AIR QUALITY ASSESSMENT

Capalina Apartments Residential Development
GPA22-0003
R22-0003
SDP22-0007
City of San Marcos, CA

Prepared for:

City of San Marcos
1 Civic Center Drive
San Marcos, CA 92069

Prepared By:

Ldn Consulting, Inc.

42428 Chisolm Trail
Murrieta, CA 92562

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LIST OF COMMON ACRONYMS

Air Quality Impact Assessments (AQIA)

Assembly Bill 32 (AB32)

California Air Resource Board (CARB)

California Ambient Air Quality Standards (CAAQS)

California Environmental Quality Act (CEQA)

Carbon Dioxide (CO2)

Cubic Yards (CY)

Diesel Particulate Matter (DPM)

Environmental Protection Agency (EPA)

EPA Office of Air Quality Planning and Standards (OAQPS)

Hazardous Air Pollutants (HAPs)

Hydrogen Sulfide (H2S)

International Residential Code (IRC)

Level of Service (LOS)

Low Carbon Fuel Standard (LCFS)

Methane (CH4)

National ambient air quality standards (NAAQS)

Nitrous Oxide (N2O)

Reactive Organic Gas (ROG)

Regional Air Quality Strategy (RAQS)

San Diego Air Basin (SDAB)

San Diego Air Pollution Control District (SDAPCD)

South Coast Air Quality Management District (SCAQMD)

Specific Plan Area (SPA)

State Implementation Plan (SIP)

Toxic Air Contaminants (TACs)

Vehicle Miles Traveled (VMT)

1.0 INTRODUCTION

1.1 Project Description

The project proposes up to 119 multi-family residential units within two four-story buildings situated on approximately 2.51 gross acres. The project would also include 4,000 Square Foot (SF) of commercial use. Additionally, the Project proposes as many as 147 outdoor parking spaces of which 8 will be equipped with Electric Vehicle (EV) chargers and 15 will be EV capable. The project seeks a General Plan Amendment (GPA) and rezone of the property from Mixed Use (MU-3) to Mixed Use (MU-2). Construction would be expected to last less than one year and full operations are expected in 2025. The project development plan is shown on Figure 1-A.

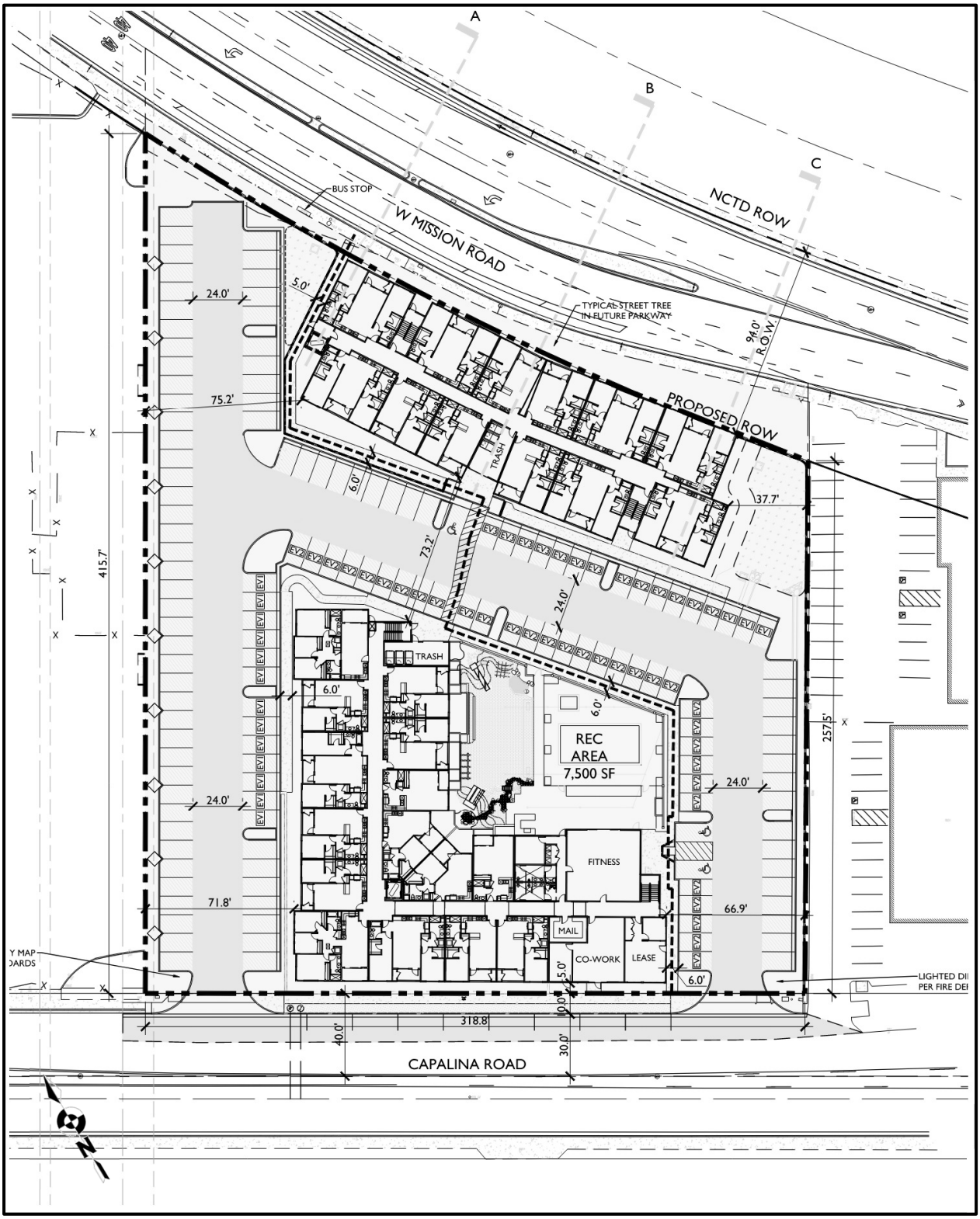
1.2 Project Location

The vacant 2.51-acre project site having an Assessor Parcel Number (APN) of 219-115-3300 is located along Capalina Road in the Business/Industrial Community in the City of San Marcos. Specifically, the project site is located north of State Route 78 (SR-78) and east of Rancho Santa Fe Road between Mission Road and Capalina Road. The project is bounded by existing commercial and retails uses on the east and west, by Mission Road to the north, and by Capalina Road to the south. A project vicinity map is shown in Figure 1-B. The nearest residential use is the mobile home park located south across Capalina Road.

1.3 Purpose of this Study

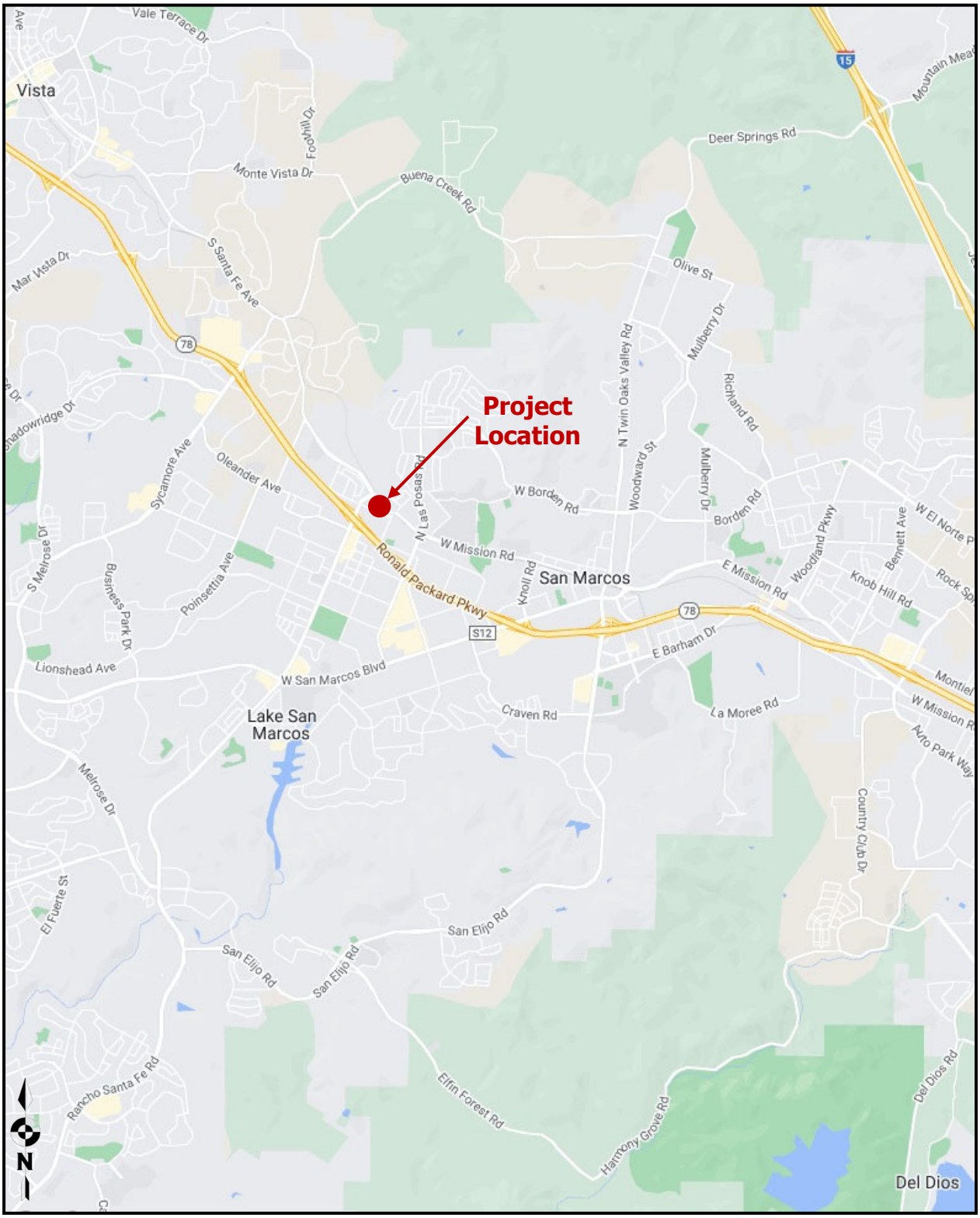
The purpose of this Air Quality study is to determine potential significant air quality impacts (if any) that may be generated by construction, area or operational emissions from the proposed Project. Should impacts be determined, the intent of this study would be to recommend suitable mitigation measures to bring those impacts to a level that would be considered less than significant under the California Environmental Quality Act (CEQA).

Figure 1-A: Proposed Project Site Development Plan



Source: (Summa Architecture, 2023)

Figure 1-B: Project Vicinity Map



Source: (Google, 2023)

2.0 EXISTING ENVIRONMENTAL SETTING

2.1 Existing Setting

The vacant undeveloped Project site is located north of Capalina Road, south of West Mission Road and is generally between North Rancho Santa Fe Road to the west and North Pacific Street to the east. The project site is relatively flat with elevations of approximately 580 to 590 feet above mean sea level. The existing site aerial map is shown in Figure 2-A. The project is mostly surrounded by commercial and residential uses.

Figure 2-A: Existing Site Layout

Source: (Google Earth Pro, 2023)

2.2 Climate and Meteorology

Climate within the San Diego Air Basin (SDAB) area often varies dramatically over short geographical distances with cooler temperatures on the western coast gradually warming to the east as prevailing winds from the west heats up. Most of southern California is dominated by high-pressure systems for much of the year, which keeps San Diego mostly sunny and warm. Typically, during the winter months, the high-pressure systems drop to the south and brings cooler, moister weather from the north.

Meteorological trends within the area generally show daytime highs ranging between 64ºF in the winter to approximately 88ºF in the summer with August usually being the hottest month. Daytime Low temperatures range from approximately 37ºF in the winter to approximately 59ºF in the summer. Precipitation is generally about 16.2 inches per year (WRCC, 2021). Prevailing wind patterns for the area vary during any given month during the year and also vary depending on the time of day or night. The predominant pattern though throughout the year is usually from the west or westerly (WRCC, 2018).

2.3 Regulatory Standards

2.3.1 Federal Standards and Definitions

The Federal Air Quality Standards were developed per the requirements of The Federal Clean Air Act, which is a federal law that was passed in 1970 and further amended in 1990. This law provides the basis for the national air pollution control effort. An important element of the act included the development of national ambient air quality standards (NAAQS) for major air pollutants.

The Clean Air Act established two types of air quality standards otherwise known as primary and secondary standards. ***Primary Standards*** set limits to protect public health which includes sensitive populations such as asthmatics, children and elderly. ***Secondary Standards*** set limits to protect public welfare and include protection against decreased visibility, damage to animals, crops, vegetation and buildings.

The Environmental Protection Agency's (EPA Office of Air Quality Planning and Standards (OAQPS) has set National Ambient Air Quality Standards (NAAQS) for principal pollutants, which are called "criteria" pollutants. These pollutants are defined below (EPA, 2022):

1. ***Carbon Monoxide (CO):*** *is a colorless, odorless, and tasteless gas and is produced from the partial combustion of carbon-containing compounds, notably in internal-combustion engines. Carbon monoxide usually forms when there is a reduced availability of oxygen*

present during the combustion process. Exposure to CO near the levels of the ambient air quality standards can lead to fatigue, headaches, confusion, and dizziness. CO interferes with the blood's ability to carry oxygen (EPA, 2022).

2. ***Lead (Pb):*** *is a potent neurotoxin that accumulates in soft tissues and bone over time. The major sources of lead emissions have historically been motor vehicles (such as cars and trucks) and industrial sources. Because lead is only slowly excreted, exposures to small amounts of lead from a variety of sources can accumulate to harmful levels. Effects from inhalation of lead near the level of the ambient air quality standard include impaired blood formation and nerve conduction. Lead can adversely affect the nervous, reproductive, digestive, immune, and blood-forming systems. Symptoms can include fatigue, anxiety, short-term memory loss, depression, weakness in the extremities, and learning disabilities in children* (EPA, 2022).
3. ***Nitrogen Dioxide (NO_2):*** *is a reactive, oxidizing gas capable of damaging cells lining the respiratory tract and is one of the nitrogen oxides emitted from high-temperature combustion, such as those occurring in trucks, cars, power plants, home heaters, and gas stoves. In the presence of other air contaminants, NO_2 is usually visible as a reddish-brown air layer over urban areas. NO_2 along with other traffic-related pollutants is associated with respiratory symptoms, respiratory illness and respiratory impairment. Studies in animals have reported biochemical, structural, and cellular changes in the lung when exposed to NO_2 above the level of the current state air quality standard. Clinical studies of human subjects suggest that NO_2 exposure to levels near the current standard may worsen the effect of allergens in allergic asthmatics, especially in children* (EPA, 2022).
4. ***Particulate Matter (PM_{10} or $PM_{2.5}$):*** *is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary in shape, size and chemical composition, and can be made up of multiple materials such as metal, soot, soil, and dust. PM_{10} particles are 10 microns (µm) or less and $PM_{2.5}$ particles are 2.5 (µm) or less. These particles can contribute significantly to regional haze and reduction of visibility in California. Exposure to PM levels exceeding current air quality standards increases the risk of allergies such as asthma and respiratory illness* (EPA, 2022).
5. ***Ozone (O_3)****: Ozone at the ground level is a highly oxidative unstable gas capable of damaging the linings of the respiratory tract. This pollutant forms in the atmosphere through reactions between chemicals directly emitted from vehicles, industrial plants, and many other sources. Exposure to ozone above ambient air quality standards can lead to human health effects such as lung inflammation, tissue damage and impaired lung functioning. Ozone can also damage materials such as rubber, fabrics and plastics* (EPA, 2022).

It should be noted that Oxides of Nitrogen (NO_x) is a family of poisonous, highly reactive gases. These gases form when fuel is burned at high temperatures. NO_x pollution is emitted

by automobiles, trucks and various non-road vehicles (e.g., construction equipment, boats, etc.) as well as industrial sources such as power plants, industrial boilers, cement kilns, and turbines. NO_x often appears as a brownish gas. It is a strong oxidizing agent and plays a major role in the atmospheric reactions with Volatile Organic Compounds (VOCs) which produces ozone on hot summer days (EPA, 2023).

6. ***Sulfur Dioxide (SO_2)**: is a gaseous compound of sulfur and oxygen and is formed when sulfur-containing fuel is burned by mobile sources, such as locomotives, ships, and off-road diesel equipment. SO_2 is also emitted from several industrial processes, such as petroleum refining and metal processing. Effects from SO_2 exposures at levels near the one-hour standard include bronchoconstriction accompanied by symptoms, which may include wheezing, shortness of breath and chest tightness, especially during exercise or physical activity. Children, the elderly, and people with asthma, cardiovascular disease or chronic lung disease (such as bronchitis or emphysema) are most susceptible to these symptoms. Continued exposure at elevated levels of SO_2 results in increased incidence of pulmonary symptoms and disease, decreased pulmonary function, and increased risk of mortality* (EPA, 2022).

