AIR QUALITY ASSESSMENT

Pala Mesa Plaza
PDS2020-STP-20-021
Commercial Development
County of San Diego CA

Lead Agency:

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EXECUTIVE SUMMARY

This air quality impact study has been completed to determine the air quality impacts associated with the construction and operation of the proposed Project. The Project known as "Pala Mesa Plaza" envisions providing two new 6,000 square foot commercial-retail buildings, a 4,980 square foot convenience store with a 6-pump gas station, and a total of 134 parking spaces. The gas station is expected to have a yearly output of 650,000 gallons (gal). The project site is located on 3233 Old Highway 395 in the Fallbrook Community Planning Area within the County of San Diego.

Construction is anticipated to start in early 2022 and be completed late 2022. The first full year of operations is expected in 2023. Based upon the analysis of construction activities for the proposed Project, a less then significant direct construction impact would be expected. A review of nearby cumulative projects showed that although there are nearby construction projects they are of sufficient distance (over 1.5 miles away) to avoid significant cumulative construction impacts. Given this, a less than significant cumulative construction impact is expected.

The only source of odors during construction would be from construction equipment or paving activities. Since odors generated during construction would-be short-term events, a less than significant odor impact is expected during construction.

Finally, a health risk assessment was conducted, and cancer risks were found to exceed 1 per million exposed which would be a significant impact. These impacts were found to be reduced below significance by utilizing Tier 4 construction equipment which is considered T-BACT. After the application of T-BACT, it is reanalyzed against a 10 per one million exposed threshold. The following mitigation measure is therefore required for the construction of this project.

AQ-1 - Project-related construction equipment shall use 100 precent Tier 4 construction equipment as defined by United States Environmental Protection Agency (EPA) / California Air Resources Board (CARB) standards. The grading contractor shall submit a letter to the County of San Diego committing to this requirement.

The proposed project would not require any amendments to zoning designations to accommodate this project. Given this, no amendments to zoning designations or Special Area Regulations are needed to accommodate the project. Therefore, the project would be consistent with the Regional Air Quality Strategy (RAQS) and State Implementation Plan (SIP).

1.0 INTRODUCTION

1.1 Purpose of this Study

The purpose of this Air Quality study is to determine potential air quality impacts (if any) that may be created by construction from the proposed Project. Should impacts be determined, the intent of this study would be to recommend suitable mitigation measures to reduce impacts to the extent feasible.

1.2 Project Location

The Project is located 3233 Old Highway 395 in the community of Fallbrook within the County of San Diego. The general location of the Project is shown on the Vicinity Map, Figure 1-A.

1.3 Project Description

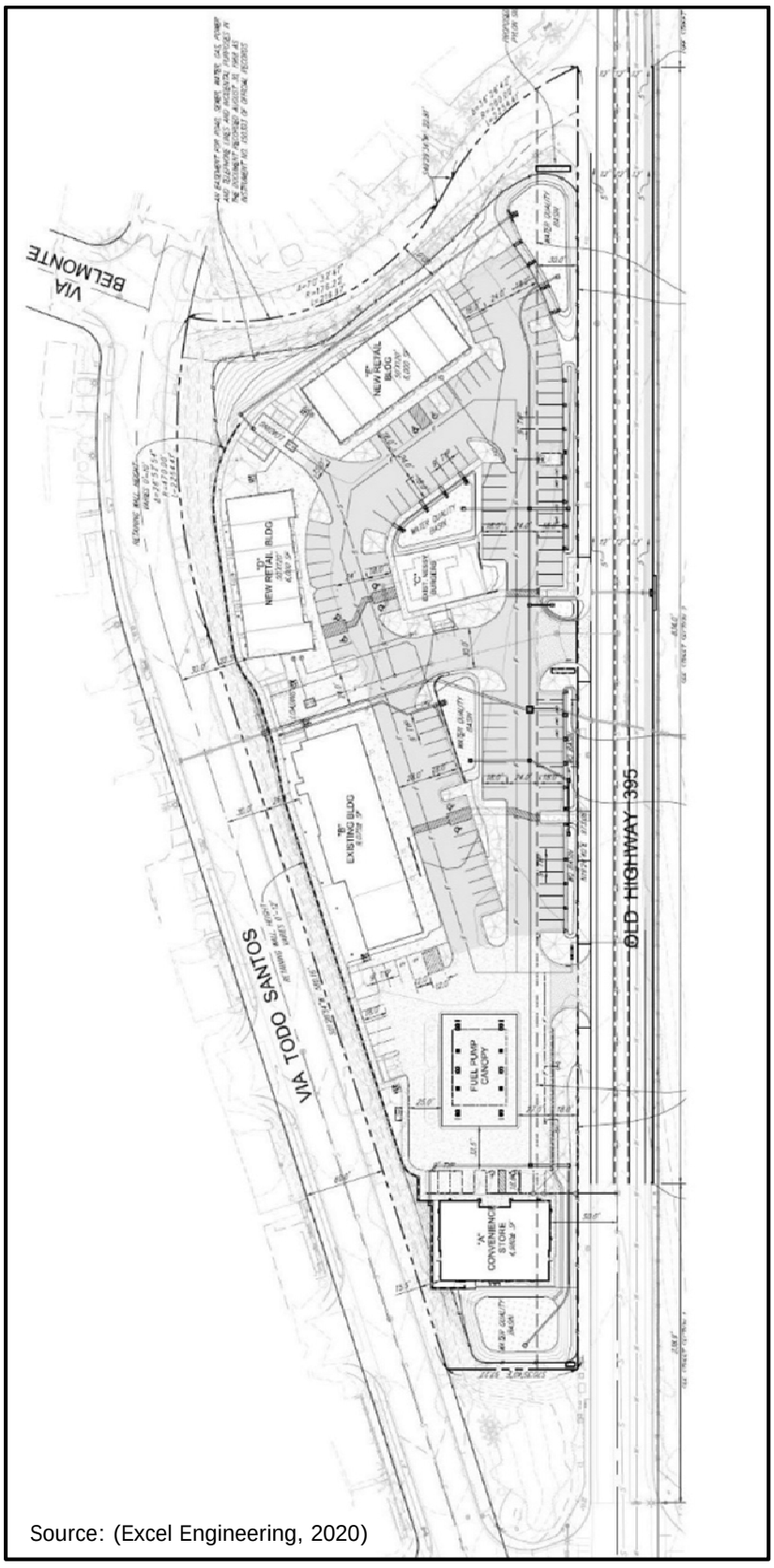
The proposed project is approximately 3.88 acres. The project is a Site Plan to authorize a new commercial development center. The project consists of two new 6,000 square foot commercial-retail buildings, a 4,980 square foot convenience store with a 6-pump gas station, and a total of 134 parking spaces. The gas station is expected to have a yearly output of 650,000 gal. The project site is located at 3233 Old Highway 395 in the Fallbrook Community Planning area, within unincorporated San Diego County. The site is subject to the General Plan Regional Category Semi Rural, Land Use Designation General Commercial. Zoning for the site is C36 (General Commercial) and the project was designed to be consistent with all site zoning designators. The site is developed with an existing 9,075 square foot commercial building and an existing burger restaurant, and both would be retained. The existing nursery would not be retained and since no major facilities exist for the nursery, no building demolition activities would be required.

Earthwork will consist of 7,725 cubic yards of cut and 5,875 cubic yards of fill, for a total export of 2,150 cubic yards of material. Offsite improvements include widening and restriping of Public Road Old Highway 395 adjacent to the Project site. Earthwork quantities modeled include all necessary export as well as earthwork activities necessary for offsite roadway improvements. The site plan for the proposed project used for this analysis is shown on Figure 1-B. Construction of the Project is expected to begin early 2022 and be completed later that year. The first year of full operations would be expected in 2023.

Figure 1-A: Project Vicinity Map

Source: (Google, 2021)

Figure 1-B: Proposed Project Site Layout



Source: (Excel Engineering, 2020)

2.0 EXISTING ENVIRONMENTAL SETTING

2.1 Existing Setting

The site has a land use designator as Semi-Rural General Commercial (C-36). Land uses surrounding the Project include single family residential to the west and a hotel use to the north. The site to south is commercial and Interstate 15 exists to the east. Elevations onsite are around 320 feet above mean sea level.

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 heat 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 system drops to the south and brings cooler, moister weather from the north. It is common for inversion layers to develop within high-pressure areas, which mostly define pressure patterns over the SDAB. These inversions are caused when a thin layer of the atmosphere increases in temperature with height. An inversion acts like a lid preventing vertical mixing of air through convective overturning.

Meteorological trends within the Fallbrook area generally show daytime highs ranging between 67°F in the winter to approximately 83°F in the summer with August usually being the hottest month. Daytime Low temperatures range from approximately 44°F in the winter to approximately 62°F in the summer. Precipitation is generally about 13 inches per year (WRCC, 2016). 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

Regulatory Standards, which are made up of federal, state and local air quality standards are set with the intention to reduce human health impacts from exposure to pollutants. Based on these air quality standards, regional and local impact determinations under the California Environmental Quality Act (CEQA) would also be assumed to reduce potential health impacts because they are tied to the higher regulations.

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 for the intention of protecting public health, which includes sensitive populations such as asthmatics, children and elderly. ***Secondary Standards*** set limits to protect public welfare to include the protection against decreased visibility, damage to animals, crops, vegetation and buildings.

The EPA Office of Air Quality Planning and Standards (OAQPS) has set NAAQS for principal pollutants, which are called "criteria" pollutants. These pollutants are defined below:

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.*
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.*
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.*
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.

5. ***Ozone (O_3)**: 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.*
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.*

2.3.2 State Standards and Definitions

CARB sets the laws and regulations for air quality on the state level. The California Ambient Air Quality Standards (CAAQS) is similar to the NAAQS and also restricts 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.*
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.*
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 Parts per Million (ppm)) can cause a loss of consciousness and possibly death.*
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).*

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 14				
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, 5/4/2016)

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 County Air Pollution Control District (SDAPCD) is the government agency which regulates sources of air pollution within the county. Therefore, the SDAPCD developed a RAQS to provide control measures to try to achieve attainment status for state ozone standards with control measures focused on Volatile Organic Compounds (VOCs) and oxides of nitrogen (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 2016 which was the latest update incorporating minor changes to the prior 2009 update.

The 2016 update mostly summarizes how the 2009 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, 2019).

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.*
(SDAPCD, 2019)

2.4 California Environmental Quality Act Significance Thresholds

The California Environmental Quality Act (CEQA) 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 district 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 applicable air quality plan?
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?
C: Expose sensitive receptors to substantial pollutant concentrations?
D: Result in other emissions (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 recommended trigger levels in Rule 20.2 for new or modified stationary sources. Through the County's Guidelines for Determining Significance and Report Format and Content Requirements, the County has adopted these trigger levels as Screening Level Thresholds[1] (SLTs) for use in determining CEQA air quality impacts (County of San Diego, 2007). These SLTs can be used to demonstrate that a project's total emissions would not result in a significant impact as defined by CEQA. However, since SDAPCD does not have recommended trigger level for VOCs, the County has adopted the South Coast Air Quality Management District's (SCAQMD's) VOC threshold for the Coachella Valley.

Should emissions be found to exceed these County adopted SLTs, 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 SLTs for construction and operational activities are shown in Table 2.3.

Table 2.3: Screening Level Thresholds for Criteria Pollutants

Pollutant	Total Emissions (Pounds per Day)
Construction and Operational Emissions	
Respirable Particulate Matter (PM_{10})	100
Respirable Fine Particulate Matter ($PM_{2.5}$)	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

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 less than one per one million have a less than significant impact. Projects that propose an increased cancer risk to greater than one in one million require implementation of toxics best available

[1] County SLTs are tied to achieving or maintaining attainment designations with the NAAQS and CAAQS. The federal and State ambient air quality standards, in turn, are scientifically substantiated, numerical concentrations of criteria air pollutants considered to be protective of human health.

control technology (T-BACT) or impose the most effective emission limitation, emission control device or control technique to reduce the cancer risk. Upon providing T-BACT equipment a less than significant impact is expected when the risk is between one and ten per one million exposed. At no time shall the Project increase the incremental cancer risk to over ten in one million or a health hazard index (chronic and acute) greater than one.

The U.S. EPA uses the term VOC and the 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 Air Quality models directly calculates ROG in place of VOC.

2.6 Local Air Quality

Criteria pollutants are measured continuously throughout the SDAB. 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 (SDAPCD). The District operates monitoring sites, which collect data on criteria pollutants. The closest monitoring location to the Project site is the Camp Pendleton monitoring location roughly 9 miles to the northwest. Table 2.4 on the following page 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	2019	2020	Days Exceeded over 2 years
O_3 (ppm)	Camp Pendleton or Carmel Mountain Ranch	1 Hour	0.09 ppm	No Standard	0.08	0.09	0
		8 Hour	0.070 ppm	0.070 ppm	0.06	0.07	3
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	18.9	40.2	N/A
		Annual Arithmetic Mean	12 µg/m3	15 µg/m3	8.2	9.3	N/A
NO_2 (ppm)		Annual Arithmetic Mean	0.030 ppm	0.053 ppm	0.014	0.013	N/A
		1 Hour	0.18 ppm	0.100 ppm	0.086	0.056	N/A
* CO (ppm)		1 Hour	20 ppm	35 ppm	4.1	3.3	N/A
		8 Hour	9 ppm	9 ppm	2.5	1.7	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 were calculated using the latest CalEEMod 2020.4.0 air quality model, which was developed by BREEZE Software for South Coast Air Quality Management District (SCAQMD) in 2017. 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.

The AERMOD dispersion model will be 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 notable toxic air contaminant from construction is diesel exhaust, since exposure to diesel exhaust is known to cause cancer and acute and chronic health effects. Diesel exhaust emissions can be estimated using the annual PM_{10} exhaust emissions, referred to as diesel particulate matter (DPM), from onsite construction operations obtained from the annual CalEEMod model output by summing each onsite source for the construction duration. The AERMOD input/output file for the proposed Project is provided in ***Attachment B*** and includes sensitive residential receptors.

