4923**		**1,851.66**	**1,851.66**	**0.0426**	**0.1121**	**1,886.14**

3.5 Paving - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.578	0.0228		0.4185	0.4185		0.385	0.385		2,206.75	2,206.75	0.7137		2,224.59
Paving	0					0	0		0	0			0			0
Total	**0.9152**	**8.5816**	**14.578**	**0.0228**		**0.4185**	**0.4185**		**0.385**	**0.385**		**2,206.75**	**2,206.75**	**0.7137**		**2,224.59**

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, 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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.0333	0.0184	0.3729	1.23E-03	0.1677	6.70E-04	0.1683	0.0445	6.20E-04	0.0451		132.5832	132.5832	2.07E-03	2.43E-03	133.3582
Total	**0.0333**	**0.0184**	**0.3729**	**1.23E-03**	**0.1677**	**6.70E-04**	**0.1683**	**0.0445**	**6.20E-04**	**0.0451**		**132.5832**	**132.5832**	**2.07E-03**	**2.43E-03**	**133.3582**

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	0.9152	8.5816	14.578	0.0228		0.4185	0.4185		0.385	0.385	0	2,206.75	2,206.75	0.7137		2,224.59
Paving	0					0	0		0	0			0			0
Total	**0.9152**	**8.5816**	**14.578**	**0.0228**		**0.4185**	**0.4185**		**0.385**	**0.385**	**0**	**2,206.75**	**2,206.75**	**0.7137**		**2,224.59**

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, Summer

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

<u>Mitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.0333	0.0184	0.3729	1.23E-03	0.1677	6.70E-04	0.1683	0.0445	6.20E-04	0.0451		132.5832	132.5832	2.07E-03	2.43E-03	133.3582
Total	**0.0333**	**0.0184**	**0.3729**	**1.23E-03**	**0.1677**	**6.70E-04**	**0.1683**	**0.0445**	**6.20E-04**	**0.0451**		**132.5832**	**132.5832**	**2.07E-03**	**2.43E-03**	**133.3582**

3.6 Architectural Coating - 2029

<u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	15.5678					0	0		0	0			0			0
Off-Road	0.1709	1.1455	1.8091	2.97E-03		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**15.7387**	**1.1455**	**1.8091**	**2.97E-03**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, 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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.0621	0.0343	0.696	2.30E-03	0.313	1.25E-03	0.3142	0.083	1.15E-03	0.0842		247.4886	247.4886	3.86E-03	4.53E-03	248.9353
Total	**0.0621**	**0.0343**	**0.696**	**2.30E-03**	**0.313**	**1.25E-03**	**0.3142**	**0.083**	**1.15E-03**	**0.0842**		**247.4886**	**247.4886**	**3.86E-03**	**4.53E-03**	**248.9353**

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	15.5678					0	0		0	0			0			0
Off-Road	0.1709	1.1455	1.8091	2.97E-03		0.0515	0.0515		0.0515	0.0515	0	281.4481	281.4481	0.0154		281.8319
Total	**15.7387**	**1.1455**	**1.8091**	**2.97E-03**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, 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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.0621	0.0343	0.696	2.30E-03	0.313	1.25E-03	0.3142	0.083	1.15E-03	0.0842		247.4886	247.4886	3.86E-03	4.53E-03	248.9353
Total	**0.0621**	**0.0343**	**0.696**	**2.30E-03**	**0.313**	**1.25E-03**	**0.3142**	**0.083**	**1.15E-03**	**0.0842**		**247.4886**	**247.4886**	**3.86E-03**	**4.53E-03**	**248.9353**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.7363	8.7827	88.3426	0.1967	24.0634	0.127	24.1904	6.413	0.1183	6.5313		21,203.27	21,203.27	1.2982	0.8638	21,493.14

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

Ventana Specific Plan Planning Area 6 Construction
South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	74	1000sqft	0	74,000.00	0
Other Non-Asphalt Surfaces	0.5	Acre	0.5	21,780.00	0
Apartments Mid Rise	137	Dwelling Unit	5.7	137,000.00	392
Strip Mall	26	1000sqft	2	26,000.00	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.2 **Precipitation Freq (Days)** 31

Climate Zone 10 **Operational Year** 2030

Utility Company Southern California Edison

CO2 Intensity (lb/MWhr) 531.98 **CH4 Intensity (lb/MWhr)** 0.033 **N2O Intensity (lb/MWhr)** 0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Planning Area 6 construction only

Land Use - Planning Area 6a = 137 Du, 74 ksf of medical office on 5.7 acres Planning Area 6b = 26 ksf of strip mall on 2.0 acres. 0.5 acres of open space

Construction Phase - Default construction schedule. Adjusted arch coating to overlap with building construction and be approx half the length of building con

Off-road Equipment - Default equipment

Grading - balanced onsite

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403, Mitigation Measure 4.5.1 3x watering daily

Table Name	Column Name	Default Value	New Value

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, Winter

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

tblAreaCoating	Area_Parking	0	1307
tblConstructionPhase	NumDays	20	115
tblFleetMix	HHD	0	8.95E-03
tblFleetMix	HHD	0	8.95E-03
tblFleetMix	HHD	0	8.95E-03
tblFleetMix	HHD	0	8.95E-03
tblFleetMix	LDA	0	0.54
tblFleetMix	LDA	0	0.54
tblFleetMix	LDA	0	0.54
tblFleetMix	LDA	0	0.54
tblFleetMix	LDT1	0	0.06
tblFleetMix	LDT1	0	0.06
tblFleetMix	LDT1	0	0.06
tblFleetMix	LDT1	0	0.06
tblFleetMix	LDT2	0	0.19
tblFleetMix	LDT2	0	0.19
tblFleetMix	LDT2	0	0.19
tblFleetMix	LDT2	0	0.19
tblFleetMix	LHD1	0	0.02
tblFleetMix	LHD1	0	0.02
tblFleetMix	LHD1	0	0.02
tblFleetMix	LHD1	0	0.02
tblFleetMix	LHD2	0	6.88E-03
tblFleetMix	LHD2	0	6.88E-03
tblFleetMix	LHD2	0	6.88E-03
tblFleetMix	LHD2	0	6.88E-03
tblFleetMix	MCY	0	0.03
tblFleetMix	MCY	0	0.03
tblFleetMix	MCY	0	0.03

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, Winter

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

tblFleetMix	MCY	0	0.03
tblFleetMix	MDV	0	0.13
tblFleetMix	MDV	0	0.13
tblFleetMix	MDV	0	0.13
tblFleetMix	MDV	0	0.13
tblFleetMix	MH	0	3.41E-03
tblFleetMix	MH	0	3.41E-03
tblFleetMix	MH	0	3.41E-03
tblFleetMix	MH	0	3.41E-03
tblFleetMix	MHD	0	0.01
tblFleetMix	MHD	0	0.01
tblFleetMix	MHD	0	0.01
tblFleetMix	MHD	0	0.01
tblFleetMix	OBUS	0	8.19E-04
tblFleetMix	OBUS	0	8.19E-04
tblFleetMix	OBUS	0	8.19E-04
tblFleetMix	OBUS	0	8.19E-04
tblFleetMix	SBUS	0	7.65E-04
tblFleetMix	SBUS	0	7.65E-04
tblFleetMix	SBUS	0	7.65E-04
tblFleetMix	SBUS	0	7.65E-04
tblFleetMix	UBUS	0	4.70E-04
tblFleetMix	UBUS	0	4.70E-04
tblFleetMix	UBUS	0	4.70E-04
tblFleetMix	UBUS	0	4.70E-04

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Date: 6/24/2021 1:18 PM

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, Winter

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

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					
2028	2.518	25.2599	19.8704	0.0439	19.8582	1.0877	20.9459	10.1558	1.0006	11.1565	0	4,369.13	4,369.13	1.1959	0.1164	4,419.94
2029	17.5387	15.1377	22.165	0.0487	2.102	0.5939	2.6959	0.5625	0.5617	1.1242	0	4,852.33	4,852.33	0.7158	0.1185	4,904.22
Maximum	**17.5387**	**25.2599**	**22.165**	**0.0487**	**19.8582**	**1.0877**	**20.9459**	**10.1558**	**1.0006**	**11.1565**	**0**	**4,852.33**	**4,852.33**	**1.1959**	**0.1185**	**4,904.22**

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					
2028	2.518	25.2599	19.8704	0.0439	7.8674	1.0877	8.9551	3.9933	1.0006	4.994	0	4,369.13	4,369.13	1.1959	0.1164	4,419.94
2029	17.5387	15.1377	22.165	0.0487	2.102	0.5939	2.6959	0.5625	0.5617	1.1242	0	4,852.33	4,852.33	0.7158	0.1185	4,904.22
Maximum	**17.5387**	**25.2599**	**22.165**	**0.0487**	**7.8674**	**1.0877**	**8.9551**	**3.9933**	**1.0006**	**4.994**	**0**	**4,852.33**	**4,852.33**	**1.1959**	**0.1185**	**4,904.22**

	ROG	**NOx**	**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**	**0**	**0**	**0**	**54.6**	**0**	**50.72**	**57.49**	**0**	**50.18**	**0**	**0**	**0**	**0**	**0**	**0**

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, Winter

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	41.4279	2.9726	80.9546	0.1783		10.5279	10.5279		10.5279	10.5279	1,283.27	2,486.37	3,769.64	3.8464	0.0871	3,891.76
Energy	0.0674	0.581	0.2819	3.68E-03		0.0466	0.0466		0.0466	0.0466		735.3352	735.3352	0.0141	0.0135	739.7049
Mobile	9.2975	9.4344	86.7288	0.1878	24.0634	0.1271	24.1905	6.413	0.1183	6.5314		20,236.68	20,236.68	1.3394	0.8963	20,537.28
Total	**50.7928**	**12.988**	**167.9653**	**0.3698**	**24.0634**	**10.7016**	**34.765**	**6.413**	**10.6928**	**17.1058**	**1,283.27**	**23,458.39**	**24,741.66**	**5.1999**	**0.9969**	**25,168.74**

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	41.4279	2.9726	80.9546	0.1783		10.5279	10.5279		10.5279	10.5279	1,283.27	2,486.37	3,769.64	3.8464	0.0871	3,891.76
Energy	0.0674	0.581	0.2819	3.68E-03		0.0466	0.0466		0.0466	0.0466		735.3352	735.3352	0.0141	0.0135	739.7049
Mobile	9.2975	9.4344	86.7288	0.1878	24.0634	0.1271	24.1905	6.413	0.1183	6.5314		20,236.68	20,236.68	1.3394	0.8963	20,537.28
Total	**50.7928**	**12.988**	**167.9653**	**0.3698**	**24.0634**	**10.7016**	**34.765**	**6.413**	**10.6928**	**17.1058**	**1,283.27**	**23,458.39**	**24,741.66**	**5.1999**	**0.9969**	**25,168.74**

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, 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	N20	CO2e
Percent Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/15/2028	5/26/2028	5	10	
2	Grading	Grading	5/27/2028	6/23/2028	5	20	
3	Building Construction	Building Construction	6/24/2028	5/11/2029	5	230	
4	Paving	Paving	6/9/2029	7/6/2029	5	20	
5	Architectural Coating	Architectural Coating	1/1/2029	6/8/2029	5	115	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 20

Acres of Paving: 0.5

Residential Indoor: 277,425; Residential Outdoor: 92,475; Non-Residential Indoor: 150,000; Non-Residential Outdoor: 50,000; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8	247	0.4
Site Preparation	Tractors/Loaders/Backhoes	4	8	97	0.37
Grading	Excavators	1	8	158	0.38
Grading	Graders	1	8	187	0.41
Grading	Rubber Tired Dozers	1	8	247	0.4
Grading	Tractors/Loaders/Backhoes	3	8	97	0.37

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, Winter

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

Building Construction	Cranes	1	7	231	0.29
Building Construction	Forklifts	3	8	89	0.2
Building Construction	Generator Sets	1	8	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7	97	0.37
Building Construction	Welders	1	8	46	0.45
Paving	Pavers	2	8	130	0.42
Paving	Paving Equipment	2	8	132	0.36
Paving	Rollers	2	8	80	0.38
Architectural Coating	Air Compressors	1	6	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18	0	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT
Grading	6	15	0	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT
Building Construction	9	140	35	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT
Paving	6	15	0	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	28	0	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2028

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

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, 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					19.657	0	19.657	10.1025	0	10.1025			0			0
Off-Road	2.4727	25.2339	17.9118	0.0381		1.0868	1.0868		0.9999	0.9999		3,689.10	3,689.10	1.1931		3,718.93
Total	**2.4727**	**25.2339**	**17.9118**	**0.0381**	**19.657**	**1.0868**	**20.7438**	**10.1025**	**0.9999**	**11.1023**		**3,689.10**	**3,689.10**	**1.1931**		**3,718.93**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.0453	0.026	0.4243	1.43E-03	0.2012	8.60E-04	0.2021	0.0534	7.90E-04	0.0542		152.4027	152.4027	2.75E-03	3.21E-03	153.4286
Total	**0.0453**	**0.026**	**0.4243**	**1.43E-03**	**0.2012**	**8.60E-04**	**0.2021**	**0.0534**	**7.90E-04**	**0.0542**		**152.4027**	**152.4027**	**2.75E-03**	**3.21E-03**	**153.4286**

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

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, 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					7.6662	0	7.6662	3.94	0	3.94			0			0
Off-Road	2.4727	25.2339	17.9118	0.0381		1.0868	1.0868		0.9999	0.9999	0	3,689.10	3,689.10	1.1931		3,718.93
Total	**2.4727**	**25.2339**	**17.9118**	**0.0381**	**7.6662**	**1.0868**	**8.753**	**3.94**	**0.9999**	**4.9398**	**0**	**3,689.10**	**3,689.10**	**1.1931**		**3,718.93**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.0453	0.026	0.4243	1.43E-03	0.2012	8.60E-04	0.2021	0.0534	7.90E-04	0.0542		152.4027	152.4027	2.75E-03	3.21E-03	153.4286
Total	**0.0453**	**0.026**	**0.4243**	**1.43E-03**	**0.2012**	**8.60E-04**	**0.2021**	**0.0534**	**7.90E-04**	**0.0542**		**152.4027**	**152.4027**	**2.75E-03**	**3.21E-03**	**153.4286**

3.3 Grading - 2028

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

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, 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					7.0826	0	7.0826	3.4247	0	3.4247			0			0
Off-Road	1.5227	15.3148	14.5402	0.0297		0.6236	0.6236		0.5737	0.5737		2,873.71	2,873.71	0.9294		2,896.94
Total	**1.5227**	**15.3148**	**14.5402**	**0.0297**	**7.0826**	**0.6236**	**7.7062**	**3.4247**	**0.5737**	**3.9984**		**2,873.71**	**2,873.71**	**0.9294**		**2,896.94**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.0377	0.0217	0.3536	1.19E-03	0.1677	7.20E-04	0.1684	0.0445	6.60E-04	0.0451		127.0023	127.0023	2.29E-03	2.68E-03	127.8571
Total	**0.0377**	**0.0217**	**0.3536**	**1.19E-03**	**0.1677**	**7.20E-04**	**0.1684**	**0.0445**	**6.60E-04**	**0.0451**		**127.0023**	**127.0023**	**2.29E-03**	**2.68E-03**	**127.8571**

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

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, 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					2.7622	0	2.7622	1.3357	0	1.3357			0			0
Off-Road	1.5227	15.3148	14.5402	0.0297		0.6236	0.6236		0.5737	0.5737	0	2,873.71	2,873.71	0.9294		2,896.94
Total	**1.5227**	**15.3148**	**14.5402**	**0.0297**	**2.7622**	**0.6236**	**3.3858**	**1.3357**	**0.5737**	**1.9093**	**0**	**2,873.71**	**2,873.71**	**0.9294**		**2,896.94**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.0377	0.0217	0.3536	1.19E-03	0.1677	7.20E-04	0.1684	0.0445	6.60E-04	0.0451		127.0023	127.0023	2.29E-03	2.68E-03	127.8571
Total	**0.0377**	**0.0217**	**0.3536**	**1.19E-03**	**0.1677**	**7.20E-04**	**0.1684**	**0.0445**	**6.60E-04**	**0.0451**		**127.0023**	**127.0023**	**2.29E-03**	**2.68E-03**	**127.8571**

3.4 Building Construction - 2028

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

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, Winter

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

Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.027		0.5276	0.5276		0.4963	0.4963		2,556.47	2,556.47	0.601		2,571.50
Total	**1.3674**	**12.4697**	**16.0847**	**0.027**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.47**	**2,556.47**	**0.601**		**2,571.50**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0.0333	1.3063	0.4856	5.80E-03	0.2241	7.39E-03	0.2315	0.0645	7.07E-03	0.0716		627.3002	627.3002	0.0231	0.0914	655.1068
Worker	0.3522	0.2021	3.3001	0.0111	1.5649	6.71E-03	1.5716	0.415	6.17E-03	0.4212		1,185.35	1,185.35	0.0214	0.025	1,193.33
Total	**0.3855**	**1.5084**	**3.7857**	**0.0169**	**1.789**	**0.0141**	**1.8031**	**0.4795**	**0.0132**	**0.4928**		**1,812.65**	**1,812.65**	**0.0445**	**0.1164**	**1,848.44**

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	1.3674	12.4697	16.0847	0.027		0.5276	0.5276		0.4963	0.4963	0	2,556.47	2,556.47	0.601		2,571.50
Total	**1.3674**	**12.4697**	**16.0847**	**0.027**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0**	**2,556.47**	**2,556.47**	**0.601**		**2,571.50**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0.0333	1.3063	0.4856	5.80E-03	0.2241	7.39E-03	0.2315	0.0645	7.07E-03	0.0716		627.3002	627.3002	0.0231	0.0914	655.1068
Worker	0.3522	0.2021	3.3001	0.0111	1.5649	6.71E-03	1.5716	0.415	6.17E-03	0.4212		1,185.35	1,185.35	0.0214	0.025	1,193.33
Total	**0.3855**	**1.5084**	**3.7857**	**0.0169**	**1.789**	**0.0141**	**1.8031**	**0.4795**	**0.0132**	**0.4928**		**1,812.65**	**1,812.65**	**0.0445**	**0.1164**	**1,848.44**

3.4 Building Construction - 2029

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	1.3674	12.4697	16.0847	0.027		0.5276	0.5276		0.4963	0.4963		2,556.47	2,556.47	0.601		2,571.50

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, Winter

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

Total	**1.3674**	**12.4697**	**16.0847**	**0.027**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.47**	**2,556.47**	**0.601**		**2,571.50**

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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0.0328	1.298	0.4826	5.69E-03	0.2241	7.34E-03	0.2315	0.0645	7.02E-03	0.0716		615.4201	615.4201	0.0231	0.0897	642.7308
Worker	0.3332	0.1871	3.1572	0.0109	1.5649	6.26E-03	1.5711	0.415	5.76E-03	0.4208		1,165.82	1,165.82	0.0197	0.024	1,173.46
Total	**0.366**	**1.4851**	**3.6398**	**0.0166**	**1.789**	**0.0136**	**1.8026**	**0.4795**	**0.0128**	**0.4923**		**1,781.24**	**1,781.24**	**0.0429**	**0.1137**	**1,816.19**

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	1.3674	12.4697	16.0847	0.027		0.5276	0.5276		0.4963	0.4963	0	2,556.47	2,556.47	0.601		2,571.50
Total	**1.3674**	**12.4697**	**16.0847**	**0.027**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0**	**2,556.47**	**2,556.47**	**0.601**		**2,571.50**

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, 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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0.0328	1.298	0.4826	5.69E-03	0.2241	7.34E-03	0.2315	0.0645	7.02E-03	0.0716		615.4201	615.4201	0.0231	0.0897	642.7308
Worker	0.3332	0.1871	3.1572	0.0109	1.5649	6.26E-03	1.5711	0.415	5.76E-03	0.4208		1,165.82	1,165.82	0.0197	0.024	1,173.46
Total	**0.366**	**1.4851**	**3.6398**	**0.0166**	**1.789**	**0.0136**	**1.8026**	**0.4795**	**0.0128**	**0.4923**		**1,781.24**	**1,781.24**	**0.0429**	**0.1137**	**1,816.19**