2.3.2 State Standards and Definitions

The State of California Air Resources Board (ARB) sets the laws and regulations for air quality at State level. The California Ambient Air Quality Standards (CAAQS) are either the same as or more restrictive than the NAAQS in that the State standards also restrict four additional contaminants. Table 2.1 on the following page identifies both the NAAQS and CAAQS. The additional contaminants as regulated by the CAAQS are defined below:

1. ***Visibility Reducing Particles**: Particles in the Air that obstruct the visibility* (CARB, 2023).
2. ***Sulfates**: are salts of Sulfuric Acid. Sulfates occur as microscopic particles (aerosols) resulting from fossil fuel and biomass combustion. They increase the acidity of the atmosphere and form acid rain* (CARB, 2023).
3. ***Hydrogen Sulfide (H_2S)**: is a colorless, toxic and flammable gas with a recognizable smell of rotten eggs or flatulence. H_2S occurs naturally in crude petroleum, natural gas, volcanic gases, and hot springs. Usually, H_2S is formed from bacterial breakdown of organic matter. Exposure to low concentrations of hydrogen sulfide may cause irritation to the eyes, nose, or throat. It may also cause difficulty in breathing for some asthmatics. Brief exposures to high concentrations of hydrogen sulfide (greater than 500 ppm) can cause a loss of consciousness and possibly death* (CARB, 2023).
4. ***Vinyl Chloride**: also known as chloroethene and is a toxic, carcinogenic, colorless gas with a sweet odor. It is an industrial chemical mainly used to produce its polymer, polyvinyl chloride (PVC)* (CARB, 2023).

Table 2.1: Ambient Air Quality Standards

Ambient Air Quality Standards						
Pollutant	**Average Time**	**California Standards[1]**		**Federal Standards[2]**		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone (O_3)[8]	1 Hour	0.09 ppm (180 µg/m3)	Ultraviolet Photometry	-	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m3)		0.070 ppm (137 µg/m3)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 µg/m3	Gravimetric or Beta Attenuation	150 µg/m3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m3		-		
Fine Particulate Matter (PM2.5)[9]	24 Hour	No Separate State Standard		35 µg/m3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m3	Gravimetric or Beta Attenuation	12.0 µg/m3	15 µg/m3	
Carbon Monoxide (CO)	8 hour	9.0 ppm (10mg/m3)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m3)	-	Non-Dispersive Infrared Photometry
	1 hour	20 ppm (23 mg/m3)		35 ppm (40 mg/m3)		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m3)		-	-	-
Nitrogen Dioxide (NO_2)[10]	Annual Arithmetic Mean	0.030 ppm (57 µg/m3)	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m3)[8]	Same as Primary Standard	Gas Phase Chemiluminescence
	1 Hour	0.18 ppm (339 µg/m3)		0.100 ppm[8] (188/ µg/m3)	-	
Sulfur Dioxide (SO_2)[11]	Annual Arithmetic Mean	-	Ultraviolet Fluorescence	0.030 ppm[10] (for Certain Areas)	-	Ultraviolet Flourescence; Spectrophotometry (Pararoosaniline Method)[9]
	24 Hour	0.04 ppm (105 µg/m3)		0.14 ppm[10] (for Certain Areas) (See Footnote 9)	-	
	3 Hour	-		-	0.5 ppm (1300 µg/m3)	
	1 Hour	0.25 ppm (655 µg/m3)		75 ppb (196 µg/m3)	-	
Lead[12,13]	30 Day Average	1.5 µg/m3	Atomic Absorption	-		-
	Calendar Quarter	-		1.5 µg/m3	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Rolling 3-Month Average	-		0.15 µg/m3		
Visibility Reducing Particles	8 Hour	See footnote 13				
Sulfates	24 Hour	25 µg/m3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m3)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m3)	Gas Chromatography			

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m3 is equal to or less than one. For PM2.5, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent procedure which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.
8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 µg/m3 to 12.0 µg/m3 . The existing national 24- hour PM2.5 standards (primary and secondary) were retained at 35 µg/m3 , as was the annual secondary standard of 15 µg/m3 . The existing 24-hour PM10 standards (primary and secondary) of 150 µg/m3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
11. On June 2, 2010, a new 1-hour SO2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Source: (California Air Resources Board, 05/04/2016)

2.3.3 Regional Standards

The State of California has 35 specific air districts, which are each responsible for ensuring that the criteria pollutants are below the NAAQS and CAAQS. Air basins that exceed either the NAAQS or the CAAQS for any criteria pollutants are designated as "non-attainment areas" for that pollutant. Currently, there are 15 non-attainment areas for the federal ozone standard and two non-attainment areas for the $PM_{2.5}$ standard and many areas are in non-attainment for PM_{10} as well. California therefore created the California State Implementation Plan (SIP), which is designed to provide control measures needed to attain ambient air quality standards.

The San Diego Air Pollution Control District (SDAPCD) is the government agency which regulates sources of air pollution within the county. Therefore, the SDAPCD developed a Regional Air Quality Strategy (RAQS) to provide control measures to try to achieve attainment status for state ozone standards with control measures focused on VOCs and NO_X. Currently, San Diego is in "non-attainment" status for federal and state O_3 and state PM_{10} and $PM_{2.5.}$ An attainment plan is available for O_3. The RAQS was adopted in 1992 and has been updated as recently as 2022 which was the latest update incorporating minor changes to the prior 2016 update.

The 2022 update mostly summarizes how the 2016 update has lowered NO_X and VOCs emissions which reduces ozone and clarifies and enhances emission reductions by introducing for discussion three new VOC and four new NO_X reduction measures. NO_X and VOCs are precursors to the formation of ozone in the atmosphere. The criteria pollutant standards are generally attained when each monitor within the region has had no exceedances during the previous three calendar years. A complete listing of the current attainment status for criteria pollutants with respect to both federal and state nonattainment status by pollutants for County is shown in Table 2.2 on the following page (SDAPCD, 2023).

The RAQS is largely based on population predictions by the San Diego Association of Governments (SANDAG). Projects that produce less growth than predicted by SANDAG would generally conform to the RAQS. Projects that create more growth than projected by SANDAG may create a significant impact if the Project produces unmitigable air quality emissions or if the Project produces cumulative impacts.

Table 2.2: San Diego County Air Basin Attainment Status by Pollutant

Criteria Pollutant	Federal Designation	State Designation
Ozone (8-Hour)	Nonattainment	Nonattainment
Ozone (1-Hour)	Attainment *	Nonattainment
Carbon Monoxide	Attainment	Attainment
PM10	Unclassifiable **	Nonattainment
PM2.5	Attainment	Nonattainment***
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	No Federal Standard	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Visibility	No Federal Standard	Unclassified

** The federal 1-hour standard of 12 pphm was in effect from 1979 through June 15, 2005. The revoked standard is referenced here because it was employed for such a long period and because this benchmark is addressed in State Implementation Plans.*
*** At the time of designation, if the available data does not support a designation of attainment or nonattainment, the area is designated as unclassifiable.*
****The California Air Resources Board (CARB) has not reclassified the region to attainment yet due to (1) incomplete data, and (2) the use of non-California Approved Samplers (CAS). While data collected does meet the requirements for designation of attainment with federal PM2.5 standards, the data completeness requirements for state PM2.5 standards substantially exceed federal requirements and mandates, and have historically not been feasible for most air districts to adhere to given local resources. APCD has begun replacing most regional filter-based PM2.5 monitors as they reach the end of their useful life with continuous PM2.5 air monitors to ensure collected data meets stringent completeness requirements in the future. APCD anticipates these new monitors will be approved as "CAS" monitors once CARB review the list of approved monitors, which has not been updated since 2013.*
(SDAPCD, 2023)

2.4 California Environmental Quality Act (CEQA) Significance Thresholds

The California Environmental Quality Act has provided a checklist to identify the significance of air quality impacts. These guidelines are found in Appendix G of the CEQA guidelines and are as follows:

AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the Project:

A: Conflict with or obstruct implementation of the San Diego Regional Air Quality Strategy (RAQS) or applicable portions of the State Implementation Plan (SIP)?

B: Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable Federal or State ambient air quality standard (PM_{10}, $PM_{2.5}$ or exceed quantitative thresholds for O_3 precursors, oxides of nitrogen [NO_X] and Volatile Organic Compounds [VOCs])?

C: Expose sensitive receptors (including, but not limited to, schools, hospitals, resident care facilities, or day-care centers) to substantial pollutant concentrations?

D: Result in other emission (such as those leading to odors) adversely affecting a substantial number of people?

2.5 SDAPCD Rule 20.2 – Air Quality Impact Assessment Screening Thresholds

The SDAPCD has established thresholds in Rule 20.2 for new or modified stationary sources. These screening criteria can be used to demonstrate that a project's total emissions would not result in a significant impact as defined by CEQA. Also, since SDAPCD does not have AQI threshold for Volatile Organic Compounds (VOCs), it is acceptable to use the Coachella Valley VOC threshold from South Coast Air Quality Management District. Should emissions be found to exceed these thresholds, additional modeling is required to demonstrate that the project's total air quality impacts are below the state and federal ambient air quality standards. These screening thresholds for construction and daily operations are shown in Table 2.3 below.

Table 2.3: Screening Level Thresholds for Criteria Pollutants

Pollutant	Total Emissions (Pounds per Day)
Construction Emissions	
Respirable Particulate Matter (PM_{10} and $PM_{2.5}$)	100 and 55
Nitrogen Oxide (NO_x)	250
Sulfur Oxide (SO_x)	250
Carbon Monoxide (CO)	550
Volatile Organic Compounds (VOCs)	75
Reactive Organic Gases (ROG) SCAQMD	75
Operational Emissions	
Respirable Particulate Matter (PM_{10} and $PM_{2.5}$)	100 and 55
Nitrogen Oxide (NO_x)	250
Sulfur Oxide (SO_x)	250
Carbon Monoxide (CO)	550
Lead and Lead Compounds	3.2
Volatile Organic Compounds (VOCs)	75
Reactive Organic Gases (ROG) SCAQMD	75

Non-Criteria pollutants such as Hazardous Air Pollutants (HAPs) or Toxic Air Contaminants (TACs) are also regulated by the SDAPCD. Rule 1200 (Toxic Air Contaminants - New Source Review) adopted on June 12, 1996, requires evaluation of potential health risks for any new,

relocated, or modified emission unit which may increase emissions of one or more toxic air contaminants. The rule requires that projects that propose to increase cancer risk to between 1 and 10 in one million need to implement toxics best available control technology (T-BACT) or impose the most effective emission limitation, emission control device or control technique to reduce the cancer risk. At no time shall the project increase the cancer risk to over 10 in one million. In addition, a project shall not generate either a chronic or acute health hazard index greater than one. Projects creating cancer risks less than one in one million are not required to implement T-BACT technology.

The U.S. Environmental Protection Agency (U.S. EPA) uses the term Volatile Organic Compounds (VOC) and the California Air Resources Board's (CARB's) Emission Inventory Branch (EIB) uses the term Reactive Organic Gases (ROG) to essentially define the same thing. There are minor deviations between compounds that define each term. However, for purposes of this study we will assume they are essentially the same due to the fact SCAQMD interchanges these words and because CalEEMod directly calculates ROG in place of VOC.

2.6 Local Air Quality

Criteria pollutants are measured continuously throughout the San Diego Air Basin. This data is used to track ambient air quality patterns throughout the County. As mentioned earlier, this data is also used to determine attainment status when compared to the NAAQS and CAAQS. The SDAPCD is responsible for monitoring and reporting monitoring data. The District operates 10 monitoring sites, which collect data on criteria pollutants. Table 2.4 identifies the criteria pollutants monitored at the aforementioned station.

SDAPCD published the five-year air quality summary for all of the monitoring stations within the San Diego basin (SDAPCD, 2022). The proposed development project is closest to the Camp Pendleton and Carmel Mountain Ranch Monitoring stations. Table 2.4 identifies the criteria pollutants monitored at the aforementioned station.

Table 2.4: Two-Year Ambient Air Quality Summary near the Project Site

Pollutant	Closest Recorded Ambient Monitoring Site	Averaging Time	CAAQS	NAAQS	2021	2022	Days Exceeded over 2 years
O_3 (ppm)	Camp Pendleton or Carmel Mountain Ranch	1 Hour	0.09 ppm	No Standard	0.07	0.08	0
		8 Hour	0.070 ppm	0.070 ppm	0.06	0.07	0
PM_{10} (µg/m3)		24 Hour	50 µg/m3	150 µg/m3	PM10 Data Not Available for Monitoring Sites near Project Site		
		Annual Arithmetic Mean	20 µg/m3	No Standard			
* $PM_{2.5}$ (µg/m^3)		24 Hour	No standard -	35 µg/m3	23.5	14.9	N/A
		Annual Arithmetic Mean	12 µg/m3	15 µg/m3	8.5	7.6	N/A
NO_2 (ppm)		Annual Arithmetic Mean	0.030 ppm	0.053 ppm	0.013	0.013	N/A
		1 Hour	0.18 ppm	0.100 ppm	0.059	0.059	N/A
* CO (ppm)		1 Hour	20 ppm	35 ppm	3.0	2.2	N/A
		8 Hour	9 ppm	9 ppm	1.8	1.2	N/A

Notes:
1. - Yearly maximums marked with "-" indicated data was not available for either monitoring station.
2. * Data was selected from the Carmel Mountain Ranch station which began in 2019. All other data presented was collected at the Camp Pendleton Monitoring Station.
3. SO_2 is only monitored at the El Cajon Monitoring Station. Within the entire County of San Diego, SO_2 emissions within the County are essentially Zero for all metrics including the Average, Maximum 24 hour and 1- hour standards. The Highest 1-hr measurement identified is 0.004 ppm and the most restrictive standard (CAAQS for SO_2) is 0.25 ppm.

3.0 METHODOLOGY

3.1 Construction Emissions Calculations

Air Quality impacts related to construction and daily operations were calculated using CalEEMod 2020.4.0 air quality model, which was developed by BREEZE Software for South Coast Air Quality Management District (SCAQMD) in 2021. The construction module in CalEEMod is used to calculate the emissions associated with the construction of the Project and uses methodologies presented in the US EPA AP-42 document with emphasis on Chapter 11.9. The CalEEMod input/output model is shown in ***Attachment A*** to this report.

It should be noted that CalEEMod 2022 has been released though since its release has been updated 29 times. Utilization of the current release version 2022.1.1.13 is anticipated to results in similar to lower AQ emissions and the 2020 version is considered conservative. Therefore, CalEEMod 2020.4.0 would still be relevant for this analysis.

The AERSCREEN dispersion model was used to determine the concentration for air pollutants at any location near the pollutant generator. Additionally, the model will predict the maximum exposure distance and concentrations. The AERSCREEN input/output file for the proposed Project is shown in ***Attachment B*** at the end of this report. The worst case exhaust emissions generated from the Project from construction equipment was utilized and calculated within the CalEEMod model.

Once the dispersed concentrations of diesel particulates are estimated in the surrounding air, they are used to evaluate estimated exposure to people. Exposure is evaluated by calculating the dose in milligrams per kilogram body weight per day (mg/kg/d). For residential exposure, the breathing rates are determined for specific age groups, so inhalation dose (Dose-air) is calculated for each of these age groups, 3rd trimester, 0<2, 2<9, 2<16, 16<30 and 16-70 years. The following algorithms calculate this dose for exposure through the inhalation pathways. The worst case cancer risk dose calculation is defined in Equation 1 below (OEHHA, 2015).

Equation 1 $$Dose_{air}=C_{air}*(BR/BW)*A*EF*(1x10^{-6})$$

$Dose_{air}$	=	Dose through inhalation (mg/kg/d)
C_{air}	=	Concentration in air (µg/m^3) Annual average DPM concentration in µg/m^3 - AERSCREEN predicts a 1-hr concentration and is corrected to an annual average by multiplying the 1-hr average by 0.08 (US EPA, 1992)
BR/BW	=	Daily breathing rate normalized to body weight (L/kg BW-day). See Table I.2 for the daily breathing rate for each age range.
A	=	Inhalation absorption factor (assumed to be 1)
EF	=	Exposure frequency (unitless, days/365 days)

$1x10^{-6}$	=	Milligrams to micrograms conversion (10^{-3} mg/ µg), cubic meters to liters conversion (10^{-3} m^3/l)

Cancer risk is calculated by multiplying the daily inhalation or oral dose, by a cancer potency factor, the age sensitivity factor, the frequency of time spent at home and the exposure duration divided by averaging time, to yield the excess cancer risk. As described below, the excess cancer risk is calculated separately for each age grouping and then summed to yield cancer risk for any given location. Specific factors as modeled are shown within the Project models which is provided as ***Attachment C*** to this report. The worst case cancer risk calculation is defined in Equation 2 below (OEHHA, 2015).