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 (County of San Diego, 2007):

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/m3) Annual average DPM concentration in µg/m3 - SCREEN3 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 attached to this report. The worst case cancer risk calculation is defined in Equation 2 below (OEHHA, February 2015):

Equation 2

$$RISK_{inh\text{-}res} = DOSE_{air} \times CPF \times ASF \times ED/AT \times FAH$$

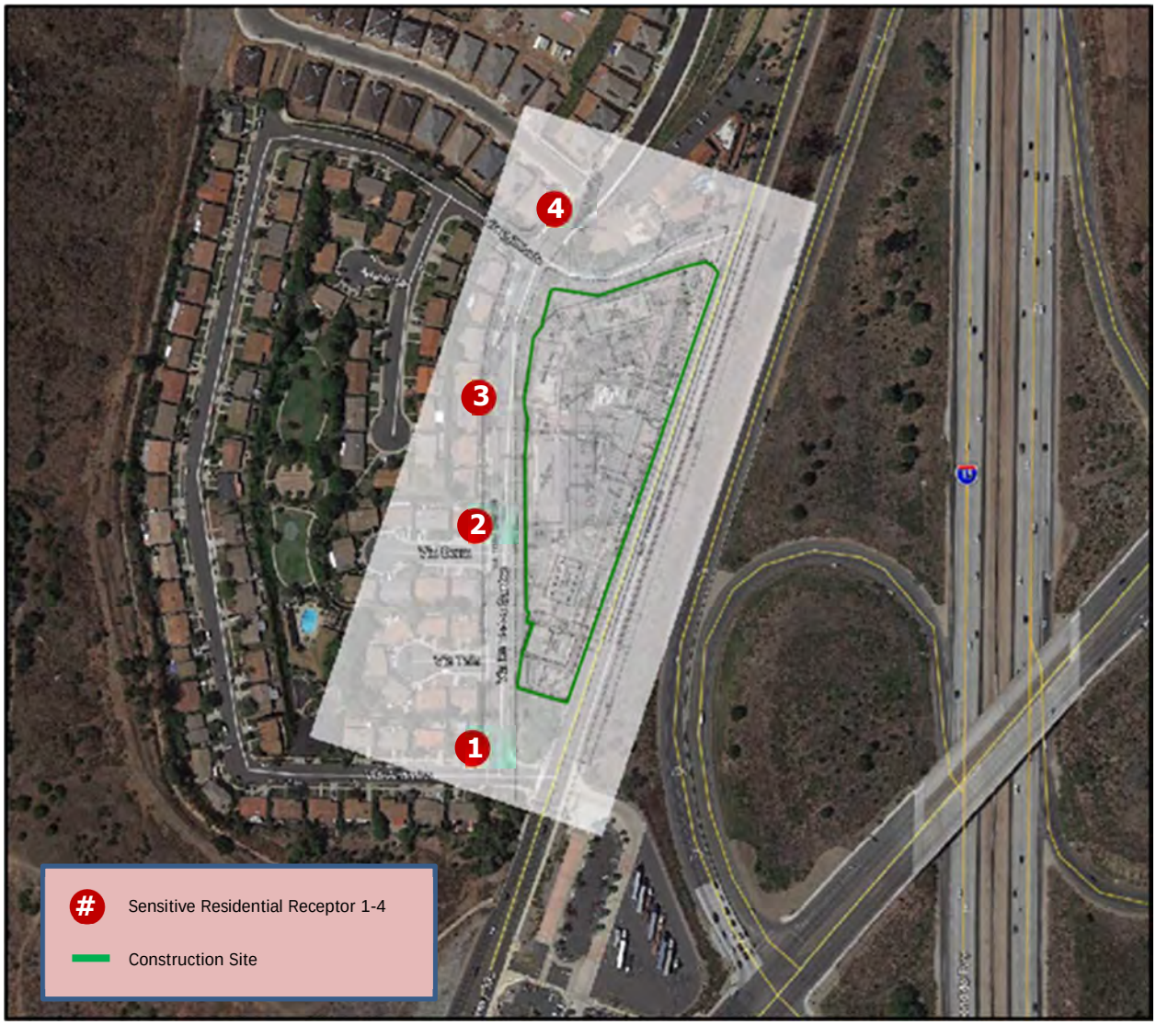
$RISK_{inh\text{-}res}$	=	Residential inhalation cancer risk
$DOSE_{air}$	=	Daily inhalation dose (mg/kg-day)
CPF	=	Inhalation cancer potency factor ($mg/kg\text{-}day^{-1}$)
ASF	=	Age sensitivity factor for a specified age group (unitless)
ED	=	Exposure duration (in years) for a specified age group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

The California 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. Health risk calculations are shown in ***Attachment C*** to this report.

Non-Cancer risks or risks defined as chronic or acute are also known with respect to 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 $\mu g/m^3$ and targets the respiratory system.

A graphical representation of the modeling locations is shown on a site aerial below in Figure 3-A. The red points (1-4) represent the residential sensitive receptor locations where air quality emissions are calculated by AERMOD. The green polygon represents the grading area. For purposes of analysis an unmitigated and mitigated model was created.

Figure 3-A: Construction Health Risk Receptor Locations



Source: (Google Earth Pro, 2021)

3.2 Construction Assumptions

CalEEMod Version 2020.4.0 was utilized for all construction emissions calculations for the proposed commercial retail project and has been manually updated to reflect SDAPCD Rule 67 VOC paint standards only the remaining inputs are default settings within the model. The Project construction dates assumed default settings within the software and are shown in Table 3.1 below. It should be noted that the project will be required to incorporate requirements by default from the County's grading ordinance though are not specifically identified within this analysis. Based on the proposed Project description, the nursery will be removed though no buildings or significant structures exist for this use and likewise, the demolition phase typically modeled in CalEEmod is not necessary. Instead as part of the Site Preparation phase, existing agricultural uses will be scrubbed and cleared typical of the Site Preparation phase in CalEEMod.

Table 3.1: Expected Construction Equipment

Equipment Identification	Proposed Start	Proposed Complete	Quantity
Site Preparation	1/1/2022	1/4/2022	
Graders			1
Rubber Tired Dozers			1
Tractors/Loaders/Backhoes			1
Grading	1/5/2022	1/10/2022	
Graders			1
Rubber Tired Dozers			1
Tractors/Loaders/Backhoes			2
Building Construction	1/11/2022	1/24/2022	
Cranes			1
Forklifts			1
Generator Sets			1
Tractors/Loaders/Backhoes			1
Welders			3
Paving	1/25/2022	10/31/2022	
Cement and Mortar Mixers			1
Pavers			1
Paving Equipment			1
Rollers			1
Tractors/Loaders/Backhoes			1
Architectural Coating	10/18/2022	10/31/2022	
Air Compressors			1
This equipment and durations were selected based on CalEEMod defaults			

3.3 Operational Emissions

Once construction is completed the proposed project would generate emissions from daily operations which would include sources such as Area, Mobile and Energy sources 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 use. In addition, the Project will also emit air emissions from the fueling operations which are not calculated within CalEEMod.

As noted, the project would also generate emissions through the use of vehicles for transportation (Mobile). Mobile emissions were calculated using the project traffic study which identifies the project of generating 2,917 trips at the project driveway (Darnell and Associates, 2021). Also, it should be noted that the vehicular trips that exist from the nursery or existing uses onsite were not modeled and credit for the existing trips were not taken. The Operational model is shown in ***Attachment A*** at the end of this report.

Fueling Operations

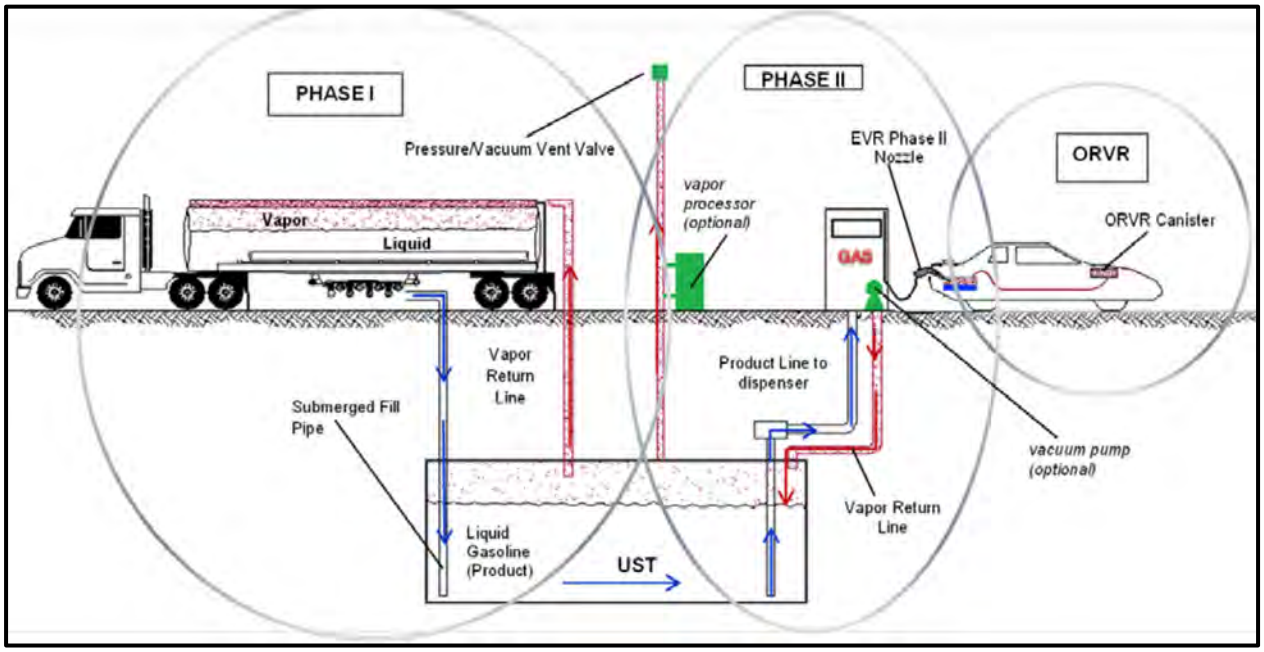
As noted in the project description the project would include a six-pump fueling facility (12 filling locations) which would be expected to dispense roughly 650,000 gal of fuel per year.

Total Organic Gas (TOG) includes all VOCs as well as gases not included in VOCs such as low reactivity and low volatility vapor pressure (U.S. EPA, 2017). Since County regulations are based on VOCs, it's assumed that TOG emissions generated by the project would conservatively equal VOCs as measured in lbs/day for this analysis.

TOGs which are generated from fueling operations and are manually calculated using CARBs guidance (CARB, 2013). These emissions are reduced using standardized equipment to reduce emissions. Vapor recovery systems are used to control emissions from gasoline dispensing facilities (GDF). Phase I vapor recovery systems collect vapors displaced from an Underground Storage Tank (UST) when a cargo tank truck delivers gasoline to a GDF. Phase II vapor recovery systems collect vapors displaced during storage or dispensing of gasoline into vehicles. Most vehicles have onboard refueling vapor recovery (ORVR) systems and as of 2013 74 percent of the driving vehicles have ORVR systems (CARB, 2013). Figure 3-B shows the relationship of the standard fueling industry vapor recovery systems.

1. Phase II Fueling - Non-ORVR Vehicles: When dispensing gasoline to vehicles not equipped with ORVR, the rising liquid level in the vehicle fuel tank displaces gasoline vapors back through the fill-pipe where they are captured by a Phase II vapor recovery system. Vapors not captured by the Phase II vapor recovery system are emitted to the atmosphere.

Figure 3-B: Vapor Recovery Systems



Source: (CARB, 2013)

2. Phase I Bulk Transfer Losses: During transfer of gasoline from cargo tank trucks to a GDF UST, emissions are generated when gasoline vapors in an UST are displaced to the atmosphere by the rising level of the gasoline being loaded into an UST. Emissions are controlled with a Phase I vapor recovery system.

3. Pressure Driven (Breathing) Losses: Emissions are generated when gasoline vapors are displaced to the atmosphere during the day to day operation of a given GDF. During periods when there is either no dispensing or when there is a significant slowdown in the dispensing of fuel to vehicles, such as overnight periods, gasoline in an UST evaporates into the headspace above the liquid fuel. The vapor growth caused by this evaporation increases UST static pressure and results in pressure driven emissions. Pressure driven emissions are currently controlled by a processing unit that includes either a bladder tank, membrane separator, carbon canister or thermal oxidizer.

4. Phase II Fueling - Spillage: Emissions are generated from dispensing nozzle spillage of liquid gasoline during the act of vehicle fueling, including pre-fueling, fueling and post-fueling spillage.

5. Phase II Fueling - ORVR Vehicles: These emissions occur at the vehicle fill pipe during dispensing of gasoline to ORVR vehicles. ORVR systems were phased in beginning with 1998 model year passenger vehicles, and are now installed on all passenger, light-duty, and medium-duty vehicles manufactured since the 2006 model year. When

an ORVR vehicle is fueled, almost all the gasoline vapor displaced from the fuel tank is routed to a carbon canister in the vehicle fuel system. At the start of dispensing, a small portion of the vapor in the vehicle fuel tank may escape through the fill-pipe before the onboard system is fully engaged. Uncontrolled fill-pipe emissions from ORVR vehicles are approximately two orders of magnitude lower than the same emissions from vehicles without ORVR, and are easily captured by Phase II vapor recovery systems.

6. Gasoline Dispensing Hose Permeation: These emissions are caused by the migration of liquid gasoline through the outer GDF hose material and to the atmosphere through permeation. This condition primarily occurs at GDFs equipped with vacuum assist Phase II vapor recovery systems or no Phase II vapor recovery system.

TOG emission factors per CARB are presented in Table 3.2. The emission factors are segregated into three tiers, each representing varying degrees of vapor recovery equipment control and are listed following this paragraph. For purposes of this analysis, Pre-enhanced vapor recovery system (pre-EVR) emission factors are assumed, Pre-EVR is generally defined as between 1976 through 2009 (CARB, 2021) or generally the timeframe executive orders were issued prior to when the enhanced vapor recovery (EVR) program was implemented in 2009 and was fully implemented in 2011. Uncontrolled emission factor (UEF) were not assumed in this analysis.

1. UEF = No vapor recovery system
2. Pre-EVR = Phase I and Phase II vapor recovery systems predating EVR.
3. EVR = Phase I and Phase II Enhanced vapor recovery systems.