3.5 Paving - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.578	0.0228		0.4185	0.4185		0.385	0.385		2,206.75	2,206.75	0.7137		2,224.59
Paving	0					0	0		0	0			0			0
Total	**0.9152**	**8.5816**	**14.578**	**0.0228**		**0.4185**	**0.4185**		**0.385**	**0.385**		**2,206.75**	**2,206.75**	**0.7137**		**2,224.59**

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, 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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.0357	0.0201	0.3383	1.16E-03	0.1677	6.70E-04	0.1683	0.0445	6.20E-04	0.0451		124.9095	124.9095	2.11E-03	2.57E-03	125.7281
Total	**0.0357**	**0.0201**	**0.3383**	**1.16E-03**	**0.1677**	**6.70E-04**	**0.1683**	**0.0445**	**6.20E-04**	**0.0451**		**124.9095**	**124.9095**	**2.11E-03**	**2.57E-03**	**125.7281**

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	0.9152	8.5816	14.578	0.0228		0.4185	0.4185		0.385	0.385	0	2,206.75	2,206.75	0.7137		2,224.59
Paving	0					0	0		0	0			0			0
Total	**0.9152**	**8.5816**	**14.578**	**0.0228**		**0.4185**	**0.4185**		**0.385**	**0.385**	**0**	**2,206.75**	**2,206.75**	**0.7137**		**2,224.59**

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, 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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.0357	0.0201	0.3383	1.16E-03	0.1677	6.70E-04	0.1683	0.0445	6.20E-04	0.0451		124.9095	124.9095	2.11E-03	2.57E-03	125.7281
Total	**0.0357**	**0.0201**	**0.3383**	**1.16E-03**	**0.1677**	**6.70E-04**	**0.1683**	**0.0445**	**6.20E-04**	**0.0451**		**124.9095**	**124.9095**	**2.11E-03**	**2.57E-03**	**125.7281**

3.6 Architectural Coating - 2029

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	15.5678					0	0		0	0			0			0
Off-Road	0.1709	1.1455	1.8091	2.97E-03		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**15.7387**	**1.1455**	**1.8091**	**2.97E-03**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

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Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, 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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.0666	0.0374	0.6314	2.17E-03	0.313	1.25E-03	0.3142	0.083	1.15E-03	0.0842		233.1644	233.1644	3.95E-03	4.80E-03	234.6925
Total	**0.0666**	**0.0374**	**0.6314**	**2.17E-03**	**0.313**	**1.25E-03**	**0.3142**	**0.083**	**1.15E-03**	**0.0842**		**233.1644**	**233.1644**	**3.95E-03**	**4.80E-03**	**234.6925**

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	15.5678					0	0		0	0			0			0
Off-Road	0.1709	1.1455	1.8091	2.97E-03		0.0515	0.0515		0.0515	0.0515	0	281.4481	281.4481	0.0154		281.8319
Total	**15.7387**	**1.1455**	**1.8091**	**2.97E-03**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Ventana Specific Plan Planning Area 6 Construction - South Coast AQMD Air District, 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	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Worker	0.0666	0.0374	0.6314	2.17E-03	0.313	1.25E-03	0.3142	0.083	1.15E-03	0.0842		233.1644	233.1644	3.95E-03	4.80E-03	234.6925
Total	**0.0666**	**0.0374**	**0.6314**	**2.17E-03**	**0.313**	**1.25E-03**	**0.3142**	**0.083**	**1.15E-03**	**0.0842**		**233.1644**	**233.1644**	**3.95E-03**	**4.80E-03**	**234.6925**

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	9.2975	9.4344	86.7288	0.1878	24.0634	0.1271	24.1905	6.413	0.1183	6.5314		20,236.68	20,236.68	1.3394	0.8963	20,537.28

Appendix A.2

CalEEMod Operational Outputs

Ventana Specific Plan Full Buildout AQ - Operational - South Coast AQMD Air District, Summer

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

Ventana Specific Plan Full Buildout AQ - Operational

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	100	1000sqft	0	100,000.00	0
Pharmacy/Drugstore with Drive Thru	20.8	1000sqft	0	20,800.00	0
Fast Food Restaurant with Drive Thru	15.42	1000sqft	0	15,417.00	0
High Turnover (Sit Down Restaurant)	56.83	1000sqft	0	56,833.00	0
Apartments Mid Rise	1,671.00	Dwelling Unit	101.5	1,671,000.00	4779
Strip Mall	252.25	1000sqft	0	252,250.00	0
Supermarket	31.2	1000sqft	0	31,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2030
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Full buildout operational model.

Land Use - Proposed land uses for Ventana Specific Plan, align with the TIA. The site is approximately 101.5 acres

Construction Phase - No construction model

Off-road Equipment - No construction

Grading -

Vehicle Trips - Trip gens based on TIA. Adjusted weekday and weekend with the internal capture reduction. No pass-by reductions

Ventana Specific Plan Full Buildout AQ - Operational - South Coast AQMD Air District, Summer

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

Woodstoves - No hearths or woodstoves

Area Coating - SCAQMD Rule 1113

Water And Wastewater - No septic tanks proposed and no faculative lagoons at treatment plant. 100% aerobic

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	120	0
tblFireplaces	FireplaceDayYear	25	0
tblFireplaces	FireplaceHourDay	3	0
tblFireplaces	FireplaceWoodMass	1,019.20	0
tblFireplaces	NumberGas	1,420.35	0
tblFireplaces	NumberNoFireplace	167.1	0
tblFireplaces	NumberWood	83.55	0
tblLandUse	LandUseSquareFeet	15,420.00	15,417.00
tblLandUse	LandUseSquareFeet	56,830.00	56,833.00
tblLandUse	LotAcreage	2.3	0
tblLandUse	LotAcreage	0.48	0
tblLandUse	LotAcreage	0.35	0
tblLandUse	LotAcreage	1.3	0
tblLandUse	LotAcreage	43.97	101.5
tblLandUse	LotAcreage	5.79	0
tblLandUse	LotAcreage	0.72	0
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3	0
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4	0
tblVehicleTrips	ST_TR	4.91	0.9
tblVehicleTrips	ST_TR	616.12	544.13
tblVehicleTrips	ST_TR	122.4	86.26
tblVehicleTrips	ST_TR	8.57	6.67
tblVehicleTrips	ST_TR	114.89	107.46
tblVehicleTrips	ST_TR	42.04	13.71
tblVehicleTrips	ST_TR	177.62	165.78

Ventana Specific Plan Full Buildout AQ - Operational - South Coast AQMD Air District, Summer

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

tblVehicleTrips	SU_TR	4.09	0.75
tblVehicleTrips	SU_TR	472.58	417.36
tblVehicleTrips	SU_TR	142.64	100.53
tblVehicleTrips	SU_TR	1.42	1.11
tblVehicleTrips	SU_TR	45.57	42.62
tblVehicleTrips	SU_TR	20.43	6.66
tblVehicleTrips	SU_TR	166.47	155.37
tblVehicleTrips	WD_TR	5.44	0.99
tblVehicleTrips	WD_TR	470.95	415.92
tblVehicleTrips	WD_TR	112.18	79.06
tblVehicleTrips	WD_TR	34.8	27.09
tblVehicleTrips	WD_TR	109.16	102.1
tblVehicleTrips	WD_TR	44.32	14.46
tblVehicleTrips	WD_TR	106.78	99.66
tblWater	AerobicPercent	87.46	100
tblWater	AerobicPercent	87.46	100
tblWater	AerobicPercent	87.46	100
tblWater	AerobicPercent	87.46	100
tblWater	AerobicPercent	87.46	100
tblWater	AerobicPercent	87.46	100
tblWater	AerobicPercent	87.46	100
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0
tblWater	SepticTankPercent	10.33	0

Ventana Specific Plan Full Buildout AQ - Operational - South Coast AQMD Air District, Summer

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

tblWater	SepticTankPercent	10.33	0
tblWater	SepticTankPercent	10.33	0
tblWater	SepticTankPercent	10.33	0
tblWater	SepticTankPercent	10.33	0
tblWater	SepticTankPercent	10.33	0
tblWater	SepticTankPercent	10.33	0
tblWoodstoves	NumberCatalytic	83.55	0
tblWoodstoves	NumberNoncatalytic	83.55	0
tblWoodstoves	WoodstoveDayYear	25	0
tblWoodstoves	WoodstoveWoodMass	999.6	0

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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Mitigated Construction

Ventana Specific Plan Full Buildout AQ - Operational - South Coast AQMD Air District, 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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	ROG	**NOx**	**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**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

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	50.7123	1.5855	137.5437	7.28E-03		0.7647	0.7647		0.7647	0.7647	0	248.3352	248.3352	0.2368	0	254.2544
Energy	1.3376	11.773	7.3744	0.073		0.9242	0.9242		0.9242	0.9242		14,592.38	14,592.38	0.2797	0.2675	14,679.09
Mobile	52.1214	41.2378	399.5489	0.8067	97.0011	0.5459	97.547	25.8513	0.508	26.3593		86,959.19	86,959.19	6.0676	3.9947	88,301.31
Total	**104.1714**	**54.5963**	**544.467**	**0.887**	**97.0011**	**2.2348**	**99.2359**	**25.8513**	**2.1969**	**28.0482**	**0**	**101,799.91**	**101,799.91**	**6.5841**	**4.2622**	**103,234.65**

Mitigated Operational

Ventana Specific Plan Full Buildout AQ - Operational - South Coast AQMD Air District, 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	50.7123	1.5855	137.5437	7.28E-03		0.7647	0.7647		0.7647	0.7647	0	248.3352	248.3352	0.2368	0	254.2544
Energy	1.3376	11.773	7.3744	0.073		0.9242	0.9242		0.9242	0.9242		14,592.38	14,592.38	0.2797	0.2675	14,679.09
Mobile	52.1214	41.2378	399.5489	0.8067	97.0011	0.5459	97.547	25.8513	0.508	26.3593		86,959.19	86,959.19	6.0676	3.9947	88,301.31
Total	**104.1714**	**54.5963**	**544.467**	**0.887**	**97.0011**	**2.2348**	**99.2359**	**25.8513**	**2.1969**	**28.0482**	**0**	**101,799.91**	**101,799.91**	**6.5841**	**4.2622**	**103,234.65**

	ROG	NOx	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	10/8/2022	10/7/2022	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor

Ventana Specific Plan Full Buildout AQ - Operational - South Coast AQMD Air District, Summer

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

Site Preparation	Rubber Tired Dozers	0	8	247	0.4
Site Preparation	Tractors/Loaders/Backhoes	0	8	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	0	0	0	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off-Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

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

Ventana Specific Plan Full Buildout AQ - Operational - South Coast AQMD Air District, 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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off-Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

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					

Ventana Specific Plan Full Buildout AQ - Operational - South Coast AQMD Air District, Summer

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

Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

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	52.1214	41.2378	399.5489	0.8067	97.0011	0.5459	97.547	25.8513	0.508	26.3593		86,959.19	86,959.19	6.0676	3.9947	88,301.31
Unmitigated	52.1214	41.2378	399.5489	0.8067	97.0011	0.5459	97.547	25.8513	0.508	26.3593		86,959.19	86,959.19	6.0676	3.9947	88,301.31

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,654.29	1,503.90	1253.25	5,383,772	5,383,772
Fast Food Restaurant with Drive Thru	6,413.49	8,390.48	6435.69	7,050,035	7,050,035
High Turnover (Sit Down Restaurant)	4,492.98	4,902.16	5713.12	6,440,382	6,440,382
Medical Office Building	2,709.00	667.00	111.00	5,307,405	5,307,405
Pharmacy/Drugstore with Drive Thru	2,123.68	2,235.17	886.50	2,607,953	2,607,953
Strip Mall	3,647.54	3,458.35	1679.99	6,353,583	6,353,583
Supermarket	3,109.39	5,172.34	4847.54	4,819,243	4,819,243

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

Total	24,150.36	26,329.39	20,927.09	37,962,373	37,962,373

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
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Fast Food Restaurant with Drive Thru	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
High Turnover (Sit Down Restaurant)	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10
Pharmacy/Drugstore with Drive Thru	16.60	8.40	6.90	7.50	73.50	19.00	38	13	49
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15
Supermarket	16.60	8.40	6.90	6.50	74.50	19.00	34	30	36

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.537356	0.064746	0.188411	0.126034	0.023886	0.006883	0.012812	0.008954	0.000819	0.00047	0.025457	0.000765	0.003406
Fast Food Restaurant with Drive Thru	0.537356	0.064746	0.188411	0.126034	0.023886	0.006883	0.012812	0.008954	0.000819	0.00047	0.025457	0.000765	0.003406
High Turnover (Sit Down Restaurant)	0.537356	0.064746	0.188411	0.126034	0.023886	0.006883	0.012812	0.008954	0.000819	0.00047	0.025457	0.000765	0.003406
Medical Office Building	0.537356	0.064746	0.188411	0.126034	0.023886	0.006883	0.012812	0.008954	0.000819	0.00047	0.025457	0.000765	0.003406
Pharmacy/Drugstore with Drive Thru	0.537356	0.064746	0.188411	0.126034	0.023886	0.006883	0.012812	0.008954	0.000819	0.00047	0.025457	0.000765	0.003406
Strip Mall	0.537356	0.064746	0.188411	0.126034	0.023886	0.006883	0.012812	0.008954	0.000819	0.00047	0.025457	0.000765	0.003406
Supermarket	0.537356	0.064746	0.188411	0.126034	0.023886	0.006883	0.012812	0.008954	0.000819	0.00047	0.025457	0.000765	0.003406

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	1.3376	11.773	7.3744	0.073		0.9242	0.9242		0.9242	0.9242		14,592.38	14,592.38	0.2797	0.2675	14,679.09
NaturalGas Unmitigated	1.3376	11.773	7.3744	0.073		0.9242	0.9242		0.9242	0.9242		14,592.38	14,592.38	0.2797	0.2675	14,679.09

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					
Apartments Mid Rise	65842.8	0.7101	6.0679	2.5821	0.0387		0.4906	0.4906		0.4906	0.4906		7,746.21	7,746.21	0.1485	0.142	7,792.24
Fast Food Restaurant with Drive Thru	11516.7	0.1242	1.1291	0.9484	6.77E-03		0.0858	0.0858		0.0858	0.0858		1,354.91	1,354.91	0.026	0.0248	1,362.96
High Turnover (Sit Down Restaurant)	42455	0.4579	4.1623	3.4963	0.025		0.3163	0.3163		0.3163	0.3163		4,994.71	4,994.71	0.0957	0.0916	5,024.39
Medical Office Building	939.726	0.0101	0.0921	0.0774	5.50E-04		7.00E-03	7.00E-03		7.00E-03	7.00E-03		110.556	110.556	2.12E-03	2.03E-03	111.213
Pharmacy/Drugstore with Drive Thru	125.37	1.35E-03	0.0123	0.0103	7.00E-05		9.30E-04	9.30E-04		9.30E-04	9.30E-04		14.7494	14.7494	2.80E-04	2.70E-04	14.837
Strip Mall	1520.41	0.0164	0.1491	0.1252	8.90E-04		0.0113	0.0113		0.0113	0.0113		178.8719	178.8719	3.43E-03	3.28E-03	179.9348
Supermarket	1635.22	0.0176	0.1603	0.1347	9.60E-04		0.0122	0.0122		0.0122	0.0122		192.3791	192.3791	3.69E-03	3.53E-03	193.5223
Total		**1.3376**	**11.773**	**7.3744**	**0.0729**		**0.9242**	**0.9242**		**0.9242**	**0.9242**		**14,592.38**	**14,592.38**	**0.2797**	**0.2675**	**14,679.09**

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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					
Apartments Mid Rise	65.8428	0.7101	6.0679	2.5821	0.0387		0.4906	0.4906		0.4906	0.4906		7,746.21	7,746.21	0.1485	0.142	7,792.24
Fast Food Restaurant with Drive Thru	11.5167	0.1242	1.1291	0.9484	6.77E-03		0.0858	0.0858		0.0858	0.0858		1,354.91	1,354.91	0.026	0.0248	1,362.96
High Turnover (Sit Down Restaurant)	42.455	0.4579	4.1623	3.4963	0.025		0.3163	0.3163		0.3163	0.3163		4,994.71	4,994.71	0.0957	0.0916	5,024.39
Medical Office Building	0.939726	0.0101	0.0921	0.0774	5.50E-04		7.00E-03	7.00E-03		7.00E-03	7.00E-03		110.556	110.556	2.12E-03	2.03E-03	111.213
Pharmacy/Drugstore with Drive Thru	0.12537	1.35E-03	0.0123	0.0103	7.00E-05		9.30E-04	9.30E-04		9.30E-04	9.30E-04		14.7494	14.7494	2.80E-04	2.70E-04	14.837
Strip Mall	1.52041	0.0164	0.1491	0.1252	8.90E-04		0.0113	0.0113		0.0113	0.0113		178.8719	178.8719	3.43E-03	3.28E-03	179.9348
Supermarket	1.63522	0.0176	0.1603	0.1347	9.60E-04		0.0122	0.0122		0.0122	0.0122		192.3791	192.3791	3.69E-03	3.53E-03	193.5223
Total		**1.3376**	**11.773**	**7.3744**	**0.0729**		**0.9242**	**0.9242**		**0.9242**	**0.9242**		**14,592.38**	**14,592.38**	**0.2797**	**0.2675**	**14,679.09**

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					

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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
Mitigated	50.7123	1.5855	137.5437	7.28E-03		0.7647	0.7647		0.7647	0.7647	0	248.3352	248.3352	0.2368	0	254.2544
Unmitigated	50.7123	1.5855	137.5437	7.28E-03		0.7647	0.7647		0.7647	0.7647	0	248.3352	248.3352	0.2368	0	254.2544

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	4.0748					0	0		0	0			0			0
Consumer Products	42.5205					0	0		0	0			0			0
Hearth	0	0	0	0		0	0		0	0	0	0	0	0	0	0
Landscaping	4.117	1.5855	137.5437	7.28E-03		0.7647	0.7647		0.7647	0.7647		248.3352	248.3352	0.2368		254.2544
Total	**50.7123**	**1.5855**	**137.5437**	**7.28E-03**		**0.7647**	**0.7647**		**0.7647**	**0.7647**	**0**	**248.3352**	**248.3352**	**0.2368**	**0**	**254.2544**

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	4.0748					0	0		0	0			0			0

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

Consumer Products	42.5205					0	0		0	0			0			0
Hearth	0	0	0	0		0	0		0	0	0	0	0	0	0	0
Landscaping	4.117	1.5855	137.5437	7.28E-03		0.7647	0.7647		0.7647	0.7647		248.3352	248.3352	0.2368		254.2544
Total	**50.7123**	**1.5855**	**137.5437**	**7.28E-03**		**0.7647**	**0.7647**		**0.7647**	**0.7647**	**0**	**248.3352**	**248.3352**	**0.2368**	**0**	**254.2544**

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

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

Ventana Specific Plan Full Buildout AQ - Operational - South Coast AQMD Air District, Winter

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

Ventana Specific Plan Full Buildout AQ - Operational
South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	100	1000sqft	0	100,000.00	0
Pharmacy/Drugstore with Drive Thru	20.8	1000sqft	0	20,800.00	0
Fast Food Restaurant with Drive Thru	15.42	1000sqft	0	15,417.00	0
High Turnover (Sit Down Restaurant)	56.83	1000sqft	0	56,833.00	0
Apartments Mid Rise	1,671.00	Dwelling Unit	101.5	1,671,000.00	4779
Strip Mall	252.25	1000sqft	0	252,250.00	0
Supermarket	31.2	1000sqft	0	31,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2030
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Full buildout operational model.