Equation 2

$$RISKinh\text{-}res = DOSEair \times CPF \times ASF \times ED/AT \times FAH$$

RISKinh-res	=	Residential inhalation cancer risk
DOSEair	=	Daily inhalation dose (mg/kg-day)
CPF	=	Inhalation cancer potency factor (mg/kg-day^{-1})
ASF	=	Age sensitivity factor for a specified age group (unitless)
ED	=	Exposure duration (in years) for a specified age group
AT	=	Averaging time for lifetime cancer risk (years)
FAH	=	Fraction of time spent at home (unitless)

Office of Environmental Health Hazard Assessment OEHHA recommends that an exposure duration (residency time) of 30 years be used to estimate individual cancer risk for the Maximally Exposed Individual Resident (MEIR). OEHHA also recommends that the 30-year exposure duration be used as the basis for public notification and risk reduction audits and plans. Exposure durations of 9-years and 70-years are also recommended to be evaluated for the MEIR to show the range of cancer risk based on residency periods. If a facility is notifying the public regarding cancer risk, the 9-and 70-year cancer risk estimates are useful for people who have resided in their current residence for periods shorter and longer than 30 years.

It should be noted that for construction activities, the exposure duration would be over a short term duration or less than 9, 30 or 70 years. Because of this, it's recommended that the risk assessment look at the exposure age group bins most effected be utilized to determine risk over the short term duration.

Chronic Non-Cancer risks are also known with respect to diesel particulate matter (DPM) and are determined by the hazard index. To calculate hazard index, DPM concentration is divided by its chronic Reference Exposure Levels (REL). Where the total equals or exceeds one, a health hazard is presumed to exist. RELs are published by the Office of Environmental Health Hazard Assessment (OEHHA, February 2015). Diesel Exhaust has a REL of 5 µg/m^3 and targets the respiratory system.

3.2 Construction Assumptions

The project would start grading sometime in 2024 with residential construction to start shortly thereafter. Grading for the project will consist of approximately 4,030 cubic yards (CY) of cut material and 12,270 CY of fill material requiring an import of approximately 8,240 CY of fill material. Earthwork associated with grading within CalEEMod uses a "Grading Equipment Passes" methodology which has been approved by SCAQMD in consultation with building estimator references and is used as the basis of emission generation (CAPCOA, 2021). As a design feature, the project's construction contractor will utilize Tier IV rated diesel construction equipment to minimize diesel particulates from construction equipment. Table 3.1 below describes the construction equipment and durations.

Table 3.1: Expected Construction Equipment

Equipment Identification	Proposed Start	Proposed Complete	Quantity
Site Preparation	06/01/2024	06/05/2024	
Graders			1
Scrapers			1
Tractors/Loaders/Backhoes			1
Grading	06/06/2024	06/13/2024	
Graders			1
Rubber Tired Dozers			1
Tractors/Loaders/Backhoes			2
Building Construction	06/14/2024	04/17/2025	
Cranes			1
Forklifts			2
Generator Sets			1
Tractors/Loaders/Backhoes			1
Welders			3
Paving	02/21/2025	03/06/2025	
Pavers			1
Paving Equipment			1
Rollers			2
Architectural Coating	02/21/2025	04/17/2025	
Air Compressors			1
This equipment list is based upon equipment inventory within CalEEMod. The quantity and types are based upon assumptions provided by the project applicant.			

3.3 Operational Emissions

Once construction is completed the proposed project would generate emissions from daily operations which would include sources such as Area, Energy, Mobile, Waste and Water uses, which are also calculated within CalEEMod. Area Sources include consumer products, landscaping and architectural coatings as part of regular maintenance. Energy sources would be from uses such as onsite natural gas and electrical use. The operational model results are also shown in ***Attachment A*** at the end of this report.

The traffic inputs for CalEEMod were adjusted to be consistent with the proposed project traffic study. Based on that study, the proposed project would generate 874 daily trips (CR Associates, 2023). The CalEEMod 2020.4.0 Model was run for both the winter and summer scenarios and assumed average winter and summer temperatures.

The model also estimates emission predictions for ROG, NO_x, CO, SO_2, PM_{10} and $PM_{2.5}$ for area source assumptions. Additionally, it was assumed that an average of 10% of the structural surface area will be re-painted each year. Finally, since the proposed project would not be installing hearth options, CalEEMod default hearth settings were modified to represent no hearth options. CalEEMod includes landscaping and consumer product assumptions which would apply to this project. Consumer product emissions are generated by a wide range of product categories, including air fresheners, automotive products, household cleaners, and personal care products. Emissions associated with these products primarily depend on the increased population associated with residential development.

As noted in the project description, the project will wire each garage for EV charging stations and will install 8 Electric Vehicle (EV) chargers and 15 will be EV capable. These charging stations would reduce mobile emissions though were not analyzed within this air quality assessment.

3.4 Odor Impacts

Potential onsite odor generators would include short-term construction odors from activities such as paving and possibly painting. Given this, short-term construction odors would not be considered an impact. Also, since the project is a residential development, no operational odor sources are expected.

4.0 FINDINGS

4.1 Construction Findings

The project would start grading sometime in 2024 and all building construction would be completed by 2025. The project would require import of 8,240 CY of soil. The following design features were assumed within the CalEEMod analysis:

- *Construction Design Feature 1: all heavy diesel construction equipment will be classified as Tier IV.*
- *Construction Design Feature 2: In accordance with Rule 67 of the California Air Resource Board, only Low VOC paints shall be utilized onsite.*
- *Best Management Practice 1: Comply with SDAPCD's fugitive dust rules and fugitive dust control measures which will be provided by the City of San Marcos.*

Table 4.1 shows the expected construction emissions. Based on the cumulative totals, Air Quality impacts would not be expected.

Table 4.1: Expected Construction Emissions Summary

Year	ROG	NO_x	CO	SO_2	PM_{10} (Dust)	PM_{10} (Exhaust)	PM_{10} (Total)	$PM_{2.5}$ (Dust)	$PM_{2.5}$ (Exhaust)	$PM_{2.5}$ (Total)
2024	0.66	23.37	17.80	0.12	10.36	0.23	10.59	4.30	0.22	4.52
2025	39.82	5.92	30.78	0.06	1.36	0.07	1.41	0.36	0.07	0.43
(Maximum)	**39.82**	**23.37**	**30.78**	**0.12**	**10.36**	**0.23**	**10.59**	**4.30**	**0.22**	**4.52**
Screening Level Threshold (lb/day)	**75**	**250**	**550**	**250**	**-**	**-**	**100**	**-**	**-**	**55**
SDAPCD Impact?	**No**	**No**	**No**	**No**	-	-	**No**	-	-	**No**

4.2 Health Risk

Based upon the air quality modeling, worst-case onsite PM_{10} from onsite construction exhaust would cumulatively produce 0.0044 tons over the construction duration (320-calendar days) or an average of 1.44×10^{-4} grams/second. Utilizing the AERSCREEN dispersion model, the peak maximum 1-hr concentration is 0.349 µg/m^3 during the worst-case construction period. Converting the peak 1-hr concentration to an annual concentration by multiplying it by 0.08 (US EPA, 1992) yields an annual concentration of 0.0279 µg/m^3. Therefore, utilizing the risk

equation identified above in Section 3.1, the inhalation cancer risk is 3.74 per million over the construction duration. This risk would be expressed at the point of maximum exposure 75 meters away (246 feet) as predicted by AERSCREEN and shown in the model outputs provided within ***Attachment B***. As a condition of project approval, the Project would be required to utilize Tier 4 diesel equipment. Since the threshold is 10 per million exposed with T-BACT installed, the project would have a less than significant impact and would be in compliance with the City's thresholds.

It should be noted that sensitive residential receptors are adjacent to the project site. Since the maximum risk is 3.74 per million exposed (and the threshold is 10 per million), all sensitive receptors would have cancer risks at or less than 3.74 per million exposed which would also represent a less than significant impact.

There are known chronic health risks associated with diesel exhaust which are considered non-cancer risks. These risks are calculated based on methods identified in Section 3.1 of this report. From this we find that the hourly concentration of 0.349 $\mu g/m^3$ divided by the REL of 5 $\mu g/m^3$ yields a Health Hazard Index of 0.07, which is less than one. Therefore, based on thresholds for non-cancer risks in Section 3.1 above, non-cancer health risks are considered less than significant.

4.3 Odor Impact Findings

Potential onsite odor generators would include short-term construction odors from activities such as paving and possibly painting. Given this, short-term construction odors would not be considered an impact. Also, the proposed project would not be expected to generate odors during operation since the project is residential in nature. Odor impacts would be less than significant.

4.4 Operational Findings

The proposed project would generate 874 daily trips (CR Associates, 2023) once the proposed project is fully operational in the year 2025. This assumption has been incorporated into the CalEEMod file. The Project traffic trip distances are based on an average trip distance within the County which can be calculated using the total daily VMT within the County (86,284,768) miles divided by the total trips in the County (16,007,853) or roughly 5.4 miles and is also shown in ***Attachment D*** to this report.

The expected daily pollutant generation can be calculated utilizing the product of the average daily miles traveled and the expected emissions inventory calculated by CALEEMOD 2020.4.0 and can be seen in Table 4.2 on the following page. Based upon these calculations, the proposed project would not generate operational air quality impacts.

Table 4.2: Daily Pollutant Generation

	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Summer Scenario						
Area Source Emission Estimates (Lb/Day)	3.37	0.11	9.82	0.00	0.05	0.05
Energy Emission Estimates (Lb/Day)	0.03	0.22	0.10	0.00	0.02	0.02
Mobile Emission Estimates (Lb/Day)	1.91	1.58	13.98	0.03	3.01	0.82
Total (Lb/Day)	**5.31**	**1.91**	**23.90**	**0.03**	**3.08**	**0.89**
Screening Level Thresholds	75	250	550	250	100	55
Significant?	No	No	No	No	No	No
Winter Scenario						
Area Source Emission Estimates (Lb/Day)	3.37	0.11	9.82	0.00	0.05	0.05
Energy Emission Estimates (Lb/Day)	0.03	0.22	0.10	0.00	0.02	0.02
Mobile Emission Estimates (Lb/Day)	1.84	1.71	14.75	0.03	3.01	0.82
Total (Lb/Day)	**5.23**	**2.05**	**24.67**	**0.03**	**3.08**	**0.89**
Screening Level Thresholds	75	250	550	250	100	55
Significant?	No	No	No	No	No	No
Daily pollutant generation assumes trip distances within CalEEMod						

4.5 Cumulative Impacts

The proposed project seeks to construct a 119 unit multi-family residential facility and 4,000 SF of commercial use. The existing MU-3 designation on the site would allow for a 90,000 SF office use with 10,000 SF of retail and 400 parking spaces (GP Buildout Scenario). Since the largest component of Air Quality emissions are typically derived from vehicular trips, the site would be considered less intense than would otherwise be assumed if a GP Buildout scenario was assumed and the growth generated from the GP Buildout scenario and would have been the basis of SANDAG growth projections. In addition, the project conforms to local air district significance thresholds.

Given this, the site development plan would be less intense in terms of Air Quality than would otherwise be allowed within the MU3 General Plan land use. Given this, the project would not conflict with the County's RAQS or the State's air quality SIP. Finally, since no direct construction air quality impacts are expected, no cumulative impacts are expected.

4.6 Conclusion of Findings

During construction of the proposed Project, fugitive dust emissions will be expected during grading and equipment usage however, these emissions would not exceed City thresholds and would not be considered an impact. The project has been designed and planned by incorporating design elements and best management practices which are a condition of approval to the project as shown below:

- *Construction Design Feature 1: all heavy diesel construction equipment will be classified as Tier IV.*
- *Construction Design Feature 2: In accordance with Rule 67 of the California Air Resource Board, only Low VOC paints shall be utilized onsite (100 g/l or less).*
- *Best Management Practice 1: Comply with SDAPCD's fugitive dust rules and fugitive dust control measures which will be provided by the City of San Marcos.*

Additionally, emissions will be generated from both area and operational sources by the proposed Project which are the result of Project generated traffic, landscaping maintenance equipment, consumer products, and annual maintenance and painting. Significant impacts are not expected during operations. This analysis assumes the project would not install hearth options within the development.

The proposed project seeks to construct a 119 unit multi-family residential facility with 4,000 SF of retail (874 ADT). The existing site would allow for up to 90,000 SF of office use and 10,000 SF of retail with 400 parking spaces which would generate 2,200 ADT. Since the largest component of Air Quality emissions are typically derived from vehicular trips, the proposed project would be considered less intense and reduce ADT by approximately 60%. Given this, the site development plan would be less intense than would otherwise be allowed under the GP Buildout scenario. Given this, the project would not conflict with the County's Regional (RAQS or the State's air quality SIP.

Finally, since a less than significant direct construction air quality impact is expected, a less than significant cumulative impact is expected.

5.0 REFERENCES

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ATTACHMENT A

CalEEMod

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

Capalina 119 Unit Multi-Family Operational Year 2025

San Diego County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	147.00	Space	1.34	58,800.00	0
Apartments Mid Rise	119.00	Dwelling Unit	1.08	119,000.00	340
Strip Mall	4.00	1000sqft	0.09	4,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	539.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 2.51 acres

Construction Phase - CS

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Trips and VMT -

Grading - 8240CY of import

Architectural Coating - Rule 67 Paint

Vehicle Trips - Per Traffic Study

Capalina 119 Unit Multi-Family Operational Year 2025 - San Diego County, Summer

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

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No Hearth

Area Coating - Rule 67 Paint

Energy Use -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - T4

Area Mitigation -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

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

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	10.00	40.00
tblFireplaces	NumberGas	65.45	0.00
tblFireplaces	NumberNoFireplace	11.90	119.00
tblFireplaces	NumberWood	41.65	0.00
tblGrading	MaterialImported	0.00	8,240.00
tblLandUse	LotAcreage	1.32	1.34
tblLandUse	LotAcreage	3.13	1.08
tblVehicleTrips	CC_TL	7.30	5.40
tblVehicleTrips	CNW_TL	7.30	5.40
tblVehicleTrips	CW_TL	9.50	5.40
tblVehicleTrips	HO_TL	7.50	5.40

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

tblVehicleTrips	HS_TL	7.30	5.40
tblVehicleTrips	HW_TL	10.80	5.40
tblVehicleTrips	ST_TR	4.91	6.00
tblVehicleTrips	ST_TR	42.04	40.00
tblVehicleTrips	SU_TR	4.09	6.00
tblVehicleTrips	SU_TR	20.43	40.00
tblVehicleTrips	WD_TR	5.44	6.00
tblVehicleTrips	WD_TR	44.32	40.00
tblWoodstoves	NumberCatalytic	5.95	0.00
tblWoodstoves	NumberNoncatalytic	5.95	0.00

2.0 Emissions Summary

Capalina 119 Unit Multi-Family Operational Year 2025 - San Diego County, Summer

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

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	1.9113	36.0941	16.9657	0.1220	10.3603	0.7644	11.1247	4.2988	0.7103	5.0090	0.0000	13,220.0849	13,220.0849	1.2368	1.7765	13,780.4025
2025	41.5468	20.0715	28.3310	0.0563	1.3387	0.8151	2.1538	0.3586	0.7717	1.1303	0.0000	5,436.0091	5,436.0091	0.9142	0.0940	5,486.8810
Maximum	**41.5468**	**36.0941**	**28.3310**	**0.1220**	**10.3603**	**0.8151**	**11.1247**	**4.2988**	**0.7717**	**5.0090**	**0.0000**	**13,220.0849**	**13,220.0849**	**1.2368**	**1.7765**	**13,780.4025**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	0.6620	23.3690	17.8011	0.1220	10.3603	0.2258	10.5860	4.2988	0.2174	4.5162	0.0000	13,220.0848	13,220.0848	1.2368	1.7765	13,780.4025
2025	39.8234	5.9152	30.7785	0.0563	1.3387	0.0740	1.4127	0.3586	0.0732	0.4318	0.0000	5,436.0091	5,436.0091	0.9142	0.0940	5,486.8810
Maximum	**39.8234**	**23.3690**	**30.7785**	**0.1220**	**10.3603**	**0.2258**	**10.5860**	**4.2988**	**0.2174**	**4.5162**	**0.0000**	**13,220.0848**	**13,220.0848**	**1.2368**	**1.7765**	**13,780.4025**

Capalina 119 Unit Multi-Family Operational Year 2025 - San Diego County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**6.84**	**47.86**	**-7.25**	**0.00**	**0.00**	**81.03**	**9.64**	**0.00**	**80.39**	**19.40**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Capalina 119 Unit Multi-Family Operational Year 2025 - San Diego County, 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	3.3716	0.1131	9.8237	5.2000e-004		0.0545	0.0545		0.0545	0.0545	0.0000	17.7108	17.7108	0.0170	0.0000	18.1361
Energy	0.0258	0.2210	0.0950	1.4100e-003		0.0179	0.0179		0.0179	0.0179		281.9436	281.9436	5.4000e-003	5.1700e-003	283.6190
Mobile	1.9075	1.5773	13.9822	0.0280	2.9895	0.0220	3.0116	0.7964	0.0205	0.8169		2,921.0681	2,921.0681	0.2232	0.1368	2,967.4161
Total	**5.3049**	**1.9115**	**23.9010**	**0.0299**	**2.9895**	**0.0944**	**3.0839**	**0.7964**	**0.0929**	**0.8892**	**0.0000**	**3,220.7225**	**3,220.7225**	**0.2456**	**0.1420**	**3,269.1713**