Table 3.2: TOG Emission Factors for Gasoline Dispensing Facilities

Fueling Sources	Revised (lbs/kgal)		
	UEF	Pre-EVR	EVR
Phase II Fueling Non-ORVR Vehicles	8.4	2.4	0.42
Phase II Fueling ORVR Vehicles	0.42	0.12	0.021
Phase I Bulk Transfer Losses	7.7	0.38	0.15
Pressure Driven Losses	0.76	0.092	0.024
Phase II Fueling - Spillage	0.61	0.42	0.24
2017 Gasoline Dispensing Hose Permeation	0.009	0.009	0.009
Total Combined Emission Factor	17.90	3.42	0.86
Source: (CARB, 2013)			

3.4 Odor Impacts

Potential onsite construction odor generators would include short term construction odors from activities such as paving and possibly painting. Odors created from paving would include asphalt laying, which has a slight odor from the bitumen and solvents used within hot asphalt. Impacts associated with asphalt laying activities would be short term, less than one month, as shown in Table 3.1 above and are expected to be less than significant.

Gasoline fumes during operations could also be a source of odors however, the project would be installing Phase I and Phase II vapor recovery systems which are designed to capture 95% of the vapors during filling operations. These systems are located at both vehicle filling locations as well as the site fuel tank filling operations and are regulated by SDAPCD (See the County's Website Rule 61.3 and 61.4 (SDAPCD, 2021)). Given this, long term vapor odors from fueling operations would be less than significant for all nearby residential receptors. Additionally, even though vapor odors are not expected, it should be noted that in general odors decrease with distance from the source.

4.0 FINDINGS

4.1 Construction Findings

Emissions from construction activities and equipment use, identified in Section 3.2, are presented in pounds per day and are shown in Table 4.1 below. Based on these numbers, the project would not exceed County SLTs and would have less than significant impacts to public health.

Table 4.1: Expected Maximum Daily Emissions– Pounds per Day (lb/day)

Year	VOC	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)
2022	19.21	27.92	15.64	0.06	8.42	0.85	9.26	3.78	0.78	4.56
Screening Level Threshold (lb/day)	75	250	550	250	-	-	100	-	-	55
Exceeds Threshold?	**No**	**No**	**No**	**No**	-	-	**No**	-	-	**No**

4.2 Health Risk

The nearest sensitive receptors to the Project site adjacent to the Project site as shown in Figure 3-A above. Based upon the annual air quality modeling outputs, worst-case PM_{10} generated from onsite construction exhaust would cumulatively produce 0.063 tons over the construction duration (303-calendar days) or an average of 0.0033 grams/second. The average emission rate over the grading area is $1.39x10^{-7}$ g/m^2/s, which was calculated as follows:

$$\frac{0.00218\,\frac{grams}{sec\,o\,nd}}{3.88acres * 4{,}046\,\frac{meters^2}{acre}} = 1.39 * 10^{-7}\,\frac{\frac{grams}{meters^2}}{sec\,o\,nd}$$

Utilizing the AERMOD dispersion model, we find that the peak maximum annual concentration is 1.16 µg/m^3 during the worst-case construction period. Utilizing the risk equation identified above in Section 3.1, the inhalation cancer risk for the worst-case residential receptor is greater than one per one million exposed which would be a potentially significant impact and would require the application of T-BACT diesel equipment.

It was found that these impacts can be reduced to less than significant through the utilization of Tier 4 equipment. This equipment would cumulatively produce a total of 0.0033 tons of PM_{10} over the construction duration above which equates to 0.000114 grams/second. Based on this the mitigated average emission rate over the grading area is $7.27x10^{-9}$ $g/m^2/s$. Utilizing the AERMOD dispersion model, we find that the annual concentration is 0.061 $\mu g/m^3$ during construction. Given this, the inhalation cancer risk for the worst-case receptor was found to be 9.17 per one million exposed which would be considered a less than significant impact under CEQA with T-BACT applied. Additionally, as noted earlier in this report, detailed calculations for both the unmitigated and mitigated scenarios are shown in ***Attachment B*** of this report.

Finally, 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 annual concentration of 0.061 $\mu g/m^3$ divided by the REL of 5 $\mu g/m^3$ yields a Health Hazard Index of 0.01, which is less than one. Therefore, no chronic health risks are expected and all health risks are considered less than significant.

It should be noted that the mitigation measure to utilize Tier 4 equipment would further reduce Air Quality emissions identified in Section 4.1 above. Since unmitigated emissions do not exceed Rule 20.2, by default mitigated emissions would also be considered less than significant. Mitigated construction emissions are shown in Table 4.2 below:

Table 4.2: Mitigated Construction Emissions (lb/day) - Tier 4

Year	VOC	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)
2022	17.68	12.03	16.05	0.06	8.42	0.14	8.56	3.78	0.13	3.92
Screening Level Threshold (lb/day)	75	250	550	250	-	-	100	-	-	55
Exceeds Threshold?	**No**	**No**	**No**	**No**	-	-	**No**	-	-	**No**

4.3 Operational Findings

Project Buildout and full operations are expected in 2023. the model was run for the winter and summer scenarios to determine operational impacts for the buildout year of full operations. The expected daily pollutant generation can be calculated utilizing the product of the average daily miles traveled and the expected emissions inventory calculated by

EMFAC2014; CALEEMOD 2020.4.0 performs this calculation. The daily pollutants calculated for summer and winter are shown in Tables 4.3 and 4.4. Based on these results, the project would have a less than significant impact in the County. In addition, VOC emission would be added to emissions generated from the fueling station and are discussed further below.

Table 4.3: Expected Summer Daily Pollutant Generation

	VOC	NO_x	CO	SO_X	PM_{10}	$PM_{2.5}$
Area	0.43	0.00	0.02	0.00	0.00	0.00
Energy	0.00	0.01	0.01	0.00	0.00	0.00
Mobile	5.56	3.53	29.39	0.04	4.30	1.17
Total (Unmitigated)	**5.99**	**3.54**	**29.41**	**0.05**	**4.30**	**1.17**
Screening Level Threshold (lb/day)	75	250	550	250	100	55
Exceeds Threshold?	**See Table 4.5 below**	**No**	**No**	**No**	**No**	**No**
Daily pollutant generation assumes trip distances within CalEEMod. The final numbers are all rounded within Excel and are reported as rounded numbers.						

Table 4.4: Expected Winter Daily Pollutant Generation

	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Area	0.43	0.00	0.02	0.00	0.00	0.00
Energy	0.00	0.01	0.01	0.00	0.00	0.00
Mobile	5.29	3.86	32.65	0.04	4.30	1.17
Total (Unmitigated)	**5.72**	**3.87**	**32.67**	**0.04**	**4.30**	**1.17**
Screening Level Threshold (lb/day)	75	250	550	250	100	55
Exceeds Threshold?	**See Table 4.5 below**	**No**	**No**	**No**	**No**	**No**
Daily pollutant generation assumes trip distances within CalEEMod. The final numbers are all rounded within Excel and are reported as rounded numbers.						

As noted above, the operational emissions from the fueling station would be added to VOC emissions identified in Tables 4.4 and 4.5 as discussed in Section 3.3 above. As noted, emissions are generated based on fueling station emission factors multiplied by the volume of fuel dispensed onsite daily. Based on the project description 650,000 gallons of fuel will be delivered to the site and then dispensed for a total transfer quantity of 1.3 million gallons or 1300 kgal per year. To be conservative, adding a buffer and providing calculations for 1,500 kgal yearly would generate as much as 14.06 lb/day VOC assuming 100% Pre-EVR and 3.55 lb/day assuming EVR. Combined the maximum daily emissions which could be expected from

the project would be 20.05 lb/day as is shown in Bold in Table 4.5. Based on these numbers, the project would not exceed County SLTs and would have less than significant impacts to public health.

Table 4.5: Fueling Operations Emissions

Fueling Sources	Revised (lbs/kgal)	
	Pre-EVR	EVR
Total Combined Emission Factor (lbs/kgal)	3.42	0.86
Project kgal/year	1,500	
Project kgal per day (365 Days per year)	4.11	
TOG generated per year (VOC) (lb/day)	14.06	3.55
Project Operational VOC (lb/day) – See Table 4.4	5.99	5.99
Total Operational VOC (lb/day)	**20.05**	9.54
Screening Level Threshold (lb/day)	75	
Exceeds Threshold?	**No**	**No**
Source: (CARB, 2013)		

4.4 Cumulative Impact Findings

Cumulative impacts would exist when either there are direct air quality impacts or when multiple construction projects occur within the same area simultaneously. To illustrate this, if a Project was to produce air quality emissions simultaneous to a nearby construction project the addition of both project emissions to the environment could exceed significance thresholds. If a nearby Project was to be under construction at the same time, that Project would need to produce an additive amount of emissions close to the Project site such that emissions would exceed thresholds.

The Project traffic engineer conducted research into whether or not nearby cumulative construction projects are expected around the Project. It was determined that the project is near the Monserate Winery Project which about 1.6 miles to the west as well as the Ocean Breeze Ranch project which is roughly 2 miles to the southwest. These projects are far enough away that cumulatively considerable air quality impacts would not likely since air quality emissions dissipate quickly from the point of generation. Based on this a cumulative construction impact would be less than significant.

The Project is zoned Semi-Rural General Commercial and has a General Commercial Village Floor Area Ratio requirement of 0.45 (County of San Diego, 2011). Based on project Scoping Letter, the Project including existing uses onsite would have a FAR of 0.16 (County of San

Diego, 2020). Given this, no amendments to zoning designations or Special Area Regulations are needed to accommodate the project. Therefore, since the project is consistent with the General Plan, cumulative operational impacts would not be expected and the project would be consistent with the RAQS and SIP.

4.5 Conclusion of Findings

Based upon the analysis of construction and operation activities for the proposed Project would generate less than significant direct operational and direct construction impacts related to fugitive dust.

It was found that significant cancer health risks could be tied to construction and therefore would require mitigation to comply. Using Tier 4 construction equipment would reduce cancer risks to less than significant at all receptors surrounding the Project site.

Construction is anticipated to start in early 2022 be completed later that year. The first full year of operations is expected in 2023. Based upon the analysis of construction activities for the proposed Project, a less then significant direct construction impact would be expected. A review of nearby cumulative projects showed that although there are nearby construction projects they are of sufficient distance (over 1.5 miles away) to avoid significant cumulative construction impacts. Given this, a less than significant cumulative construction impact is expected.

Finally, the Project would generate short-term construction odors, but these impacts would not be considered significant. Based on this, no significant odor impacts are expected.

Based on this analysis, the Project would be required to implement one mitigation measure identified below:

AQ-1 - Project-related construction equipment shall use 100 precent Tier 4 construction equipment as defined by United States Environmental Protection Agency (EPA) / California Air Resources Board (CARB) standards. The grading contractor shall submit a letter to the County of San Diego committing to this requirement.

The proposed project would not require any amendments to zoning designations to accommodate this project. Given this, no amendments to zoning designations or Special Area Regulations are needed to accommodate the project. Therefore, since the project is consistent with the General Plan, cumulative operational impacts would not be expected and the project would be consistent with the RAQS and SIP.

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6.0 CERTIFICATIONS

The contents of this report represent an accurate depiction of the air quality environment and impacts within and surrounding the proposed development. This report was prepared utilizing the latest emission rates and reduction methodologies. This report was prepared by Jeremy Louden; a County approved CEQA Consultant for Air Quality.

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Date July 17, 2023

ATTACHMENT A

CalEEMod

Pala Mesa Plaza - San Diego County, Summer

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

Pala Mesa Plaza

San Diego County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	134.00	Space	1.21	53,600.00	0
Convenience Market With Gas Pumps	12.00	Pump	0.04	4,980.00	0
Strip Mall	12.00	1000sqft	0.28	12,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2023
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	474.7	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - RPS 2023 corrected for 2020.4.0 assumes 33% achieved in 2020 and 60% will be achieved in 2030.

Land Use - Based on PD

Construction Phase -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Trips and VMT -

Grading -

Pala Mesa Plaza - San Diego County, Summer

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

Architectural Coating - Rule 67 Paint

Vehicle Trips - Trip Generation per traffic study

Vehicle Emission Factors - ASD

Vehicle Emission Factors -

Vehicle Emission Factors -

Area Coating - Rule 67 Paints

Energy Use -

Construction Off-road Equipment Mitigation - Tier 4

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
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblAreaCoating	Area_EF_Parking	250	100
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00

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
tblGrading	MaterialExported	0.00	2,150.00
tblLandUse	LandUseSquareFeet	1,694.10	4,980.00
tblProjectCharacteristics	CH4IntensityFactor	0.033	0.029
tblProjectCharacteristics	CO2IntensityFactor	539.98	474.7
tblVehicleTrips	ST_TR	322.50	205.60
tblVehicleTrips	ST_TR	42.04	37.75
tblVehicleTrips	SU_TR	322.50	205.36
tblVehicleTrips	SU_TR	20.43	37.75
tblVehicleTrips	WD_TR	322.50	205.36
tblVehicleTrips	WD_TR	44.32	37.75

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 (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	19.2103	27.9248	15.6351	0.0636	8.4165	0.8480	9.2644	3.7804	0.7840	4.5643	0.0000	6,717.5044	6,717.5044	0.8710	0.7400	6,959.7876
Maximum	**19.2103**	**27.9248**	**15.6351**	**0.0636**	**8.4165**	**0.8480**	**9.2644**	**3.7804**	**0.7840**	**4.5643**	**0.0000**	**6,717.5044**	**6,717.5044**	**0.8710**	**0.7400**	**6,959.7876**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	17.6798	12.0338	16.0516	0.0636	8.4165	0.1393	8.5558	3.7804	0.1347	3.9151	0.0000	6,717.5044	6,717.5044	0.8710	0.7400	6,959.7876
Maximum	**17.6798**	**12.0338**	**16.0516**	**0.0636**	**8.4165**	**0.1393**	**8.5558**	**3.7804**	**0.1347**	**3.9151**	**0.0000**	**6,717.5044**	**6,717.5044**	**0.8710**	**0.7400**	**6,959.7876**

	ROG	NOx	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	**7.97**	**56.91**	**-2.66**	**0.00**	**0.00**	**83.57**	**7.65**	**0.00**	**82.82**	**14.23**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	0.4311	1.5000e-004	0.0161	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0346	0.0346	9.0000e-005		0.0369
Energy	1.1100e-003	0.0101	8.5100e-003	6.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004		12.1501	12.1501	2.3000e-004	2.2000e-004	12.2223
Mobile	5.5608	3.5301	29.3888	0.0449	4.2546	0.0407	4.2952	1.1334	0.0378	1.1712		4,619.1145	4,619.1145	0.5374	0.3058	4,723.6735
Total	**5.9929**	**3.5403**	**29.4135**	**0.0450**	**4.2546**	**0.0415**	**4.2961**	**1.1334**	**0.0387**	**1.1720**		**4,631.2992**	**4,631.2992**	**0.5377**	**0.3060**	**4,735.9326**