Land Use - Proposed land uses for Ventana Specific Plan, align with the TIA. The site is approximately 101.5 acres

Construction Phase - No construction model

Off-road Equipment - No construction

Grading -

Vehicle Trips - Trip gens based on TIA. Adjusted weekday and weekend with the internal capture reduction. No pass-by reductions

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

Woodstoves - No hearths or woodstoves

Area Coating - SCAQMD Rule 1113

Water And Wastewater - No septic tanks proposed and no faculative lagoons at treatment plant. 100% aerobic

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	120	0
tblFireplaces	FireplaceDayYear	25	0
tblFireplaces	FireplaceHourDay	3	0
tblFireplaces	FireplaceWoodMass	1,019.20	0
tblFireplaces	NumberGas	1,420.35	0
tblFireplaces	NumberNoFireplace	167.1	0
tblFireplaces	NumberWood	83.55	0
tblLandUse	LandUseSquareFeet	15,420.00	15,417.00
tblLandUse	LandUseSquareFeet	56,830.00	56,833.00
tblLandUse	LotAcreage	2.3	0
tblLandUse	LotAcreage	0.48	0
tblLandUse	LotAcreage	0.35	0
tblLandUse	LotAcreage	1.3	0
tblLandUse	LotAcreage	43.97	101.5
tblLandUse	LotAcreage	5.79	0
tblLandUse	LotAcreage	0.72	0
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3	0
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4	0
tblVehicleTrips	ST_TR	4.91	0.9
tblVehicleTrips	ST_TR	616.12	544.13
tblVehicleTrips	ST_TR	122.4	86.26
tblVehicleTrips	ST_TR	8.57	6.67
tblVehicleTrips	ST_TR	114.89	107.46
tblVehicleTrips	ST_TR	42.04	13.71
tblVehicleTrips	ST_TR	177.62	165.78

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

tblVehicleTrips	SU_TR	4.09	0.75
tblVehicleTrips	SU_TR	472.58	417.36
tblVehicleTrips	SU_TR	142.64	100.53
tblVehicleTrips	SU_TR	1.42	1.11
tblVehicleTrips	SU_TR	45.57	42.62
tblVehicleTrips	SU_TR	20.43	6.66
tblVehicleTrips	SU_TR	166.47	155.37
tblVehicleTrips	WD_TR	5.44	0.99
tblVehicleTrips	WD_TR	470.95	415.92
tblVehicleTrips	WD_TR	112.18	79.06
tblVehicleTrips	WD_TR	34.8	27.09
tblVehicleTrips	WD_TR	109.16	102.1
tblVehicleTrips	WD_TR	44.32	14.46
tblVehicleTrips	WD_TR	106.78	99.66
tblWater	AerobicPercent	87.46	100
tblWater	AerobicPercent	87.46	100
tblWater	AerobicPercent	87.46	100
tblWater	AerobicPercent	87.46	100
tblWater	AerobicPercent	87.46	100
tblWater	AerobicPercent	87.46	100
tblWater	AerobicPercent	87.46	100
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0
tblWater	SepticTankPercent	10.33	0

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

tblWater	SepticTankPercent	10.33	0
tblWater	SepticTankPercent	10.33	0
tblWater	SepticTankPercent	10.33	0
tblWater	SepticTankPercent	10.33	0
tblWater	SepticTankPercent	10.33	0
tblWater	SepticTankPercent	10.33	0
tblWoodstoves	NumberCatalytic	83.55	0
tblWoodstoves	NumberNoncatalytic	83.55	0
tblWoodstoves	WoodstoveDayYear	25	0
tblWoodstoves	WoodstoveWoodMass	999.6	0

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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Mitigated Construction

Ventana Specific Plan Full Buildout AQ - Operational - South Coast AQMD Air District, 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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	ROG	**NOx**	**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**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

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	50.7123	1.5855	137.5437	7.28E-03		0.7647	0.7647		0.7647	0.7647	0	248.3352	248.3352	0.2368	0	254.2544
Energy	1.3376	11.773	7.3744	0.073		0.9242	0.9242		0.9242	0.9242		14,592.38	14,592.38	0.2797	0.2675	14,679.09
Mobile	49.0925	44.2978	400.7448	0.7709	97.0011	0.5464	97.5475	25.8513	0.5084	26.3598		83,084.40	83,084.40	6.3434	4.1544	84,481.00
Total	**101.1424**	**57.6563**	**545.6629**	**0.8512**	**97.0011**	**2.2353**	**99.2364**	**25.8513**	**2.1973**	**28.0486**	**0**	**97,925.12**	**97,925.12**	**6.8599**	**4.4219**	**99,414.35**

Mitigated Operational

Date: 3/17/2022 12:19 PM

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	50.7123	1.5855	137.5437	7.28E-03		0.7647	0.7647		0.7647	0.7647	0	248.3352	248.3352	0.2368	0	254.2544
Energy	1.3376	11.773	7.3744	0.073		0.9242	0.9242		0.9242	0.9242		14,592.38	14,592.38	0.2797	0.2675	14,679.09
Mobile	49.0925	44.2978	400.7448	0.7709	97.0011	0.5464	97.5475	25.8513	0.5084	26.3598		83,084.40	83,084.40	6.3434	4.1544	84,481.00
Total	**101.1424**	**57.6563**	**545.6629**	**0.8512**	**97.0011**	**2.2353**	**99.2364**	**25.8513**	**2.1973**	**28.0486**	**0**	**97,925.12**	**97,925.12**	**6.8599**	**4.4219**	**99,414.35**

	ROG	**NOx**	**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**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	10/8/2022	10/7/2022	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor

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Site Preparation	Rubber Tired Dozers	0	8	247	0.4
Site Preparation	Tractors/Loaders/Backhoes	0	8	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	0	0	0	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off-Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

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

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Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off-Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vendor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

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	49.0925	44.2978	400.7448	0.7709	97.0011	0.5464	97.5475	25.8513	0.5084	26.3598		83,084.40	83,084.40	6.3434	4.1544	84,481.00
Unmitigated	49.0925	44.2978	400.7448	0.7709	97.0011	0.5464	97.5475	25.8513	0.5084	26.3598		83,084.40	83,084.40	6.3434	4.1544	84,481.00

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,654.29	1,503.90	1253.25	5,383,772	5,383,772
Fast Food Restaurant with Drive Thru	6,413.49	8,390.48	6435.69	7,050,035	7,050,035
High Turnover (Sit Down Restaurant)	4,492.98	4,902.16	5713.12	6,440,382	6,440,382
Medical Office Building	2,709.00	667.00	111.00	5,307,405	5,307,405
Pharmacy/Drugstore with Drive Thru	2,123.68	2,235.17	886.50	2,607,953	2,607,953
Strip Mall	3,647.54	3,458.35	1679.99	6,353,583	6,353,583
Supermarket	3,109.39	5,172.34	4847.54	4,819,243	4,819,243

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Total	24,150.36	26,329.39	20,927.09	37,962,373	37,962,373

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
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Fast Food Restaurant with Drive Thru	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
High Turnover (Sit Down Restaurant)	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10
Pharmacy/Drugstore with Drive Thru	16.60	8.40	6.90	7.50	73.50	19.00	38	13	49
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15
Supermarket	16.60	8.40	6.90	6.50	74.50	19.00	34	30	36

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.537356	0.064746	0.188411	0.126034	0.023886	0.006883	0.012812	0.008954	0.000819	0.00047	0.025457	0.000765	0.003406
Fast Food Restaurant with Drive Thru	0.537356	0.064746	0.188411	0.126034	0.023886	0.006883	0.012812	0.008954	0.000819	0.00047	0.025457	0.000765	0.003406
High Turnover (Sit Down Restaurant)	0.537356	0.064746	0.188411	0.126034	0.023886	0.006883	0.012812	0.008954	0.000819	0.00047	0.025457	0.000765	0.003406
Medical Office Building	0.537356	0.064746	0.188411	0.126034	0.023886	0.006883	0.012812	0.008954	0.000819	0.00047	0.025457	0.000765	0.003406
Pharmacy/Drugstore with Drive Thru	0.537356	0.064746	0.188411	0.126034	0.023886	0.006883	0.012812	0.008954	0.000819	0.00047	0.025457	0.000765	0.003406
Strip Mall	0.537356	0.064746	0.188411	0.126034	0.023886	0.006883	0.012812	0.008954	0.000819	0.00047	0.025457	0.000765	0.003406
Supermarket	0.537356	0.064746	0.188411	0.126034	0.023886	0.006883	0.012812	0.008954	0.000819	0.00047	0.025457	0.000765	0.003406

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	1.3376	11.773	7.3744	0.073		0.9242	0.9242		0.9242	0.9242		14,592.38	14,592.38	0.2797	0.2675	14,679.09
NaturalGas Unmitigated	1.3376	11.773	7.3744	0.073		0.9242	0.9242		0.9242	0.9242		14,592.38	14,592.38	0.2797	0.2675	14,679.09

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					
Apartments Mid Rise	65842.8	0.7101	6.0679	2.5821	0.0387		0.4906	0.4906		0.4906	0.4906		7,746.21	7,746.21	0.1485	0.142	7,792.24
Fast Food Restaurant with Drive Thru	11516.7	0.1242	1.1291	0.9484	6.77E-03		0.0858	0.0858		0.0858	0.0858		1,354.91	1,354.91	0.026	0.0248	1,362.96
High Turnover (Sit Down Restaurant)	42455	0.4579	4.1623	3.4963	0.025		0.3163	0.3163		0.3163	0.3163		4,994.71	4,994.71	0.0957	0.0916	5,024.39
Medical Office Building	939.726	0.0101	0.0921	0.0774	5.50E-04		7.00E-03	7.00E-03		7.00E-03	7.00E-03		110.556	110.556	2.12E-03	2.03E-03	111.213
Pharmacy/Drugstore with Drive Thru	125.37	1.35E-03	0.0123	0.0103	7.00E-05		9.30E-04	9.30E-04		9.30E-04	9.30E-04		14.7494	14.7494	2.80E-04	2.70E-04	14.837
Strip Mall	1520.41	0.0164	0.1491	0.1252	8.90E-04		0.0113	0.0113		0.0113	0.0113		178.8719	178.8719	3.43E-03	3.28E-03	179.9348
Supermarket	1635.22	0.0176	0.1603	0.1347	9.60E-04		0.0122	0.0122		0.0122	0.0122		192.3791	192.3791	3.69E-03	3.53E-03	193.5223
Total		**1.3376**	**11.773**	**7.3744**	**0.0729**		**0.9242**	**0.9242**		**0.9242**	**0.9242**		**14,592.38**	**14,592.38**	**0.2797**	**0.2675**	**14,679.09**

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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					
Apartments Mid Rise	65.8428	0.7101	6.0679	2.5821	0.0387		0.4906	0.4906		0.4906	0.4906		7,746.21	7,746.21	0.1485	0.142	7,792.24
Fast Food Restaurant with Drive Thru	11.5167	0.1242	1.1291	0.9484	6.77E-03		0.0858	0.0858		0.0858	0.0858		1,354.91	1,354.91	0.026	0.0248	1,362.96
High Turnover (Sit Down Restaurant)	42.455	0.4579	4.1623	3.4963	0.025		0.3163	0.3163		0.3163	0.3163		4,994.71	4,994.71	0.0957	0.0916	5,024.39
Medical Office Building	0.939726	0.0101	0.0921	0.0774	5.50E-04		7.00E-03	7.00E-03		7.00E-03	7.00E-03		110.556	110.556	2.12E-03	2.03E-03	111.213
Pharmacy/Drugstore with Drive Thru	0.12537	1.35E-03	0.0123	0.0103	7.00E-05		9.30E-04	9.30E-04		9.30E-04	9.30E-04		14.7494	14.7494	2.80E-04	2.70E-04	14.837
Strip Mall	1.52041	0.0164	0.1491	0.1252	8.90E-04		0.0113	0.0113		0.0113	0.0113		178.8719	178.8719	3.43E-03	3.28E-03	179.9348
Supermarket	1.63522	0.0176	0.1603	0.1347	9.60E-04		0.0122	0.0122		0.0122	0.0122		192.3791	192.3791	3.69E-03	3.53E-03	193.5223
Total		**1.3376**	**11.773**	**7.3744**	**0.0729**		**0.9242**	**0.9242**		**0.9242**	**0.9242**		**14,592.38**	**14,592.38**	**0.2797**	**0.2675**	**14,679.09**

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					

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Mitigated	50.7123	1.5855	137.5437	7.28E-03		0.7647	0.7647		0.7647	0.7647	0	248.3352	248.3352	0.2368	0	254.2544
Unmitigated	50.7123	1.5855	137.5437	7.28E-03		0.7647	0.7647		0.7647	0.7647	0	248.3352	248.3352	0.2368	0	254.2544

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	4.0748					0	0		0	0			0			0
Consumer Products	42.5205					0	0		0	0			0			0
Hearth	0	0	0	0		0	0		0	0	0	0	0	0	0	0
Landscaping	4.117	1.5855	137.5437	7.28E-03		0.7647	0.7647		0.7647	0.7647		248.3352	248.3352	0.2368		254.2544
Total	**50.7123**	**1.5855**	**137.5437**	**7.28E-03**		**0.7647**	**0.7647**		**0.7647**	**0.7647**	**0**	**248.3352**	**248.3352**	**0.2368**	**0**	**254.2544**

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	4.0748					0	0		0	0			0			0

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Consumer Products	42.5205					0	0		0	0			0			0
Hearth	0	0	0	0		0	0		0	0	0	0	0	0	0	0
Landscaping	4.117	1.5855	137.5437	7.28E-03		0.7647	0.7647		0.7647	0.7647		248.3352	248.3352	0.2368		254.2544
Total	**50.7123**	**1.5855**	**137.5437**	**7.28E-03**		**0.7647**	**0.7647**		**0.7647**	**0.7647**	**0**	**248.3352**	**248.3352**	**0.2368**	**0**	**254.2544**

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

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

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	100.00	1000sqft	0.00	100,000.00	0
Pharmacy/Drugstore with Drive Thru	20.80	1000sqft	0.00	20,800.00	0
Fast Food Restaurant with Drive Thru	15.42	1000sqft	0.00	15,417.00	0
High Turnover (Sit Down Restaurant)	56.83	1000sqft	0.00	56,833.00	0
Apartments Mid Rise	1,671.00	Dwelling Unit	101.50	1,671,000.00	4779
Strip Mall	252.25	1000sqft	0.00	252,250.00	0
Supermarket	31.20	1000sqft	0.00	31,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2030
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Full buildout operational model.

Land Use - Proposed land uses for Ventana Specific Plan, align with the TIA. The site is approximately 101.5 acres

Construction Phase - No construction model

Off-road Equipment - No construction

Grading -

Vehicle Trips - Trip gens based on TIA. Adjusted weekday and weekend with the internal capture reduction. No pass-by reductions

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

Woodstoves - No hearths or woodstoves

Area Coating - SCAQMD Rule 1113

Water And Wastewater - No septic tanks proposed and no faculative lagoons at treatment plant. 100% aerobic

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	120.00	0.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	1,420.35	0.00
tblFireplaces	NumberNoFireplace	167.10	0.00
tblFireplaces	NumberWood	83.55	0.00
tblLandUse	LandUseSquareFeet	15,420.00	15,417.00
tblLandUse	LandUseSquareFeet	56,830.00	56,833.00
tblLandUse	LotAcreage	2.30	0.00
tblLandUse	LotAcreage	0.48	0.00
tblLandUse	LotAcreage	0.35	0.00
tblLandUse	LotAcreage	1.30	0.00
tblLandUse	LotAcreage	43.97	101.50
tblLandUse	LotAcreage	5.79	0.00
tblLandUse	LotAcreage	0.72	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblVehicleTrips	ST_TR	4.91	0.90
tblVehicleTrips	ST_TR	616.12	544.13
tblVehicleTrips	ST_TR	122.40	86.26
tblVehicleTrips	ST_TR	8.57	6.67
tblVehicleTrips	ST_TR	114.89	107.46
tblVehicleTrips	ST_TR	42.04	13.71
tblVehicleTrips	ST_TR	177.62	165.78

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tblVehicleTrips	SU_TR	4.09	0.75
tblVehicleTrips	SU_TR	472.58	417.36
tblVehicleTrips	SU_TR	142.64	100.53
tblVehicleTrips	SU_TR	1.42	1.11
tblVehicleTrips	SU_TR	45.57	42.62
tblVehicleTrips	SU_TR	20.43	6.66
tblVehicleTrips	SU_TR	166.47	155.37
tblVehicleTrips	WD_TR	5.44	0.99
tblVehicleTrips	WD_TR	470.95	415.92
tblVehicleTrips	WD_TR	112.18	79.06
tblVehicleTrips	WD_TR	34.80	27.09
tblVehicleTrips	WD_TR	109.16	102.10
tblVehicleTrips	WD_TR	44.32	14.46
tblVehicleTrips	WD_TR	106.78	99.66
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00

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tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	83.55	0.00
tblWoodstoves	NumberNoncatalytic	83.55	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	**Start Date**	**End Date**	**Maximum Unmitigated ROG + NOX (tons/quarter)**	**Maximum Mitigated ROG + NOX (tons/quarter)**
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	9.0183	0.1982	17.1930	9.1000e-004		0.0956	0.0956		0.0956	0.0956	0.0000	28.1607	28.1607	0.0269	0.0000	28.8320
Energy	0.2441	2.1486	1.3458	0.0133		0.1687	0.1687		0.1687	0.1687	0.0000	5,133.0644	5,133.0644	0.2756	0.0721	5,161.4383
Mobile	7.1677	6.6477	60.0746	0.1168	14.2935	0.0817	14.3752	3.8149	0.0760	3.8909	0.0000	11,422.182 6	11,422.182 6	0.8525	0.5639	11,611.527 6
Waste						0.0000	0.0000		0.0000	0.0000	650.7769	0.0000	650.7769	38.4598	0.0000	1,612.2721
Water						0.0000	0.0000		0.0000	0.0000	59.2076	553.7111	612.9186	0.2505	0.1344	659.2394
Total	**16.4301**	**8.9945**	**78.6134**	**0.1311**	**14.2935**	**0.3459**	**14.6395**	**3.8149**	**0.3403**	**4.1552**	**709.9844**	**17,137.118 8**	**17,847.103 2**	**39.8654**	**0.7704**	**19,073.309 4**

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Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	9.0183	0.1982	17.1930	9.1000e-004		0.0956	0.0956		0.0956	0.0956	0.0000	28.1607	28.1607	0.0269	0.0000	28.8320
Energy	0.2441	2.1486	1.3458	0.0133		0.1687	0.1687		0.1687	0.1687	0.0000	5,133.0644	5,133.0644	0.2756	0.0721	5,161.4383
Mobile	7.1677	6.6477	60.0746	0.1168	14.2935	0.0817	14.3752	3.8149	0.0760	3.8909	0.0000	11,422.1826	11,422.1826	0.8525	0.5639	11,611.5276
Waste						0.0000	0.0000		0.0000	0.0000	650.7769	0.0000	650.7769	38.4598	0.0000	1,612.2721
Water						0.0000	0.0000		0.0000	0.0000	59.2076	553.7111	612.9186	0.2505	0.1344	659.2394
Total	**16.4301**	**8.9945**	**78.6134**	**0.1311**	**14.2935**	**0.3459**	**14.6395**	**3.8149**	**0.3403**	**4.1552**	**709.9844**	**17,137.1188**	**17,847.1032**	**39.8654**	**0.7704**	**19,073.3094**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	10/8/2022	10/7/2022	5	0	

Acres of Grading (Site Preparation Phase): 0

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Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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Unmitigated Construction Off-Site

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

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	7.1677	6.6477	60.0746	0.1168	14.2935	0.0817	14.3752	3.8149	0.0760	3.8909	0.0000	11,422.1826	11,422.1826	0.8525	0.5639	11,611.5276
Unmitigated	7.1677	6.6477	60.0746	0.1168	14.2935	0.0817	14.3752	3.8149	0.0760	3.8909	0.0000	11,422.1826	11,422.1826	0.8525	0.5639	11,611.5276