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	3.3716	0.1131	9.8237	5.2000e-004		0.0545	0.0545		0.0545	0.0545	0.0000	17.7108	17.7108	0.0170	0.0000	18.1361
Energy	0.0258	0.2210	0.0950	1.4100e-003		0.0179	0.0179		0.0179	0.0179		281.9436	281.9436	5.4000e-003	5.1700e-003	283.6190
Mobile	1.9075	1.5773	13.9822	0.0280	2.9895	0.0220	3.0116	0.7964	0.0205	0.8169		2,921.0681	2,921.0681	0.2232	0.1368	2,967.4161
Total	**5.3049**	**1.9115**	**23.9010**	**0.0299**	**2.9895**	**0.0944**	**3.0839**	**0.7964**	**0.0929**	**0.8892**	**0.0000**	**3,220.7225**	**3,220.7225**	**0.2456**	**0.1420**	**3,269.1713**

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	6/1/2024	6/5/2024	5	3	
2	Grading	Grading	6/6/2024	6/13/2024	5	6	
3	Building Construction	Building Construction	6/14/2024	4/17/2025	5	220	
4	Paving	Paving	2/21/2025	3/6/2025	5	10	
5	Architectural Coating	Architectural Coating	2/21/2025	4/17/2025	5	40	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 6

Acres of Paving: 1.34

Residential Indoor: 240,975; Residential Outdoor: 80,325; Non-Residential Indoor: 6,000; Non-Residential Outdoor: 2,000; Striped Parking Area: 3,528 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37

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

Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	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	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	1,030.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	112.00	23.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Capalina 119 Unit Multi-Family Operational Year 2025 - San Diego County, Summer

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

3.2 Site Preparation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.2406	13.1186	9.5796	0.0245		0.4971	0.4971		0.4573	0.4573		2,373.6514	2,373.6514	0.7677		2,392.8435
Total	**1.2406**	**13.1186**	**9.5796**	**0.0245**	**1.5908**	**0.4971**	**2.0878**	**0.1718**	**0.4573**	**0.6291**		**2,373.6514**	**2,373.6514**	**0.7677**		**2,392.8435**

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	0.0206	0.0122	0.1799	5.6000e-004	0.0657	3.4000e-004	0.0661	0.0174	3.1000e-004	0.0177		57.9326	57.9326	1.4500e-003	1.3700e-003	58.3763
Total	**0.0206**	**0.0122**	**0.1799**	**5.6000e-004**	**0.0657**	**3.4000e-004**	**0.0661**	**0.0174**	**3.1000e-004**	**0.0177**		**57.9326**	**57.9326**	**1.4500e-003**	**1.3700e-003**	**58.3763**

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

3.2 Site Preparation - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	0.3008	1.3034	11.8595	0.0245		0.0401	0.0401		0.0401	0.0401	0.0000	2,373.6514	2,373.6514	0.7677		2,392.8435
Total	**0.3008**	**1.3034**	**11.8595**	**0.0245**	**1.5908**	**0.0401**	**1.6309**	**0.1718**	**0.0401**	**0.2119**	**0.0000**	**2,373.6514**	**2,373.6514**	**0.7677**		**2,392.8435**

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	0.0206	0.0122	0.1799	5.6000e-004	0.0657	3.4000e-004	0.0661	0.0174	3.1000e-004	0.0177		57.9326	57.9326	1.4500e-003	1.3700e-003	58.3763
Total	**0.0206**	**0.0122**	**0.1799**	**5.6000e-004**	**0.0657**	**3.4000e-004**	**0.0661**	**0.0174**	**3.1000e-004**	**0.0177**		**57.9326**	**57.9326**	**1.4500e-003**	**1.3700e-003**	**58.3763**

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

3.3 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.2756	0.0000	7.2756	3.4540	0.0000	3.4540			0.0000			0.0000
Off-Road	1.3015	13.8178	8.6998	0.0206		0.5722	0.5722		0.5265	0.5265		1,995.5803	1,995.5803	0.6454		2,011.7155
Total	**1.3015**	**13.8178**	**8.6998**	**0.0206**	**7.2756**	**0.5722**	**7.8478**	**3.4540**	**0.5265**	**3.9804**		**1,995.5803**	**1,995.5803**	**0.6454**		**2,011.7155**

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	0.3842	22.2611	6.2541	0.1006	3.0026	0.1917	3.1943	0.8230	0.1834	1.0064		11,152.0888	11,152.0888	0.5896	1.7748	11,695.7166
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	0.0257	0.0153	0.2249	7.0000e-004	0.0822	4.2000e-004	0.0826	0.0218	3.9000e-004	0.0222		72.4158	72.4158	1.8100e-003	1.7100e-003	72.9704
Total	**0.4099**	**22.2763**	**6.4790**	**0.1013**	**3.0847**	**0.1921**	**3.2768**	**0.8448**	**0.1838**	**1.0286**		**11,224.5046**	**11,224.5046**	**0.5914**	**1.7765**	**11,768.6870**

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

3.3 Grading - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.2756	0.0000	7.2756	3.4540	0.0000	3.4540			0.0000			0.0000
Off-Road	0.2522	1.0927	10.9071	0.0206		0.0336	0.0336		0.0336	0.0336	0.0000	1,995.5803	1,995.5803	0.6454		2,011.7155
Total	**0.2522**	**1.0927**	**10.9071**	**0.0206**	**7.2756**	**0.0336**	**7.3092**	**3.4540**	**0.0336**	**3.4876**	**0.0000**	**1,995.5803**	**1,995.5803**	**0.6454**		**2,011.7155**

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	0.3842	22.2611	6.2541	0.1006	3.0026	0.1917	3.1943	0.8230	0.1834	1.0064		11,152.0888	11,152.0888	0.5896	1.7748	11,695.7166
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	0.0257	0.0153	0.2249	7.0000e-004	0.0822	4.2000e-004	0.0826	0.0218	3.9000e-004	0.0222		72.4158	72.4158	1.8100e-003	1.7100e-003	72.9704
Total	**0.4099**	**22.2763**	**6.4790**	**0.1013**	**3.0847**	**0.1921**	**3.2768**	**0.8448**	**0.1838**	**1.0286**		**11,224.5046**	**11,224.5046**	**0.5914**	**1.7765**	**11,768.6870**

Capalina 119 Unit Multi-Family Operational Year 2025 - San Diego County, Summer

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

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5971	12.8235	14.1002	0.0250		0.5381	0.5381		0.5153	0.5153		2,289.6541	2,289.6541	0.4265		2,300.3154
Total	**1.5971**	**12.8235**	**14.1002**	**0.0250**		**0.5381**	**0.5381**		**0.5153**	**0.5153**		**2,289.6541**	**2,289.6541**	**0.4265**		**2,300.3154**

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	0.0265	0.9792	0.3470	4.6200e-003	0.1558	6.0400e-003	0.1618	0.0448	5.7700e-003	0.0506		499.5441	499.5441	0.0158	0.0723	521.4912
Worker	0.2877	0.1711	2.5186	7.8600e-003	0.9201	4.7200e-003	0.9248	0.2440	4.3400e-003	0.2484		811.0567	811.0567	0.0203	0.0191	817.2679
Total	**0.3141**	**1.1503**	**2.8656**	**0.0125**	**1.0758**	**0.0108**	**1.0866**	**0.2889**	**0.0101**	**0.2990**		**1,310.6008**	**1,310.6008**	**0.0360**	**0.0915**	**1,338.7591**

Capalina 119 Unit Multi-Family Operational Year 2025 - San Diego County, Summer

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

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3296	3.8705	14.9355	0.0250		0.0352	0.0352		0.0352	0.0352	0.0000	2,289.6541	2,289.6541	0.4265		2,300.3154
Total	**0.3296**	**3.8705**	**14.9355**	**0.0250**		**0.0352**	**0.0352**		**0.0352**	**0.0352**	**0.0000**	**2,289.6541**	**2,289.6541**	**0.4265**		**2,300.3154**

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	0.0265	0.9792	0.3470	4.6200e-003	0.1558	6.0400e-003	0.1618	0.0448	5.7700e-003	0.0506		499.5441	499.5441	0.0158	0.0723	521.4912
Worker	0.2877	0.1711	2.5186	7.8600e-003	0.9201	4.7200e-003	0.9248	0.2440	4.3400e-003	0.2484		811.0567	811.0567	0.0203	0.0191	817.2679
Total	**0.3141**	**1.1503**	**2.8656**	**0.0125**	**1.0758**	**0.0108**	**1.0866**	**0.2889**	**0.0101**	**0.2990**		**1,310.6008**	**1,310.6008**	**0.0360**	**0.0915**	**1,338.7591**

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	1.4897	12.0233	14.0072	0.0250		0.4700	0.4700		0.4498	0.4498		2,289.8898	2,289.8898	0.4200		2,300.3887
Total	**1.4897**	**12.0233**	**14.0072**	**0.0250**		**0.4700**	**0.4700**		**0.4498**	**0.4498**		**2,289.8898**	**2,289.8898**	**0.4200**		**2,300.3887**

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	0.0257	0.9696	0.3412	4.5300e-003	0.1558	6.0200e-003	0.1618	0.0449	5.7600e-003	0.0506		490.0146	490.0146	0.0162	0.0709	511.5499
Worker	0.2711	0.1550	2.3627	7.5900e-003	0.9201	4.5200e-003	0.9246	0.2440	4.1600e-003	0.2482		791.1728	791.1728	0.0185	0.0180	796.9893
Total	**0.2967**	**1.1246**	**2.7039**	**0.0121**	**1.0758**	**0.0105**	**1.0864**	**0.2889**	**9.9200e-003**	**0.2988**		**1,281.1874**	**1,281.1874**	**0.0346**	**0.0889**	**1,308.5392**

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

3.4 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3296	3.8705	14.9355	0.0250		0.0352	0.0352		0.0352	0.0352	0.0000	2,289.8898	2,289.8898	0.4200		2,300.3887
Total	**0.3296**	**3.8705**	**14.9355**	**0.0250**		**0.0352**	**0.0352**		**0.0352**	**0.0352**	**0.0000**	**2,289.8898**	**2,289.8898**	**0.4200**		**2,300.3887**

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	0.0257	0.9696	0.3412	4.5300e-003	0.1558	6.0200e-003	0.1618	0.0449	5.7600e-003	0.0506		490.0146	490.0146	0.0162	0.0709	511.5499
Worker	0.2711	0.1550	2.3627	7.5900e-003	0.9201	4.5200e-003	0.9246	0.2440	4.1600e-003	0.2482		791.1728	791.1728	0.0185	0.0180	796.9893
Total	**0.2967**	**1.1246**	**2.7039**	**0.0121**	**1.0758**	**0.0105**	**1.0864**	**0.2889**	**9.9200e-003**	**0.2988**		**1,281.1874**	**1,281.1874**	**0.0346**	**0.0889**	**1,308.5392**

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

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5945	5.7338	9.1357	0.0140		0.2818	0.2818		0.2593	0.2593		1,357.4345	1,357.4345	0.4390		1,368.4101
Paving	0.3511					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9456**	**5.7338**	**9.1357**	**0.0140**		**0.2818**	**0.2818**		**0.2593**	**0.2593**		**1,357.4345**	**1,357.4345**	**0.4390**		**1,368.4101**

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	0.0242	0.0138	0.2110	6.8000e-004	0.0822	4.0000e-004	0.0826	0.0218	3.7000e-004	0.0222		70.6404	70.6404	1.6500e-003	1.6000e-003	71.1598
Total	**0.0242**	**0.0138**	**0.2110**	**6.8000e-004**	**0.0822**	**4.0000e-004**	**0.0826**	**0.0218**	**3.7000e-004**	**0.0222**		**70.6404**	**70.6404**	**1.6500e-003**	**1.6000e-003**	**71.1598**

Capalina 119 Unit Multi-Family Operational Year 2025 - San Diego County, Summer

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

3.5 Paving - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1724	0.7471	10.6316	0.0140		0.0230	0.0230		0.0230	0.0230	0.0000	1,357.4345	1,357.4345	0.4390		1,368.4101
Paving	0.3511					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5235**	**0.7471**	**10.6316**	**0.0140**		**0.0230**	**0.0230**		**0.0230**	**0.0230**	**0.0000**	**1,357.4345**	**1,357.4345**	**0.4390**		**1,368.4101**

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	0.0242	0.0138	0.2110	6.8000e-004	0.0822	4.0000e-004	0.0826	0.0218	3.7000e-004	0.0222		70.6404	70.6404	1.6500e-003	1.6000e-003	71.1598
Total	**0.0242**	**0.0138**	**0.2110**	**6.8000e-004**	**0.0822**	**4.0000e-004**	**0.0826**	**0.0218**	**3.7000e-004**	**0.0222**		**70.6404**	**70.6404**	**1.6500e-003**	**1.6000e-003**	**71.1598**

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

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	38.5664					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	**38.7373**	**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	0.0533	0.0304	0.4641	1.4900e-003	0.1807	8.9000e-004	0.1816	0.0479	8.2000e-004	0.0488		155.4089	155.4089	3.6300e-003	3.5300e-003	156.5515
Total	**0.0533**	**0.0304**	**0.4641**	**1.4900e-003**	**0.1807**	**8.9000e-004**	**0.1816**	**0.0479**	**8.2000e-004**	**0.0488**		**155.4089**	**155.4089**	**3.6300e-003**	**3.5300e-003**	**156.5515**

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

3.6 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	38.5664					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**38.5962**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**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	0.0533	0.0304	0.4641	1.4900e-003	0.1807	8.9000e-004	0.1816	0.0479	8.2000e-004	0.0488		155.4089	155.4089	3.6300e-003	3.5300e-003	156.5515
Total	**0.0533**	**0.0304**	**0.4641**	**1.4900e-003**	**0.1807**	**8.9000e-004**	**0.1816**	**0.0479**	**8.2000e-004**	**0.0488**		**155.4089**	**155.4089**	**3.6300e-003**	**3.5300e-003**	**156.5515**

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.9075	1.5773	13.9822	0.0280	2.9895	0.0220	3.0116	0.7964	0.0205	0.8169		2,921.0681	2,921.0681	0.2232	0.1368	2,967.4161
Unmitigated	1.9075	1.5773	13.9822	0.0280	2.9895	0.0220	3.0116	0.7964	0.0205	0.8169		2,921.0681	2,921.0681	0.2232	0.1368	2,967.4161

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	714.00	714.00	714.00	1,246,331	1,246,331
Parking Lot	0.00	0.00	0.00		
Strip Mall	160.00	160.00	160.00	173,846	173,846
Total	874.00	874.00	874.00	1,420,178	1,420,178

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	5.40	5.40	5.40	41.60	18.80	39.60	86	11	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	5.40	5.40	5.40	16.60	64.40	19.00	45	40	15

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

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751
Parking Lot	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751
Strip Mall	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751

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	0.0258	0.2210	0.0950	1.4100e-003		0.0179	0.0179		0.0179	0.0179		281.9436	281.9436	5.4000e-003	5.1700e-003	283.6190
NaturalGas Unmitigated	0.0258	0.2210	0.0950	1.4100e-003		0.0179	0.0179		0.0179	0.0179		281.9436	281.9436	5.4000e-003	5.1700e-003	283.6190

Capalina 119 Unit Multi-Family Operational Year 2025 - San Diego County, Summer

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	2372.19	0.0256	0.2186	0.0930	1.4000e-003		0.0177	0.0177		0.0177	0.0177		279.0814	279.0814	5.3500e-003	5.1200e-003	280.7398
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	24.3288	2.6000e-004	2.3900e-003	2.0000e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		2.8622	2.8622	5.0000e-005	5.0000e-005	2.8792
Total		**0.0258**	**0.2210**	**0.0950**	**1.4100e-003**		**0.0179**	**0.0179**		**0.0179**	**0.0179**		**281.9436**	**281.9436**	**5.4000e-003**	**5.1700e-003**	**283.6190**

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	2.37219	0.0256	0.2186	0.0930	1.4000e-003		0.0177	0.0177		0.0177	0.0177		279.0814	279.0814	5.3500e-003	5.1200e-003	280.7398
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.0243288	2.6000e-004	2.3900e-003	2.0000e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		2.8622	2.8622	5.0000e-005	5.0000e-005	2.8792
Total		**0.0258**	**0.2210**	**0.0950**	**1.4100e-003**		**0.0179**	**0.0179**		**0.0179**	**0.0179**		**281.9436**	**281.9436**	**5.4000e-003**	**5.1700e-003**	**283.6190**