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	0.4311	1.5000e-004	0.0161	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0346	0.0346	9.0000e-005		0.0369
Energy	1.1100e-003	0.0101	8.5100e-003	6.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004		12.1501	12.1501	2.3000e-004	2.2000e-004	12.2223
Mobile	5.5608	3.5301	29.3888	0.0449	4.2546	0.0407	4.2952	1.1334	0.0378	1.1712		4,619.1145	4,619.1145	0.5374	0.3058	4,723.6735
Total	**5.9929**	**3.5403**	**29.4135**	**0.0450**	**4.2546**	**0.0415**	**4.2961**	**1.1334**	**0.0387**	**1.1720**		**4,631.2992**	**4,631.2992**	**0.5377**	**0.3060**	**4,735.9326**

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

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2022	1/4/2022	5	2	
2	Grading	Grading	1/5/2022	1/10/2022	5	4	
3	Paving	Paving	1/11/2022	1/24/2022	5	10	
4	Building Construction	Building Construction	1/25/2022	10/31/2022	5	200	
5	Architectural Coating	Architectural Coating	10/18/2022	10/31/2022	5	10	

Acres of Grading (Site Preparation Phase): 1.88

Acres of Grading (Grading Phase): 4

Acres of Paving: 1.21

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 25,470; Non-Residential Outdoor: 8,490; Striped Parking Area: 3,216 (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	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	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

Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	269.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	28.00	12.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	6.00	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

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

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2662	0.0000	6.2662	3.0041	0.0000	3.0041			0.0000			0.0000
Off-Road	1.3122	14.6277	7.0939	0.0172		0.6225	0.6225		0.5727	0.5727		1,666.1738	1,666.1738	0.5389		1,679.6457
Total	**1.3122**	**14.6277**	**7.0939**	**0.0172**	**6.2662**	**0.6225**	**6.8887**	**3.0041**	**0.5727**	**3.5768**		**1,666.1738**	**1,666.1738**	**0.5389**		**1,679.6457**

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	0.0234	0.0152	0.2074	6.0000e-004	0.0657	3.7000e-004	0.0661	0.0174	3.4000e-004	0.0178		61.0084	61.0084	1.7500e-003	1.5700e-003	61.5209
Total	**0.0234**	**0.0152**	**0.2074**	**6.0000e-004**	**0.0657**	**3.7000e-004**	**0.0661**	**0.0174**	**3.4000e-004**	**0.0178**		**61.0084**	**61.0084**	**1.7500e-003**	**1.5700e-003**	**61.5209**

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

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2662	0.0000	6.2662	3.0041	0.0000	3.0041			0.0000			0.0000
Off-Road	0.2106	0.9126	8.6714	0.0172		0.0281	0.0281		0.0281	0.0281	0.0000	1,666.1738	1,666.1738	0.5389		1,679.6457
Total	**0.2106**	**0.9126**	**8.6714**	**0.0172**	**6.2662**	**0.0281**	**6.2943**	**3.0041**	**0.0281**	**3.0322**	**0.0000**	**1,666.1738**	**1,666.1738**	**0.5389**		**1,679.6457**

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	0.0234	0.0152	0.2074	6.0000e-004	0.0657	3.7000e-004	0.0661	0.0174	3.4000e-004	0.0178		61.0084	61.0084	1.7500e-003	1.5700e-003	61.5209
Total	**0.0234**	**0.0152**	**0.2074**	**6.0000e-004**	**0.0657**	**3.7000e-004**	**0.0661**	**0.0174**	**3.4000e-004**	**0.0178**		**61.0084**	**61.0084**	**1.7500e-003**	**1.5700e-003**	**61.5209**

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

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.1581	0.0000	7.1581	3.4362	0.0000	3.4362			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**7.1581**	**0.7423**	**7.9004**	**3.4362**	**0.6829**	**4.1191**		**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

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	0.3014	10.9221	2.6549	0.0422	1.1762	0.1052	1.2814	0.3224	0.1007	0.4231		4,645.7615	4,645.7615	0.2234	0.7380	4,871.2696
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	0.0292	0.0190	0.2593	7.5000e-004	0.0822	4.7000e-004	0.0826	0.0218	4.3000e-004	0.0222		76.2605	76.2605	2.1900e-003	1.9700e-003	76.9011
Total	**0.3306**	**10.9411**	**2.9142**	**0.0430**	**1.2583**	**0.1057**	**1.3640**	**0.3442**	**0.1011**	**0.4453**		**4,722.0220**	**4,722.0220**	**0.2256**	**0.7400**	**4,948.1706**

Pala Mesa Plaza - San Diego County, Summer

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

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.1581	0.0000	7.1581	3.4362	0.0000	3.4362			0.0000			0.0000
Off-Road	0.2522	1.0927	10.9071	0.0206		0.0336	0.0336		0.0336	0.0336	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**0.2522**	**1.0927**	**10.9071**	**0.0206**	**7.1581**	**0.0336**	**7.1917**	**3.4362**	**0.0336**	**3.4698**	**0.0000**	**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

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	0.3014	10.9221	2.6549	0.0422	1.1762	0.1052	1.2814	0.3224	0.1007	0.4231		4,645.7615	4,645.7615	0.2234	0.7380	4,871.2696
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	0.0292	0.0190	0.2593	7.5000e-004	0.0822	4.7000e-004	0.0826	0.0218	4.3000e-004	0.0222		76.2605	76.2605	2.1900e-003	1.9700e-003	76.9011
Total	**0.3306**	**10.9411**	**2.9142**	**0.0430**	**1.2583**	**0.1057**	**1.3640**	**0.3442**	**0.1011**	**0.4453**		**4,722.0220**	**4,722.0220**	**0.2256**	**0.7400**	**4,948.1706**

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

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6877	6.7738	8.8060	0.0135		0.3474	0.3474		0.3205	0.3205		1,297.3789	1,297.3789	0.4113		1,307.6608
Paving	0.3170					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0047**	**6.7738**	**8.8060**	**0.0135**		**0.3474**	**0.3474**		**0.3205**	**0.3205**		**1,297.3789**	**1,297.3789**	**0.4113**		**1,307.6608**

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	0.0380	0.0247	0.3371	9.7000e-004	0.1068	6.0000e-004	0.1074	0.0283	5.6000e-004	0.0289		99.1386	99.1386	2.8500e-003	2.5600e-003	99.9714
Total	**0.0380**	**0.0247**	**0.3371**	**9.7000e-004**	**0.1068**	**6.0000e-004**	**0.1074**	**0.0283**	**5.6000e-004**	**0.0289**		**99.1386**	**99.1386**	**2.8500e-003**	**2.5600e-003**	**99.9714**

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

3.4 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1598	0.6922	9.8512	0.0135		0.0213	0.0213		0.0213	0.0213	0.0000	1,297.3789	1,297.3789	0.4113		1,307.6608
Paving	0.3170					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.4768**	**0.6922**	**9.8512**	**0.0135**		**0.0213**	**0.0213**		**0.0213**	**0.0213**	**0.0000**	**1,297.3789**	**1,297.3789**	**0.4113**		**1,307.6608**

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	0.0380	0.0247	0.3371	9.7000e-004	0.1068	6.0000e-004	0.1074	0.0283	5.6000e-004	0.0289		99.1386	99.1386	2.8500e-003	2.5600e-003	99.9714
Total	**0.0380**	**0.0247**	**0.3371**	**9.7000e-004**	**0.1068**	**6.0000e-004**	**0.1074**	**0.0283**	**5.6000e-004**	**0.0289**		**99.1386**	**99.1386**	**2.8500e-003**	**2.5600e-003**	**99.9714**

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

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581
Total	**1.6487**	**12.5031**	**12.7264**	**0.0221**		**0.5889**	**0.5889**		**0.5689**	**0.5689**		**2,001.5429**	**2,001.5429**	**0.3486**		**2,010.2581**

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	0.0267	0.6382	0.2135	2.5600e-003	0.0813	6.9400e-003	0.0882	0.0234	6.6400e-003	0.0300		275.7908	275.7908	8.3900e-003	0.0400	287.9297
Worker	0.0818	0.0532	0.7260	2.1000e-003	0.2300	1.3000e-003	0.2313	0.0610	1.2000e-003	0.0622		213.5293	213.5293	6.1300e-003	5.5000e-003	215.3230
Total	**0.1085**	**0.6914**	**0.9395**	**4.6600e-003**	**0.3113**	**8.2400e-003**	**0.3195**	**0.0844**	**7.8400e-003**	**0.0922**		**489.3200**	**489.3200**	**0.0145**	**0.0455**	**503.2527**

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

3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2930	3.7120	13.1241	0.0221		0.0303	0.0303		0.0303	0.0303	0.0000	2,001.5429	2,001.5429	0.3486		2,010.2581
Total	**0.2930**	**3.7120**	**13.1241**	**0.0221**		**0.0303**	**0.0303**		**0.0303**	**0.0303**	**0.0000**	**2,001.5429**	**2,001.5429**	**0.3486**		**2,010.2581**

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	0.0267	0.6382	0.2135	2.5600e-003	0.0813	6.9400e-003	0.0882	0.0234	6.6400e-003	0.0300		275.7908	275.7908	8.3900e-003	0.0400	287.9297
Worker	0.0818	0.0532	0.7260	2.1000e-003	0.2300	1.3000e-003	0.2313	0.0610	1.2000e-003	0.0622		213.5293	213.5293	6.1300e-003	5.5000e-003	215.3230
Total	**0.1085**	**0.6914**	**0.9395**	**4.6600e-003**	**0.3113**	**8.2400e-003**	**0.3195**	**0.0844**	**7.8400e-003**	**0.0922**		**489.3200**	**489.3200**	**0.0145**	**0.0455**	**503.2527**

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

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	17.2311					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**17.4356**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0175	0.0114	0.1556	4.5000e-004	0.0493	2.8000e-004	0.0496	0.0131	2.6000e-004	0.0133		45.7563	45.7563	1.3100e-003	1.1800e-003	46.1406
Total	**0.0175**	**0.0114**	**0.1556**	**4.5000e-004**	**0.0493**	**2.8000e-004**	**0.0496**	**0.0131**	**2.6000e-004**	**0.0133**		**45.7563**	**45.7563**	**1.3100e-003**	**1.1800e-003**	**46.1406**

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

3.6 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	17.2311					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**17.2608**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0175	0.0114	0.1556	4.5000e-004	0.0493	2.8000e-004	0.0496	0.0131	2.6000e-004	0.0133		45.7563	45.7563	1.3100e-003	1.1800e-003	46.1406
Total	**0.0175**	**0.0114**	**0.1556**	**4.5000e-004**	**0.0493**	**2.8000e-004**	**0.0496**	**0.0131**	**2.6000e-004**	**0.0133**		**45.7563**	**45.7563**	**1.3100e-003**	**1.1800e-003**	**46.1406**

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	5.5608	3.5301	29.3888	0.0449	4.2546	0.0407	4.2952	1.1334	0.0378	1.1712		4,619.1145	4,619.1145	0.5374	0.3058	4,723.6735
Unmitigated	5.5608	3.5301	29.3888	0.0449	4.2546	0.0407	4.2952	1.1334	0.0378	1.1712		4,619.1145	4,619.1145	0.5374	0.3058	4,723.6735

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market With Gas Pumps	2,464.32	2,467.20	2464.32	1,322,092	1,322,092
Parking Lot	0.00	0.00	0.00		
Strip Mall	453.00	453.00	453.00	697,635	697,635
Total	2,917.32	2,920.20	2,917.32	2,019,727	2,019,727

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
Convenience Market With Gas	9.50	7.30	7.30	0.80	80.20	19.00	14	21	65
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	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
Convenience Market With Gas Pumps	0.553514	0.062792	0.181046	0.120736	0.024419	0.006214	0.008493	0.006184	0.000715	0.000556	0.029185	0.000982	0.005164
Parking Lot	0.553514	0.062792	0.181046	0.120736	0.024419	0.006214	0.008493	0.006184	0.000715	0.000556	0.029185	0.000982	0.005164
Strip Mall	0.553514	0.062792	0.181046	0.120736	0.024419	0.006214	0.008493	0.006184	0.000715	0.000556	0.029185	0.000982	0.005164

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	1.1100e-003	0.0101	8.5100e-003	6.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004		12.1501	12.1501	2.3000e-004	2.2000e-004	12.2223
NaturalGas Unmitigated	1.1100e-003	0.0101	8.5100e-003	6.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004		12.1501	12.1501	2.3000e-004	2.2000e-004	12.2223

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					
Convenience Market With Gas Pumps	30.2893	3.3000e-004	2.9700e-003	2.4900e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		3.5635	3.5635	7.0000e-005	7.0000e-005	3.5846
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	72.9863	7.9000e-004	7.1600e-003	6.0100e-003	4.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004		8.5866	8.5866	1.6000e-004	1.6000e-004	8.6377
Total		**1.1200e-003**	**0.0101**	**8.5000e-003**	**6.0000e-005**		**7.7000e-004**	**7.7000e-004**		**7.7000e-004**	**7.7000e-004**		**12.1501**	**12.1501**	**2.3000e-004**	**2.3000e-004**	**12.2223**

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

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					
Convenience Market With Gas Pumps	0.0302893	3.3000e-004	2.9700e-003	2.4900e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		3.5635	3.5635	7.0000e-005	7.0000e-005	3.5846
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	0.0729863	7.9000e-004	7.1600e-003	6.0100e-003	4.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004		8.5866	8.5866	1.6000e-004	1.6000e-004	8.6377
Total		**1.1200e-003**	**0.0101**	**8.5000e-003**	**6.0000e-005**		**7.7000e-004**	**7.7000e-004**		**7.7000e-004**	**7.7000e-004**		**12.1501**	**12.1501**	**2.3000e-004**	**2.3000e-004**	**12.2223**

6.0 Area Detail

6.1 Mitigation Measures Area

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	0.4311	1.5000e-004	0.0161	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0346	0.0346	9.0000e-005		0.0369
Unmitigated	0.4311	1.5000e-004	0.0161	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0346	0.0346	9.0000e-005		0.0369

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	0.0472					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4900e-003	1.5000e-004	0.0161	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0346	0.0346	9.0000e-005		0.0369
Total	**0.4311**	**1.5000e-004**	**0.0161**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**		**0.0346**	**0.0346**	**9.0000e-005**		**0.0369**

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0472					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4900e-003	1.5000e-004	0.0161	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0346	0.0346	9.0000e-005		0.0369
Total	**0.4311**	**1.5000e-004**	**0.0161**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**		**0.0346**	**0.0346**	**9.0000e-005**		**0.0369**

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

Pala Mesa Plaza - San Diego County, Winter

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

Pala Mesa Plaza

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	134.00	Space	1.21	53,600.00	0
Convenience Market With Gas Pumps	12.00	Pump	0.04	4,980.00	0
Strip Mall	12.00	1000sqft	0.28	12,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2023
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	474.7	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - RPS 2023 corrected for 2020.4.0 assumes 33% achieved in 2020 and 60% will be achieved in 2030.