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,654.29	1,503.90	1253.25	5,383,772	5,383,772
Fast Food Restaurant with Drive Thru	6,413.49	8,390.48	6435.69	7,050,035	7,050,035
High Turnover (Sit Down Restaurant)	4,492.98	4,902.16	5713.12	6,440,382	6,440,382
Medical Office Building	2,709.00	667.00	111.00	5,307,405	5,307,405
Pharmacy/Drugstore with Drive Thru	2,123.68	2,235.17	886.50	2,607,953	2,607,953
Strip Mall	3,647.54	3,458.35	1679.99	6,353,583	6,353,583
Supermarket	3,109.39	5,172.34	4847.54	4,819,243	4,819,243
Total	24,150.36	26,329.39	20,927.09	37,962,373	37,962,373

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
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Fast Food Restaurant with Drive Thru	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
High Turnover (Sit Down Restaurant)	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10
Pharmacy/Drugstore with Drive Thru	16.60	8.40	6.90	7.50	73.50	19.00	38	13	49
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15
Supermarket	16.60	8.40	6.90	6.50	74.50	19.00	34	30	36

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.537356	0.064746	0.188411	0.126034	0.023886	0.006883	0.012812	0.008954	0.000819	0.000470	0.025457	0.000765	0.003406
Fast Food Restaurant with Drive Thru	0.537356	0.064746	0.188411	0.126034	0.023886	0.006883	0.012812	0.008954	0.000819	0.000470	0.025457	0.000765	0.003406
High Turnover (Sit Down Restaurant)	0.537356	0.064746	0.188411	0.126034	0.023886	0.006883	0.012812	0.008954	0.000819	0.000470	0.025457	0.000765	0.003406
Medical Office Building	0.537356	0.064746	0.188411	0.126034	0.023886	0.006883	0.012812	0.008954	0.000819	0.000470	0.025457	0.000765	0.003406
Pharmacy/Drugstore with Drive Thru	0.537356	0.064746	0.188411	0.126034	0.023886	0.006883	0.012812	0.008954	0.000819	0.000470	0.025457	0.000765	0.003406
Strip Mall	0.537356	0.064746	0.188411	0.126034	0.023886	0.006883	0.012812	0.008954	0.000819	0.000470	0.025457	0.000765	0.003406
Supermarket	0.537356	0.064746	0.188411	0.126034	0.023886	0.006883	0.012812	0.008954	0.000819	0.000470	0.025457	0.000765	0.003406

5.0 Energy Detail

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

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,717.1323	2,717.1323	0.2293	0.0278	2,731.1496
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,717.1323	2,717.1323	0.2293	0.0278	2,731.1496
NaturalGas Mitigated	0.2441	2.1486	1.3458	0.0133		0.1687	0.1687		0.1687	0.1687	0.0000	2,415.9321	2,415.9321	0.0463	0.0443	2,430.2887
NaturalGas Unmitigated	0.2441	2.1486	1.3458	0.0133		0.1687	0.1687		0.1687	0.1687	0.0000	2,415.9321	2,415.9321	0.0463	0.0443	2,430.2887

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.40326e+007	0.1296	1.1074	0.4712	7.0700e-003		0.0895	0.0895		0.0895	0.0895	0.0000	1,282.4714	1,282.4714	0.0246	0.0235	1,290.0925
Fast Food Restaurant with Drive Thru	4.2036e+006	0.0227	0.2061	0.1731	1.2400e-003		0.0157	0.0157		0.0157	0.0157	0.0000	224.3201	224.3201	4.3000e-003	4.1100e-003	225.6531
High Turnover (Sit Down Restaurant)	1.54961e+007	0.0836	0.7596	0.6381	4.5600e-003		0.0577	0.0577		0.0577	0.0577	0.0000	826.9302	826.9302	0.0159	0.0152	831.8442

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Medical Office Building	343000	1.8500e-003	0.0168	0.0141	1.0000e-004		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003	0.0000	18.3038	18.3038	3.5000e-004	3.4000e-004	18.4126
Pharmacy/Drugstore with Drive Thru	45760	2.5000e-004	2.2400e-003	1.8800e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.4419	2.4419	5.0000e-005	4.0000e-005	2.4564
Strip Mall	554950	2.9900e-003	0.0272	0.0229	1.6000e-004		2.0700e-003	2.0700e-003		2.0700e-003	2.0700e-003	0.0000	29.6143	29.6143	5.7000e-004	5.4000e-004	29.7902
Supermarket	596856	3.2200e-003	0.0293	0.0246	1.8000e-004		2.2200e-003	2.2200e-003		2.2200e-003	2.2200e-003	0.0000	31.8505	31.8505	6.1000e-004	5.8000e-004	32.0398
Total		**0.2441**	**2.1486**	**1.3458**	**0.0133**		**0.1687**	**0.1687**		**0.1687**	**0.1687**	**0.0000**	**2,415.9321**	**2,415.9321**	**0.0463**	**0.0443**	**2,430.2887**

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					
Apartments Mid Rise	2.40326e+007	0.1296	1.1074	0.4712	7.0700e-003		0.0895	0.0895		0.0895	0.0895	0.0000	1,282.4714	1,282.4714	0.0246	0.0235	1,290.0925
Fast Food Restaurant with Drive Thru	4.2036e+006	0.0227	0.2061	0.1731	1.2400e-003		0.0157	0.0157		0.0157	0.0157	0.0000	224.3201	224.3201	4.3000e-003	4.1100e-003	225.6531
High Turnover (Sit Down Restaurant)	1.54961e+007	0.0836	0.7596	0.6381	4.5600e-003		0.0577	0.0577		0.0577	0.0577	0.0000	826.9302	826.9302	0.0159	0.0152	831.8442
Medical Office Building	343000	1.8500e-003	0.0168	0.0141	1.0000e-004		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003	0.0000	18.3038	18.3038	3.5000e-004	3.4000e-004	18.4126
Pharmacy/Drugstore with Drive Thru	45760	2.5000e-004	2.2400e-003	1.8800e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.4419	2.4419	5.0000e-005	4.0000e-005	2.4564
Strip Mall	554950	2.9900e-003	0.0272	0.0229	1.6000e-004		2.0700e-003	2.0700e-003		2.0700e-003	2.0700e-003	0.0000	29.6143	29.6143	5.7000e-004	5.4000e-004	29.7902
Supermarket	596856	3.2200e-003	0.0293	0.0246	1.8000e-004		2.2200e-003	2.2200e-003		2.2200e-003	2.2200e-003	0.0000	31.8505	31.8505	6.1000e-004	5.8000e-004	32.0398
Total		**0.2441**	**2.1486**	**1.3458**	**0.0133**		**0.1687**	**0.1687**		**0.1687**	**0.1687**	**0.0000**	**2,415.9321**	**2,415.9321**	**0.0463**	**0.0443**	**2,430.2887**

Ventana Specific Plan Full Buildout AQ - Operational - South Coast AQMD Air District, Annual

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			
Apartments Mid Rise	6.61718e+006	1,173.5268	0.0991	0.0120	1,179.5808
Fast Food Restaurant with Drive Thru	711649	126.2077	0.0107	1.2900e-003	126.8588
High Turnover (Sit Down Restaurant)	2.62341e+006	465.2503	0.0393	4.7600e-003	467.6505
Medical Office Building	919000	162.9806	0.0138	1.6700e-003	163.8213
Pharmacy/Drugstore with Drive Thru	252512	44.7819	3.7800e-003	4.6000e-004	45.0129
Strip Mall	3.06232e+006	543.0879	0.0458	5.5600e-003	545.8896
Supermarket	1.13506e+006	201.2971	0.0170	2.0600e-003	202.3356
Total		**2,717.1323**	**0.2293**	**0.0278**	**2,731.1495**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	6.61718e+006	1,173.5268	0.0991	0.0120	1,179.5808
Fast Food Restaurant with Drive Thru	711649	126.2077	0.0107	1.2900e-003	126.8588

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High Turnover (Sit Down Restaurant)	2.62341e+006	465.2503	0.0393	4.7600e-003	467.6505
Medical Office Building	919000	162.9806	0.0138	1.6700e-003	163.8213
Pharmacy/Drugstore with Drive Thru	252512	44.7819	3.7800e-003	4.6000e-004	45.0129
Strip Mall	3.06232e+006	543.0879	0.0458	5.5600e-003	545.8896
Supermarket	1.13506e+006	201.2971	0.0170	2.0600e-003	202.3356
Total		**2,717.1323**	**0.2293**	**0.0278**	**2,731.1495**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	9.0183	0.1982	17.1930	9.1000e-004		0.0956	0.0956		0.0956	0.0956	0.0000	28.1607	28.1607	0.0269	0.0000	28.8320
Unmitigated	9.0183	0.1982	17.1930	9.1000e-004		0.0956	0.0956		0.0956	0.0956	0.0000	28.1607	28.1607	0.0269	0.0000	28.8320

6.2 Area by SubCategory

Unmitigated

Ventana Specific Plan Full Buildout AQ - Operational - South Coast AQMD Air District, Annual

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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.7437					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.7600					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.5146	0.1982	17.1930	9.1000e-004		0.0956	0.0956		0.0956	0.0956	0.0000	28.1607	28.1607	0.0269	0.0000	28.8320
Total	**9.0183**	**0.1982**	**17.1930**	**9.1000e-004**		**0.0956**	**0.0956**		**0.0956**	**0.0956**	**0.0000**	**28.1607**	**28.1607**	**0.0269**	**0.0000**	**28.8320**

<u>Mitigated</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.7437					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.7600					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.5146	0.1982	17.1930	9.1000e-004		0.0956	0.0956		0.0956	0.0956	0.0000	28.1607	28.1607	0.0269	0.0000	28.8320
Total	**9.0183**	**0.1982**	**17.1930**	**9.1000e-004**		**0.0956**	**0.0956**		**0.0956**	**0.0956**	**0.0000**	**28.1607**	**28.1607**	**0.0269**	**0.0000**	**28.8320**

7.0 Water Detail

Ventana Specific Plan Full Buildout AQ - Operational - South Coast AQMD Air District, Annual

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

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	612.9186	0.2505	0.1344	659.2394
Unmitigated	612.9186	0.2505	0.1344	659.2394

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	108.872 / 68.6369	425.1651	0.1652	0.0877	455.4367
Fast Food Restaurant with Drive Thru	4.68049 / 0.298755	13.0529	6.6600e-003	3.7200e-003	14.3273
High Turnover (Sit Down Restaurant)	17.2498 / 1.10105	48.1060	0.0246	0.0137	52.8029
Medical Office Building	12.5481 / 2.39011	38.1249	0.0181	0.0100	41.5578
Pharmacy/Drugstore with Drive Thru	1.46531 / 0.898092	5.6717	2.2200e-003	1.1800e-003	6.0788
Strip Mall	18.6848 / 11.452	72.3219	0.0283	0.0151	77.5138
Supermarket	3.84597 / 0.118947	10.4763	5.4500e-003	3.0500e-003	11.5222

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

Total	**612.9186**	**0.2505**	**0.1344**	**659.2394**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	108.872 / 68.6369	425.1651	0.1652	0.0877	455.4367
Fast Food Restaurant with Drive Thru	4.68049 / 0.298755	13.0529	6.6600e-003	3.7200e-003	14.3273
High Turnover (Sit Down Restaurant)	17.2498 / 1.10105	48.1060	0.0246	0.0137	52.8029
Medical Office Building	12.5481 / 2.39011	38.1249	0.0181	0.0100	41.5578
Pharmacy/Drugstore with Drive Thru	1.46531 / 0.898092	5.6717	2.2200e-003	1.1800e-003	6.0788
Strip Mall	18.6848 / 11.452	72.3219	0.0283	0.0151	77.5138
Supermarket	3.84597 / 0.118947	10.4763	5.4500e-003	3.0500e-003	11.5222
Total		**612.9186**	**0.2505**	**0.1344**	**659.2394**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

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

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	650.7769	38.4598	0.0000	1,612.2721
Unmitigated	650.7769	38.4598	0.0000	1,612.2721

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	768.66	156.0310	9.2212	0.0000	386.5603
Fast Food Restaurant with Drive Thru	177.62	36.0553	2.1308	0.0000	89.3254
High Turnover (Sit Down Restaurant)	676.28	137.2787	8.1129	0.0000	340.1022
Medical Office Building	1080	219.2302	12.9561	0.0000	543.1336
Pharmacy/Drugstore with Drive Thru	62.55	12.6971	0.7504	0.0000	31.4565
Strip Mall	264.86	53.7642	3.1774	0.0000	133.1985
Supermarket	175.97	35.7203	2.1110	0.0000	88.4956
Total		**650.7768**	**38.4598**	**0.0000**	**1,612.2721**

Ventana Specific Plan Full Buildout AQ - Operational - South Coast AQMD Air District, Annual

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

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	768.66	156.0310	9.2212	0.0000	386.5603
Fast Food Restaurant with Drive Thru	177.62	36.0553	2.1308	0.0000	89.3254
High Turnover (Sit Down Restaurant)	676.28	137.2787	8.1129	0.0000	340.1022
Medical Office Building	1080	219.2302	12.9561	0.0000	543.1336
Pharmacy/Drugstore with Drive Thru	62.55	12.6971	0.7504	0.0000	31.4565
Strip Mall	264.86	53.7642	3.1774	0.0000	133.1985
Supermarket	175.97	35.7203	2.1110	0.0000	88.4956
Total		**650.7768**	**38.4598**	**0.0000**	**1,612.2721**

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

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix A.3

Amicus Briefs

S219783

IN THE SUPREME COURT OF C ALIFORNIA

SIERRA CLUB, REVIVE THE SAN JOAQUIN, and
LEAGUE OF WOMEN VOTERS OF FRESNO,

Plaintiffs and Appellants,

v.

COUNTY OF FRESNO,

Defendant and Respondent,

and,

FRIANT RANCH, L.P.,

Real Party in Interest and Respondent.

After a Published Decision by the Court of Appeal, filed May 27, 2014
Fifth Appellate District Case No. F066798

Appeal from the Superior Court of California, County of Fresno
Case No. 11CECG00726
Honorable Rosendo A. Pena, Jr.

APPLICATION OF THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT FOR LEAVE TO FILE BRIEF OF *AMICUS CURIAE* IN SUPPORT OF NEITHER PARTY AND *[PROPOSED]* BRIEF OF *AMICUS CURIAE*

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TABLE OF AUTHORITIES

State Cases (cont'd)

California Statutes

California Statutes (cont'd)

California Regulations

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TO THE HONORABLE CHIEF JUSTICE AND JUSTICES OF THE SUPREME COURT:

APPLICATION FOR LEAVE TO FILE *AMICUS CURIAE* BRIEF

Pursuant to Rule 8.520(f) of the California Rules of Court, the South Coast Air Quality Management District (SCAQMD) respectfully requests leave to file the attached *amicus curiae* brief. Because SCAQMD's position differs from that of either party, we request leave to submit this amicus brief in support of neither party.

HOW THIS BRIEF WILL ASSIST THE COURT

SCAQMD's proposed amicus brief takes a position on two of the issues in this case. In both instances, its position differs from that of either party. The issues are:

1) Does the California Environmental Quality Act (CEQA) require an environmental impact report (EIR) to correlate a project's air pollution emissions with specific levels of health impacts?
2) What is the proper standard of review for determining whether an EIR provides sufficient information on the health impacts caused by a project's emission of air pollutants?

This brief will assist the Court by discussing the practical realities of correlating identified air quality impacts with specific health outcomes. In short, CEQA requires agencies to provide detailed information about a project's air quality impacts that is sufficient for the public and decisionmakers to adequately evaluate the project and meaningfully understand its impacts. However, the level of analysis is governed by a rule of reason; CEQA only requires agencies to conduct analysis if it is reasonably feasible to do so.

With regard to health-related air quality impacts, an analysis that correlates a project's air pollution emissions with specific levels of health impacts will be feasible in some cases but not others. Whether it is feasible depends on a variety of factors, including the nature of the project and the nature of the analysis under consideration. The feasibility of analysis may also change over time as air districts and others develop new tools for measuring projects' air quality related health impacts. Because SCAQMD has among the most sophisticated air quality modeling and health impact evaluation capability of any of the air districts in the State, it is uniquely situated to express an opinion on the extent to which the Court should hold that CEQA requires lead agencies to correlate air quality impacts with specific health outcomes.

SCAQMD can also offer a unique perspective on the question of the appropriate standard of review. SCAQMD submits that the proper standard of review for determining whether an EIR is sufficient as an informational document is more nuanced than argued by either party. In our view, this is a mixed question of fact and law. It includes determining whether additional analysis is feasible, which is primarily a factual question that should be reviewed under the substantial evidence standard. However, it also involves determining whether the omission of a particular analysis renders an EIR insufficient to serve CEQA's purpose as a meaningful, informational document. If a lead agency has not determined that a requested analysis is infeasible, it is the court's role to determine whether the EIR nevertheless meets CEQA's purposes, and courts should not defer to the lead agency's conclusions regarding the legal sufficiency of an EIR's analysis. The ultimate question of whether an EIR's analysis is "sufficient" to serve CEQA's informational purposes is predominately a question of law that courts should review de novo.

This brief will explain the rationale for these arguments and may assist the Court in reaching a conclusion that accords proper respect to a lead agency's factual conclusions while maintaining judicial authority over the ultimate question of what level of analysis CEQA requires.

STATEMENT OF INTEREST OF *AMICUS CURIAE*

The SCAQMD is the regional agency primarily responsible for air pollution control in the South Coast Air Basin, which consists of all of Orange County and the non-desert portions of the Los Angeles, Riverside, and San Bernardino Counties. (Health & Saf. Code § 40410; Cal. Code Regs., tit. 17, § 60104.) The SCAQMD participates in the CEQA process in several ways. Sometimes it acts as a lead agency that prepares CEQA documents for projects. Other times it acts as a responsible agency when it has permit authority over some part of a project that is undergoing CEQA review by a different lead agency. Finally, SCAQMD also acts as a commenting agency for CEQA documents that it receives because it is a public agency with jurisdiction by law over natural resources affected by the project.

In all of these capacities, SCAQMD will be affected by the decision in this case. SCAQMD sometimes submits comments requesting that a lead agency perform an additional type of air quality or health impacts analysis. On the other hand, SCAQMD sometimes determines that a particular type of health impact analysis is not feasible or would not produce reliable and informative results. Thus, SCAQMD will be affected by the Court's resolution of the extent to which CEQA requires EIRs to correlate emissions and health impacts, and its resolution of the proper standard of review.

CERTIFICATION REGARDING AUTHORSHIP AND FUNDING

No party or counsel in the pending case authored the proposed amicus curiae brief in whole or in part, or made any monetary contribution intended to fund the preparation or submission of the brief. No person or entity other than the proposed *Amicus Curiae* made any monetary contribution intended to fund the preparation or submission of the brief.

Respectfully submitted,

DATED: April 3, 2015

SOUTH COAST AIR QUALITY
MANAGEMENT DISTRICT
KURT R. WIESE, GENERAL COUNSEL
BARBARA BAIRD, CHIEF DEPUTY COUNSEL

By: Barbara Baird
Barbara Baird
Attorneys for [proposed] Amicus Curiae
SOUTH COAST AIR QUALITY
MANAGEMENT DISTICT

BRIEF OF AMICUS CURIAE

SUMMARY OF ARGUMENT

The South Coast Air Quality Management District (SCAQMD) submits that this Court should not try to establish a hard-and-fast rule concerning whether lead agencies are required to correlate emissions of air pollutants with specific health consequences in their environmental impact reports (EIR). The level of detail required in EIRs is governed by a few, core CEQA (California Environmental Quality Act) principles. As this Court has stated, "[a]n EIR must include detail sufficient to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project." (*Laurel Heights Improvement Assn. v. Regents of the Univ of Cal.* (1988) 47 Cal.3d 376, 405 ["*Laurel Heights I*"]) Accordingly, "an agency must use its best efforts to find out and disclose all that it reasonably can." (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 428 (quoting CEQA Guidelines § 15144)[1].). However, "[a]nalysis of environmental effects need not be exhaustive, but will be judged in light of what is reasonably feasible." (*Association of Irritated Residents v. County of Madera* (2003) 107 Cal.App.4th 1383, 1390; CEQA Guidelines §§ 15151, 15204(a).)