6.0 Area Detail

6.1 Mitigation Measures Area

Capalina 119 Unit Multi-Family Operational Year 2025 - San Diego County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.3716	0.1131	9.8237	5.2000e-004		0.0545	0.0545		0.0545	0.0545	0.0000	17.7108	17.7108	0.0170	0.0000	18.1361
Unmitigated	3.3716	0.1131	9.8237	5.2000e-004		0.0545	0.0545		0.0545	0.0545	0.0000	17.7108	17.7108	0.0170	0.0000	18.1361

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	0.4227					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.6530					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	0.2959	0.1131	9.8237	5.2000e-004		0.0545	0.0545		0.0545	0.0545		17.7108	17.7108	0.0170		18.1361
Total	**3.3716**	**0.1131**	**9.8237**	**5.2000e-004**		**0.0545**	**0.0545**		**0.0545**	**0.0545**	**0.0000**	**17.7108**	**17.7108**	**0.0170**	**0.0000**	**18.1361**

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	0.4227					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.6530					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	0.2959	0.1131	9.8237	5.2000e-004		0.0545	0.0545		0.0545	0.0545		17.7108	17.7108	0.0170		18.1361
Total	**3.3716**	**0.1131**	**9.8237**	**5.2000e-004**		**0.0545**	**0.0545**		**0.0545**	**0.0545**	**0.0000**	**17.7108**	**17.7108**	**0.0170**	**0.0000**	**18.1361**

7.0 Water Detail

7.1 Mitigation Measures Water

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

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

Capalina 119 Unit Multi-Family Operational Year 2025

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	149.00	Space	1.34	59,600.00	0
Apartments Mid Rise	119.00	Dwelling Unit	1.08	119,000.00	340
Strip Mall	4.00	1000sqft	0.09	4,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	539.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 2.51 acres

Construction Phase - CS

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Trips and VMT -

Grading - 8240CY of import

Architectural Coating - Rule 67 Paint

Vehicle Trips - Per Traffic Study

Capalina 119 Unit Multi-Family Operational Year 2025 - San Diego County, Winter

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

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No Hearth

Area Coating - Rule 67 Paint

Energy Use -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - T4

Area Mitigation -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

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

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	10.00	40.00
tblFireplaces	NumberGas	65.45	0.00
tblFireplaces	NumberNoFireplace	11.90	119.00
tblFireplaces	NumberWood	41.65	0.00
tblGrading	MaterialImported	0.00	8,240.00
tblLandUse	LotAcreage	3.13	1.08
tblTripsAndVMT	WorkerTripNumber	112.00	113.00
tblTripsAndVMT	WorkerTripNumber	22.00	23.00
tblVehicleTrips	CC_TL	7.30	5.40
tblVehicleTrips	CNW_TL	7.30	5.40
tblVehicleTrips	CW_TL	9.50	5.40

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

tblVehicleTrips	HO_TL	7.50	5.40
tblVehicleTrips	HS_TL	7.30	5.40
tblVehicleTrips	HW_TL	10.80	5.40
tblVehicleTrips	ST_TR	4.91	6.00
tblVehicleTrips	ST_TR	42.04	40.00
tblVehicleTrips	SU_TR	4.09	6.00
tblVehicleTrips	SU_TR	20.43	40.00
tblVehicleTrips	WD_TR	5.44	6.00
tblVehicleTrips	WD_TR	44.32	40.00
tblWoodstoves	NumberCatalytic	5.95	0.00
tblWoodstoves	NumberNoncatalytic	5.95	0.00

2.0 Emissions Summary

Capalina 119 Unit Multi-Family Operational Year 2025 - San Diego County, Winter

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

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	1.9383	36.9957	16.8772	0.1220	10.3603	0.7647	11.1250	4.2988	0.7106	5.0094	0.0000	13,227.1451	13,227.1451	1.2355	1.7785	13,788.0164
2025	41.5880	20.1404	28.2407	0.0559	1.3551	0.8152	2.1704	0.3630	0.7718	1.1348	0.0000	5,394.4139	5,394.4139	0.9161	0.0964	5,446.0444
Maximum	**41.5880**	**36.9957**	**28.2407**	**0.1220**	**10.3603**	**0.8152**	**11.1250**	**4.2988**	**0.7718**	**5.0094**	**0.0000**	**13,227.1451**	**13,227.1451**	**1.2355**	**1.7785**	**13,788.0164**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	0.6707	24.2705	17.7126	0.1220	10.3603	0.2261	10.5864	4.2988	0.2178	4.5165	0.0000	13,227.1451	13,227.1451	1.2355	1.7785	13,788.0164
2025	39.8645	5.9841	30.6883	0.0559	1.3551	0.0741	1.4292	0.3630	0.0733	0.4363	0.0000	5,394.4139	5,394.4139	0.9161	0.0964	5,446.0444
Maximum	**39.8645**	**24.2705**	**30.6883**	**0.1220**	**10.3603**	**0.2261**	**10.5864**	**4.2988**	**0.2178**	**4.5165**	**0.0000**	**13,227.1451**	**13,227.1451**	**1.2355**	**1.7785**	**13,788.0164**

Capalina 119 Unit Multi-Family Operational Year 2025 - San Diego County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**6.87**	**47.05**	**-7.28**	**0.00**	**0.00**	**81.00**	**9.63**	**0.00**	**80.36**	**19.39**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Capalina 119 Unit Multi-Family Operational Year 2025 - San Diego County, 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	3.3719	0.1131	9.8239	5.2000e-004		0.0545	0.0545		0.0545	0.0545	0.0000	17.7112	17.7112	0.0170	0.0000	18.1366
Energy	0.0258	0.2210	0.0950	1.4100e-003		0.0179	0.0179		0.0179	0.0179		281.9436	281.9436	5.4000e-003	5.1700e-003	283.6190
Mobile	1.8350	1.7135	14.7485	0.0268	2.9895	0.0220	3.0116	0.7964	0.0205	0.8169		2,797.3525	2,797.3525	0.2406	0.1447	2,846.5018
Total	**5.2328**	**2.0476**	**24.6674**	**0.0287**	**2.9895**	**0.0944**	**3.0839**	**0.7964**	**0.0929**	**0.8892**	**0.0000**	**3,097.0073**	**3,097.0073**	**0.2630**	**0.1499**	**3,148.2574**

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	3.3719	0.1131	9.8239	5.2000e-004		0.0545	0.0545		0.0545	0.0545	0.0000	17.7112	17.7112	0.0170	0.0000	18.1366
Energy	0.0258	0.2210	0.0950	1.4100e-003		0.0179	0.0179		0.0179	0.0179		281.9436	281.9436	5.4000e-003	5.1700e-003	283.6190
Mobile	1.8350	1.7135	14.7485	0.0268	2.9895	0.0220	3.0116	0.7964	0.0205	0.8169		2,797.3525	2,797.3525	0.2406	0.1447	2,846.5018
Total	**5.2328**	**2.0476**	**24.6674**	**0.0287**	**2.9895**	**0.0944**	**3.0839**	**0.7964**	**0.0929**	**0.8892**	**0.0000**	**3,097.0073**	**3,097.0073**	**0.2630**	**0.1499**	**3,148.2574**

Capalina 119 Unit Multi-Family Operational Year 2025 - San Diego County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	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	6/1/2024	6/5/2024	5	3	
2	Grading	Grading	6/6/2024	6/13/2024	5	6	
3	Building Construction	Building Construction	6/14/2024	4/17/2025	5	220	
4	Paving	Paving	2/21/2025	3/6/2025	5	10	
5	Architectural Coating	Architectural Coating	2/21/2025	4/17/2025	5	40	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 6

Acres of Paving: 1.34

Residential Indoor: 240,975; Residential Outdoor: 80,325; Non-Residential Indoor: 6,000; Non-Residential Outdoor: 2,000; Striped Parking Area: 3,576 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37

Capalina 119 Unit Multi-Family Operational Year 2025 - San Diego County, Winter

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

Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	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	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	1,030.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	113.00	23.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Capalina 119 Unit Multi-Family Operational Year 2025 - San Diego County, Winter

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

3.2 Site Preparation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.2406	13.1186	9.5796	0.0245		0.4971	0.4971		0.4573	0.4573		2,373.6514	2,373.6514	0.7677		2,392.8435
Total	**1.2406**	**13.1186**	**9.5796**	**0.0245**	**1.5908**	**0.4971**	**2.0878**	**0.1718**	**0.4573**	**0.6291**		**2,373.6514**	**2,373.6514**	**0.7677**		**2,392.8435**

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	0.0223	0.0137	0.1713	5.3000e-004	0.0657	3.4000e-004	0.0661	0.0174	3.1000e-004	0.0177		54.7553	54.7553	1.5500e-003	1.4800e-003	55.2345
Total	**0.0223**	**0.0137**	**0.1713**	**5.3000e-004**	**0.0657**	**3.4000e-004**	**0.0661**	**0.0174**	**3.1000e-004**	**0.0177**		**54.7553**	**54.7553**	**1.5500e-003**	**1.4800e-003**	**55.2345**

Capalina 119 Unit Multi-Family Operational Year 2025 - San Diego County, Winter

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

3.2 Site Preparation - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	0.3008	1.3034	11.8595	0.0245		0.0401	0.0401		0.0401	0.0401	0.0000	2,373.6514	2,373.6514	0.7677		2,392.8435
Total	**0.3008**	**1.3034**	**11.8595**	**0.0245**	**1.5908**	**0.0401**	**1.6309**	**0.1718**	**0.0401**	**0.2119**	**0.0000**	**2,373.6514**	**2,373.6514**	**0.7677**		**2,392.8435**

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	0.0223	0.0137	0.1713	5.3000e-004	0.0657	3.4000e-004	0.0661	0.0174	3.1000e-004	0.0177		54.7553	54.7553	1.5500e-003	1.4800e-003	55.2345
Total	**0.0223**	**0.0137**	**0.1713**	**5.3000e-004**	**0.0657**	**3.4000e-004**	**0.0661**	**0.0174**	**3.1000e-004**	**0.0177**		**54.7553**	**54.7553**	**1.5500e-003**	**1.4800e-003**	**55.2345**

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

3.3 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.2756	0.0000	7.2756	3.4540	0.0000	3.4540			0.0000			0.0000
Off-Road	1.3015	13.8178	8.6998	0.0206		0.5722	0.5722		0.5265	0.5265		1,995.5803	1,995.5803	0.6454		2,011.7155
Total	**1.3015**	**13.8178**	**8.6998**	**0.0206**	**7.2756**	**0.5722**	**7.8478**	**3.4540**	**0.5265**	**3.9804**		**1,995.5803**	**1,995.5803**	**0.6454**		**2,011.7155**

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	0.3609	23.1607	6.3313	0.1008	3.0026	0.1921	3.1946	0.8230	0.1837	1.0068		11,163.1207	11,163.1207	0.5882	1.7766	11,707.2577
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	0.0279	0.0172	0.2141	6.6000e-004	0.0822	4.2000e-004	0.0826	0.0218	3.9000e-004	0.0222		68.4441	68.4441	1.9300e-003	1.8500e-003	69.0431
Total	**0.3888**	**23.1779**	**6.5454**	**0.1014**	**3.0847**	**0.1925**	**3.2772**	**0.8448**	**0.1841**	**1.0289**		**11,231.5648**	**11,231.5648**	**0.5901**	**1.7785**	**11,776.3008**

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

3.3 Grading - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.2756	0.0000	7.2756	3.4540	0.0000	3.4540			0.0000			0.0000
Off-Road	0.2522	1.0927	10.9071	0.0206		0.0336	0.0336		0.0336	0.0336	0.0000	1,995.5803	1,995.5803	0.6454		2,011.7155
Total	**0.2522**	**1.0927**	**10.9071**	**0.0206**	**7.2756**	**0.0336**	**7.3092**	**3.4540**	**0.0336**	**3.4876**	**0.0000**	**1,995.5803**	**1,995.5803**	**0.6454**		**2,011.7155**

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	0.3609	23.1607	6.3313	0.1008	3.0026	0.1921	3.1946	0.8230	0.1837	1.0068		11,163.1207	11,163.1207	0.5882	1.7766	11,707.2577
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	0.0279	0.0172	0.2141	6.6000e-004	0.0822	4.2000e-004	0.0826	0.0218	3.9000e-004	0.0222		68.4441	68.4441	1.9300e-003	1.8500e-003	69.0431
Total	**0.3888**	**23.1779**	**6.5454**	**0.1014**	**3.0847**	**0.1925**	**3.2772**	**0.8448**	**0.1841**	**1.0289**		**11,231.5648**	**11,231.5648**	**0.5901**	**1.7785**	**11,776.3008**

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	1.5971	12.8235	14.1002	0.0250		0.5381	0.5381		0.5153	0.5153		2,289.6541	2,289.6541	0.4265		2,300.3154
Total	**1.5971**	**12.8235**	**14.1002**	**0.0250**		**0.5381**	**0.5381**		**0.5153**	**0.5153**		**2,289.6541**	**2,289.6541**	**0.4265**		**2,300.3154**

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	0.0256	1.0205	0.3577	4.6300e-003	0.1558	6.0600e-003	0.1618	0.0448	5.8000e-003	0.0506		500.2746	500.2746	0.0157	0.0725	522.2698
Worker	0.3155	0.1941	2.4194	7.5000e-003	0.9283	4.7600e-003	0.9330	0.2462	4.3800e-003	0.2506		773.4181	773.4181	0.0218	0.0209	780.1871
Total	**0.3412**	**1.2147**	**2.7770**	**0.0121**	**1.0840**	**0.0108**	**1.0949**	**0.2911**	**0.0102**	**0.3012**		**1,273.6927**	**1,273.6927**	**0.0375**	**0.0934**	**1,302.4569**

Capalina 119 Unit Multi-Family Operational Year 2025 - San Diego County, Winter

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

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3296	3.8705	14.9355	0.0250		0.0352	0.0352		0.0352	0.0352	0.0000	2,289.6541	2,289.6541	0.4265		2,300.3154
Total	**0.3296**	**3.8705**	**14.9355**	**0.0250**		**0.0352**	**0.0352**		**0.0352**	**0.0352**	**0.0000**	**2,289.6541**	**2,289.6541**	**0.4265**		**2,300.3154**

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	0.0256	1.0205	0.3577	4.6300e-003	0.1558	6.0600e-003	0.1618	0.0448	5.8000e-003	0.0506		500.2746	500.2746	0.0157	0.0725	522.2698
Worker	0.3155	0.1941	2.4194	7.5000e-003	0.9283	4.7600e-003	0.9330	0.2462	4.3800e-003	0.2506		773.4181	773.4181	0.0218	0.0209	780.1871
Total	**0.3412**	**1.2147**	**2.7770**	**0.0121**	**1.0840**	**0.0108**	**1.0949**	**0.2911**	**0.0102**	**0.3012**		**1,273.6927**	**1,273.6927**	**0.0375**	**0.0934**	**1,302.4569**

Capalina 119 Unit Multi-Family Operational Year 2025 - San Diego County, 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	1.4897	12.0233	14.0072	0.0250		0.4700	0.4700		0.4498	0.4498		2,289.8898	2,289.8898	0.4200		2,300.3887
Total	**1.4897**	**12.0233**	**14.0072**	**0.0250**		**0.4700**	**0.4700**		**0.4498**	**0.4498**		**2,289.8898**	**2,289.8898**	**0.4200**		**2,300.3887**

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	0.0248	1.0106	0.3518	4.5300e-003	0.1558	6.0400e-003	0.1618	0.0449	5.7800e-003	0.0506		490.7483	490.7483	0.0161	0.0711	512.3305
Worker	0.2980	0.1758	2.2731	7.2400e-003	0.9283	4.5600e-003	0.9328	0.2462	4.2000e-003	0.2504		754.5407	754.5407	0.0199	0.0196	760.8795
Total	**0.3228**	**1.1864**	**2.6249**	**0.0118**	**1.0840**	**0.0106**	**1.0947**	**0.2911**	**9.9800e-003**	**0.3011**		**1,245.2889**	**1,245.2889**	**0.0360**	**0.0907**	**1,273.2100**

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

3.4 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3296	3.8705	14.9355	0.0250		0.0352	0.0352		0.0352	0.0352	0.0000	2,289.8898	2,289.8898	0.4200		2,300.3887
Total	**0.3296**	**3.8705**	**14.9355**	**0.0250**		**0.0352**	**0.0352**		**0.0352**	**0.0352**	**0.0000**	**2,289.8898**	**2,289.8898**	**0.4200**		**2,300.3887**