Land Use - Based on PD

Construction Phase -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Trips and VMT -

Grading -

Pala Mesa Plaza - San Diego County, Winter

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

Architectural Coating - Rule 67 Paint

Vehicle Trips - Trip Generation per traffic study

Vehicle Emission Factors - ASD

Vehicle Emission Factors -

Vehicle Emission Factors -

Area Coating - Rule 67 Paints

Energy Use -

Construction Off-road Equipment Mitigation - Tier 4

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
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblAreaCoating	Area_EF_Parking	250	100
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00

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
tblGrading	MaterialExported	0.00	2,150.00
tblLandUse	LandUseSquareFeet	1,694.10	4,980.00
tblProjectCharacteristics	CH4IntensityFactor	0.033	0.029
tblProjectCharacteristics	CO2IntensityFactor	539.98	474.7
tblVehicleTrips	ST_TR	322.50	205.60
tblVehicleTrips	ST_TR	42.04	37.75
tblVehicleTrips	SU_TR	322.50	205.36
tblVehicleTrips	SU_TR	20.43	37.75
tblVehicleTrips	WD_TR	322.50	205.36
tblVehicleTrips	WD_TR	44.32	37.75

2.0 Emissions Summary

Pala Mesa Plaza - 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					
2022	19.2181	28.3372	15.5959	0.0635	8.4165	0.8481	9.2646	3.7804	0.7842	4.5645	0.0000	6,715.2683	6,715.2683	0.8707	0.7405	6,957.6950
Maximum	**19.2181**	**28.3372**	**15.5959**	**0.0635**	**8.4165**	**0.8481**	**9.2646**	**3.7804**	**0.7842**	**4.5645**	**0.0000**	**6,715.2683**	**6,715.2683**	**0.8707**	**0.7405**	**6,957.6950**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	17.6876	12.4462	16.0124	0.0635	8.4165	0.1395	8.5559	3.7804	0.1349	3.9152	0.0000	6,715.2683	6,715.2683	0.8707	0.7405	6,957.6950
Maximum	**17.6876**	**12.4462**	**16.0124**	**0.0635**	**8.4165**	**0.1395**	**8.5559**	**3.7804**	**0.1349**	**3.9152**	**0.0000**	**6,715.2683**	**6,715.2683**	**0.8707**	**0.7405**	**6,957.6950**

	ROG	NOx	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	**7.96**	**56.08**	**-2.67**	**0.00**	**0.00**	**83.56**	**7.65**	**0.00**	**82.80**	**14.22**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Pala Mesa Plaza - 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	0.4311	1.5000e-004	0.0161	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0346	0.0346	9.0000e-005		0.0369
Energy	1.1100e-003	0.0101	8.5100e-003	6.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004		12.1501	12.1501	2.3000e-004	2.2000e-004	12.2223
Mobile	5.2856	3.8607	32.6455	0.0431	4.2546	0.0407	4.2953	1.1334	0.0379	1.1712		4,437.3700	4,437.3700	0.6019	0.3270	4,549.8597
Total	**5.7178**	**3.8710**	**32.6701**	**0.0432**	**4.2546**	**0.0415**	**4.2961**	**1.1334**	**0.0387**	**1.1721**		**4,449.5547**	**4,449.5547**	**0.6023**	**0.3272**	**4,562.1188**

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	0.4311	1.5000e-004	0.0161	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0346	0.0346	9.0000e-005		0.0369
Energy	1.1100e-003	0.0101	8.5100e-003	6.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004		12.1501	12.1501	2.3000e-004	2.2000e-004	12.2223
Mobile	5.2856	3.8607	32.6455	0.0431	4.2546	0.0407	4.2953	1.1334	0.0379	1.1712		4,437.3700	4,437.3700	0.6019	0.3270	4,549.8597
Total	**5.7178**	**3.8710**	**32.6701**	**0.0432**	**4.2546**	**0.0415**	**4.2961**	**1.1334**	**0.0387**	**1.1721**		**4,449.5547**	**4,449.5547**	**0.6023**	**0.3272**	**4,562.1188**

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

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2022	1/4/2022	5	2	
2	Grading	Grading	1/5/2022	1/10/2022	5	4	
3	Paving	Paving	1/11/2022	1/24/2022	5	10	
4	Building Construction	Building Construction	1/25/2022	10/31/2022	5	200	
5	Architectural Coating	Architectural Coating	10/18/2022	10/31/2022	5	10	

Acres of Grading (Site Preparation Phase): 1.88

Acres of Grading (Grading Phase): 4

Acres of Paving: 1.21

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 25,470; Non-Residential Outdoor: 8,490; Striped Parking Area: 3,216 (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	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	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

Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	269.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	28.00	12.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	6.00	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

Pala Mesa Plaza - 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 - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2662	0.0000	6.2662	3.0041	0.0000	3.0041			0.0000			0.0000
Off-Road	1.3122	14.6277	7.0939	0.0172		0.6225	0.6225		0.5727	0.5727		1,666.1738	1,666.1738	0.5389		1,679.6457
Total	**1.3122**	**14.6277**	**7.0939**	**0.0172**	**6.2662**	**0.6225**	**6.8887**	**3.0041**	**0.5727**	**3.5768**		**1,666.1738**	**1,666.1738**	**0.5389**		**1,679.6457**

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	0.0253	0.0171	0.1967	5.7000e-004	0.0657	3.7000e-004	0.0661	0.0174	3.4000e-004	0.0178		57.6457	57.6457	1.8600e-003	1.7000e-003	58.1993
Total	**0.0253**	**0.0171**	**0.1967**	**5.7000e-004**	**0.0657**	**3.7000e-004**	**0.0661**	**0.0174**	**3.4000e-004**	**0.0178**		**57.6457**	**57.6457**	**1.8600e-003**	**1.7000e-003**	**58.1993**

Pala Mesa Plaza - 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 - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2662	0.0000	6.2662	3.0041	0.0000	3.0041			0.0000			0.0000
Off-Road	0.2106	0.9126	8.6714	0.0172		0.0281	0.0281		0.0281	0.0281	0.0000	1,666.1738	1,666.1738	0.5389		1,679.6457
Total	**0.2106**	**0.9126**	**8.6714**	**0.0172**	**6.2662**	**0.0281**	**6.2943**	**3.0041**	**0.0281**	**3.0322**	**0.0000**	**1,666.1738**	**1,666.1738**	**0.5389**		**1,679.6457**

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	0.0253	0.0171	0.1967	5.7000e-004	0.0657	3.7000e-004	0.0661	0.0174	3.4000e-004	0.0178		57.6457	57.6457	1.8600e-003	1.7000e-003	58.1993
Total	**0.0253**	**0.0171**	**0.1967**	**5.7000e-004**	**0.0657**	**3.7000e-004**	**0.0661**	**0.0174**	**3.4000e-004**	**0.0178**		**57.6457**	**57.6457**	**1.8600e-003**	**1.7000e-003**	**58.1993**

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

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.1581	0.0000	7.1581	3.4362	0.0000	3.4362			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**7.1581**	**0.7423**	**7.9004**	**3.4362**	**0.6829**	**4.1191**		**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

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	0.2937	11.3322	2.6954	0.0422	1.1762	0.1054	1.2816	0.3224	0.1008	0.4232		4,647.7287	4,647.7287	0.2230	0.7383	4,873.3289
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	0.0316	0.0214	0.2458	7.1000e-004	0.0822	4.7000e-004	0.0826	0.0218	4.3000e-004	0.0222		72.0572	72.0572	2.3300e-003	2.1300e-003	72.7491
Total	**0.3252**	**11.3536**	**2.9412**	**0.0429**	**1.2583**	**0.1059**	**1.3642**	**0.3442**	**0.1013**	**0.4454**		**4,719.7859**	**4,719.7859**	**0.2253**	**0.7405**	**4,946.0781**

Pala Mesa Plaza - San Diego County, Winter

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

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.1581	0.0000	7.1581	3.4362	0.0000	3.4362			0.0000			0.0000
Off-Road	0.2522	1.0927	10.9071	0.0206		0.0336	0.0336		0.0336	0.0336	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**0.2522**	**1.0927**	**10.9071**	**0.0206**	**7.1581**	**0.0336**	**7.1917**	**3.4362**	**0.0336**	**3.4698**	**0.0000**	**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

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	0.2937	11.3322	2.6954	0.0422	1.1762	0.1054	1.2816	0.3224	0.1008	0.4232		4,647.7287	4,647.7287	0.2230	0.7383	4,873.3289
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	0.0316	0.0214	0.2458	7.1000e-004	0.0822	4.7000e-004	0.0826	0.0218	4.3000e-004	0.0222		72.0572	72.0572	2.3300e-003	2.1300e-003	72.7491
Total	**0.3252**	**11.3536**	**2.9412**	**0.0429**	**1.2583**	**0.1059**	**1.3642**	**0.3442**	**0.1013**	**0.4454**		**4,719.7859**	**4,719.7859**	**0.2253**	**0.7405**	**4,946.0781**

Pala Mesa Plaza - San Diego County, Winter

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

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6877	6.7738	8.8060	0.0135		0.3474	0.3474		0.3205	0.3205		1,297.3789	1,297.3789	0.4113		1,307.6608
Paving	0.3170					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0047**	**6.7738**	**8.8060**	**0.0135**		**0.3474**	**0.3474**		**0.3205**	**0.3205**		**1,297.3789**	**1,297.3789**	**0.4113**		**1,307.6608**

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	0.0411	0.0278	0.3196	9.2000e-004	0.1068	6.0000e-004	0.1074	0.0283	5.6000e-004	0.0289		93.6743	93.6743	3.0300e-003	2.7600e-003	94.5739
Total	**0.0411**	**0.0278**	**0.3196**	**9.2000e-004**	**0.1068**	**6.0000e-004**	**0.1074**	**0.0283**	**5.6000e-004**	**0.0289**		**93.6743**	**93.6743**	**3.0300e-003**	**2.7600e-003**	**94.5739**

Pala Mesa Plaza - San Diego County, Winter

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

3.4 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1598	0.6922	9.8512	0.0135		0.0213	0.0213		0.0213	0.0213	0.0000	1,297.3789	1,297.3789	0.4113		1,307.6608
Paving	0.3170					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.4768**	**0.6922**	**9.8512**	**0.0135**		**0.0213**	**0.0213**		**0.0213**	**0.0213**	**0.0000**	**1,297.3789**	**1,297.3789**	**0.4113**		**1,307.6608**

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	0.0411	0.0278	0.3196	9.2000e-004	0.1068	6.0000e-004	0.1074	0.0283	5.6000e-004	0.0289		93.6743	93.6743	3.0300e-003	2.7600e-003	94.5739
Total	**0.0411**	**0.0278**	**0.3196**	**9.2000e-004**	**0.1068**	**6.0000e-004**	**0.1074**	**0.0283**	**5.6000e-004**	**0.0289**		**93.6743**	**93.6743**	**3.0300e-003**	**2.7600e-003**	**94.5739**

Pala Mesa Plaza - San Diego County, Winter

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

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581
Total	**1.6487**	**12.5031**	**12.7264**	**0.0221**		**0.5889**	**0.5889**		**0.5689**	**0.5689**		**2,001.5429**	**2,001.5429**	**0.3486**		**2,010.2581**

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	0.6623	0.2201	2.5600e-003	0.0813	6.9600e-003	0.0882	0.0234	6.6600e-003	0.0301		275.9323	275.9323	8.3500e-003	0.0401	288.0873
Worker	0.0884	0.0599	0.6883	1.9800e-003	0.2300	1.3000e-003	0.2313	0.0610	1.2000e-003	0.0622		201.7601	201.7601	6.5200e-003	5.9600e-003	203.6975
Total	**0.1149**	**0.7221**	**0.9084**	**4.5400e-003**	**0.3113**	**8.2600e-003**	**0.3196**	**0.0844**	**7.8600e-003**	**0.0923**		**477.6924**	**477.6924**	**0.0149**	**0.0461**	**491.7848**

Pala Mesa Plaza - San Diego County, Winter

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

3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2930	3.7120	13.1241	0.0221		0.0303	0.0303		0.0303	0.0303	0.0000	2,001.5429	2,001.5429	0.3486		2,010.2581
Total	**0.2930**	**3.7120**	**13.1241**	**0.0221**		**0.0303**	**0.0303**		**0.0303**	**0.0303**	**0.0000**	**2,001.5429**	**2,001.5429**	**0.3486**		**2,010.2581**

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	0.6623	0.2201	2.5600e-003	0.0813	6.9600e-003	0.0882	0.0234	6.6600e-003	0.0301		275.9323	275.9323	8.3500e-003	0.0401	288.0873
Worker	0.0884	0.0599	0.6883	1.9800e-003	0.2300	1.3000e-003	0.2313	0.0610	1.2000e-003	0.0622		201.7601	201.7601	6.5200e-003	5.9600e-003	203.6975
Total	**0.1149**	**0.7221**	**0.9084**	**4.5400e-003**	**0.3113**	**8.2600e-003**	**0.3196**	**0.0844**	**7.8600e-003**	**0.0923**		**477.6924**	**477.6924**	**0.0149**	**0.0461**	**491.7848**

Pala Mesa Plaza - 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 - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	17.2311					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**17.4356**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0190	0.0128	0.1475	4.2000e-004	0.0493	2.8000e-004	0.0496	0.0131	2.6000e-004	0.0133		43.2343	43.2343	1.4000e-003	1.2800e-003	43.6495
Total	**0.0190**	**0.0128**	**0.1475**	**4.2000e-004**	**0.0493**	**2.8000e-004**	**0.0496**	**0.0131**	**2.6000e-004**	**0.0133**		**43.2343**	**43.2343**	**1.4000e-003**	**1.2800e-003**	**43.6495**