With regard to analysis of air quality related health impacts, EIRs must generally quantify a project's pollutant emissions, but in some cases it is not feasible to correlate these emissions to specific, quantifiable health impacts (e.g., premature mortality; hospital admissions). In such cases, a general description of the adverse health impacts resulting from the pollutants at issue may be sufficient. In other cases, due to the magnitude

[1] The CEQA Guidelines are found at Cal. Code Regs., tit. 14 §§ 15000, *et seq*.

or nature of the pollution emissions, as well as the specificity of the project involved, it may be feasible to quantify health impacts. Or there may be a less exacting, but still meaningful analysis of health impacts that can feasibly be performed. In these instances, agencies should disclose those impacts.

SCAQMD also submits that whether or not an EIR complies with CEQA's informational mandates by providing sufficient, feasible analysis is a mixed question of fact and law. Pertinent here, the question of whether an EIR's discussion of health impacts from air pollution is sufficient to allow the public to understand and consider meaningfully the issues involves two inquiries: (1) Is it feasible to provide the information or analysis that a commenter is requesting or a petitioner is arguing should be required?; and (2) Even if it is feasible, is the agency relying on other policy or legal considerations to justify not preparing the requested analysis? The first question of whether an analysis is feasible is primarily a question of fact that should be judged by the substantial evidence standard. The second inquiry involves evaluating CEQA's information disclosure purposes against the asserted reasons to not perform the requested analysis. For example, an agency might believe that its EIR meets CEQA's informational disclosure standards even without a particular analysis, and therefore choose not to conduct that analysis. SCAQMD submits that this is more of a legal question, which should be reviewed de novo as a question of law.

ARGUMENT

I. RELEVANT FACTUAL AND LEGAL FRAMEWORK.

A. Air Quality Regulatory Background

The South Coast Air Quality Management District (SCAQMD) is one of the local and regional air pollution control districts and air quality management districts in California. The SCAQMD is the regional air pollution agency for the South Coast Air Basin, which consists of all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. (Health & Saf. Code § 40410, 17 Cal. Code Reg. § 60104.) The SCAQMD also includes the Coachella Valley in Riverside County (Palm Springs area to the Salton Sea). (SCAQMD, *Final 2012 AQMP (Feb. 2013)*, http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/final-2012-air-quality-management-plan; then follow "chapter 7" hyperlink; pp 7-1, 7-3 (last visited Apr. 1, 2015).) The SCAQMD's jurisdiction includes over 16 million residents and has the worst or nearly the worst air pollution levels in the country for ozone and fine particulate matter. (SCAQMD, *Final 2012 AQMP (Feb. 2013)*, http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/final-2012-air-quality-management-plan; then follow "Executive Summary" hyperlink p. ES-1 (last visited Apr. 1, 2015).)

Under California law, the local and regional districts are primarily responsible for controlling air pollution from all sources except motor vehicles. (Health & Saf. Code § 40000.) The California Air Resources Board (CARB), part of the California Environmental Protection Agency, is primarily responsible for controlling pollution from motor vehicles. (*Id.*) The air districts must adopt rules to achieve and maintain the state and federal ambient air quality standards within their jurisdictions. (Health & Saf. Code § 40001.)

The federal Clean Air Act (CAA) requires the United States Environmental Protection Agency (EPA) to identify pollutants that are widely distributed and pose a threat to human health, developing a so-called "criteria" document. (42 U.S.C. § 7408; CAA § 108.) These pollutants are frequently called "criteria pollutants." EPA must then establish "national ambient air quality standards" at levels "requisite to protect public health", allowing "an adequate margin of safety." (42 U.S.C. § 7409; CAA § 109.) EPA has set standards for six identified pollutants: ozone, nitrogen dioxide, sulfur dioxide, carbon monoxide, particulate matter (PM), and lead. (U.S. EPA, National Ambient Air Quality Standards (NAAQS), http://www.epa.gov/air/criteria.html (last updated Oct. 21, 2014).)[2]

Under the Clean Air Act, EPA sets emission standards for motor vehicles and "nonroad engines" (mobile farm and construction equipment, marine vessels, locomotives, aircraft, etc.). (42 U.S.C. §§ 7521, 7547; CAA §§ 202, 213.) California is the only state allowed to establish emission standards for motor vehicles and most nonroad sources; however, it may only do so with EPA's approval. (42 U.S.C. §§ 7543(b), 7543(e); CAA §§ 209(b), 209(c).) Sources such as manufacturing facilities, power plants and refineries that are not mobile are often referred to as "stationary sources." The Clean Air Act charges state and local agencies with the primary responsibility to attain the national ambient air quality standards. (42 U.S.C. § 7401(a)(3); CAA § 101(a)(3).) Each state must adopt and implement a plan including enforceable measures to achieve and maintain the national ambient air quality standards. (42 U.S.C. § 7410; CAA § 110.) The SCAQMD and CARB jointly prepare portion of the plan for the South Coast Air Basin and submit it for approval by EPA. (Health & Saf. Code §§ 40460, et seq.)

The Clean Air Act also requires state and local agencies to adopt a permit program requiring, among other things, that new or modified "major" stationary sources use technology to achieve the "lowest achievable emission rate," and to control minor stationary sources as

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[2] Particulate matter (PM) is further divided into two categories: fine particulate or $PM_{2.5}$ (particles with a diameter of less than or equal to 2.5 microns) and coarse particulate (PM_{10}) (particles with a diameter of 10 microns or less). (U.S. EPA, Particulate Matter (PM), http://www.epa.gov/airquality/particlepollution/ (last visited Apr. 1, 2015).)

needed to help attain the standards. (42 U.S.C. §§ 7502(c)(5), 7503(a)(2), 7410(a)(2)(C); CAA §§ 172(c)(5), 173(a)(2), 110(a)(2)(C).) The air districts implement these permit programs in California. (Health & Saf. Code §§ 42300, et seq.)

The Clean Air Act also sets out a regulatory structure for over 100 so-called "hazardous air pollutants" calling for EPA to establish "maximum achievable control technology" (MACT) for sources of these pollutants. (42 U.S.C. § 7412(d)(2); CAA § 112(d)(2).) California refers to these pollutants as "toxic air contaminants" (TACs) which are subject to two state-required programs. The first program requires "air toxics control measures" for specific categories of sources. (Health & Saf. Code § 39666.) The other program requires larger stationary sources and sources identified by air districts to prepare "health risk assessments" for impacts of toxic air contaminants. (Health & Saf. Code §§ 44320(b), 44322, 44360.) If the health risk exceeds levels identified by the district as "significant," the facility must implement a "risk reduction plan" to bring its risk levels below "significant" levels. Air districts may adopt additional more stringent requirements than those required by state law, including requirements for toxic air contaminants. (Health & Saf. Code § 41508; *Western Oil & Gas Assn. v. Monterey Bay Unified APCD* (1989) 49 Cal.3d 408, 414.) For example, SCAQMD has adopted a rule requiring new or modified sources to keep their risks below specified levels and use best available control technology (BACT) for toxics. (SCAQMD, *Rule 1401-New Source Review of Toxic Air Contaminants*, http://www.aqmd.gov/home/regulations/rules/scaqmd-rule-book/regulation-xiv; then follow "Rule 1401" hyperlink (last visited Apr. 1, 2015).)

B. The SCAQMD's Role Under CEQA

The California Environmental Quality Act (CEQA) requires public agencies to perform an environmental review and appropriate analysis for projects that they implement or approve. (Pub. Resources Code § 21080(a).) The agency with primary approval authority for a particular project is generally the "lead agency" that prepares the appropriate CEQA document. (CEQA Guidelines §§ 15050, 15051.) Other agencies having a subsequent approval authority over all or part of a project are called "responsible" agencies that must determine whether the CEQA document is adequate for their use. (CEQA Guidelines §§ 15096(c), 15381.) Lead agencies must also consult with and circulate their environmental impact reports to "trustee agencies" and agencies "with jurisdiction by law" including "authority over resources which may be affected by the project." (Pub. Resources Code §§ 21104(a), 21153; CEQA Guidelines §§ 15086(a)(3), 15073(c).) The SCAQMD has a role in all these aspects of CEQA.

Fulfilling its responsibilities to implement its air quality plan and adopt rules to attain the national ambient air quality standards, SCAQMD adopts a dozen or more rules each year to require pollution reductions from a wide variety of sources. The SCAQMD staff evaluates each rule for any adverse environmental impact and prepares the appropriate CEQA document. Although most rules reduce air emissions, they may have secondary environmental impacts such as use of water or energy or disposal of waste—e.g., spent catalyst from control equipment.[3]

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[3] The SCAQMD's CEQA program for its rules is a "Certified Regulatory Program" under which it prepares a "functionally equivalent" document in lieu of a negative declaration or EIR. (Pub. Resources Code § 21080.5, CEQA Guidelines § 15251(l).)

The SCAQMD also approves a large number of permits every year to construct new, modified, or replacement facilities that emit regulated air pollutants. The majority of these air pollutant sources have already been included in an earlier CEQA evaluation for a larger project, are currently being evaluated by a local government as lead agency, or qualify for an exemption. However, the SCAQMD sometimes acts as lead agency for major projects where the local government does not have a discretionary approval. In such cases, SCAQMD prepares and certifies a negative declaration or environmental impact report (EIR) as appropriate.[4] SCAQMD evaluates perhaps a dozen such permit projects under CEQA each year. SCAQMD is often also a "responsible agency" for many projects since it must issue a permit for part of the projects (e.g., a boiler used to provide heat in a commercial building). For permit projects evaluated by another lead agency under CEQA, SCAQMD has the right to determine that the CEQA document is inadequate for its purposes as a responsible agency, but it may not do so because its permit program already requires all permitted sources to use the best available air pollution control technology. (SCAQMD, *Rule 1303(a)(1) – Requirements*, http://www.aqmd.gov/home/regulations/rules/scaqmd-rule-book/regulation-xiii; then follow "Rule 1303" hyperlink (last visited Apr. 1, 2015).)

Finally, SCAQMD receives as many as 60 or more CEQA documents each month (around 500 per year) in its role as commenting agency or an agency with "jurisdiction by law" over air quality—a natural resource affected by the project. (Pub. Resources Code §§ 21104(a), 21153; CEQA Guidelines § 15366(a)(3).) The SCAQMD staff provides comments on as many as 25 or 30 such documents each month.

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[4] The SCAQMD's permit projects are not included in its Certified Regulatory Program, and are evaluated under the traditional local government CEQA analysis. (Pub. Resources Code §§ 21150-21154.)

(SCAQMD Governing Board Agenda, Apr. 3, 2015, Agenda Item 16, Attachment A, http://www.aqmd.gov/home/library/meeting-agendas-minutes/agenda?title=governing-board-meeting-agenda-april-3-2015; then follow "16. Lead Agency Projects and Environmental Documents Received by SCAQMD" hyperlink (last visited Apr. 1, 2015).) Of course, SCAQMD focuses its commenting efforts on the more significant projects.

Typically, SCAQMD comments on the adequacy of air quality analysis, appropriateness of assumptions and methodology, and completeness of the recommended air quality mitigation measures. Staff may comment on the need to prepare a health risk assessment detailing the projected cancer and noncancer risks from toxic air contaminants resulting from the project, particularly the impacts of diesel particulate matter, which CARB has identified as a toxic air contaminant based on its carcinogenic effects. (California Air Resources Board, Resolution 98-35, Aug. 27, 1998, http://www.arb.ca.gov/regact/diesltac/diesltac.htm; then follow Resolution 98-35 hyperlink (last visited Apr. 1, 2015).) Because SCAQMD already requires new or modified stationary sources of toxic air contaminants to use the best available control technology for toxics and to keep their risks below specified levels, (SCAQMD Rule 1401, supra, note 15), the greatest opportunity to further mitigate toxic impacts through the CEQA process is by reducing emissions—particularly diesel emissions—from vehicles.

II. THIS COURT SHOULD NOT SET A HARD-AND-FAST RULE CONCERNING THE EXTENT TO WHICH AN EIR MUST CORRELATE A PROJECT'S EMISSION OF POLLUTANTS WITH RESULTING HEALTH IMPACTS.

Numerous cases hold that courts do not review the correctness of an EIR's conclusions but rather its sufficiency as an informative document. (*Laurel Heights 1*, *supra*, 47 Cal.3d at p. 392; *Citizens of Goleta Valley v.*

Bd. of Supervisors (1990) 52 Cal.3d 553, 569; *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1197.)

As stated by the Court of Appeal in this case, where an EIR has addressed a topic, but the petitioner claims that the information provided about that topic is insufficient, courts must "draw[] a line that divides *sufficient* discussions from those that are *insufficient*." (*Sierra Club v. County of Fresno* (2014) 226 Cal.App.4th 704 (superseded by grant of review) 172 Cal.Rptr.3d 271, 290.) The Court of Appeal readily admitted that "[t]he terms themselves – sufficient and insufficient – provide little, if any, guidance as to where the line should be drawn. They are simply labels applied once the court has completed its analysis." (*Id.*)

The CEQA Guidelines, however, provide guidance regarding what constitutes a sufficient discussion of impacts. Section 15151 states that "the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible." Case law reflects this: "Analysis of environmental effects need not be exhaustive, but will be judged in light of what was reasonably feasible." (*Association of Irritated Residents v. County of Madera, supra,* 107 Cal.App.4th at p. 1390; see also CEQA Guidelines § 15204(a).)

Applying this test, this Court cannot realistically establish a hard-and-fast rule that an analysis correlating air pollution impacts of a project to quantified resulting health impacts is always required, or indeed that it is never required. Simply put, in some cases such an analysis will be "feasible"; in some cases it will not.

For example, air pollution control districts often require a proposed new source of toxic air contaminants to prepare a "health risk assessment" before issuing a permit to construct. District rules often limit the allowable cancer risk the new source may cause to the "maximally exposed individual" (worker and residence exposures). (*See, e.g.*, SCAQMD Rule 1401(c)(8); 1401(d)(1), *supra* note 15.) In order to perform this analysis, it is necessary to have data regarding the sources and types of air toxic contaminants, location of emission points, velocity of emissions, the meteorology and topography of the area, and the location of receptors (worker and residence). (SCAQMD, *Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics "Hot Spots" Information and Assessment Act (AB2588), pp. 11-16*; (last visited Apr. 1, 2015) http://www.aqmd.gov/home/library/documents-support-material; "Guidelines" hyperlink; AB2588; then follow AB2588 Risk Assessment Guidelines hyperlink.)

Thus, it is feasible to determine the health risk posed by a new gas station locating at an intersection in a mixed use area, where receptor locations are known. On the other hand, it may not be feasible to perform a health risk assessment for airborne toxics that will be emitted by a generic industrial building that was built on "speculation" (i.e., without knowing the future tenant(s)). Even where a health risk assessment can be prepared, however, the resulting maximum health risk value is only a calculation of risk—it does not necessarily mean anyone will contract cancer as a result of the project.

In order to find the "cancer burden" or expected additional cases of cancer resulting from the project, it is also necessary to know the numbers and location of individuals living within the "zone of impact" of the project: i.e., those living in areas where the projected cancer risk from the project exceeds one in a million. (SCAQMD, Health Risk Assessment Summary form, http://www.aqmd.gov/home/forms ; filter by "AB2588" category; then "Health Risk Assessment" hyperlink (last visited Apr. 1, 2015).) The affected population is divided into bands of those exposed to at least 1 in a million risk, those exposed to at least 10 in a million risk, etc. up to those exposed at the highest levels. (*Id.*) This data allows agencies to calculate an approximate number of additional cancer cases expected from the project. However, it is not possible to predict which particular individuals will be affected.

For the so-called criteria pollutants[5], such as ozone, it may be more difficult to quantify health impacts. Ozone is formed in the atmosphere from the chemical reaction of the nitrogen oxides (NO_x) and volatile organic compounds (VOC) in the presence of sunlight. (U.S. EPA, Ground Level Ozone, http://www.epa.gov/airquality/ozonepollution/ (last updated Mar. 25, 2015).) It takes time and the influence of meteorological conditions for these reactions to occur, so ozone may be formed at a distance downwind from the sources. (U.S. EPA, *Guideline on Ozone Monitoring Site Selection* (Aug. 1998) EPA-454/R-98-002 § 5.1.2, http://www.epa.gov/ttnamti1/archive/cpreldoc.html (last visited Apr. 1, 2015).) NO_x and VOC are known as "precursors" of ozone.

Scientifically, health effects from ozone are correlated with increases in the ambient level of ozone in the air a person breathes. (U.S. EPA, *Health Effects of Ozone in the General Population,* Figure 9, http://www.epa.gov/apti/ozonehealth/population.html#levels (last visited Apr. 1, 2015).) However, it takes a large amount of additional precursor emissions to cause a modeled increase in ambient ozone levels over an entire region. For example, the SCAQMD's 2012 AQMP showed that reducing NO_x by 432 tons per day (157,680 tons/year) and reducing VOC by 187 tons per day (68,255 tons/year) would reduce ozone levels at the SCAQMD's monitor site with the highest levels by only 9 parts per billion. (South Coast Air Quality Management District, *Final 2012 AQMP (February 2013)*, http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/final-2012-air-quality-management-plan; then follow "Appendix V: Modeling & Attainment Demonstrations" hyperlink,

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[5] See discussion of types of pollutants, supra, Part I.A.

pp. v-4-2, v-7-4, v-7-24.) SCAQMD staff does not currently know of a way to accurately quantify ozone-related health impacts caused by NO_x or VOC emissions from relatively small projects.

On the other hand, this type of analysis may be feasible for projects on a regional scale with very high emissions of NO_x and VOCs, where impacts are regional. For example, in 2011 the SCAQMD performed a health impact analysis in its CEQA document for proposed Rule 1315, which authorized various newly-permitted sources to use offsets from the districts "internal bank" of emission reductions. This CEQA analysis accounted for essentially *all* the increases in emissions due to new or modified sources in the District between 2010 and 2030.[6] The SCAQMD was able to correlate this very large emissions increase (e.g., 6,620 pounds per day NO_x (1,208 tons per year), 89,180 pounds per day VOC (16,275 tons per year)) to expected health outcomes from ozone and particulate matter (e.g., 20 premature deaths per year and 89,947 school absences in the year 2030 due to ozone).[7] (SCAQMD Governing Board Agenda, February 4, 2011, Agenda Item 26, *Assessment for: Re-adoption of Proposed Rule 1315 – Federal New Source Review Tracking System* (see hyperlink in fn 6*)* at p. 4.1-35, Table 4.1-29.)

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[6] (SCAQMD Governing Board Agenda, February 4, 2011, Agenda Item 26, Attachment G, *Assessment for: Re-adoption of Proposed Rule 1315 – Federal New Source Review Tracking System, Vol. 1, p.4.0-6,* http://www.aqmd.gov/home/library/meeting-agendas-minutes/agenda?title=governing-board-meeting-agenda-february-4-2011; the follow "26. Adopt Proposed Rule 1315 – Federal New Source Review Tracking System" (last visited April 1, 2015).)

[7] The SCAQMD was able to establish the location of future NO_x and VOC emissions by assuming that new projects would be built in the same locations and proportions as existing stationary sources. This CEQA document was upheld by the Los Angeles County Superior Court in *Natural Res. Def. Council v SCAQMD*, Los Angeles Superior Court No. BS110792).

However, a project emitting only 10 tons per year of NO_x or VOC is small enough that its regional impact on ambient ozone levels may not be detected in the regional air quality models that are currently used to determine ozone levels. Thus, in this case it would not be feasible to directly correlate project emissions of VOC or NO_x with specific health impacts from ozone. This is in part because ozone formation is not linearly related to emissions. Ozone impacts vary depending on the location of the emissions, the location of other precursor emissions, meteorology and seasonal impacts, and because ozone is formed some time later and downwind from the actual emission. (EPA Guideline on Ozone Monitoring Site Selection (Aug. 1998) EPA-454/R-98-002, § 5.1.2; https://www.epa.gov/ttnamti1/archive/cpreldoc.html; then search "Guideline on Ozone Monitoring Site Selection" click on pdf) (last viewed Apr. 1, 2015).)