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	0.0248	1.0106	0.3518	4.5300e-003	0.1558	6.0400e-003	0.1618	0.0449	5.7800e-003	0.0506		490.7483	490.7483	0.0161	0.0711	512.3305
Worker	0.2980	0.1758	2.2731	7.2400e-003	0.9283	4.5600e-003	0.9328	0.2462	4.2000e-003	0.2504		754.5407	754.5407	0.0199	0.0196	760.8795
Total	**0.3228**	**1.1864**	**2.6249**	**0.0118**	**1.0840**	**0.0106**	**1.0947**	**0.2911**	**9.9800e-003**	**0.3011**		**1,245.2889**	**1,245.2889**	**0.0360**	**0.0907**	**1,273.2100**

Capalina 119 Unit Multi-Family Operational Year 2025 - San Diego County, Winter

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

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5945	5.7338	9.1357	0.0140		0.2818	0.2818		0.2593	0.2593		1,357.4345	1,357.4345	0.4390		1,368.4101
Paving	0.3511					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9456**	**5.7338**	**9.1357**	**0.0140**		**0.2818**	**0.2818**		**0.2593**	**0.2593**		**1,357.4345**	**1,357.4345**	**0.4390**		**1,368.4101**

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	0.0264	0.0156	0.2012	6.4000e-004	0.0822	4.0000e-004	0.0826	0.0218	3.7000e-004	0.0222		66.7735	66.7735	1.7600e-003	1.7300e-003	67.3345
Total	**0.0264**	**0.0156**	**0.2012**	**6.4000e-004**	**0.0822**	**4.0000e-004**	**0.0826**	**0.0218**	**3.7000e-004**	**0.0222**		**66.7735**	**66.7735**	**1.7600e-003**	**1.7300e-003**	**67.3345**

Capalina 119 Unit Multi-Family Operational Year 2025 - San Diego County, Winter

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

3.5 Paving - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1724	0.7471	10.6316	0.0140		0.0230	0.0230		0.0230	0.0230	0.0000	1,357.4345	1,357.4345	0.4390		1,368.4101
Paving	0.3511					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5235**	**0.7471**	**10.6316**	**0.0140**		**0.0230**	**0.0230**		**0.0230**	**0.0230**	**0.0000**	**1,357.4345**	**1,357.4345**	**0.4390**		**1,368.4101**

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	0.0264	0.0156	0.2012	6.4000e-004	0.0822	4.0000e-004	0.0826	0.0218	3.7000e-004	0.0222		66.7735	66.7735	1.7600e-003	1.7300e-003	67.3345
Total	**0.0264**	**0.0156**	**0.2012**	**6.4000e-004**	**0.0822**	**4.0000e-004**	**0.0826**	**0.0218**	**3.7000e-004**	**0.0222**		**66.7735**	**66.7735**	**1.7600e-003**	**1.7300e-003**	**67.3345**

Capalina 119 Unit Multi-Family Operational Year 2025 - San Diego County, Winter

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

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	38.5720					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	**38.7429**	**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	0.0607	0.0358	0.4627	1.4700e-003	0.1889	9.3000e-004	0.1899	0.0501	8.5000e-004	0.0510		153.5791	153.5791	4.0500e-003	3.9900e-003	154.8693
Total	**0.0607**	**0.0358**	**0.4627**	**1.4700e-003**	**0.1889**	**9.3000e-004**	**0.1899**	**0.0501**	**8.5000e-004**	**0.0510**		**153.5791**	**153.5791**	**4.0500e-003**	**3.9900e-003**	**154.8693**

Capalina 119 Unit Multi-Family Operational Year 2025 - San Diego County, Winter

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

3.6 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	38.5720					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**38.6017**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**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	0.0607	0.0358	0.4627	1.4700e-003	0.1889	9.3000e-004	0.1899	0.0501	8.5000e-004	0.0510		153.5791	153.5791	4.0500e-003	3.9900e-003	154.8693
Total	**0.0607**	**0.0358**	**0.4627**	**1.4700e-003**	**0.1889**	**9.3000e-004**	**0.1899**	**0.0501**	**8.5000e-004**	**0.0510**		**153.5791**	**153.5791**	**4.0500e-003**	**3.9900e-003**	**154.8693**

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.8350	1.7135	14.7485	0.0268	2.9895	0.0220	3.0116	0.7964	0.0205	0.8169		2,797.3525	2,797.3525	0.2406	0.1447	2,846.5018
Unmitigated	1.8350	1.7135	14.7485	0.0268	2.9895	0.0220	3.0116	0.7964	0.0205	0.8169		2,797.3525	2,797.3525	0.2406	0.1447	2,846.5018

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	714.00	714.00	714.00	1,246,331	1,246,331
Parking Lot	0.00	0.00	0.00		
Strip Mall	160.00	160.00	160.00	173,846	173,846
Total	874.00	874.00	874.00	1,420,178	1,420,178

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	5.40	5.40	5.40	41.60	18.80	39.60	86	11	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	5.40	5.40	5.40	16.60	64.40	19.00	45	40	15

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

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751
Parking Lot	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751
Strip Mall	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751

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	0.0258	0.2210	0.0950	1.4100e-003		0.0179	0.0179		0.0179	0.0179		281.9436	281.9436	5.4000e-003	5.1700e-003	283.6190
NaturalGas Unmitigated	0.0258	0.2210	0.0950	1.4100e-003		0.0179	0.0179		0.0179	0.0179		281.9436	281.9436	5.4000e-003	5.1700e-003	283.6190

Capalina 119 Unit Multi-Family Operational Year 2025 - San Diego County, Winter

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	2372.19	0.0256	0.2186	0.0930	1.4000e-003		0.0177	0.0177		0.0177	0.0177		279.0814	279.0814	5.3500e-003	5.1200e-003	280.7398
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	24.3288	2.6000e-004	2.3900e-003	2.0000e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		2.8622	2.8622	5.0000e-005	5.0000e-005	2.8792
Total		**0.0258**	**0.2210**	**0.0950**	**1.4100e-003**		**0.0179**	**0.0179**		**0.0179**	**0.0179**		**281.9436**	**281.9436**	**5.4000e-003**	**5.1700e-003**	**283.6190**

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	2.37219	0.0256	0.2186	0.0930	1.4000e-003		0.0177	0.0177		0.0177	0.0177		279.0814	279.0814	5.3500e-003	5.1200e-003	280.7398
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.0243288	2.6000e-004	2.3900e-003	2.0000e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		2.8622	2.8622	5.0000e-005	5.0000e-005	2.8792
Total		**0.0258**	**0.2210**	**0.0950**	**1.4100e-003**		**0.0179**	**0.0179**		**0.0179**	**0.0179**		**281.9436**	**281.9436**	**5.4000e-003**	**5.1700e-003**	**283.6190**

6.0 Area Detail

6.1 Mitigation Measures Area

Capalina 119 Unit Multi-Family Operational Year 2025 - San Diego County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.3719	0.1131	9.8239	5.2000e-004		0.0545	0.0545		0.0545	0.0545	0.0000	17.7112	17.7112	0.0170	0.0000	18.1366
Unmitigated	3.3719	0.1131	9.8239	5.2000e-004		0.0545	0.0545		0.0545	0.0545	0.0000	17.7112	17.7112	0.0170	0.0000	18.1366

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	0.4227					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.6533					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	0.2959	0.1131	9.8239	5.2000e-004		0.0545	0.0545		0.0545	0.0545		17.7112	17.7112	0.0170		18.1366
Total	**3.3720**	**0.1131**	**9.8239**	**5.2000e-004**		**0.0545**	**0.0545**		**0.0545**	**0.0545**	**0.0000**	**17.7112**	**17.7112**	**0.0170**	**0.0000**	**18.1366**

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	0.4227					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.6533					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	0.2959	0.1131	9.8239	5.2000e-004		0.0545	0.0545		0.0545	0.0545		17.7112	17.7112	0.0170		18.1366
Total	**3.3720**	**0.1131**	**9.8239**	**5.2000e-004**		**0.0545**	**0.0545**		**0.0545**	**0.0545**	**0.0000**	**17.7112**	**17.7112**	**0.0170**	**0.0000**	**18.1366**

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

Capalina 119 Unit Multi-Family Operational Year 2025

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	147.00	Space	1.34	58,800.00	0
Apartments Mid Rise	119.00	Dwelling Unit	1.08	119,000.00	340
Strip Mall	4.00	1000sqft	0.09	4,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	539.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 2.51 acres

Construction Phase - CS

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Trips and VMT -

Grading - 8240CY of import

Architectural Coating - Rule 67 Paint

Vehicle Trips - Per Traffic Study

Capalina 119 Unit Multi-Family Operational Year 2025 - San Diego County, Annual

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

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No Hearth

Area Coating - Rule 67 Paint

Energy Use -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - T4

Area Mitigation -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

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

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	10.00	40.00
tblFireplaces	NumberGas	65.45	0.00
tblFireplaces	NumberNoFireplace	11.90	119.00
tblFireplaces	NumberWood	41.65	0.00
tblGrading	MaterialImported	0.00	8,240.00
tblLandUse	LotAcreage	1.32	1.34
tblLandUse	LotAcreage	3.13	1.08
tblVehicleTrips	CC_TL	7.30	5.40
tblVehicleTrips	CNW_TL	7.30	5.40
tblVehicleTrips	CW_TL	9.50	5.40
tblVehicleTrips	HO_TL	7.50	5.40

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

tblVehicleTrips	HS_TL	7.30	5.40
tblVehicleTrips	HW_TL	10.80	5.40
tblVehicleTrips	ST_TR	4.91	6.00
tblVehicleTrips	ST_TR	42.04	40.00
tblVehicleTrips	SU_TR	4.09	6.00
tblVehicleTrips	SU_TR	20.43	40.00
tblVehicleTrips	WD_TR	5.44	6.00
tblVehicleTrips	WD_TR	44.32	40.00
tblWoodstoves	NumberCatalytic	5.95	0.00
tblWoodstoves	NumberNoncatalytic	5.95	0.00

2.0 Emissions Summary

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.1434	1.1334	1.2648	3.0600e-003	0.1085	0.0423	0.1508	0.0334	0.0404	0.0737	0.0000	270.3878	270.3878	0.0345	0.0109	274.4862
2025	0.8493	0.5605	0.7309	1.5800e-003	0.0444	0.0210	0.0654	0.0119	0.0200	0.0320	0.0000	137.7124	137.7124	0.0183	3.2300e-003	139.1298
Maximum	**0.8493**	**1.1334**	**1.2648**	**3.0600e-003**	**0.1085**	**0.0423**	**0.1508**	**0.0334**	**0.0404**	**0.0737**	**0.0000**	**270.3878**	**270.3878**	**0.0345**	**0.0109**	**274.4862**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.0482	0.4373	1.3346	3.0600e-003	0.1085	4.0200e-003	0.1125	0.0334	3.9500e-003	0.0373	0.0000	270.3877	270.3877	0.0345	0.0109	274.4860
2025	0.7997	0.2013	0.7746	1.5800e-003	0.0444	1.9700e-003	0.0464	0.0119	1.9500e-003	0.0139	0.0000	137.7123	137.7123	0.0183	3.2300e-003	139.1297
Maximum	**0.7997**	**0.4373**	**1.3346**	**3.0600e-003**	**0.1085**	**4.0200e-003**	**0.1125**	**0.0334**	**3.9500e-003**	**0.0373**	**0.0000**	**270.3877**	**270.3877**	**0.0345**	**0.0109**	**274.4860**

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	**14.58**	**62.30**	**-5.69**	**0.00**	**0.00**	**90.53**	**26.49**	**0.00**	**90.24**	**51.58**	**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	**6-1-2024**	**8-31-2024**	0.5819	0.2314
2	**9-1-2024**	**11-30-2024**	0.5182	0.1860
3	**12-1-2024**	**2-28-2025**	0.6267	0.2985
4	**3-1-2025**	**5-31-2025**	0.9566	0.7655
		Highest	0.9566	0.7655

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5879	0.0102	0.8841	5.0000e-005		4.9000e-003	4.9000e-003		4.9000e-003	4.9000e-003	0.0000	1.4460	1.4460	1.3900e-003	0.0000	1.4808
Energy	4.7200e-003	0.0403	0.0173	2.6000e-004		3.2600e-003	3.2600e-003		3.2600e-003	3.2600e-003	0.0000	175.6195	175.6195	8.7700e-003	1.8100e-003	176.3785
Mobile	0.3272	0.3075	2.6134	4.9000e-003	0.5312	4.0000e-003	0.5352	0.1418	3.7300e-003	0.1455	0.0000	464.3424	464.3424	0.0388	0.0236	472.3455
Waste						0.0000	0.0000		0.0000	0.0000	11.9643	0.0000	11.9643	0.7071	0.0000	29.6410
Water						0.0000	0.0000		0.0000	0.0000	2.5538	39.4674	42.0212	0.2647	6.4900e-003	50.5717
Total	**0.9199**	**0.3580**	**3.5149**	**5.2100e-003**	**0.5312**	**0.0122**	**0.5434**	**0.1418**	**0.0119**	**0.1537**	**14.5181**	**680.8753**	**695.3934**	**1.0207**	**0.0319**	**730.4175**

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5879	0.0102	0.8841	5.0000e-005		4.9000e-003	4.9000e-003		4.9000e-003	4.9000e-003	0.0000	1.4460	1.4460	1.3900e-003	0.0000	1.4808
Energy	4.7200e-003	0.0403	0.0173	2.6000e-004		3.2600e-003	3.2600e-003		3.2600e-003	3.2600e-003	0.0000	175.6195	175.6195	8.7700e-003	1.8100e-003	176.3785
Mobile	0.3272	0.3075	2.6134	4.9000e-003	0.5312	4.0000e-003	0.5352	0.1418	3.7300e-003	0.1455	0.0000	464.3424	464.3424	0.0388	0.0236	472.3455
Waste						0.0000	0.0000		0.0000	0.0000	11.9643	0.0000	11.9643	0.7071	0.0000	29.6410
Water						0.0000	0.0000		0.0000	0.0000	2.5538	39.4674	42.0212	0.2647	6.4900e-003	50.5717
Total	**0.9199**	**0.3580**	**3.5149**	**5.2100e-003**	**0.5312**	**0.0122**	**0.5434**	**0.1418**	**0.0119**	**0.1537**	**14.5181**	**680.8753**	**695.3934**	**1.0207**	**0.0319**	**730.4175**

	ROG	NOx	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	6/1/2024	6/5/2024	5	3	
2	Grading	Grading	6/6/2024	6/13/2024	5	6	
3	Building Construction	Building Construction	6/14/2024	4/17/2025	5	220	

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

4	Paving	Paving	2/21/2025	3/6/2025	5	10	
5	Architectural Coating	Architectural Coating	2/21/2025	4/17/2025	5	40	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 6

Acres of Paving: 1.34

Residential Indoor: 240,975; Residential Outdoor: 80,325; Non-Residential Indoor: 6,000; Non-Residential Outdoor: 2,000; Striped Parking Area: 3,528 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	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	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	1,030.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	112.00	23.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Site Preparation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8600e-003	0.0197	0.0144	4.0000e-005		7.5000e-004	7.5000e-004		6.9000e-004	6.9000e-004	0.0000	3.2300	3.2300	1.0400e-003	0.0000	3.2561
Total	**1.8600e-003**	**0.0197**	**0.0144**	**4.0000e-005**	**2.3900e-003**	**7.5000e-004**	**3.1400e-003**	**2.6000e-004**	**6.9000e-004**	**9.5000e-004**	**0.0000**	**3.2300**	**3.2300**	**1.0400e-003**	**0.0000**	**3.2561**

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

3.2 Site Preparation - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.6000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0752	0.0752	0.0000	0.0000	0.0758
Total	**3.0000e-005**	**2.0000e-005**	**2.6000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0752**	**0.0752**	**0.0000**	**0.0000**	**0.0758**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5000e-004	1.9600e-003	0.0178	4.0000e-005		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	3.2300	3.2300	1.0400e-003	0.0000	3.2561
Total	**4.5000e-004**	**1.9600e-003**	**0.0178**	**4.0000e-005**	**2.3900e-003**	**6.0000e-005**	**2.4500e-003**	**2.6000e-004**	**6.0000e-005**	**3.2000e-004**	**0.0000**	**3.2300**	**3.2300**	**1.0400e-003**	**0.0000**	**3.2561**

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

3.2 Site Preparation - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.6000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0752	0.0752	0.0000	0.0000	0.0758
Total	**3.0000e-005**	**2.0000e-005**	**2.6000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0752**	**0.0752**	**0.0000**	**0.0000**	**0.0758**

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					0.0218	0.0000	0.0218	0.0104	0.0000	0.0104	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9000e-003	0.0415	0.0261	6.0000e-005		1.7200e-003	1.7200e-003		1.5800e-003	1.5800e-003	0.0000	5.4311	5.4311	1.7600e-003	0.0000	5.4750
Total	**3.9000e-003**	**0.0415**	**0.0261**	**6.0000e-005**	**0.0218**	**1.7200e-003**	**0.0236**	**0.0104**	**1.5800e-003**	**0.0119**	**0.0000**	**5.4311**	**5.4311**	**1.7600e-003**	**0.0000**	**5.4750**