Pala Mesa Plaza - 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 - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	17.2311					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**17.2608**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0190	0.0128	0.1475	4.2000e-004	0.0493	2.8000e-004	0.0496	0.0131	2.6000e-004	0.0133		43.2343	43.2343	1.4000e-003	1.2800e-003	43.6495
Total	**0.0190**	**0.0128**	**0.1475**	**4.2000e-004**	**0.0493**	**2.8000e-004**	**0.0496**	**0.0131**	**2.6000e-004**	**0.0133**		**43.2343**	**43.2343**	**1.4000e-003**	**1.2800e-003**	**43.6495**

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	5.2856	3.8607	32.6455	0.0431	4.2546	0.0407	4.2953	1.1334	0.0379	1.1712		4,437.3700	4,437.3700	0.6019	0.3270	4,549.8597
Unmitigated	5.2856	3.8607	32.6455	0.0431	4.2546	0.0407	4.2953	1.1334	0.0379	1.1712		4,437.3700	4,437.3700	0.6019	0.3270	4,549.8597

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market With Gas Pumps	2,464.32	2,467.20	2464.32	1,322,092	1,322,092
Parking Lot	0.00	0.00	0.00		
Strip Mall	453.00	453.00	453.00	697,635	697,635
Total	2,917.32	2,920.20	2,917.32	2,019,727	2,019,727

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
Convenience Market With Gas	9.50	7.30	7.30	0.80	80.20	19.00	14	21	65
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	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
Convenience Market With Gas Pumps	0.553514	0.062792	0.181046	0.120736	0.024419	0.006214	0.008493	0.006184	0.000715	0.000556	0.029185	0.000982	0.005164
Parking Lot	0.553514	0.062792	0.181046	0.120736	0.024419	0.006214	0.008493	0.006184	0.000715	0.000556	0.029185	0.000982	0.005164
Strip Mall	0.553514	0.062792	0.181046	0.120736	0.024419	0.006214	0.008493	0.006184	0.000715	0.000556	0.029185	0.000982	0.005164

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	1.1100e-003	0.0101	8.5100e-003	6.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004		12.1501	12.1501	2.3000e-004	2.2000e-004	12.2223
NaturalGas Unmitigated	1.1100e-003	0.0101	8.5100e-003	6.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004		12.1501	12.1501	2.3000e-004	2.2000e-004	12.2223

Pala Mesa Plaza - 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					
Convenience Market With Gas Pumps	30.2893	3.3000e-004	2.9700e-003	2.4900e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		3.5635	3.5635	7.0000e-005	7.0000e-005	3.5846
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	72.9863	7.9000e-004	7.1600e-003	6.0100e-003	4.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004		8.5866	8.5866	1.6000e-004	1.6000e-004	8.6377
Total		**1.1200e-003**	**0.0101**	**8.5000e-003**	**6.0000e-005**		**7.7000e-004**	**7.7000e-004**		**7.7000e-004**	**7.7000e-004**		**12.1501**	**12.1501**	**2.3000e-004**	**2.3000e-004**	**12.2223**

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

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					
Convenience Market With Gas Pumps	0.0302893	3.3000e-004	2.9700e-003	2.4900e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		3.5635	3.5635	7.0000e-005	7.0000e-005	3.5846
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	0.0729863	7.9000e-004	7.1600e-003	6.0100e-003	4.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004		8.5866	8.5866	1.6000e-004	1.6000e-004	8.6377
Total		**1.1200e-003**	**0.0101**	**8.5000e-003**	**6.0000e-005**		**7.7000e-004**	**7.7000e-004**		**7.7000e-004**	**7.7000e-004**		**12.1501**	**12.1501**	**2.3000e-004**	**2.3000e-004**	**12.2223**

6.0 Area Detail

6.1 Mitigation Measures Area

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	0.4311	1.5000e-004	0.0161	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0346	0.0346	9.0000e-005		0.0369
Unmitigated	0.4311	1.5000e-004	0.0161	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0346	0.0346	9.0000e-005		0.0369

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	0.0472					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4900e-003	1.5000e-004	0.0161	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0346	0.0346	9.0000e-005		0.0369
Total	**0.4311**	**1.5000e-004**	**0.0161**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**		**0.0346**	**0.0346**	**9.0000e-005**		**0.0369**

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0472					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4900e-003	1.5000e-004	0.0161	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0346	0.0346	9.0000e-005		0.0369
Total	**0.4311**	**1.5000e-004**	**0.0161**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**		**0.0346**	**0.0346**	**9.0000e-005**		**0.0369**

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

Pala Mesa Plaza - San Diego County, Annual

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

Pala Mesa Plaza

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	134.00	Space	1.21	53,600.00	0
Convenience Market With Gas Pumps	12.00	Pump	0.04	4,980.00	0
Strip Mall	12.00	1000sqft	0.28	12,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2023
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	474.7	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - RPS 2023 corrected for 2020.4.0 assumes 33% achieved in 2020 and 60% will be achieved in 2030.

Land Use - Based on PD

Construction Phase -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Trips and VMT -

Grading -

Pala Mesa Plaza - San Diego County, Annual

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

Architectural Coating - Rule 67 Paint

Vehicle Trips - Trip Generation per traffic study

Vehicle Emission Factors - ASD

Vehicle Emission Factors -

Vehicle Emission Factors -

Area Coating - Rule 67 Paints

Energy Use -

Construction Off-road Equipment Mitigation - Tier 4

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
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblAreaCoating	Area_EF_Parking	250	100
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00

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
tblGrading	MaterialExported	0.00	2,150.00
tblLandUse	LandUseSquareFeet	1,694.10	4,980.00
tblProjectCharacteristics	CH4IntensityFactor	0.033	0.029
tblProjectCharacteristics	CO2IntensityFactor	539.98	474.7
tblVehicleTrips	ST_TR	322.50	205.60
tblVehicleTrips	ST_TR	42.04	37.75
tblVehicleTrips	SU_TR	322.50	205.36
tblVehicleTrips	SU_TR	20.43	37.75
tblVehicleTrips	WD_TR	322.50	205.36
tblVehicleTrips	WD_TR	44.32	37.75

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					
2022	0.2732	1.4346	1.4501	2.9000e-003	0.0543	0.0642	0.1185	0.0190	0.0618	0.0809	0.0000	246.6029	246.6029	0.0370	5.5300e-003	249.1762
Maximum	**0.2732**	**1.4346**	**1.4501**	**2.9000e-003**	**0.0543**	**0.0642**	**0.1185**	**0.0190**	**0.0618**	**0.0809**	**0.0000**	**246.6029**	**246.6029**	**0.0370**	**5.5300e-003**	**249.1762**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1304	0.4732	1.5001	2.9000e-003	0.0543	4.2900e-003	0.0586	0.0190	4.2400e-003	0.0233	0.0000	246.6027	246.6027	0.0370	5.5300e-003	249.1760
Maximum	**0.1304**	**0.4732**	**1.5001**	**2.9000e-003**	**0.0543**	**4.2900e-003**	**0.0586**	**0.0190**	**4.2400e-003**	**0.0233**	**0.0000**	**246.6027**	**246.6027**	**0.0370**	**5.5300e-003**	**249.1760**

	ROG	NOx	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	**52.26**	**67.01**	**-3.45**	**0.00**	**0.00**	**93.32**	**50.55**	**0.00**	**93.14**	**71.21**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2022	3-31-2022	0.4801	0.1499
2	4-1-2022	6-30-2022	0.4859	0.1562
3	7-1-2022	9-30-2022	0.4913	0.1579
		Highest	0.4913	0.1579

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	0.0785	1.0000e-005	1.4500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.8200e-003	2.8200e-003	1.0000e-005	0.0000	3.0100e-003
Energy	2.0000e-004	1.8500e-003	1.5500e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	50.7290	50.7290	3.0100e-003	4.5000e-004	50.9377
Mobile	0.9378	0.6886	5.7112	7.8800e-003	0.7555	7.3900e-003	0.7629	0.2017	6.8700e-003	0.2085	0.0000	735.5865	735.5865	0.0960	0.0530	753.7884
Waste						0.0000	0.0000		0.0000	0.0000	2.5577	0.0000	2.5577	0.1512	0.0000	6.3366
Water						0.0000	0.0000		0.0000	0.0000	0.3218	4.3312	4.6530	0.0333	8.2000e-004	5.7294
Total	**1.0165**	**0.6905**	**5.7142**	**7.8900e-003**	**0.7555**	**7.5400e-003**	**0.7631**	**0.2017**	**7.0200e-003**	**0.2087**	**2.8795**	**790.6495**	**793.5290**	**0.2835**	**0.0543**	**816.7950**

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	0.0785	1.0000e-005	1.4500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.8200e-003	2.8200e-003	1.0000e-005	0.0000	3.0100e-003
Energy	2.0000e-004	1.8500e-003	1.5500e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	50.7290	50.7290	3.0100e-003	4.5000e-004	50.9377
Mobile	0.9378	0.6886	5.7112	7.8800e-003	0.7555	7.3900e-003	0.7629	0.2017	6.8700e-003	0.2085	0.0000	735.5865	735.5865	0.0960	0.0530	753.7884
Waste						0.0000	0.0000		0.0000	0.0000	2.5577	0.0000	2.5577	0.1512	0.0000	6.3366
Water						0.0000	0.0000		0.0000	0.0000	0.3218	4.3312	4.6530	0.0333	8.2000e-004	5.7294
Total	**1.0165**	**0.6905**	**5.7142**	**7.8900e-003**	**0.7555**	**7.5400e-003**	**0.7631**	**0.2017**	**7.0200e-003**	**0.2087**	**2.8795**	**790.6495**	**793.5290**	**0.2835**	**0.0543**	**816.7950**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2022	1/4/2022	5	2	
2	Grading	Grading	1/5/2022	1/10/2022	5	4	
3	Paving	Paving	1/11/2022	1/24/2022	5	10	

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

4	Building Construction	Building Construction	1/25/2022	10/31/2022	5	200	
5	Architectural Coating	Architectural Coating	10/18/2022	10/31/2022	5	10	

Acres of Grading (Site Preparation Phase): 1.88

Acres of Grading (Grading Phase): 4

Acres of Paving: 1.21

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 25,470; Non-Residential Outdoor: 8,490; Striped Parking Area: 3,216 (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	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

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

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	269.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	28.00	12.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	6.00	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 - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.2700e-003	0.0000	6.2700e-003	3.0000e-003	0.0000	3.0000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	0.0146	7.0900e-003	2.0000e-005		6.2000e-004	6.2000e-004		5.7000e-004	5.7000e-004	0.0000	1.5115	1.5115	4.9000e-004	0.0000	1.5238
Total	**1.3100e-003**	**0.0146**	**7.0900e-003**	**2.0000e-005**	**6.2700e-003**	**6.2000e-004**	**6.8900e-003**	**3.0000e-003**	**5.7000e-004**	**3.5700e-003**	**0.0000**	**1.5115**	**1.5115**	**4.9000e-004**	**0.0000**	**1.5238**

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

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	2.0000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0528	0.0528	0.0000	0.0000	0.0533
Total	**2.0000e-005**	**2.0000e-005**	**2.0000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0528**	**0.0528**	**0.0000**	**0.0000**	**0.0533**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.2700e-003	0.0000	6.2700e-003	3.0000e-003	0.0000	3.0000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1000e-004	9.1000e-004	8.6700e-003	2.0000e-005		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	1.5115	1.5115	4.9000e-004	0.0000	1.5238
Total	**2.1000e-004**	**9.1000e-004**	**8.6700e-003**	**2.0000e-005**	**6.2700e-003**	**3.0000e-005**	**6.3000e-003**	**3.0000e-003**	**3.0000e-005**	**3.0300e-003**	**0.0000**	**1.5115**	**1.5115**	**4.9000e-004**	**0.0000**	**1.5238**

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

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	2.0000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0528	0.0528	0.0000	0.0000	0.0533
Total	**2.0000e-005**	**2.0000e-005**	**2.0000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0528**	**0.0528**	**0.0000**	**0.0000**	**0.0533**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0143	0.0000	0.0143	6.8700e-003	0.0000	6.8700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0800e-003	0.0340	0.0184	4.0000e-005		1.4800e-003	1.4800e-003		1.3700e-003	1.3700e-003	0.0000	3.6205	3.6205	1.1700e-003	0.0000	3.6498
Total	**3.0800e-003**	**0.0340**	**0.0184**	**4.0000e-005**	**0.0143**	**1.4800e-003**	**0.0158**	**6.8700e-003**	**1.3700e-003**	**8.2400e-003**	**0.0000**	**3.6205**	**3.6205**	**1.1700e-003**	**0.0000**	**3.6498**

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

3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0000e-004	0.0227	5.3400e-003	8.0000e-005	2.3000e-003	2.1000e-004	2.5100e-003	6.3000e-004	2.0000e-004	8.3000e-004	0.0000	8.4306	8.4306	4.1000e-004	1.3400e-003	8.8399
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	4.9000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1319	0.1319	0.0000	0.0000	0.1331
Total	**6.6000e-004**	**0.0227**	**5.8300e-003**	**8.0000e-005**	**2.4600e-003**	**2.1000e-004**	**2.6700e-003**	**6.7000e-004**	**2.0000e-004**	**8.7000e-004**	**0.0000**	**8.5625**	**8.5625**	**4.1000e-004**	**1.3400e-003**	**8.9730**

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					0.0143	0.0000	0.0143	6.8700e-003	0.0000	6.8700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.0000e-004	2.1900e-003	0.0218	4.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	3.6205	3.6205	1.1700e-003	0.0000	3.6498
Total	**5.0000e-004**	**2.1900e-003**	**0.0218**	**4.0000e-005**	**0.0143**	**7.0000e-005**	**0.0144**	**6.8700e-003**	**7.0000e-005**	**6.9400e-003**	**0.0000**	**3.6205**	**3.6205**	**1.1700e-003**	**0.0000**	**3.6498**

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

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0000e-004	0.0227	5.3400e-003	8.0000e-005	2.3000e-003	2.1000e-004	2.5100e-003	6.3000e-004	2.0000e-004	8.3000e-004	0.0000	8.4306	8.4306	4.1000e-004	1.3400e-003	8.8399
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	4.9000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1319	0.1319	0.0000	0.0000	0.1331
Total	**6.6000e-004**	**0.0227**	**5.8300e-003**	**8.0000e-005**	**2.4600e-003**	**2.1000e-004**	**2.6700e-003**	**6.7000e-004**	**2.0000e-004**	**8.7000e-004**	**0.0000**	**8.5625**	**8.5625**	**4.1000e-004**	**1.3400e-003**	**8.9730**