SCAQMD has set its CEQA "significance" threshold for NO_x and VOC at 10 tons per year (expressed as 55 lb/day). (SCAQMD, *Air Quality Analysis Handbook*, http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook; then follow "SCAQMD Air Quality Significance Thresholds" hyperlink (last visited Apr. 1, 2015).) This is because the federal Clean Air Act defines a "major" stationary source for "extreme" ozone nonattainment areas such as SCAQMD as one emitting 10 tons/year. (42 U.S.C. §§ 7511a(e), 7511a(f); CAA §§ 182(e), 182(f).) Under the Clean Air Act, such sources are subject to enhanced control requirements (42 U.S.C. §§ 7502(c)(5), 7503; CAA §§ 172(c)(5), 173), so SCAQMD decided this was an appropriate threshold for making a CEQA "significance" finding and requiring feasible mitigation. Essentially, SCAQMD takes the position that a source that emits 10 tons/year of NO_x or VOC would contribute cumulatively to ozone formation. Therefore, lead agencies that use SCAQMD's thresholds of significance may determine that many projects have "significant" air quality impacts and must apply all feasible mitigation measures, yet will not be able to precisely correlate the project to quantifiable health impacts, unless the emissions are sufficiently high to use a regional modeling program.

In the case of particulate matter ($PM_{2.5}$)[8], another "criteria" pollutant, SCAQMD staff is aware of two possible methods of analysis. SCAQMD used regional modeling to predict expected health impacts from its proposed Rule 1315, as mentioned above. Also, the California Air Resources Board (CARB) has developed a methodology that can predict expected mortality (premature deaths) from large amounts of $PM_{2.5.}$ (California Air Resources Board, *Health Impacts Analysis: PM Premature Death Relationship*, http://www.arb.ca.gov/research/health/pm-mort/pm-mort_arch.htm (last reviewed Jan. 19, 2012).) SCAQMD used the CARB methodology to predict impacts from three very large power plants (e.g., 731-1837 lbs/day). (Final Environmental Assessment for Rule 1315, *supra*, pp 4.0-12, 4.1-13, 4.1-37 (e.g., 125 premature deaths in the entire SCAQMD in 2030), 4.1-39 (0.05 to 1.77 annual premature deaths from power plants.) Again, this project involved large amounts of additional $PM_{2.5}$ in the District, up to 2.82 tons/day (5,650 lbs/day of $PM_{2.5}$, or, or 1029 tons/year. (*Id.* at table 4.1-4, p. 4.1-10.)

However, the primary author of the CARB methodology has reported that this $PM_{2.5}$ health impact methodology is not suited for small projects and may yield unreliable results due to various uncertainties. [9] (SCAQMD, *Final Subsequent Mitigated Negative Declaration for: Warren*

[8] SCAQMD has not attained the latest annual or 24-hour national ambient air quality standards for "$PM_{2.5}$" or particulate matter less than 2.5 microns in diameter.

[9] Among these uncertainties are the representativeness of the population used in the methodology, and the specific source of PM and the corresponding health impacts. (*Id.* at p. 2-24.)

E&P, Inc. WTU Central Facility, New Equipment Project (certified July 19, 2011), http://www.aqmd.gov/home/library/documents-support-material/lead-agency-permit-projects/permit-project-documents---year-2011; then follow "Final Subsequent Mitigated Negative Declaration for Warren E&P Inc. WTU Central Facility, New Equipment Project" hyperlink, pp. 2-22, 2-23 (last visited Apr. 1, 2015).) Therefore, when SCAQMD prepared a CEQA document for the expansion of an existing oil production facility, with very small $PM_{2.5}$ increases (3.8 lb/day) and a very small affected population, staff elected not to use the CARB methodology for using estimated $PM_{2.5}$ emissions to derive a projected premature mortality number and explained why it would be inappropriate to do so. (*Id.* at pp 2-22 to 2-24.) SCAQMD staff concluded that use of this methodology for such a small source could result in unreliable findings and would not provide meaningful information. (*Id.* at pp. 2-23, 2-25.) This CEQA document was not challenged in court.

In the above case, while it may have been technically possible to plug the data into the methodology, the results would not have been reliable or meaningful. SCAQMD believes that an agency should not be required to perform analyses that do not produce reliable or meaningful results. This Court has already held that an agency may decline to use even the "normal" "existing conditions" CEQA baseline where to do so would be misleading or without informational value. (*Neighbors for Smart Rail v. Exposition Metro Line* (2013) 57 Cal.4th 439, 448, 457.) The same should be true for a decision that a particular study or analysis would not provide reliable or meaningful results.[10]

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[10] Whether a particular study would result in "informational value" is a part of deciding whether it is "feasible." CEQA defines "feasible" as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and

Therefore, it is not possible to set a hard-and-fast rule on whether a correlation of air quality impacts with specific quantifiable health impacts is required in all cases. Instead, the result turns on whether such an analysis is reasonably feasible in the particular case.[11] Moreover, what is reasonably feasible may change over time as scientists and regulatory agencies continually seek to improve their ability to predict health impacts. For example, CARB staff has been directed by its Governing Board to reassess and improve the methodology for estimating premature deaths. (California Air Resources Board, *Health Impacts Analysis: PM Mortality Relationship*, http://www.arb.ca.gov/research/health/pm-mort/pm-mort.htm (last reviewed Dec. 29, 2010).) This factor also counsels against setting any hard-and-fast rule in this case.

III. THE QUESTION OF WHETHER AN EIR CONTAINS SUFFICIENT ANALYSIS TO MEET CEQA'S REQUIREMENTS IS A MIXED QUESTION OF FACT AND LAW GOVERNED BY TWO DIFFERENT STANDARDS OF REVIEW.

A. Standard of Review for Feasibility Determination and Sufficiency as an Informative Document

A second issue in this case is whether courts should review an EIR's informational sufficiency under the "substantial evidence" test as argued by Friant Ranch or the "independent judgment" test as argued by Sierra Club.

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technological factors." (Pub. Resources Code § 21061.1.) A study cannot be "accomplished in a *successful* manner" if it produces unreliable or misleading results.

[11] In this case, the lead agency did not have an opportunity to determine whether the requested analysis was feasible because the comment was non-specific. Therefore, SCAQMD suggests that this Court, after resolving the legal issues in the case, direct the Court of Appeal to remand the case to the lead agency for a determination of whether the requested analysis is feasible. Because Fresno County, the lead agency, did not seek review in this Court, it seems likely that the County has concluded that at least some level of correlation of air pollution with health impacts is feasible.

As this Court has explained, "a reviewing court must adjust its scrutiny to the nature of the alleged defect, depending on whether the claim is predominantly one of improper procedure or a dispute over the facts." (*Vineyard Area Citizens v. City of Rancho Cordova, supra,* 40 Cal.4th at 435.) For questions regarding compliance with proper procedure or other legal questions, courts review an agency's action de novo under the "independent judgment" test. (*Id.*) On the other hand, courts review factual disputes only for substantial evidence, thereby "accord[ing] greater deference to the agency's substantive factual conclusions." (*Id.*)

Here, Friant Ranch and Sierra Club agree that the case involves the question of whether an EIR includes sufficient information regarding a project's impacts. However, they disagree on the proper standard of review for answering this question: Sierra Club contends that courts use the independent judgment standard to determine whether an EIR's analysis is sufficient to meet CEQA's informational purposes,[12] while Friant Ranch contends that the substantial evidence standard applies to this question.

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[12] Sierra Club acknowledges that courts use the substantial evidence standard when reviewing predicate factual issues, but argues that courts ultimately decide as a matter of law what CEQA requires. (Answering Brief, pp. 14, 23.)

SCAQMD submits that the issue is more nuanced than either party contends. We submit that, whether a CEQA document includes sufficient analysis to satisfy CEQA's informational mandates is a mixed question of fact and law,[13] containing two levels of inquiry that should be judged by different standards.[14]

The state CEQA Guidelines set forth standards for the adequacy of environmental analysis. Guidelines Section 15151 states:

> An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection, but for adequacy, completeness, and a good-faith effort at full disclosure.

In this case, the basic question is whether the underlying analysis of air quality impacts made the EIR "sufficient" as an informative document. However, whether the EIR's analysis was sufficient is judged in light of what was reasonably feasible. This represents a mixed question of fact and law that is governed by two different standards of review.

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[13] Friant Ranch actually states that the claim that an EIR lacks sufficient relevant information is, "most properly thought of as raising mixed questions of fact and law." (Opening Brief, p. 27.) However, the remainder of its argument claims that the court should apply the substantial evidence standard of review to all aspects of the issue.

[14] Mixed questions of fact and law issues may implicate predominantly factual subordinate questions that are reviewed under the substantial evidence test even though the ultimate question may be reviewed by the independent judgment test. *Crocker National Bank v. City and County of San Francisco* (1989) 49 Cal.3d 881, 888-889.

SCAQMD submits that an EIR's sufficiency as an informational document is ultimately a legal question that courts should determine using their independent judgment. This Court's language in *Laurel Heights I* supports this position. As this Court explained: "The court does not pass upon the correctness of the EIR's environmental conclusions, but only upon its *sufficiency as an informative document*." (*Laurel Heights I, supra*, 47 Cal.3d at 392-393) (emphasis added.) As described above, the Court in *Vineyard Area Citizens v. City of Rancho Cordova, supra,* 40 Cal.4th at 431, also used its independent judgment to determine what level of analysis CEQA requires for water supply impacts. The Court did not defer to the lead agency's opinion regarding the law's requirements; rather, it determined for itself what level of analysis was necessary to meet "[t]he law's informational demands." (*Id.* at p. 432.) Further, existing case law also holds that where an agency fails to comply with CEQA's information disclosure requirements, the agency has "failed to proceed in the manner required by law." (*Save Our Peninsula Comm. v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 118.)

However, whether an EIR satisfies CEQA's requirements depends in part on whether it was reasonably feasible for an agency to conduct additional or more thorough analysis. EIRs must contain "a detailed statement" of a project's impacts (Pub. Res. Code § 21061), and an agency must "use its best efforts to find out and disclose all that it reasonably can." (CEQA Guidelines § 15144.) Nevertheless, "the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible." (CEQA Guidelines § 15151.)

SCAQMD submits that the question of whether additional analysis or a particular study suggested by a commenter is "feasible" is generally a question of fact. Courts have already held that whether a particular alternative is "feasible" is reviewed by the substantial evidence test.

(*Uphold Our Heritage v. Town of Woodside* (2007) 147 Cal.App.4th 587, 598-99; *Center for Biological Diversity v. County of San Bernardino* (2010) 185 Cal.App.4th 866, 883.) Thus, if a lead agency determines that a particular study or analysis is infeasible, that decision should generally be judged by the substantial evidence standard. However, SCAQMD urges this Court to hold that lead agencies must explain the basis of any determination that a particular analysis is infeasible in the EIR itself. An EIR must discuss information, including issues related to the feasibility of particular analyses "in sufficient detail to enable meaningful participation and criticism by the public. '[W]hatever is required to be considered in an EIR must be in that formal report; what any official might have known from other writings or oral presentations cannot supply what is lacking in the report.'" (*Laurel Heights I*, *supra*, 47 Cal.3d at p. 405 (quoting *Santiago County Water District v. County of Orange* (1981) 118 Cal.App.3d 818, 831) (discussing analysis of alternatives).) The evidence on which the determination is based should also be summarized in the EIR itself, with appropriate citations to reference materials if necessary. Otherwise commenting agencies such as SCAQMD would be forced to guess where the lead agency's evidence might be located, thus thwarting effective public participation.

Moreover, if a lead agency determines that a particular study or analysis would not result in reliable or useful information and for that reason is not feasible, that determination should be judged by the substantial evidence test. (See *Neighbors for Smart Rail v. Exposition Metro Line Construction Authority*, *supra*, 57 Cal.4th 439, 448, 457:

whether "existing conditions" baseline would be misleading or uninformative judged by substantial evidence standard.[15])

If the lead agency's determination that a particular analysis or study is not feasible is supported by substantial evidence, then the agency has not violated CEQA's information disclosure provisions, since it would be infeasible to provide additional information. This Court's decisions provide precedent for such a result. For example, this Court determined that the issue of whether the EIR should have included a more detailed discussion of future herbicide use was resolved because substantial evidence supported the agency's finding that "the precise parameters of future herbicide use could not be predicted." *Ebbetts Pass Forest Watch v. California Dept. of Forestry & Fire Protection* (2008) 43 Cal.4th 936, 955.

Of course, SCAQMD expects that courts will continue to hold lead agencies to their obligations to consult with, and not to ignore or misrepresent, the views of sister agencies having special expertise in the area of air quality. (*Berkeley Keep Jets Over the Bay v. Board of Port Commissioners* (2007) 91 Cal.App.4th 1344, 1364 n.11.) In some cases, information provided by such expert agencies may establish that the purported evidence relied on by the lead agency is not in fact "substantial". (*Id.* at pp. 1369-1371.)

In sum, courts retain ultimate responsibility to determine what CEQA requires. However, the law does not require exhaustive analysis, but only what is reasonably feasible. Agencies deserve deference for their factual determinations regarding what type of analysis is reasonably feasible. On the other hand, if a commenter requests more information, and the lead agency declines to provide it but does *not* determine that the

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[15] The substantial evidence standard recognizes that the courts "have neither the resources nor the scientific expertise" to weigh conflicting evidence on technical issues. (*Laurel Heights I, supra,* 47 Cal.3d 376, 393.)

requested study or analysis would be infeasible, misleading or uninformative, the question becomes whether the omission of that analysis renders the EIR inadequate to satisfy CEQA's informational purposes. (*Id.* at pp. 1370-71.) Again, this is predominantly a question of law and should be judged by the de novo or independent judgment standard of review. Of course, this Court has recognized that a "project opponent or reviewing court can always imagine some additional study or analysis that might provide helpful information. It is not for them to design the EIR. That further study...might be helpful does not make it necessary." (*Laurel Heights I, supra,* 47 Cal.3d 376, 415 – see also CEQA Guidelines § 15204(a) [CEQA "does not require a lead agency to conduct every test. . . recommended or demanded by commenters."].) Courts, then, must adjudicate whether an omission of particular information renders an EIR inadequate to serve CEQA's informational purposes.[16]

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[16] We recognize that there is case law stating that the substantial evidence standard applies to "challenges to the scope of an EIR's analysis of a topic" as well as the methodology used and the accuracy of the data relied on in the document "because these types of challenges involve factual questions." (*Bakersfield Citizens for Local Control v. City of Bakersfield, supra,* 124 Cal.App.4th 1184, 1198, and cases relied on therein.) However, we interpret this language to refer to situations where the question of the scope of the analysis really is factual—that is, where it involves whether further analysis is feasible, as discussed above. This interpretation is supported by the fact that the *Bakersfield* court expressly rejected an argument that a claimed "omission of information from the EIR should be treated as inquiries whether there is substantial evidence supporting the decision approving the project. " *Bakersfield, supra,* 124 Cal.App.4th at p. 1208. And the *Bakersfield* court ultimately decided that the lead agency must analyze the connection between the identified air pollution impacts and resulting health impacts, even though the EIR already included some discussion of air-pollution-related respiratory illnesses. *Bakersfield, supra,* 124 Cal.App.4th at p. 1220. Therefore, the court must not have interpreted this question as one of the "scope of the analysis" to be judged by the substantial evidence standard.

B. Friant Ranch's Rationale for Rejecting the Independent Judgment Standard of Review is Unsupported by Case Law.

In its brief, Friant Ranch makes a distinction between cases where a required CEQA topic is not discussed at all (to be reviewed by independent judgment as a failure to proceed in the manner required by law) and cases where a topic is discussed, but the commenter claims the information provided is insufficient (to be judged by the substantial evidence test). (Opening Brief, pp. 13-17.) The Court of Appeal recognized these two types of cases, but concluded that both raised questions of law. (*Sierra Club v. County of Fresno* (2014) 226 Cal.App.4th 704 (superseded by grant of review) 172 Cal.Rptr.3d 271, 290.) We believe the distinction drawn by Friant Ranch is unduly narrow, and inconsistent with cases which have concluded that CEQA documents are insufficient. In many instances, CEQA's requirements are stated broadly, and the courts must interpret the law to determine what level of analysis satisfies CEQA's mandate for providing meaningful information, even though the EIR discusses the issue to some extent.

For example, the CEQA Guidelines require discussion of the existing environmental baseline. In *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal.App.4th 931, 954-955, the lead agency had discussed the environmental baseline by describing historic month-end water levels in the affected lakes. However, the court held that this was not an adequate baseline discussion because it failed to discuss the timing and amounts of past actual water releases, to allow comparison with the proposed project. The court evidently applied the independent judgment test to its decision, even though the agency discussed the issue to some extent.

Likewise, in *Vineyard Area Citizens* (2007) 40 Cal.4th 412, this Court addressed the question of whether an EIR's analysis of water supply impacts complied with CEQA. The parties agreed that the EIR was required to analyze the effects of providing water to the development project, "and that in order to do so the EIR had, in some manner, to identify the planned sources of that water." (*Vineyard Area Citizens, supra,* at p. 428.) However, the parties disagreed as to the level of detail required for this analysis and "what level of uncertainty regarding the availability of water supplies can be tolerated in an EIR . . . ." (*Id.*) In other words, the EIR had analyzed water supply impacts for the project, but the petitioner claimed that the analysis was insufficient.

This Court noted that neither CEQA's statutory language or the CEQA Guidelines specifically addressed the question of how precisely an EIR must discuss water supply impacts. (*Id.*) However, it explained that CEQA "states that '[w]hile foreseeing the unforeseeable is not possible, an agency must use its best efforts to find out and disclose all that it reasonably can.'" (*Id.*, [Guidelines § 15144].) The Court used this general principle, along with prior precedent, to elucidate four "principles for analytical adequacy" that are necessary in order to satisfy "CEQA's informational purposes." (*Vineyard Area Citizens, supra,* at p. 430.) The Court did not defer to the agency's determination that the EIR's analysis of water supply impacts was sufficient. Rather, this Court used its independent judgment to determine for itself the level of analysis required to satisfy CEQA's fundamental purposes. (*Vineyard Area Citizens, supra*, at p. 441: an EIR does not serve its purposes where it neglects to explain likely sources of water and "... leaves long term water supply considerations to later stages of the project.")

Similarly, the CEQA Guidelines require an analysis of noise impacts of the project. (Appendix G, "Environmental Checklist Form."[17]) In *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099, 1123, the court held that the lead agency's noise impact analysis was inadequate even though it had addressed the issue and concluded that the increase would not be noticeable. If the court had been using the substantial evidence standard, it likely would have upheld this discussion.

Therefore, we do not agree that the issue can be resolved on the basis suggested by Friant Ranch, which would apply the substantial evidence standard to *every* challenge to an analysis that addresses a required CEQA topic. This interpretation would subvert the courts' proper role in interpreting CEQA and determining what the law requires.

Nor do we agree that the Court of Appeal in this case violated CEQA's prohibition on courts interpreting its provisions "in a manner which imposes procedural or substantive requirements beyond those explicitly stated in this division or in the state guidelines." (Pub. Resources Code § 21083.1.) CEQA requires an EIR to describe *all* significant impacts of the project on the environment. (Pub. Resources Code § 21100(b)(2); *Vineyard Area Citizens, supra,* at p. 428.) Human beings are part of the environment, so CEQA requires EIRs to discuss a project's significant impacts on human health. However, except in certain particular circumstances,[18] neither the CEQA statute nor Guidelines specify the precise level of analysis that agencies must undertake to satisfy the law's requirements. (see, e.g., CEQA Guidelines § 15126.2(a) [EIRs must describe "health and safety problems caused by {a project's} physical changes"].) Accordingly, courts must interpret CEQA as a whole to

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[17] Association of Environmental Professionals, 2015 CEQA Statute and Guidelines (2015) p.287.
[18] E.g., Pub. Resources Code § 21151.8(C)(3)(B)(iii) (requiring specific type of health risk analysis for siting schools).

determine whether a particular EIR is sufficient as an informational document. A court determining whether an EIR's discussion of human health impacts is legally sufficient does not constitute imposing a new substantive requirement.[19] Under Friant Ranch's theory, the above-referenced cases holding a CEQA analysis inadequate would have violated the law. This is not a reasonable interpretation.