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

3.3 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1200e-003	0.0693	0.0189	3.0000e-004	8.8200e-003	5.8000e-004	9.4000e-003	2.4200e-003	5.5000e-004	2.9700e-003	0.0000	30.3636	30.3636	1.6000e-003	4.8300e-003	31.8437
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	5.0000e-005	6.4000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.1879	0.1879	1.0000e-005	0.0000	0.1895
Total	**1.2000e-003**	**0.0693**	**0.0195**	**3.0000e-004**	**9.0600e-003**	**5.8000e-004**	**9.6400e-003**	**2.4800e-003**	**5.5000e-004**	**3.0400e-003**	**0.0000**	**30.5515**	**30.5515**	**1.6100e-003**	**4.8300e-003**	**32.0333**

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					0.0218	0.0000	0.0218	0.0104	0.0000	0.0104	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.6000e-004	3.2800e-003	0.0327	6.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	5.4311	5.4311	1.7600e-003	0.0000	5.4750
Total	**7.6000e-004**	**3.2800e-003**	**0.0327**	**6.0000e-005**	**0.0218**	**1.0000e-004**	**0.0219**	**0.0104**	**1.0000e-004**	**0.0105**	**0.0000**	**5.4311**	**5.4311**	**1.7600e-003**	**0.0000**	**5.4750**

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

3.3 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1200e-003	0.0693	0.0189	3.0000e-004	8.8200e-003	5.8000e-004	9.4000e-003	2.4200e-003	5.5000e-004	2.9700e-003	0.0000	30.3636	30.3636	1.6000e-003	4.8300e-003	31.8437
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	5.0000e-005	6.4000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.1879	0.1879	1.0000e-005	0.0000	0.1895
Total	**1.2000e-003**	**0.0693**	**0.0195**	**3.0000e-004**	**9.0600e-003**	**5.8000e-004**	**9.6400e-003**	**2.4800e-003**	**5.5000e-004**	**3.0400e-003**	**0.0000**	**30.5515**	**30.5515**	**1.6100e-003**	**4.8300e-003**	**32.0333**

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	0.1142	0.9169	1.0082	1.7900e-003		0.0385	0.0385		0.0368	0.0368	0.0000	148.5155	148.5155	0.0277	0.0000	149.2070
Total	**0.1142**	**0.9169**	**1.0082**	**1.7900e-003**		**0.0385**	**0.0385**		**0.0368**	**0.0368**	**0.0000**	**148.5155**	**148.5155**	**0.0277**	**0.0000**	**149.2070**

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

3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8600e-003	0.0725	0.0252	3.3000e-004	0.0109	4.3000e-004	0.0114	3.1500e-003	4.1000e-004	3.5700e-003	0.0000	32.4222	32.4222	1.0200e-003	4.7000e-003	33.8476
Worker	0.0204	0.0135	0.1713	5.4000e-004	0.0642	3.4000e-004	0.0646	0.0171	3.1000e-004	0.0174	0.0000	50.1624	50.1624	1.3700e-003	1.3200e-003	50.5914
Total	**0.0222**	**0.0860**	**0.1964**	**8.7000e-004**	**0.0751**	**7.7000e-004**	**0.0759**	**0.0202**	**7.2000e-004**	**0.0210**	**0.0000**	**82.5846**	**82.5846**	**2.3900e-003**	**6.0200e-003**	**84.4390**

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	0.0236	0.2767	1.0679	1.7900e-003		2.5200e-003	2.5200e-003		2.5200e-003	2.5200e-003	0.0000	148.5153	148.5153	0.0277	0.0000	149.2068
Total	**0.0236**	**0.2767**	**1.0679**	**1.7900e-003**		**2.5200e-003**	**2.5200e-003**		**2.5200e-003**	**2.5200e-003**	**0.0000**	**148.5153**	**148.5153**	**0.0277**	**0.0000**	**149.2068**

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

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	1.8600e-003	0.0725	0.0252	3.3000e-004	0.0109	4.3000e-004	0.0114	3.1500e-003	4.1000e-004	3.5700e-003	0.0000	32.4222	32.4222	1.0200e-003	4.7000e-003	33.8476
Worker	0.0204	0.0135	0.1713	5.4000e-004	0.0642	3.4000e-004	0.0646	0.0171	3.1000e-004	0.0174	0.0000	50.1624	50.1624	1.3700e-003	1.3200e-003	50.5914
Total	**0.0222**	**0.0860**	**0.1964**	**8.7000e-004**	**0.0751**	**7.7000e-004**	**0.0759**	**0.0202**	**7.2000e-004**	**0.0210**	**0.0000**	**82.5846**	**82.5846**	**2.3900e-003**	**6.0200e-003**	**84.4390**

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	0.0574	0.4629	0.5393	9.6000e-004		0.0181	0.0181		0.0173	0.0173	0.0000	79.9781	79.9781	0.0147	0.0000	80.3448
Total	**0.0574**	**0.4629**	**0.5393**	**9.6000e-004**		**0.0181**	**0.0181**		**0.0173**	**0.0173**	**0.0000**	**79.9781**	**79.9781**	**0.0147**	**0.0000**	**80.3448**

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 Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	9.7000e-004	0.0387	0.0133	1.7000e-004	5.8800e-003	2.3000e-004	6.1100e-003	1.7000e-003	2.2000e-004	1.9200e-003	0.0000	17.1253	17.1253	5.6000e-004	2.4800e-003	17.8784
Worker	0.0103	6.5800e-003	0.0866	2.8000e-004	0.0346	1.7000e-004	0.0348	9.1900e-003	1.6000e-004	9.3500e-003	0.0000	26.3508	26.3508	6.7000e-004	6.7000e-004	26.5671
Total	**0.0113**	**0.0452**	**0.0999**	**4.5000e-004**	**0.0405**	**4.0000e-004**	**0.0409**	**0.0109**	**3.8000e-004**	**0.0113**	**0.0000**	**43.4761**	**43.4761**	**1.2300e-003**	**3.1500e-003**	**44.4455**

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	0.0127	0.1490	0.5750	9.6000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003	0.0000	79.9780	79.9780	0.0147	0.0000	80.3447
Total	**0.0127**	**0.1490**	**0.5750**	**9.6000e-004**		**1.3500e-003**	**1.3500e-003**		**1.3500e-003**	**1.3500e-003**	**0.0000**	**79.9780**	**79.9780**	**0.0147**	**0.0000**	**80.3447**

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

3.4 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.7000e-004	0.0387	0.0133	1.7000e-004	5.8800e-003	2.3000e-004	6.1100e-003	1.7000e-003	2.2000e-004	1.9200e-003	0.0000	17.1253	17.1253	5.6000e-004	2.4800e-003	17.8784
Worker	0.0103	6.5800e-003	0.0866	2.8000e-004	0.0346	1.7000e-004	0.0348	9.1900e-003	1.6000e-004	9.3500e-003	0.0000	26.3508	26.3508	6.7000e-004	6.7000e-004	26.5671
Total	**0.0113**	**0.0452**	**0.0999**	**4.5000e-004**	**0.0405**	**4.0000e-004**	**0.0409**	**0.0109**	**3.8000e-004**	**0.0113**	**0.0000**	**43.4761**	**43.4761**	**1.2300e-003**	**3.1500e-003**	**44.4455**

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.9700e-003	0.0287	0.0457	7.0000e-005		1.4100e-003	1.4100e-003		1.3000e-003	1.3000e-003	0.0000	6.1572	6.1572	1.9900e-003	0.0000	6.2070
Paving	1.7600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.7300e-003**	**0.0287**	**0.0457**	**7.0000e-005**		**1.4100e-003**	**1.4100e-003**		**1.3000e-003**	**1.3000e-003**	**0.0000**	**6.1572**	**6.1572**	**1.9900e-003**	**0.0000**	**6.2070**

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

3.5 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	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	1.2000e-004	8.0000e-005	1.0000e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3056	0.3056	1.0000e-005	1.0000e-005	0.3081
Total	**1.2000e-004**	**8.0000e-005**	**1.0000e-003**	**0.0000**	**4.0000e-004**	**0.0000**	**4.0000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3056**	**0.3056**	**1.0000e-005**	**1.0000e-005**	**0.3081**

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	8.6000e-004	3.7400e-003	0.0532	7.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	6.1572	6.1572	1.9900e-003	0.0000	6.2070
Paving	1.7600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.6200e-003**	**3.7400e-003**	**0.0532**	**7.0000e-005**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**	**0.0000**	**6.1572**	**6.1572**	**1.9900e-003**	**0.0000**	**6.2070**

3.5 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	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	1.2000e-004	8.0000e-005	1.0000e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3056	0.3056	1.0000e-005	1.0000e-005	0.3081
Total	**1.2000e-004**	**8.0000e-005**	**1.0000e-003**	**0.0000**	**4.0000e-004**	**0.0000**	**4.0000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3056**	**0.3056**	**1.0000e-005**	**1.0000e-005**	**0.3081**

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7713					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4200e-003	0.0229	0.0362	6.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	5.1065	5.1065	2.8000e-004	0.0000	5.1135
Total	**0.7748**	**0.0229**	**0.0362**	**6.0000e-005**		**1.0300e-003**	**1.0300e-003**		**1.0300e-003**	**1.0300e-003**	**0.0000**	**5.1065**	**5.1065**	**2.8000e-004**	**0.0000**	**5.1135**

3.6 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0500e-003	6.7000e-004	8.8400e-003	3.0000e-005	3.5300e-003	2.0000e-005	3.5500e-003	9.4000e-004	2.0000e-005	9.5000e-004	0.0000	2.6889	2.6889	7.0000e-005	7.0000e-005	2.7109
Total	**1.0500e-003**	**6.7000e-004**	**8.8400e-003**	**3.0000e-005**	**3.5300e-003**	**2.0000e-005**	**3.5500e-003**	**9.4000e-004**	**2.0000e-005**	**9.5000e-004**	**0.0000**	**2.6889**	**2.6889**	**7.0000e-005**	**7.0000e-005**	**2.7109**

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	0.7713					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.9000e-004	2.5800e-003	0.0367	6.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	5.1065	5.1065	2.8000e-004	0.0000	5.1135
Total	**0.7719**	**2.5800e-003**	**0.0367**	**6.0000e-005**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**	**0.0000**	**5.1065**	**5.1065**	**2.8000e-004**	**0.0000**	**5.1135**

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

3.6 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0500e-003	6.7000e-004	8.8400e-003	3.0000e-005	3.5300e-003	2.0000e-005	3.5500e-003	9.4000e-004	2.0000e-005	9.5000e-004	0.0000	2.6889	2.6889	7.0000e-005	7.0000e-005	2.7109
Total	**1.0500e-003**	**6.7000e-004**	**8.8400e-003**	**3.0000e-005**	**3.5300e-003**	**2.0000e-005**	**3.5500e-003**	**9.4000e-004**	**2.0000e-005**	**9.5000e-004**	**0.0000**	**2.6889**	**2.6889**	**7.0000e-005**	**7.0000e-005**	**2.7109**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3272	0.3075	2.6134	4.9000e-003	0.5312	4.0000e-003	0.5352	0.1418	3.7300e-003	0.1455	0.0000	464.3424	464.3424	0.0388	0.0236	472.3455
Unmitigated	0.3272	0.3075	2.6134	4.9000e-003	0.5312	4.0000e-003	0.5352	0.1418	3.7300e-003	0.1455	0.0000	464.3424	464.3424	0.0388	0.0236	472.3455

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	714.00	714.00	714.00	1,246,331	1,246,331
Parking Lot	0.00	0.00	0.00		
Strip Mall	160.00	160.00	160.00	173,846	173,846
Total	874.00	874.00	874.00	1,420,178	1,420,178

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	5.40	5.40	5.40	41.60	18.80	39.60	86	11	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	5.40	5.40	5.40	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	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751
Parking Lot	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751

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

Strip Mall	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751

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	128.9406	128.9406	7.8800e-003	9.6000e-004	129.4222
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	128.9406	128.9406	7.8800e-003	9.6000e-004	129.4222
NaturalGas Mitigated	4.7200e-003	0.0403	0.0173	2.6000e-004		3.2600e-003	3.2600e-003		3.2600e-003	3.2600e-003	0.0000	46.6789	46.6789	8.9000e-004	8.6000e-004	46.9563
NaturalGas Unmitigated	4.7200e-003	0.0403	0.0173	2.6000e-004		3.2600e-003	3.2600e-003		3.2600e-003	3.2600e-003	0.0000	46.6789	46.6789	8.9000e-004	8.6000e-004	46.9563

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	865850	4.6700e-003	0.0399	0.0170	2.5000e-004		3.2300e-003	3.2300e-003		3.2300e-003	3.2300e-003	0.0000	46.2051	46.2051	8.9000e-004	8.5000e-004	46.4796
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	8880	5.0000e-005	4.4000e-004	3.7000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4739	0.4739	1.0000e-005	1.0000e-005	0.4767
Total		**4.7200e-003**	**0.0403**	**0.0174**	**2.5000e-004**		**3.2600e-003**	**3.2600e-003**		**3.2600e-003**	**3.2600e-003**	**0.0000**	**46.6789**	**46.6789**	**9.0000e-004**	**8.6000e-004**	**46.9563**

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	865850	4.6700e-003	0.0399	0.0170	2.5000e-004		3.2300e-003	3.2300e-003		3.2300e-003	3.2300e-003	0.0000	46.2051	46.2051	8.9000e-004	8.5000e-004	46.4796
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	8880	5.0000e-005	4.4000e-004	3.7000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4739	0.4739	1.0000e-005	1.0000e-005	0.4767
Total		**4.7200e-003**	**0.0403**	**0.0174**	**2.5000e-004**		**3.2600e-003**	**3.2600e-003**		**3.2600e-003**	**3.2600e-003**	**0.0000**	**46.6789**	**46.6789**	**9.0000e-004**	**8.6000e-004**	**46.9563**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	456977	111.9277	6.8400e-003	8.3000e-004	112.3458
Parking Lot	20580	5.0407	3.1000e-004	4.0000e-005	5.0595
Strip Mall	48880	11.9722	7.3000e-004	9.0000e-005	12.0169
Total		**128.9406**	**7.8800e-003**	**9.6000e-004**	**129.4222**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	456977	111.9277	6.8400e-003	8.3000e-004	112.3458
Parking Lot	20580	5.0407	3.1000e-004	4.0000e-005	5.0595
Strip Mall	48880	11.9722	7.3000e-004	9.0000e-005	12.0169
Total		**128.9406**	**7.8800e-003**	**9.6000e-004**	**129.4222**

6.0 Area Detail

6.1 Mitigation Measures Area

Capalina 119 Unit Multi-Family Operational Year 2025 - San Diego County, 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					
Mitigated	0.5879	0.0102	0.8841	5.0000e-005		4.9000e-003	4.9000e-003		4.9000e-003	4.9000e-003	0.0000	1.4460	1.4460	1.3900e-003	0.0000	1.4808
Unmitigated	0.5879	0.0102	0.8841	5.0000e-005		4.9000e-003	4.9000e-003		4.9000e-003	4.9000e-003	0.0000	1.4460	1.4460	1.3900e-003	0.0000	1.4808

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	0.0771					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4842					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	0.0266	0.0102	0.8841	5.0000e-005		4.9000e-003	4.9000e-003		4.9000e-003	4.9000e-003	0.0000	1.4460	1.4460	1.3900e-003	0.0000	1.4808
Total	**0.5879**	**0.0102**	**0.8841**	**5.0000e-005**		**4.9000e-003**	**4.9000e-003**		**4.9000e-003**	**4.9000e-003**	**0.0000**	**1.4460**	**1.4460**	**1.3900e-003**	**0.0000**	**1.4808**

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	0.0771					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4842					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	0.0266	0.0102	0.8841	5.0000e-005		4.9000e-003	4.9000e-003		4.9000e-003	4.9000e-003	0.0000	1.4460	1.4460	1.3900e-003	0.0000	1.4808
Total	**0.5879**	**0.0102**	**0.8841**	**5.0000e-005**		**4.9000e-003**	**4.9000e-003**		**4.9000e-003**	**4.9000e-003**	**0.0000**	**1.4460**	**1.4460**	**1.3900e-003**	**0.0000**	**1.4808**

7.0 Water Detail

7.1 Mitigation Measures Water

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	42.0212	0.2647	6.4900e-003	50.5717
Unmitigated	42.0212	0.2647	6.4900e-003	50.5717

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	7.75333 / 4.88797	40.4881	0.2550	6.2500e-003	48.7239
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.29629 / 0.181597	1.5331	9.7400e-003	2.4000e-004	1.8478
Total		**42.0212**	**0.2647**	**6.4900e-003**	**50.5717**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	7.75333 / 4.88797	40.4881	0.2550	6.2500e-003	48.7239
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.29629 / 0.181597	1.5331	9.7400e-003	2.4000e-004	1.8478
Total		**42.0212**	**0.2647**	**6.4900e-003**	**50.5717**