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.4400e-003	0.0339	0.0440	7.0000e-005		1.7400e-003	1.7400e-003		1.6000e-003	1.6000e-003	0.0000	5.8848	5.8848	1.8700e-003	0.0000	5.9315
Paving	1.5900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.0300e-003**	**0.0339**	**0.0440**	**7.0000e-005**		**1.7400e-003**	**1.7400e-003**		**1.6000e-003**	**1.6000e-003**	**0.0000**	**5.8848**	**5.8848**	**1.8700e-003**	**0.0000**	**5.9315**

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

3.4 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	1.4000e-004	1.6000e-003	0.0000	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4287	0.4287	1.0000e-005	1.0000e-005	0.4327
Total	**1.9000e-004**	**1.4000e-004**	**1.6000e-003**	**0.0000**	**5.2000e-004**	**0.0000**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4287**	**0.4287**	**1.0000e-005**	**1.0000e-005**	**0.4327**

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	8.0000e-004	3.4600e-003	0.0493	7.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	5.8848	5.8848	1.8700e-003	0.0000	5.9314
Paving	1.5900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.3900e-003**	**3.4600e-003**	**0.0493**	**7.0000e-005**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**	**0.0000**	**5.8848**	**5.8848**	**1.8700e-003**	**0.0000**	**5.9314**

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

3.4 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	1.4000e-004	1.6000e-003	0.0000	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4287	0.4287	1.0000e-005	1.0000e-005	0.4327
Total	**1.9000e-004**	**1.4000e-004**	**1.6000e-003**	**0.0000**	**5.2000e-004**	**0.0000**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4287**	**0.4287**	**1.0000e-005**	**1.0000e-005**	**0.4327**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1649	1.2503	1.2726	2.2100e-003		0.0589	0.0589		0.0569	0.0569	0.0000	181.5769	181.5769	0.0316	0.0000	182.3675
Total	**0.1649**	**1.2503**	**1.2726**	**2.2100e-003**		**0.0589**	**0.0589**		**0.0569**	**0.0569**	**0.0000**	**181.5769**	**181.5769**	**0.0316**	**0.0000**	**182.3675**

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

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.6500e-003	0.0661	0.0216	2.6000e-004	7.9700e-003	6.9000e-004	8.6600e-003	2.3000e-003	6.6000e-004	2.9700e-003	0.0000	25.0247	25.0247	7.6000e-004	3.6400e-003	26.1270
Worker	8.0800e-003	5.8700e-003	0.0688	2.0000e-004	0.0225	1.3000e-004	0.0226	5.9700e-003	1.2000e-004	6.0900e-003	0.0000	18.4660	18.4660	5.8000e-004	5.3000e-004	18.6393
Total	**0.0107**	**0.0719**	**0.0905**	**4.6000e-004**	**0.0304**	**8.2000e-004**	**0.0312**	**8.2700e-003**	**7.8000e-004**	**9.0600e-003**	**0.0000**	**43.4907**	**43.4907**	**1.3400e-003**	**4.1700e-003**	**44.7663**

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	0.0293	0.3712	1.3124	2.2100e-003		3.0300e-003	3.0300e-003		3.0300e-003	3.0300e-003	0.0000	181.5767	181.5767	0.0316	0.0000	182.3673
Total	**0.0293**	**0.3712**	**1.3124**	**2.2100e-003**		**3.0300e-003**	**3.0300e-003**		**3.0300e-003**	**3.0300e-003**	**0.0000**	**181.5767**	**181.5767**	**0.0316**	**0.0000**	**182.3673**

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

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.6500e-003	0.0661	0.0216	2.6000e-004	7.9700e-003	6.9000e-004	8.6600e-003	2.3000e-003	6.6000e-004	2.9700e-003	0.0000	25.0247	25.0247	7.6000e-004	3.6400e-003	26.1270
Worker	8.0800e-003	5.8700e-003	0.0688	2.0000e-004	0.0225	1.3000e-004	0.0226	5.9700e-003	1.2000e-004	6.0900e-003	0.0000	18.4660	18.4660	5.8000e-004	5.3000e-004	18.6393
Total	**0.0107**	**0.0719**	**0.0905**	**4.6000e-004**	**0.0304**	**8.2000e-004**	**0.0312**	**8.2700e-003**	**7.8000e-004**	**9.0600e-003**	**0.0000**	**43.4907**	**43.4907**	**1.3400e-003**	**4.1700e-003**	**44.7663**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0862					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0200e-003	7.0400e-003	9.0700e-003	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787
Total	**0.0872**	**7.0400e-003**	**9.0700e-003**	**1.0000e-005**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2787**

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

3.6 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	6.0000e-005	7.4000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.1979	0.1979	1.0000e-005	1.0000e-005	0.1997
Total	**9.0000e-005**	**6.0000e-005**	**7.4000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.1979**	**0.1979**	**1.0000e-005**	**1.0000e-005**	**0.1997**

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	0.0862					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5000e-004	6.4000e-004	9.1600e-003	1.0000e-005		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787
Total	**0.0863**	**6.4000e-004**	**9.1600e-003**	**1.0000e-005**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2787**

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

3.6 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	6.0000e-005	7.4000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.1979	0.1979	1.0000e-005	1.0000e-005	0.1997
Total	**9.0000e-005**	**6.0000e-005**	**7.4000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.1979**	**0.1979**	**1.0000e-005**	**1.0000e-005**	**0.1997**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.9378	0.6886	5.7112	7.8800e-003	0.7555	7.3900e-003	0.7629	0.2017	6.8700e-003	0.2085	0.0000	735.5865	735.5865	0.0960	0.0530	753.7884
Unmitigated	0.9378	0.6886	5.7112	7.8800e-003	0.7555	7.3900e-003	0.7629	0.2017	6.8700e-003	0.2085	0.0000	735.5865	735.5865	0.0960	0.0530	753.7884

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market With Gas Pumps	2,464.32	2,467.20	2464.32	1,322,092	1,322,092
Parking Lot	0.00	0.00	0.00		
Strip Mall	453.00	453.00	453.00	697,635	697,635
Total	2,917.32	2,920.20	2,917.32	2,019,727	2,019,727

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
Convenience Market With Gas	9.50	7.30	7.30	0.80	80.20	19.00	14	21	65
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	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
Convenience Market With Gas Pumps	0.553514	0.062792	0.181046	0.120736	0.024419	0.006214	0.008493	0.006184	0.000715	0.000556	0.029185	0.000982	0.005164
Parking Lot	0.553514	0.062792	0.181046	0.120736	0.024419	0.006214	0.008493	0.006184	0.000715	0.000556	0.029185	0.000982	0.005164

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

Strip Mall	0.553514	0.062792	0.181046	0.120736	0.024419	0.006214	0.008493	0.006184	0.000715	0.000556	0.029185	0.000982	0.005164

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	48.7174	48.7174	2.9800e-003	4.1000e-004	48.9142
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	48.7174	48.7174	2.9800e-003	4.1000e-004	48.9142
NaturalGas Mitigated	2.0000e-004	1.8500e-003	1.5500e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	2.0116	2.0116	4.0000e-005	4.0000e-005	2.0235
NaturalGas Unmitigated	2.0000e-004	1.8500e-003	1.5500e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	2.0116	2.0116	4.0000e-005	4.0000e-005	2.0235

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market With Gas Pumps	11055.6	6.0000e-005	5.4000e-004	4.6000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5900	0.5900	1.0000e-005	1.0000e-005	0.5935
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	26640	1.4000e-004	1.3100e-003	1.1000e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	1.4216	1.4216	3.0000e-005	3.0000e-005	1.4301
Total		**2.0000e-004**	**1.8500e-003**	**1.5600e-003**	**1.0000e-005**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**	**0.0000**	**2.0116**	**2.0116**	**4.0000e-005**	**4.0000e-005**	**2.0235**

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

5.2 Energy by Land Use - NaturalGas

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					
Convenience Market With Gas Pumps	11055.6	6.0000e-005	5.4000e-004	4.6000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5900	0.5900	1.0000e-005	1.0000e-005	0.5935
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	26640	1.4000e-004	1.3100e-003	1.1000e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	1.4216	1.4216	3.0000e-005	3.0000e-005	1.4301
Total		**2.0000e-004**	**1.8500e-003**	**1.5600e-003**	**1.0000e-005**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**	**0.0000**	**2.0116**	**2.0116**	**4.0000e-005**	**4.0000e-005**	**2.0235**

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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market With Gas Pumps	60855.6	13.1035	8.0000e-004	1.1000e-004	13.1564
Parking Lot	18760	4.0394	2.5000e-004	3.0000e-005	4.0557
Strip Mall	146640	31.5746	1.9300e-003	2.7000e-004	31.7021
Total		**48.7174**	**2.9800e-003**	**4.1000e-004**	**48.9142**

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

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market With Gas Pumps	60855.6	13.1035	8.0000e-004	1.1000e-004	13.1564
Parking Lot	18760	4.0394	2.5000e-004	3.0000e-005	4.0557
Strip Mall	146640	31.5746	1.9300e-003	2.7000e-004	31.7021
Total		**48.7174**	**2.9800e-003**	**4.1000e-004**	**48.9142**

6.0 Area Detail

6.1 Mitigation Measures Area

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.0785	1.0000e-005	1.4500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.8200e-003	2.8200e-003	1.0000e-005	0.0000	3.0100e-003
Unmitigated	0.0785	1.0000e-005	1.4500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.8200e-003	2.8200e-003	1.0000e-005	0.0000	3.0100e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	8.6200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0698					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3000e-004	1.0000e-005	1.4500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.8200e-003	2.8200e-003	1.0000e-005	0.0000	3.0100e-003
Total	**0.0785**	**1.0000e-005**	**1.4500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**2.8200e-003**	**2.8200e-003**	**1.0000e-005**	**0.0000**	**3.0100e-003**

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	8.6200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0698					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3000e-004	1.0000e-005	1.4500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.8200e-003	2.8200e-003	1.0000e-005	0.0000	3.0100e-003
Total	**0.0785**	**1.0000e-005**	**1.4500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**2.8200e-003**	**2.8200e-003**	**1.0000e-005**	**0.0000**	**3.0100e-003**

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	4.6530	0.0333	8.2000e-004	5.7294
Unmitigated	4.6530	0.0333	8.2000e-004	5.7294

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market With Gas Pumps	0.125486 / 0.0769109	0.5756	4.1200e-003	1.0000e-004	0.7088
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.88887 / 0.544791	4.0774	0.0292	7.2000e-004	5.0206
Total		**4.6530**	**0.0333**	**8.2000e-004**	**5.7294**

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

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market With Gas Pumps	0.125486 / 0.0769109	0.5756	4.1200e-003	1.0000e-004	0.7088
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.88887 / 0.544791	4.0774	0.0292	7.2000e-004	5.0206
Total		**4.6530**	**0.0333**	**8.2000e-004**	**5.7294**

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	2.5577	0.1512	0.0000	6.3366
Unmitigated	2.5577	0.1512	0.0000	6.3366

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	12.6	2.5577	0.1512	0.0000	6.3366
Total		**2.5577**	**0.1512**	**0.0000**	**6.3366**

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

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	12.6	2.5577	0.1512	0.0000	6.3366
Total		**2.5577**	**0.1512**	**0.0000**	**6.3366**

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

Pala Mesa Plaza - San Diego County, Annual

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

ATTACHMENT B

AERMOD for DPM PM_{10}

```
1                    AERMOD PRIME - (DATED  19191)

                   AERMODPrMSPx VERSION
             (C) COPYRIGHT 1998-2017, Trinity Consultants

 Run Began on  9/29/2021 at 12:16:44

** BREEZE AERMOD
** Trinity Consultants
** VERSION  9.0

CO STARTING
CO TITLEONE  Construction DPM Unmitigated
CO MODELOPT  DFAULT  CONC  NODRYDPLT  NOWETDPLT
CO RUNORNOT  RUN
CO AVERTIME  ANNUAL
CO POLLUTID  PM10
CO FINISHED

SO STARTING
SO ELEVUNIT  METERS
SO LOCATION  0E90J000  AREAPOLY  485008.4  3688283.8  0
** SRCDESCR  Construction Site
SO SRCPARAM  0E90J000  1.39E-07  3  26  1
SO AREAVERT  0E90J000  485008.4 3688283.8  485004.7 3688285.8  484993.6 3688283.3  484941.9 3688266.5
SO AREAVERT  0E90J000  484926.7 3688268.5  484916.4 3688269.8  484913.9 3688269  484910.6 3688256.6
SO AREAVERT  0E90J000  484909.4 3688251.7  484909.4 3688249.2  484904.1 3688241.4  484899.5 3688213.1
SO AREAVERT  0E90J000  484898.3 3688204.9  484899.1 3688199.1  484900.8 3688193.8  484899.1 3688174.9
SO AREAVERT  0E90J000  484898.7 3688152.3  484899.5 3688082.4  484901.7 3688081.4  484899.6 3688075.6
SO AREAVERT  0E90J000  484903.5 3688075  484896.8 3688055.6  484894.5 3688037.7  484923.7 3688028.5
SO AREAVERT  0E90J000  485011.7 3688279.6  485008.4 3688283.8
SO SRCGROUP  ALL
SO FINISHED

RE STARTING
RE ELEVUNIT  METERS
RE DISCCART  484866.1  3688006.8  0  0
** SENSITIV
** RCPDESCR  R1
RE DISCCART  484868.1  3688134.8  0  0
** SENSITIV
** RCPDESCR  R2
RE DISCCART  484869.6  3688214.3  0  0
** SENSITIV
** RCPDESCR  R3
RE DISCCART  484913.9  3688319.7  0  0
** SENSITIV
** RCPDESCR  R4
RE FINISHED

ME STARTING
ME SURFFILE  "C:\Users\RYAN~1.DES\OneDrive\LDNONE~1\COUNTY~1\15-131~1\6-27-19\AERMOD\ESCONDIDO-2012-V15181.SFC"
** SURFFILE  "C:\Users\RYAN~1.DES\OneDrive\LDNONE~1\COUNTY~1\15-131~1\6-27-19\AERMOD\ESCONDIDO-2012-V15181.SFC"
ME PROFFILE  "C:\Users\RYAN~1.DES\OneDrive\LDNONE~1\COUNTY~1\15-131~1\6-27-19\AERMOD\ESCONDIDO-2012-V15181.PFL"
** PROFFILE  "C:\Users\RYAN~1.DES\OneDrive\LDNONE~1\COUNTY~1\15-131~1\6-27-19\AERMOD\ESCONDIDO-2012-V15181.PFL"
ME SURFDATA  53120 2012
ME UAIRDATA  3190 2012
ME SITEDATA  00001002 2012
ME PROFBASE  0  METERS
ME FINISHED

OU STARTING
OU FILEFORM  FIX
OU FINISHED

** ***************************************************************************
** It is recommended that the user not edit any data below this line
** ***************************************************************************


** AMPTYPE
** AMPDATUM  -1
** AMPZONE  -1
** AMPHEMISPHERE

** PROJECTIONWKT
PROJCS["UTM_6326_Zone11",GEOGCS["WGS_84",DATUM["World_Geodetic_System_1984",SPHEROID["WGS_1984",6378137,298.257223563],TOWGS84[0,0,0,0,0,0,0]],PRIMEM["G
reenwich",0],UNIT["Degree",0.0174532925199433]],PROJECTION["Universal_Transverse_Mercator"],PARAMETER["Zone",11],UNIT["Meter",1,AUTHORITY["EPSG","9001"]
]]
** PROJECTION  UTM
** DATUM  WGE
** UNITS  METER
** ZONE  11
** HEMISPHERE  N
** ORIGINLON  0
** ORIGINLAT  0
** PARALLEL1  0
** PARALLEL2  0
** AZIMUTH  0
** SCALEFACT  0
** FALSEEAST  0
** FALSENORTH  0
```

```
** POSTFMT  UNFORM
** TEMPLATE USERDEFINED
** AERMODEXE  AERMOD_BREEZE_19191_64.EXE
** AERMAPEXE  AERMAP_EPA_18081_64.EXE



  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
                ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W186      60       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used          0.40
 MX W403      60       PFLCNV: Turbulence data is being used w/o ADJ_U* option       SigA Data

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

 *** AERMOD - VERSION  19191 ***   ***  Construction DPM Unmitigated                                    ***        09/29/21
 *** AERMET - VERSION  15181 ***   ***                                                                  ***        12:16:44
                                                                                                                  PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL  SigA Data

                                        ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses RURAL Dispersion Only.

 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.

 **Other Options Specified:
        CCVR_Sub - Meteorological data includes CCVR substitutions
        TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM10

 **Model Calculates ANNUAL Averages Only

 **This Run Includes:      1 Source(s);       1 Source Group(s); and       4 Receptor(s)

               with:       0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                and:       0 VOLUME source(s)
                and:       1 AREA type source(s)
                and:       0 LINE source(s)
                and:       0 RLINE/RLINEXT source(s)
                and:       0 OPENPIT source(s)
                and:       0 BUOYANT LINE source(s) with      0 line(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  15181

 **Output Options Selected:
         Model Outputs Tables of ANNUAL Averages by Receptor

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing Hours
                                                                 b for Both Calm and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =     0.00 ;  Decay Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                            ;  Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.5 MB of RAM.
```