IV. COURTS MUST SCRUPULOUSLY ENFORCE THE REQUIREMENTS THAT LEAD AGENCIES CONSULT WITH AND OBTAIN COMMENTS FROM AIR DISTRICTS

Courts must "scrupulously enforce" CEQA's legislatively mandated requirements. (*Vineyard Area Citizens, supra*, 40 Cal.4th 412, 435.) Case law has firmly established that lead agencies must consult with the relevant air pollution control district before conducting an initial study, and must provide the districts with notice of the intention to adopt a negative declaration (or EIR). (*Schenck v. County of Sonoma* (2011) 198 Cal.App.4th 949, 958.) As *Schenck* held, neither publishing the notice nor providing it to the State Clearinghouse was a sufficient substitute for sending notice directly to the air district. (*Id.*) Rather, courts "must be satisfied that [administrative] agencies have fully complied with the procedural requirements of CEQA, since only in this way can the important public purposes of CEQA be protected from subversion." *Schenck,* 198 Cal.App.4th at p. 959 (citations omitted).[20]

[19] We submit that Public Resources Code Section 21083.1 was intended to prevent courts from, for example, holding that an agency must analyze economic impacts of a project where there are no resulting environmental impacts (see CEQA Guidelines § 15131) , or imposing new procedural requirements, such as imposing additional public notice requirements not set forth in CEQA or the Guidelines.

[20] Lead agencies must consult air districts, as public agencies with jurisdiction by law over resources affected by the project, *before* releasing an EIR. (Pub. Resources Code §§ 21104(a); 21153.) Moreover, air

Lead agencies should be aware, therefore, that failure to properly seek and consider input from the relevant air district constitutes legal error which may jeopardize their project approvals. For example, the court in *Fall River Wild Trout Foundation v. County of Shasta,* (1999) 70 Cal.App.4th 482, 492 held that the failure to give notice to a trustee agency (Department of Fish and Game) was prejudicial error requiring reversal. The court explained that the lack of notice prevented the Department from providing any response to the CEQA document. (*Id.* at p. 492.) It therefore prevented relevant information from being presented to the lead agency, which was prejudicial error because it precluded informed decision-making. (*Id.*)[21]

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districts should be considered "state agencies" for purposes of the requirement to consult with "trustee agencies" as set forth in Public Resources Code § 20180.3(a). This Court has long ago held that the districts are not mere "local agencies" whose regulations are superseded by those of a state agency regarding matters of statewide concern, but rather have concurrent jurisdiction over such issues. (*Orange County Air Pollution Control District v. Public Util. Com.* (1971) 4 Cal.3d 945, 951, 954.) Since air pollution is a matter of statewide concern, *Id* at 952, air districts should be entitled to trustee agency status in order to ensure that this vital concern is adequately protected during the CEQA process.

[21] In *Schenck,* the court concluded that failure to give notice to the air district was not prejudicial, but this was partly because the trial court had already corrected the error before the case arrived at the Court of Appeal. The trial court issued a writ of mandate requiring the lead agency to give notice to the air district. The air district responded by concurring with the lead agency that air impacts were not significant. (*Schenck,* 198 Cal.App.4th 949, 960.) We disagree with the *Schenck* court that the failure to give notice to the air district would not have been prejudicial (even in the absence of the trial court writ) merely because the lead agency purported to follow the air district's published CEQA guidelines for significance. (*Id.*, 198 Cal.App.4th at p. 960.) In the first place, absent notice to the air district, it is uncertain whether the lead agency properly followed those guidelines. Moreover, it is not realistic to expect that an air district's published guidelines would necessarily fully address all possible air-quality related issues that can arise with a CEQA project, or that those

Similarly, lead agencies must obtain additional information requested by expert agencies, including those with jurisdiction by law, if that information is necessary to determine a project's impacts. (*Sierra Club v. State Bd. Of Forestry* (1994) 7 Cal.4th 1215, 1236-37.) Approving a project without obtaining that information constitutes a failure to proceed in the manner prescribed by CEQA. (*Id.* at p. 1236.)

Moreover, a lead agency can save significant time and money by consulting with the air district early in the process. For example, the lead agency can learn what the air district recommends as an appropriate analysis on the facts of its case, including what kinds of health impacts analysis may be available, and what models are appropriate for use. This saves the lead agency from the need to do its analysis all over again and possibly needing to recirculate the document after errors are corrected, if new significant impacts are identified. (CEQA Guidelines § 15088.5(a).) At the same time, the air district's expert input can help the lead agency properly determine whether another commenter's request for additional analysis or studies is reasonable or feasible. Finally, the air district can provide input on what mitigation measures would be feasible and effective.

Therefore, we suggest that this Court provide guidance to lead agencies reminding them of the importance of consulting with the relevant air districts regarding these issues. Otherwise, their feasibility decisions may be vulnerable to air district evidence that establishes that there is no substantial evidence to support the lead agency decision not to provide specific analysis. (*See Berkeley Keep Jets Over the Bay*, *supra*, 91 Cal.App.4th 1344, 1369-1371.)

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guidelines would necessarily be continually modified to reflect new developments. Therefore we believe that, had the trial court not already ordered the lead agency to obtain the air district's views, the failure to give notice would have been prejudicial, as in *Fall River, supra,* 70 Cal.App.4th 482, 492.

CONCLUSION

The SCAQMD respectfully requests this Court *not* to establish a hard-and-fast rule concerning whether CEQA requires a lead agency to correlate identified air quality impacts of a project with resulting health outcomes. Moreover, the question of whether an EIR is "sufficient as an informational document" is a mixed question of fact and law containing two levels of inquiry. Whether a particular proposed analysis is feasible is predominantly a question of fact to be judged by the substantial evidence standard of review. Where the requested analysis is feasible, but the lead agency relies on legal or policy reasons not to provide it, the question of whether the EIR is nevertheless sufficient as an informational document is predominantly a question of law to be judged by the independent judgment standard of review.

Respectfully submitted,

DATED: April 3, 2015

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
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CERTIFICATE OF WORD COUNT

Pursuant to Rule 8.520(c)(1) of the California Rules of Court, I hereby certify that this brief contains 8,476 words, including footnotes, but excluding the Application, Table of Contents, Table of Authorities, Certificate of Service, this Certificate of Word Count, and signature blocks. I have relied on the word count of the Microsoft Word Vista program used to prepare this Certificate.

DATED: April 3, 2015 Respectfully submitted,

Barbara Baird

Barbara Baird

PROOF OF SERVICE

I am employed in the County of Los Angeles, California. I am over the age of 18 years and not a party to the within action. My business address is 21865 Copley Drive, Diamond Bar, California 91765.

On April 3, 2015 I served true copies of the following document(s) described as **APPLICATION OF THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT FOR LEAVE TO FILE BRIEF OF *AMICUS CURIAE* IN SUPPORT OF NEITHER PARTY AND *[PROPOSED]* BRIEF OF *AMICUS CURIAE*** by placing a true copy of the foregoing document(s) in a sealed envelope addressed as set forth on the attached service list as follows:

BY MAIL: I enclosed the document(s) in a sealed envelope or package addressed to the persons at the addresses listed in the Service List and placed the envelope for collection and mailing following our ordinary business practices. I am readily familiar with this District's practice for collection and processing of correspondence for mailing. Under that practice, the correspondence would be deposited with the United States Postal Service, with postage thereon fully prepaid at Diamond Bar, California, in the ordinary course of business. I am aware that on motion of the party served, service is presumed invalid if postal cancellation date or postage meter date is more than one day after date of deposit for mailing in affidavit.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed on April 3, 2015 at Diamond Bar, California.

Patricia Anderson

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CASE NO. S219783

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Plaintiffs and Appellants

v.

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Defendant and Respondent

FRIANT RANCH, L.P.,
Real Party in Interest and Respondent

After a Decision by the Court of Appeal, filed May 27, 2014
Fifth Appellate District Case No. F066798

Appeal from the Superior Court of California, County of Fresno
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APPLICATION

Pursuant to California Rules of Court 8.520(f)(1), proposed Amicus Curiae San Joaquin Valley Unified Air Pollution Control District hereby requests permission from the Chief Justice to file an amicus brief in support of Defendant and Respondent, County of Fresno, and Defendant and Real Parties in Interest Friant Ranch, L.P. Pursuant to Rule 8.520(f)(5) of the California Rules of Court, the proposed amicus curiae brief is combined with this Application. The brief addresses the following issue certified by this Court for review:

> Is an EIR adequate when it identifies the health impacts of air pollution and quantifies a project's expected emissions, or does CEQA further require the EIR to *correlate* a project's air quality emissions to specific health impacts?

As of the date of this filing, the deadline for the final reply brief on the merits was March 5, 2015. Accordingly, under Rule 8.520(f)(2), this application and brief are timely.

1. Background and Interest of San Joaquin Valley Unified Air Pollution Control District

The San Joaquin Valley Unified Air Pollution Control District ("Air District") regulates air quality in the eight counties comprising the San Joaquin Valley ("Central Valley"): Kern, Tulare, Madera, Fresno, Merced, San Joaquin, Stanislaus, and Kings, and is primarily responsible for attaining air quality standards within its jurisdiction. After billions of dollars of investment by Central Valley businesses, pioneering air quality regulations, and consistent efforts by residents, the Central Valley air basin has made historic improvements in air quality.

The Central Valley's geographical, topographical and meteorological features create exceptionally challenging air quality conditions. For example, it receives air pollution transported from the San Francisco Bay Area and northern Central Valley communities, and the southern portion of the Central Valley includes three mountain ranges (Sierra, Tehachapi, and Coastal) that, under some meteorological conditions, effectively trap air pollution. Central Valley air pollution is only a fraction of what the Bay Area and Los Angeles produce, but these natural conditions result in air quality conditions that are only marginally better than Los Angeles, even though about ten times more pollution is emitted in the Los Angeles region. Bay Area air quality is much better than the Central Valley's, even though the Bay Area produces about six times more pollution. The Central Valley also receives air pollution transported from the Bay Area and northern counties in the Central Valley, including Sacramento, and transboundary anthropogenic ozone from as far away as China.

Notwithstanding these challenges, the Central Valley has reduced emissions at the same or better rate than other areas in California and has achieved unparalleled milestones in protecting public health and the environment:

- In the last decade, the Central Valley became the first air basin classified by the federal government under the Clean Air Act as a "serious nonattainment" area to come into attainment of health-based National Ambient Air Quality Standard ("NAAQS") for coarse particulate matter (PM10), an achievement made even more notable given the Valley's extensive agricultural sector. Unhealthy levels of particulate matter can cause and exacerbate a range of chronic and acute illnesses.
- In 2013, the Central Valley became the first air basin in the country to improve from a federal designation of "extreme" nonattainment to

actually attain (and quality for an attainment designation) of the 1-hour ozone NAAQS; ozone creates "smog" and, like PM10, causes adverse health impacts.

- The Central Valley also is in full attainment of federal standards for lead, nitrogen dioxide, sulfur dioxide, and carbon monoxide.
- The Central Valley continues to make progress toward compliance with its last two attainment standards, with the number of exceedences for the 8-hour ozone NAAQS reduced by 74% (for the 1997 standard) and 38% (for the 2008 standard) since 1991, and for the small particulate matter (PM2.5) NAAQS reduced by 85% (for the 1997 standard) and 61% (for the 2006 standard).

Sustained improvement in Central Valley air quality requires a rigorous and comprehensive regulatory framework that includes prohibitions (e.g., on wood-burning fireplaces in new residences), mandates (e.g., requiring the installation of best available pollution reduction technologies on new and modified equipment and industrial operations), innovations (e.g., fees assessed against residential development to fund pollution reduction actions to "offset" vehicular emissions associated with new residences), incentive programs (e.g., funding replacements of older, more polluting heavy duty trucks and school buses)[1], ongoing planning for continued air quality improvements, and enforcement of Air District permits and regulations.

The Air District is also an expert air quality agency for the eight counties and cities in the San Joaquin Valley. In that capacity, the Air District has developed air quality emission guidelines for use by the Central

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1 San Joaquin's incentive program has been so successful that through 2012, it has awarded over $ 432 million in incentive funds and has achieved 93,349 tons of lifetime emissions reductions. *See* SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 2012 PM2.5 PLAN, 6-6 (2012) *available at* http://www.valleyair.org/Workshops/postings/2012/12-20-12PM25/FinalVersion/06%20Chapter%206%20Incentives.pdf.

Valley counties and cities that implement the California Environment Quality Act (CEQA).[2] In its guidance, the Air District has distinguished between toxic air contaminants and criteria air pollutants.[3] Recognizing this distinction, the Air District's CEQA Guidance has adopted distinct thresholds of significance for *criteria* pollutants (i.e., ozone, PM2.5 and their respective precursor pollutants) based upon scientific and factual data which demonstrates the level that can be accommodated on a cumulative basis in the San Joaquin Valley without affecting the attainment of the applicable NAAQS.[4] For *toxic air* pollutants, the District has adopted different thresholds of significance which scientific and factual data demonstrates has the potential to expose sensitive receptors (i.e., children, the elderly) to levels which may result in localized health impacts.[5]

The Air District's CEQA Guidance was followed by the County of Fresno in its environment review of the Friant Ranch project, for which the Air District also served as a commenting agency. The Court of Appeal's holding, however, requiring correlation between the project's criteria

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2 *See, e.g.*, SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, PLANNING DIVISION, GUIDE FOR ASSESSING AND MITIGATING AIR QUALITY IMPACTS (2015), *available at* http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf ("CEQA Guidance").

3 Toxic air contaminants, also known as hazardous air pollutants, are those pollutants that are known or suspected to cause cancer or other serious health effects, such as birth defects. There are currently 189 toxic air contaminants regulated by the United States Environmental Protection Agency ("EPA") and the states pursuant to the Clean Air Act. 42 U.S.C. § 7412. Common TACs include benzene, perchloroethylene and asbestos. *Id.* at 7412(b).

In contrast, there are only six (6) criteria air pollutants: ozone, particulate matter, carbon monoxide, nitrogen oxides, sulfur dioxide and lead. Although criteria air pollutants can also be harmful to human health, they are distinguishable from toxic air contaminants and are regulated separately. For instance, while criteria pollutants are regulated by numerous sections throughout Title I of the Clean Air Act, the regulation of toxic air contaminants occurs solely under section 112 of the Act. Compare 42 U.S.C. §§ 7407 – 7411 & 7501 – 7515 with 42 U.S.C. § 7411.

4 See, e.g., CEQA Guidance at http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf, pp. 64-66, 80.

5 See, e.g., CEQA Guidance at http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf, pp. 66, 99-101.

pollutants and local health impacts, departs from the Air District's Guidance and approved methodology for assessing criteria pollutants. A close reading of the administrative record that gave rise to this issue demonstrates that the Court's holding is based on a misunderstanding of the distinction between toxic air contaminants (for which a local health risk assessment is feasible and routinely performed) and criteria air pollutants (for which a local health risk assessment is not feasible and would result in speculative results).[6] The Air District has a direct interest in ensuring the lawfulness and consistent application of its CEQA Guidance, and will explain how the Court of Appeal departed from the Air District's long-standing CEQA Guidance in addressing criteria pollutants and toxic air contaminants in this amicus brief.

2. How the Proposed Amicus Curiae Brief Will Assist the Court

As counsel for the proposed amicus curiae, we have reviewed the briefs filed in this action. In addition to serving as a "commentary agency" for CEQA purposes over the Friant Ranch project, the Air District has a strong interest in assuring that CEQA is used for its intended purpose, and believes that this Court would benefit from additional briefing explaining the distinction between criteria pollutants and toxic air contaminants and the different methodologies employed by local air pollution control agencies such as the Air District to analyze these two categories of air pollutants under CEQA. The Air District will also explain how the Court of Appeal's opinion is based upon a fundamental misunderstanding of these two different approaches by requiring the County of Fresno to correlate the project's *criteria* pollution emissions with *local* health impacts. In doing

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[6] CEQA does not require speculation. *See, e.g., Laurel Heights Improvement Ass'n v. Regents of Univ. of Cal.*, 6 Cal. 4th 1112, 1137 (1993) (upholding EIR that failed to evaluate cumulative toxic air emission increases given absence of any acceptable means for doing so).

so, the Air District will provide helpful analysis to support its position that at least insofar as criteria pollutants are concerned, CEQA does not require an EIR to correlate a project's air quality emissions to specific health impacts, because such an analysis is not reasonably feasible.

Rule 8.520 Disclosure

Pursuant to Cal. R. 8.520(f)(4), neither the Plaintiffs nor the Defendant or Real Party In Interest or their respective counsel authored this brief in whole or in part. Neither the Plaintiffs nor the Defendant or Real Party in Interest or their respective counsel made any monetary contribution towards or in support of the preparation of this brief.

CONCLUSION

On behalf of the San Joaquin Valley Unified Air Pollution Control District, we respectfully request that this Court accept the filing of the attached brief.

Dated: April 2, 2015

Annette A. Ballatore-Williamson
District Counsel
Attorney for Proposed Amicus Curiae

SAN JOAQUIN VALLEY UNIFIED
AIR POLLUTION CONTROL
DISTRICT

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I. INTRODUCTION.

The San Joaquin Valley Unified Air Pollution Control District ("Air District") respectfully submits that the Court of Appeal erred when it held that the air quality analysis contained in the Environmental Impact Report ("EIR") for the Friant Ranch development project was inadequate under the California Environmental Quality Act ("CEQA") because it did not include an analysis of the correlation between the project's criteria air pollutants and the potential adverse human health impacts. A close reading of the portion of the administrative record that gave rise to this issue demonstrates that the Court's holding is based on a misunderstanding of the distinction between toxic air contaminants and criteria air pollutants.

Toxic air contaminants, also known as hazardous air pollutants, are those pollutants that are known or suspected to cause cancer or other serious health effects, such as birth defects. There are currently 189 toxic air contaminants (hereinafter referred to as "TACs") regulated by the United States Environmental Protection Agency ("EPA") and the states pursuant to the Clean Air Act. 42 U.S.C. § 7412. Common TACs include benzene, perchloroethylene and asbestos. *Id.* at 7412(b).

In contrast, there are only six (6) criteria air pollutants: ozone, particulate matter, carbon monoxide, nitrogen oxides, sulfur dioxide and lead. Although criteria air pollutants can also be harmful to human health, they are distinguishable from TACs and are regulated separately. For instance, while criteria pollutants are regulated by numerous sections throughout Title I of the Clean Air Act, the regulation of TACs occurs solely under section 112 of the Act. *Compare* 42 U.S.C. §§ 7407 – 7411 & 7501 – 7515 *with* 42 U.S.C. § 7411.

The most relevant difference between criteria pollutants and TACs for purposes of this case is the manner in which human health impacts are accounted for. While it is common practice to analyze the correlation between an individual facility's TAC emissions and the expected localized human health impacts, such is not the case for criteria pollutants. Instead, the human health impacts associated with criteria air pollutants are analyzed and taken into consideration when EPA sets the national ambient air quality standard ("NAAQS") for each criteria pollutant. 42 U.S.C. § 7409(b)(1). The health impact of a particular criteria pollutant is analyzed on a regional and not a facility level based on how close the area is to complying with (attaining) the NAAQS. Accordingly, while the type of individual facility / health impact analysis that the Court of Appeal has required is a customary practice for TACs, it is not feasible to conduct a similar analysis for criteria air pollutants because currently available computer modeling tools are not equipped for this task.

It is clear from a reading of both the administrative record and the Court of Appeal's decision that the Court did not have the expertise to fully appreciate the difference between TACs and criteria air pollutants. As a result, the Court has ordered the County of Fresno to conduct an analysis that is not practicable and not likely yield valid information. The Air District respectfully requests that this portion of the Court of Appeal's decision be reversed.

II. THE COURT OF APPEAL ERRED IN FINDING THE FRIANT RANCH EIR INADEQUATE FOR FAILING TO ANALYZE THE SPECIFIC HUMAN HEALTH IMPACTS ASSOCIATED CRITERIA AIR POLLUTANTS.