8.0 Waste Detail

8.1 Mitigation Measures Waste

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

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	11.9643	0.7071	0.0000	29.6410
Unmitigated	11.9643	0.7071	0.0000	29.6410

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	54.74	11.1117	0.6567	0.0000	27.5288
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	4.2	0.8526	0.0504	0.0000	2.1122
Total		**11.9643**	**0.7071**	**0.0000**	**29.6410**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	54.74	11.1117	0.6567	0.0000	27.5288
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	4.2	0.8526	0.0504	0.0000	2.1122
Total		**11.9643**	**0.7071**	**0.0000**	**29.6410**

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

ATTACHMENT B

AERSCREEN for PM_{10} Exhaust

```
AERSCREEN 11126 / AERMOD  1206                                    01/13/23
                                                                  09:11:24

TITLE: Capalina 120 unit MF 4k Retail T4


---------------------------------------------------------------------------
******************************  AREA PARAMETERS  ***************************
---------------------------------------------------------------------------

SOURCE EMISSION RATE:         0.144E-03 g/s             0.114E-02 lb/hr

AREA EMISSION RATE:           0.142E-07 g/(s-m2)        0.113E-06 lb/(hr-m2)
AREA HEIGHT:                       3.00 meters               9.84 feet
AREA SOURCE LONG SIDE:           100.80 meters             330.71 feet
AREA SOURCE SHORT SIDE:          100.80 meters             330.71 feet
INITIAL VERTICAL DIMENSION:        1.00 meters               3.28 feet
RURAL OR URBAN:                   URBAN
POPULATION:                       79000

FLAGPOLE RECEPTOR HEIGHT:          1.50 meters               4.92 feet

INITIAL PROBE DISTANCE =          5000. meters             16404. feet



---------------------------------------------------------------------------
***********************  BUILDING DOWNWASH PARAMETERS  **********************
---------------------------------------------------------------------------

               BUILDING DOWNWASH NOT USED FOR NON-POINT SOURCES



---------------------------------------------------------------------------
**************************  FLOW SECTOR ANALYSIS  **************************
                 25 meter receptor spacing: 1. meters - 5000. meters
---------------------------------------------------------------------------


   MAXIMUM  IMPACT  RECEPTOR

   Zo        SURFACE   1-HR CONC  RADIAL  DIST   TEMPORAL
   SECTOR    ROUGHNESS  (ug/m3)    (deg)   (m)    PERIOD
  ----------------------------------------------------
      1*       1.000    0.3490      45    75.0     WIN
* = worst case diagonal



---------------------------------------------------------------------------
**********************  MAKEMET METEOROLOGY PARAMETERS  *******************
---------------------------------------------------------------------------

MIN/MAX TEMPERATURE:    250.0 / 310.0 (K)

MINIMUM WIND SPEED:       0.5 m/s

ANEMOMETER HEIGHT:     10.000 meters

SURFACE CHARACTERISTICS INPUT: AERMET SEASONAL TABLES

DOMINANT SURFACE PROFILE: Urban
DOMINANT CLIMATE TYPE:    Average Moisture
DOMINANT SEASON:          Winter

ALBEDO:                  0.35
BOWEN RATIO:             1.50
```

ROUGHNESS LENGTH: 1.000 (meters)

METEOROLOGY CONDITIONS USED TO PREDICT OVERALL MAXIMUM IMPACT

YR	MO	DY	JDY	HR
10	01	28	28	01

H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS
-0.92	0.043	-9.000	0.020	-999.	21.	8.5	1.000	1.50	0.35	0.50

HT	REF TA	HT
10.0	310.0	2.0

METEOROLOGY CONDITIONS USED TO PREDICT AMBIENT BOUNDARY IMPACT

YR	MO	DY	JDY	HR
10	01	28	28	01

H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS
-0.92	0.043	-9.000	0.020	-999.	21.	8.5	1.000	1.50	0.35	0.50

HT	REF TA	HT
10.0	310.0	2.0

********** AERSCREEN AUTOMATED DISTANCES **********

OVERALL MAXIMUM CONCENTRATIONS BY DISTANCE

DIST (m)	MAXIMUM 1-HR CONC (ug/m3)	DIST (m)	MAXIMUM 1-HR CONC (ug/m3)
1.00	0.2542	2525.00	0.4344E-02
25.00	0.3028	2550.00	0.4302E-02
50.01	0.3454	2575.00	0.4261E-02
75.00	0.3490	2600.00	0.4222E-02
100.00	0.2395	2625.00	0.4183E-02
125.00	0.1780	2650.00	0.4145E-02
150.01	0.1426	2675.00	0.4109E-02
174.99	0.1189	2700.00	0.4073E-02
200.00	0.1018	2725.00	0.4038E-02
225.00	0.8869E-01	2750.00	0.4004E-02
250.00	0.7834E-01	2775.00	0.3971E-02
274.99	0.6994E-01	2800.00	0.3939E-02
300.00	0.6296E-01	2825.00	0.3907E-02
325.00	0.5713E-01	2849.99	0.3877E-02
350.00	0.5217E-01	2875.00	0.3847E-02
375.01	0.4791E-01	2900.00	0.3818E-02
400.00	0.4422E-01	2925.00	0.3789E-02
425.00	0.4098E-01	2950.00	0.3761E-02
450.00	0.3813E-01	2975.00	0.3734E-02
475.01	0.3561E-01	3000.00	0.3707E-02
500.00	0.3336E-01	3025.00	0.3681E-02
525.00	0.3135E-01	3050.00	0.3656E-02
550.00	0.2953E-01	3075.00	0.3631E-02

575.01	0.2789E-01	3100.00	0.3606E-02
599.99	0.2640E-01	3125.00	0.3582E-02
625.00	0.2505E-01	3150.00	0.3559E-02
650.00	0.2380E-01	3175.00	0.3536E-02
675.00	0.2266E-01	3200.00	0.3513E-02
700.00	0.2160E-01	3225.00	0.3491E-02
725.00	0.2063E-01	3249.99	0.3469E-02
750.00	0.1974E-01	3274.99	0.3448E-02
775.00	0.1892E-01	3300.00	0.3427E-02
800.01	0.1814E-01	3325.00	0.3406E-02
825.00	0.1742E-01	3350.00	0.3386E-02
850.00	0.1675E-01	3375.00	0.3366E-02
875.00	0.1612E-01	3400.00	0.3347E-02
900.00	0.1553E-01	3425.00	0.3327E-02
925.00	0.1497E-01	3450.00	0.3309E-02
950.00	0.1445E-01	3475.00	0.3290E-02
975.00	0.1397E-01	3499.99	0.3272E-02
1000.00	0.1351E-01	3525.00	0.3254E-02
1024.99	0.1307E-01	3550.00	0.3236E-02
1050.00	0.1266E-01	3575.00	0.3219E-02
1075.00	0.1227E-01	3599.99	0.3202E-02
1100.00	0.1190E-01	3625.00	0.3185E-02
1125.01	0.1155E-01	3650.00	0.3169E-02
1150.00	0.1122E-01	3675.00	0.3152E-02
1175.00	0.1090E-01	3700.00	0.3136E-02
1200.00	0.1060E-01	3725.00	0.3120E-02
1225.00	0.1032E-01	3750.00	0.3105E-02
1250.00	0.1004E-01	3775.00	0.3089E-02
1275.00	0.9781E-02	3800.00	0.3074E-02
1300.00	0.9531E-02	3825.00	0.3059E-02
1325.00	0.9294E-02	3849.99	0.3045E-02
1350.00	0.9067E-02	3875.00	0.3030E-02
1375.00	0.8852E-02	3900.00	0.3016E-02
1400.00	0.8646E-02	3925.00	0.3002E-02
1425.00	0.8447E-02	3950.00	0.2988E-02
1449.99	0.8256E-02	3975.00	0.2974E-02
1475.00	0.8074E-02	4000.00	0.2960E-02
1500.00	0.7899E-02	4025.00	0.2947E-02
1525.00	0.7731E-02	4050.00	0.2933E-02
1550.00	0.7569E-02	4074.99	0.2920E-02
1575.00	0.7414E-02	4100.00	0.2907E-02
1600.00	0.7265E-02	4125.00	0.2895E-02
1625.00	0.7122E-02	4150.00	0.2882E-02
1650.00	0.6985E-02	4175.00	0.2869E-02
1675.01	0.6853E-02	4200.00	0.2857E-02
1700.00	0.6726E-02	4225.00	0.2845E-02
1725.00	0.6711E-02	4250.00	0.2833E-02
1750.00	0.6590E-02	4275.00	0.2821E-02
1775.00	0.6473E-02	4300.00	0.2809E-02
1800.00	0.6361E-02	4325.00	0.2797E-02
1825.00	0.6253E-02	4350.00	0.2786E-02
1850.00	0.6148E-02	4375.00	0.2774E-02
1875.00	0.6048E-02	4400.00	0.2763E-02
1900.00	0.5951E-02	4425.00	0.2752E-02
1924.99	0.5857E-02	4450.00	0.2741E-02
1950.00	0.5767E-02	4475.00	0.2730E-02
1975.00	0.5680E-02	4499.99	0.2719E-02
2000.00	0.5596E-02	4525.00	0.2708E-02
2025.00	0.5515E-02	4550.00	0.2698E-02
2050.00	0.5437E-02	4575.00	0.2687E-02
2075.00	0.5361E-02	4599.99	0.2677E-02
2100.00	0.5288E-02	4625.00	0.2667E-02
2125.00	0.5217E-02	4650.00	0.2656E-02
2150.00	0.5149E-02	4675.00	0.2646E-02
2175.00	0.5083E-02	4700.00	0.2636E-02
2200.00	0.5019E-02	4725.00	0.2627E-02
2225.00	0.4957E-02	4750.00	0.2617E-02
2250.00	0.4896E-02	4775.00	0.2607E-02
2275.00	0.4838E-02	4800.00	0.2597E-02

2300.00	0.4782E-02	4825.00	0.2588E-02
2325.00	0.4727E-02	4850.00	0.2578E-02
2350.00	0.4674E-02	4875.00	0.2569E-02
2375.00	0.4623E-02	4900.00	0.2560E-02
2400.00	0.4573E-02	4925.00	0.2551E-02
2425.00	0.4524E-02	4950.00	0.2542E-02
2449.99	0.4477E-02	4975.00	0.2533E-02
2475.00	0.4432E-02	5000.00	0.2524E-02
2500.00	0.4387E-02		

********** AERSCREEN MAXIMUM IMPACT SUMMARY **********

3-hour, 8-hour, and 24-hour scaled
concentrations are equal to the 1-hour concentration as referenced in
SCREENING PROCEDURES FOR ESTIMATING THE AIR QUALITY
IMPACT OF STATIONARY SOURCES, REVISED (Section 4.5.4)
Report number EPA-454/R-92-019
http://www.epa.gov/scram001/guidance_permit.htm
under Screening Guidance

CALCULATION PROCEDURE	MAXIMUM 1-HOUR CONC (ug/m3)	SCALED 3-HOUR CONC (ug/m3)	SCALED 8-HOUR CONC (ug/m3)	SCALED 24-HOUR CONC (ug/m3)	SCALED ANNUAL CONC (ug/m3)
FLAT TERRAIN	0.3752	0.3752	0.3752	0.3752	N/A

DISTANCE FROM SOURCE 70.99 meters

IMPACT AT THE AMBIENT BOUNDARY	0.2542	0.2542	0.2542	0.2542	N/A

DISTANCE FROM SOURCE 1.00 meters

ATTACHMENT C

Cancer Risk Calculations

Air Quality Health Risk Calculations (Worst-Case)
Capalina 120 Unit Multi-Family w/ 4k Retail (PDF Tier 4)

From CalEE Annual Output	Emission per day (Ton/Total Construction Duration)	**0.0044**					
	Construction Start	**6/1/2024**					
	Construction Complete	**4/17/2025**	1.60E-02				
	Days	**320**					
	Construction Emission per day (lb/day)	**0.0275**					
	Annual Duration (Days)	**365**					
	Annualized Emission Rate (Grams/Second)	**1.44E-04**					
	Project Site Size (Acres)	**2.51**					
	Project Site Size (meters^2)	**10157.60962**					
	Length of Smalles Side (meters)	**100.7849672**					
Used as an input to AERSCREEN	Emission Rate over Grading Area(g/s-m^2)	**1.42E-08**					
From AERSCREEN*0.08	Concentration Annual (Ug/M^3)	**0.02792**					
	Days	Days to years					
Duration	320	0.876712329					
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70	
Cair (annual) - From F15	0.02792	0.02792	0.02792	0.02792	0.02792	0.02792	
Breathing Rate per agegroup BR/BW (Page 5-25)	361	1090	861	745	335	290	
A (Default is 1)	1	1	1	1	1	1	
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	0.96	
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	
Dose-inh	0.00000968	0.00002922	0.00002308	0.00001997	0.00000898	0.00000777	
Construction Days	320	0.876712329					
potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1	
Age Sensitivity Factor	10	10	3	3	1	1	
ED	0.25	0.876712329	0.876712329	0.876712329	0.876712329	0.876712329	
AT	70	70	70	70	70	70	
FAH	0.85	0.85	0.72	0.72	0.73	0.73	
Risk for Each Age Group	3.23108E-07	3.42124E-06	6.86745E-07	5.94222E-07	9.03038E-08	7.81734E-08	
Risk per million Exposed	0.32310779	3.421242274	0.686744688	0.594221594	0.09030381	0.078173447	
Cancer Risk Over Construction Duration	3.74						

ATTACHMENT D

EMFAC – VMT per Trip Calculation

EMFAC2014 (v1.0.7) Emission Rates
Region Type: County
Region: San Diego
Calendar Year: 2025
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips and DIURN

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Population	VMT	Trips
San Diego	2025	HHDT	Aggregated	Aggregated	GAS	161.1216337	21202.37807	3223.721647
San Diego	2025	HHDT	Aggregated	Aggregated	DSL	15341.84567	2103842.221	0
San Diego	2025	LDA	Aggregated	Aggregated	GAS	1430879.21	47587916.84	9062515.432
San Diego	2025	LDA	Aggregated	Aggregated	DSL	18230.05635	610522.5588	114299.8171
San Diego	2025	LDA	Aggregated	Aggregated	ELEC	102949.8741	4362999.303	668758.3291
San Diego	2025	LDT1	Aggregated	Aggregated	GAS	110056.6214	3351787.675	665740.3764
San Diego	2025	LDT1	Aggregated	Aggregated	DSL	135.5653413	2803.107134	658.3286144
San Diego	2025	LDT1	Aggregated	Aggregated	ELEC	41.86046771	1338.281949	253.6785286
San Diego	2025	LDT2	Aggregated	Aggregated	GAS	445728.9448	15377108.99	2820576.047
San Diego	2025	LDT2	Aggregated	Aggregated	DSL	944.5915358	33384.93915	6012.222933
San Diego	2025	LHDT1	Aggregated	Aggregated	GAS	17137.47188	468069.7958	255322.7962
San Diego	2025	LHDT1	Aggregated	Aggregated	DSL	23103.06152	724642.3549	290607.4503
San Diego	2025	LHDT2	Aggregated	Aggregated	GAS	4048.832368	139572.0706	60321.56952
San Diego	2025	LHDT2	Aggregated	Aggregated	DSL	8965.43705	322602.574	112773.9196
San Diego	2025	MCY	Aggregated	Aggregated	GAS	70674.39783	501031.3352	141334.6608
San Diego	2025	MDV	Aggregated	Aggregated	GAS	267677.4564	8534402.663	1665093.779
San Diego	2025	MDV	Aggregated	Aggregated	DSL	5742.887036	206955.8564	36633.47691
San Diego	2025	MH	Aggregated	Aggregated	GAS	8633.503985	64191.89208	863.6957387
San Diego	2025	MH	Aggregated	Aggregated	DSL	2309.531209	17748.26353	230.9531209
San Diego	2025	MHDT	Aggregated	Aggregated	GAS	3092.563169	161145.5943	61876.00388
San Diego	2025	MHDT	Aggregated	Aggregated	DSL	25605.17262	1301919.202	0
San Diego	2025	OBUS	Aggregated	Aggregated	GAS	1716.976671	92464.33544	34353.26924
San Diego	2025	OBUS	Aggregated	Aggregated	DSL	935.0309742	73876.47022	0
San Diego	2025	SBUS	Aggregated	Aggregated	GAS	438.5086625	19991.26012	1754.03465
San Diego	2025	SBUS	Aggregated	Aggregated	DSL	1213.170137	45957.63464	0
San Diego	2025	UBUS	Aggregated	Aggregated	GAS	472.4052031	63912.54677	1889.620812
San Diego	2025	UBUS	Aggregated	Aggregated	DSL	690.1969245	93377.97918	2760.787698
						Total	86284768.12	16007853.97
						Total VMT/Trip		5.390152126