Although the Air District does not take lightly the amount of air emissions at issue in this case, it submits that the Court of Appeal got it wrong when it required Fresno County to revise the Friant Ranch EIR to include an analysis correlating the criteria air pollutant emissions associated with the project with specific, localized health-impacts. The type of analysis the Court of Appeal has required will not yield reliable information because currently available modeling tools are not well suited for this task. Further, in reviewing this issue de novo, the Court of Appeal failed to appreciate that it lacked the scientific expertise to appreciate the significant differences between a health risk assessment commonly performed for toxic air contaminants and a similar type of analysis it felt should have been conducted for criteria air pollutants.

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A. Currently Available Modeling Tools are not Equipped to Provide a Meaningful Analysis of the Correlation between an Individual Development Project's Air Emissions and Specific Human Health Impacts.

In order to appreciate the problematic nature of the Court of Appeals' decision requiring a health risk type analysis for criteria air pollutants, it is important to understand how the relevant criteria pollutants (ozone and particulate matter) are formed, dispersed and regulated.

Ground level ozone (smog) is not directly emitted into the air, but is formed when precursor pollutants such as oxides of nitrogen (NOx) and volatile organic compounds (VOCs) are emitted into the atmosphere and undergo complex chemical reactions in the process of sunlight.[1] Once formed, ozone can be transported long distances by wind.[2] Because of the complexity of ozone formation, a specific tonnage amount of NOx or VOCs emitted in a particular area does not equate to a particular concentration of ozone in that area. In fact, even rural areas that have relatively low tonnages of emissions of NOx or VOCs can have high levels of ozone concentration simply due to wind transport.[3] Conversely, the San Francisco Bay Area has six times more NOx and VOC emissions per square mile than the San Joaquin Valley, but experiences lower

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[1] *See* United States Environmental Protection Agency, *Ground-level Ozone: Basic Information*, available at: http://www.epa.gov/airquality/ozonepollution/basic.html (visited March 10, 2015).
[2] *Id.*
[3] *Id.*

concentrations of ozone (and better air quality) simply because sea breezes disperse the emissions.[4]

Particulate matter ("PM") can be divided into two categories: directly emitted PM and secondary PM.[5] While directly emitted PM can have a localized impact, the tonnage emitted does not always equate to the local PM concentration because it can be transported long distances by wind.[6] Secondary PM, like ozone, is formed via complex chemical reactions in the atmosphere between precursor chemicals such as sulfur dioxides (SOx) and NOx.[7] Because of the complexity of secondary PM formation, the tonnage of PM-forming precursor emissions in an area does not necessarily result in an equivalent concentration of secondary PM in that area.

The disconnect between the *tonnage* of precursor pollutants (NOx, SOx and VOCs) and the *concentration* of ozone or PM formed is important because it is not necessarily the tonnage of precursor pollutants that causes human health effects, but the concentration of resulting ozone or PM. Indeed, the national ambient air quality standards ("NAAQS"), which are statutorily required to be set by the United States Environmental Protection

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[4] *San Joaquin Valley Air Pollution Control District 2007 Ozone Plan*, Executive Summary p. ES-6, available at: http://www.valleyair.org/Air_Quality_Plans/docs/AQ_Ozone_2007_Adopted/03%20Executive%20Summary.pdf (visited March 10, 2015).
[5] United States Environmental Protection Agency, *Particulate Matter: Basic Information*, available at: http://www.epa.gov/airquality/particlepollution/basic.html (visited March 10, 2015).
[6] *Id.*
[7] *Id.*

Agency ("EPA") at levels that are "requisite to protect the public health," 42 U.S.C. § 7409(b)(1), are established as concentrations of ozone or particulate matter and not as tonnages of their precursor pollutants.[8]

Attainment of a particular NAAQS occurs when the concentration of the relevant pollutant remains below a set threshold on a consistent basis throughout a particular region. For example, the San Joaquin Valley attained the 1-hour ozone NAAQS when ozone concentrations remained at or below 0.124 parts per million Valley-wide on 3 or fewer days over a 3-year period.[9] Because the NAAQS are focused on achieving a particular concentration of pollution region-wide, the Air District's tools and plans for attaining the NAAQS are regional in nature.

For instance, the computer models used to simulate and predict an attainment date for the ozone or particulate matter NAAQS in the San Joaquin Valley are based on regional inputs, such as regional inventories of precursor pollutants (NOx, SOx and VOCs) and the atmospheric chemistry and meteorology of the Valley.[10] At a very basic level, the models simulate future ozone or PM levels based on predicted changes in precursor

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[8] See, e.g., United States Environmental Protection Agency, *Table of National Ambient Air Quality Standards*, available at: http://www.epa.gov/air/criteria.html#3 (visited March 10, 2015).
[9] *San Joaquin Valley Unified Air Pollution Control District 2013 Plan for the Revoked 1-Hour Ozone Standard*, Ch. 2 p. 2-16, available at:
http://www.valleyair.org/Air_Quality_Plans/OzoneOneHourPlan2013/02Chapter2ScienceTrendsModeling.pdf (visited March 10, 2015).
[10] *Id.* at Ch. 2 p. 2-19 (visited March 12, 2015); *San Joaquin Valley Unified Air Pollution Control District 2008 PM2.5 Plan*, Appendix F, pp. F-2 – F-5, available at:
http://www.valleyair.org/Air_Quality_Plans/docs/AQ_Final_Adopted_PM2.5/20%20Appendix%20F.pdf
(visited March 19, 2015).

emissions Valley wide.[11] Because the NAAQS are set levels necessary to protect human health, the closer a region is to attaining a particular NAAQS, the lower the human health impact is from that pollutant.

The goal of these modeling exercises is not to determine whether the emissions generated by a particular factory or development project will affect the date that the Valley attains the NAAQS. Rather, the Air District's modeling and planning strategy is regional in nature and based on the extent to which *all* of the emission-generating sources in the Valley (current and future) must be controlled in order to reach attainment.[12]

Accordingly, the Air District has based its thresholds of significance for CEQA purposes on the levels that scientific and factual data demonstrate that the Valley can accommodate without affecting the attainment date for the NAAQS.[13] The Air District has tied its CEQA significance thresholds to the level at which stationary pollution sources permitted by the Air District must "offset" their emissions.[14] This "offset"

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[11] *Id.*

[12] Although the Air District does have a dispersion modeling tool used during its air permitting process that is used to predict whether a particular project's directly emitted PM will either cause an exceedance of the PM NAAQS or contribute to an existing exceedance, this model bases the prediction on a worst case scenario of emissions and meteorology and has no provision for predicting any associated human health impacts. Further, this analysis is only performed for stationary sources (factories, oil refineries, etc.) that are required to obtain a New Source Review permit from the Air District and not for development projects such as Friant Ranch over which the Air District has no preconstruction permitting authority. *See* San Joaquin Valley Unified Air Pollution Control District Rule 2201 §§ 2.0; 3.3.9; 4.14.1, available at: http://www.valleyair.org/rules/currntrules/Rule2201041l.pdf (visited March 19, 2015).

[13] *San Joaquin Valley Unified Air Pollution Control District Guide to Assessing and Mitigating Air Quality Impacts*, (March 19, 2015) p. 22, available at: http://www.valleyair.org/transportation/CEQA%20Rules/GAMAQI%20Jan%202002%20Rev.pdf (visited March 30, 2015).

[14] *Id.* at pp. 22, 25.

level allows for growth while keeping the cumulative effects of all new sources at a level that will not impede attainment of the NAAQS.[15] In the Valley, these thresholds are 15 tons per year of PM, and 10 tons of NOx or VOC per year. *Sierra Club, supra*, 172 Cal.Rptr.3d at 303; AR 4554. Thus, the CEQA air quality analysis for criteria pollutants is not really a localized, project-level impact analysis but one of regional, "cumulative impacts."

Accordingly, the significance thresholds applied in the Friant Ranch EIR (15 tons per year of PM and 10 tons of NOx or VOCs) are not intended to be indicative of any localized human health impact that the project may have. While the health effects of air pollution are of primary concern to the Air District (indeed, the NAAQS are established to protect human health), the Air District is simply not equipped to analyze whether and to what extent the criteria pollutant emissions of an individual CEQA project directly impact human health in a particular area. This is true even for projects with relatively high levels of emissions of criteria pollutant precursor emissions.

For instance, according to the EIR, the Friant Ranch project is estimated to emit 109.52 tons per year of ROG (VOC), 102.19 tons per year of NOx, and 117.38 tons per year of PM. Although these levels well

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[15] [15] *San Joaquin Valley Unified Air Pollution Control District Environmental Review Guidelines* (Aug. 2000) p. 4-11, available at: http://www.valleyair.org/transportation/CEQA%20Rules/ERG%20Adopted%20_August%202000_.pdf (visited March 12, 2015).

exceed the Air District's CEQA significance thresholds, this does not mean that one can easily determine the concentration of ozone or PM that will be created at or near the Friant Ranch site on a particular day or month of the year, or what specific health impacts will occur. Meteorology, the presence of sunlight, and other complex chemical factors all combine to determine the ultimate concentration and location of ozone or PM. This is especially true for a project like Friant Ranch where most of the criteria pollutant emissions derive not from a single "point source," but from area wide sources (consumer products, paint, etc.) or mobile sources (cars and trucks) driving to, from and around the site.

In addition, it would be extremely difficult to model the impact on NAAQS attainment that the emissions from the Friant Ranch project may have. As discussed above, the currently available modeling tools are equipped to model the impact of *all* emission sources in the Valley on attainment. According to the most recent EPA-approved emission inventory, the NOx inventory for the Valley is for the year 2014 is 458.2 tons per day, or 167,243 tons per year and the VOC (or ROG) inventory is 361.7 tons per day, or 132,020.5 tons per year.[16] Running the photochemical grid model used for predicting ozone attainment with the

[16] *San Joaquin Valley Unified Air Pollution Control District 2007 Ozone Plan*, Appendix B pp. B-6, B-9,
available at:
http://www.valleyair.org/Air_Quality_Plans/docs/AQ_Ozone_2007_Adopted/19%20Appendix%20B%20April%202007.pdf (visited March 12, 2015).

emissions solely from the Friant Ranch project (which equate to less than one-tenth of one percent of the total NOx and VOC in the Valley) is not likely to yield valid information given the relative scale involved.

Finally, even once a model is developed to accurately ascertain local increases in concentrations of photochemical pollutants like ozone and some particulates, it remains impossible, using today's models, to correlate that increase in concentration to a specific health impact. The reason is the same: such models are designed to determine regional, population-wide health impacts, and simply are not accurate when applied at the local level.

For these reasons, it is not the norm for CEQA practitioners, including the Air District, to conduct an analysis of the localized health impacts associated with a project's criteria air pollutant emissions as part of the EIR process. When the accepted scientific method precludes a certain type of analysis, "the court cannot impose a legal standard to the contrary." *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 717 n. 8. However, that is exactly what the Court of Appeal has done in this case. Its decision upends the way CEQA air quality analysis of criteria pollutants occurs and should be reversed.

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B. The Court of Appeal Improperly Extrapolated a Request for a Health Risk Assessment for Toxic Air Contaminants into a Requirement that the EIR contain an Analysis of Localized Health Impacts Associated with Criteria Air Pollutants.

The Court of Appeal's error in requiring the new health impact analysis for criteria air pollutants clearly stems from a misunderstanding of terms of art commonly used in the air pollution field. More specifically, the Court of Appeal (and Appellants Sierra Club et al.) appear to have confused the health risk analysis ("HRA") performed to determine the health impacts associated with a project's toxic air contaminants ("TACs"), with an analysis correlating a project's criteria air pollutants (ozone, PM and the like) with specific localized health impacts.

The first type of analysis, the HRA, is commonly performed during the Air District's stationary source permitting process for projects that emit TACs and is, thus, incorporated into the CEQA review process. An HRA is a comprehensive analysis to evaluate and predict the dispersion of TACs emitted by a project and the potential for exposure of human populations. It also assesses and quantifies both the individual and population-wide health risks associated with those levels of exposure. There is no similar analysis conducted for criteria air pollutants. Thus, the second type of analysis (required by the Court of Appeal), is not currently part of the Air District's process because, as outlined above, the health risks associated with exposure to criteria pollutants are evaluated on a regional level based on the region's attainment of the NAAQS.

The root of this confusion between the types of analyses conducted for TACs versus criteria air pollutants appears to stem from a comment that was presented to Fresno County by the City of Fresno during the administrative process.

In its comments on the draft EIR, the City of Fresno (the only party to raise this issue) stated:

> [t]he EIR must disclose the human health related effects of the Project's air pollution impacts. (CEQA Guidelines section 15126.2(a).) The EIR fails completely in this area. The EIR should be revised to disclose and determine the significance of TAC impacts, and of human health risks due to exposure to Project-related air emissions.

(AR 4602.)

In determining that the issue regarding the correlation between the Friant Ranch project's criteria air pollutants and adverse health impacts was adequately exhausted at the administrative level, the Court of Appeal improperly read the first two sentences of the City of Fresno's comment in isolation rather than in the context of the entire comment. *See Sierra Club v. County of Fresno* (2014) 172 Cal.Rptr.3d 271, 306. Although the comment first speaks generally in terms of "human health related effects" and "air pollution," it requests only that the EIR be revised to disclose "the significance of TACs" and the "human health risks due to exposure."

The language of this request in the third sentence of the comment is significant because, to an air pollution practitioner, the language would only have indicated only that a HRA for TACs was requested, and not a separate analysis of the health impacts associated with the project's criteria air pollutants. Fresno County clearly read the comment as a request to perform an HRA for TACs and limited its response accordingly. (AR 4602.)[17] The Air District submits that it would have read the City's comment in the same manner as the County because the City's use of the terms "human health risks" and "TACs" signal that an HRA for TACs is being requested. Indeed, the Air District was also concerned that an HRA be conducted, but understood that it was not possible to conduct such an analysis until the project entered the phase where detailed site specific information, such as the types of emission sources and the proximity of the sources to sensitive receptors became available. (AR 4553.)[18] The City of Fresno was apparently satisfied with the County's discussion of human health risks, as it did not raise the issue again when it commented on the final EIR. (AR 8944 – 8960.)

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[17] Appellants do not challenge the manner in which the County addressed TACs in the EIR. (Appellants' Answer Brief p. 28 fn. 7.)

[18] Appellants rely on the testimony of Air District employee, Dan Barber, as support for their position that the County should have conducted an analysis correlating the project's criteria air pollutant emissions with localized health impacts. (Appellants Answer Brief pp. 10-11; 28.) However, Mr. Barber's testimony simply reinforces the Air District's concern that a risk assessment (HRA) be conducted once the actual details of the project become available. (AR 8863.) As to criteria air pollutants, Mr. Barber's comments are aimed at the Air District's concern about the amount of emissions and the fact that the emissions will make it "more difficult for Fresno County and the Valley to reach attainment which means that the health of Valley residents maybe [sic] adversely impacted." Mr. Barber says nothing about conducting a separate analysis of the localized health impacts the project's emissions may have.

The Court of Appeal's holding, which incorrectly extrapolates a request for an HRA for TACs into a new analysis of the localized health impacts of the project's criteria air pollutants, highlights two additional errors in the Court's decision.

First, the Court of Appeal's holding illustrates why the Court should have applied the deferential substantial evidence standard of review to the issue of whether the EIR's air quality analysis was sufficient. The regulation of air pollution is a technical and complex field and the Court of Appeal lacked the expertise to fully appreciate the difference between TACs and criteria air pollutants and tools available for analyzing each type of pollutant.

Second, it illustrates that the Court likely got it wrong when it held that the issue regarding the criteria pollutant / localized health impact analysis was properly exhausted during the administrative process. In order to preserve an issue for the court, '[t]he "exact issue" must have been presented to the administrative agency....' [Citation.] *Citizens for Responsible Equitable Environmental Development v. City of San Diego*, (2011) 196 Cal.App.4th 515, 527 129 Cal.Rptr.3d 512, 521; *Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523, 535, 78 Cal.Rptr.3d 1, 13. "'[T]he objections must be sufficiently specific so that the agency has the opportunity to evaluate and respond to them.' [Citation.]" *Sierra Club v. City of Orange*,163 Cal.App.4th at 536.[19]

As discussed above, the City's comment, while specific enough to request a commonly performed HRA for TACs, provided the County with no notice that it should perform a new type of analysis correlating criteria pollutant tonnages to specific human health effects. Although the parties have not directly addressed the issue of failure to exhaust administrative remedies in their briefs, the Air District submits that the Court should consider how it affects the issues briefed by the parties since "[e]xhaustion of administrative remedies is a jurisdictional prerequisite to maintenance of a CEQA action." *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1199, 22 Cal.Rptr.3d 203.

III. CONCLUSION

For all of the foregoing reasons, the Air District respectfully requests that the portion of the Court of Appeal's decision requiring an analysis correlating the localized human health impacts associated with an individual project's criteria air pollutant emissions be reversed.

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[19] *Sierra Club v. City of Orange*, is illustrative here. In that case, the plaintiffs challenged an EIR approved for a large planned community on the basis that the EIR improperly broke up the various environmental impacts by separate project components or "piecemealed" the analysis in violation of CEQA. In evaluating the defense that the plaintiffs had failed to adequately raise the issue at the administrative level, the Court held that comments such as *"the use of a single document for both a project-level and a program-level EIR [is] 'confusing',"* and *"[t]he lead agency should identify any potential adverse air quality impacts that could occur from all phases of the project and all air pollutant sources related to the project,"* were too vague to fairly raise the argument of piecemealing before the agency. *Sierra Club v. City of Orange*, 163 Cal.App.4th at 537.

correlating the localized human health impacts associated with an individual project's criteria air pollutant emissions be reversed.

Respectfully submitted,

Dated: April 2, 2015

Catherine T. Redmond
Attorney for Proposed Amicus
Curiae

SAN JOAQUIN VALLEY
UNIFIED
AIR POLLUTION CONTROL
DISTRICT

CERTIFICATE OF WORD COUNT

Pursuant to Rule 8.204 of the California Rules of Court, I hereby certify that this document, based on the Word County feature of the Microsoft Word software program used to compose and print this document, contains, exclusive of caption, tables, certificate of word count, signature block and certificate of service, 3806 words.

Dated: April 2, 2015

Annette A. Ballatore-Williamson
District Counsel (SBN 192176)

Sierra Club et al, v. County of Fresno, et al
Supreme Court of California Case No.: S219783
Fifth District Court of Appeal Case No.: F066798
Fresno County Superior Court Case No.: 11CECG00726

PROOF OF SERVICE

I am over the age of 18 years and not a p[arty to the above-captioned action; that my business address is San Joaquin Valley Unified Air Pollution Control District located at 1990 E. Gettysburg Avenue, Fresno, California 93726.

On April 2, 2015, I served the document described below:

APPLICATION FOR LEAVE TO FILE AMICUS CURIAE BRIEF OF SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT IN SUPPORT OF DEFENDANT AND RESPONDENT, COUNTY OF FRESNO

On all parties to this action at the following addresses and in the following manner:

PLEASE SEE ATTACHED SERVICE LIST

(XX) **(BY MAIL)** I caused a true copy of each document(s) to be laced in a sealed envelope with first-class postage affixed and placed the envelope for collection. Mail is collected daily at my office and placed in a United State Postal Service collection box for pick-up and delivery that same day.

( ) **(BY ELECTRONIC MAIL)** I caused a true and correct scanned image (.PDF file) copy to be transmitted via electronic mail transfer system in place at the San Joaquin Valley Unified Air Pollution Control District ("District"), originating from the undersigned at 1990 E. Gettysburg Avenue, Fresno, CA, to the address(es) indicated below.

( ) **(BY OVERNIGHT MAIL)** I caused a true and correct copy to be delivered via Federal Express to the following person(s) or their representative at the address(es) listed below.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that I executed this document on April 2, 2015, at Fresno, California.

Esthela Soto

Esthela Soto

SERVICE LIST

Sierra Club et al, v. County of Fresno, et al
Supreme Court of California Case No.: S219783
Fifth District Court of Appeal Case No.: F066798
Fresno County Superior Court Case No.: 11CECG00726

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