**Input Runstream File: aermod.inp
**Output Print File: aermod.out

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data

*** AREAPOLY SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	LOCATION OF AREA X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	NUMBER OF VERTS.	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
0E90J000	0	0.13900E-06	485008.4	3688283.8	0.0	3.00	26	1.00	NO	

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL	0E90J000 ,

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54,   3.09,   5.14,   8.23, 10.80,

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: C:\Users\RYAN~1.DES\OneDrive\LDNONE~1\COUNTY~1\15-131~1\6-27-19\AERMOD\ESCONDIDO   Met Version: 15181
Profile file: C:\Users\RYAN~1.DES\OneDrive\LDNONE~1\COUNTY~1\15-131~1\6-27-19\AERMOD\ESCONDIDO
Surface format: FREE
Profile format: FREE
Surface station no.:   53120   Upper air station no.:   3190
Name: UNKNOWN   Name: UNKNOWN
Year: 2012   Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
12	01	01	1	01	-0.6	0.029	-9.000	-9.000	-999.	12.	3.3	0.47	1.10	1.00	0.44	51.	10.0	282.5	10.0
12	01	01	1	02	-0.6	0.029	-9.000	-9.000	-999.	12.	3.3	0.47	1.10	1.00	0.44	64.	10.0	281.9	10.0
12	01	01	1	03	-0.6	0.029	-9.000	-9.000	-999.	12.	3.3	0.47	1.10	1.00	0.44	31.	10.0	280.9	10.0
12	01	01	1	04	-2.9	0.056	-9.000	-9.000	-999.	32.	5.5	0.15	1.10	1.00	1.18	130.	10.0	280.4	10.0
12	01	01	1	05	-0.6	0.029	-9.000	-9.000	-999.	12.	3.3	0.47	1.10	1.00	0.44	47.	10.0	280.4	10.0
12	01	01	1	06	-0.6	0.029	-9.000	-9.000	-999.	12.	3.3	0.47	1.10	1.00	0.44	39.	10.0	279.8	10.0
12	01	01	1	07	-0.7	0.029	-9.000	-9.000	-999.	12.	3.3	0.47	1.10	1.00	0.44	60.	10.0	279.2	10.0
12	01	01	1	08	-0.5	0.029	-9.000	-9.000	-999.	12.	4.0	0.47	1.10	0.50	0.44	42.	10.0	280.4	10.0
12	01	01	1	09	33.3	0.106	0.323	0.014	36.	83.	-3.2	0.47	1.10	0.30	0.44	44.	10.0	285.4	10.0
12	01	01	1	10	85.9	0.121	0.634	0.011	106.	101.	-1.8	0.48	1.10	0.23	0.44	232.	10.0	291.4	10.0
12	01	01	1	11	123.6	0.252	0.982	0.005	273.	303.	-11.5	0.48	1.10	0.21	1.34	242.	10.0	297.5	10.0
12	01	01	1	12	141.2	0.255	1.253	0.005	496.	309.	-10.4	0.48	1.10	0.20	1.34	249.	10.0	299.8	10.0
12	01	01	1	13	139.0	0.308	1.399	0.005	700.	410.	-18.6	0.48	1.10	0.20	1.78	244.	10.0	300.4	10.0
12	01	01	1	14	118.4	0.303	1.510	0.005	1033.	401.	-20.9	0.48	1.10	0.21	1.78	241.	10.0	301.4	10.0
12	01	01	1	15	79.3	0.291	1.390	0.005	1204.	377.	-27.6	0.48	1.10	0.24	1.78	260.	10.0	301.4	10.0
12	01	01	1	16	24.5	0.162	0.951	0.005	1244.	167.	-15.4	0.51	1.10	0.34	0.89	292.	10.0	299.8	10.0
12	01	01	1	17	-2.5	0.060	-9.000	-9.000	-999.	45.	7.5	0.51	1.10	0.61	0.89	282.	10.0	296.9	10.0
12	01	01	1	18	-0.6	0.029	-9.000	-9.000	-999.	12.	3.4	0.47	1.10	1.00	0.44	10.	10.0	293.1	10.0

```
 12 01 01   1 19   -4.0  0.066 -9.000 -9.000 -999.   40.      6.3  0.11   1.10   1.00    1.48  329.   10.0  290.4   10.0
 12 01 01   1 20   -0.6  0.029 -9.000 -9.000 -999.   12.      3.3  0.47   1.10   1.00    0.44   65.   10.0  288.1   10.0
 12 01 01   1 21   -0.6  0.029 -9.000 -9.000 -999.   12.      3.3  0.47   1.10   1.00    0.44   61.   10.0  286.4   10.0
 12 01 01   1 22   -0.6  0.029 -9.000 -9.000 -999.   12.      3.3  0.47   1.10   1.00    0.44   33.   10.0  285.4   10.0
 12 01 01   1 23   -0.6  0.029 -9.000 -9.000 -999.   12.      3.3  0.47   1.10   1.00    0.44   50.   10.0  284.2   10.0
 12 01 01   1 24   -0.6  0.029 -9.000 -9.000 -999.   12.      3.3  0.47   1.10   1.00    0.44   42.   10.0  283.1   10.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 12 01 01 01   10.0 1   51.    0.44   282.6   30.0  -99.00    0.20

 F indicates top of profile (=1) or below (=0)
1 *** AERMOD - VERSION  19191 ***   ***  Construction DPM Unmitigated                                          ***        09/29/21
 *** AERMET - VERSION  15181 ***   ***                                                                       ***        12:16:44
                                                                                                                        PAGE   6
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL  SigA Data

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   1 YEARS FOR SOURCE GROUP: ALL      ***
                                INCLUDING SOURCE(S):     0E90J000    ,

                                        *** SENSITIVE DISCRETE RECEPTOR POINTS ***

                                    ** CONC OF PM10     IN MICROGRAMS/M**3                        **

       X-COORD (M)   Y-COORD (M)        CONC                      X-COORD (M)   Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
         484866.10    3688006.80        0.42679                    484868.10    3688134.80        1.15693
         484869.60    3688214.30        1.11759                    484913.90    3688319.70        0.24572
2 *** AERMOD - VERSION  19191 ***   ***  Construction DPM Unmitigated                                          ***        09/29/21
 *** AERMET - VERSION  15181 ***   ***                                                                       ***        12:16:44
                                                                                                                        PAGE   7
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL  SigA Data

                                  *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER   1 YEARS ***


                                   ** CONC OF PM10     IN MICROGRAMS/M**3                        **

                                                                                                          NETWORK
GROUP ID                       AVERAGE CONC               RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

ALL       1ST HIGHEST VALUE IS       1.15693 AT (  484868.10,  3688134.80,     0.00,     0.00,    0.00)  SR
          2ND HIGHEST VALUE IS       1.11759 AT (  484869.60,  3688214.30,     0.00,     0.00,    0.00)  SR
          3RD HIGHEST VALUE IS       0.42679 AT (  484866.10,  3688006.80,     0.00,     0.00,    0.00)  SR
          4TH HIGHEST VALUE IS       0.24572 AT (  484913.90,  3688319.70,     0.00,     0.00,    0.00)  SR
          5TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,     0.00,     0.00,    0.00)
          6TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,     0.00,     0.00,    0.00)
          7TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,     0.00,     0.00,    0.00)
          8TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,     0.00,     0.00,    0.00)
          9TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,     0.00,     0.00,    0.00)
         10TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,     0.00,     0.00,    0.00)


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
3 *** AERMOD - VERSION  19191 ***   ***  Construction DPM Unmitigated                                          ***        09/29/21
 *** AERMET - VERSION  15181 ***   ***                                                                       ***        12:16:44
                                                                                                                        PAGE   8
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL  SigA Data

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of          378 Informational Message(s)

 A Total of         8784 Hours Were Processed

 A Total of          250 Calm Hours Identified

 A Total of          128 Missing Hours Identified (  1.46 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W186      60       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used          0.40
 MX W403      60       PFLCNV: Turbulence data is being used w/o ADJ_U* option       SigA Data

    ***********************************
    *** AERMOD Finishes Successfully ***
    ***********************************
```

```
1                    AERMOD PRIME - (DATED  19191)

                   AERMODPrMSPx VERSION
             (C) COPYRIGHT 1998-2017, Trinity Consultants

 Run Began on  9/29/2021 at 12:19:37

** BREEZE AERMOD
** Trinity Consultants
** VERSION  9.0

CO STARTING
CO TITLEONE  Construction DPM Mitigated
CO MODELOPT  DFAULT  CONC  NODRYDPLT  NOWETDPLT
CO RUNORNOT  RUN
CO AVERTIME  ANNUAL
CO POLLUTID  PM10
CO FINISHED

SO STARTING
SO ELEVUNIT  METERS
SO LOCATION  0E90J000  AREAPOLY  485008.4  3688283.8  0
** SRCDESCR  Construction Site
SO SRCPARAM  0E90J000  7.27E-09  3  26  1
SO AREAVERT  0E90J000  485008.4 3688283.8  485004.7 3688285.8  484993.6 3688283.3  484941.9 3688266.5
SO AREAVERT  0E90J000  484926.7 3688268.5  484916.4 3688269.8  484913.9 3688269  484910.6 3688256.6
SO AREAVERT  0E90J000  484909.4 3688251.7  484909.4 3688249.2  484904.1 3688241.4  484899.5 3688213.1
SO AREAVERT  0E90J000  484898.3 3688204.9  484899.1 3688199.1  484900.8 3688193.8  484899.1 3688174.9
SO AREAVERT  0E90J000  484898.7 3688152.3  484899.5 3688082.4  484901.7 3688081.4  484899.6 3688075.6
SO AREAVERT  0E90J000  484903.5 3688075  484896.8 3688055.6  484894.5 3688037.7  484923.7 3688028.5
SO AREAVERT  0E90J000  485011.7 3688279.6  485008.4 3688283.8
SO SRCGROUP  ALL
SO FINISHED

RE STARTING
RE ELEVUNIT  METERS
RE DISCCART  484866.1  3688006.8  0  0
** SENSITIV
** RCPDESCR  R1
RE DISCCART  484868.1  3688134.8  0  0
** SENSITIV
** RCPDESCR  R2
RE DISCCART  484869.6  3688214.3  0  0
** SENSITIV
** RCPDESCR  R3
RE DISCCART  484913.9  3688319.7  0  0
** SENSITIV
** RCPDESCR  R4
RE FINISHED

ME STARTING
ME SURFFILE  "C:\Users\RYAN~1.DES\OneDrive\LDNONE~1\COUNTY~1\15-131~1\6-27-19\AERMOD\ESCONDIDO-2012-V15181.SFC"
** SURFFILE  "C:\Users\RYAN~1.DES\OneDrive\LDNONE~1\COUNTY~1\15-131~1\6-27-19\AERMOD\ESCONDIDO-2012-V15181.SFC"
ME PROFFILE  "C:\Users\RYAN~1.DES\OneDrive\LDNONE~1\COUNTY~1\15-131~1\6-27-19\AERMOD\ESCONDIDO-2012-V15181.PFL"
** PROFFILE  "C:\Users\RYAN~1.DES\OneDrive\LDNONE~1\COUNTY~1\15-131~1\6-27-19\AERMOD\ESCONDIDO-2012-V15181.PFL"
ME SURFDATA  53120 2012
ME UAIRDATA  3190 2012
ME SITEDATA  00001002 2012
ME PROFBASE  0  METERS
ME FINISHED

OU STARTING
OU FILEFORM  FIX
OU FINISHED

** ***************************************************************************
** It is recommended that the user not edit any data below this line
** ***************************************************************************


** AMPTYPE
** AMPDATUM  -1
** AMPZONE  -1
** AMPHEMISPHERE

** PROJECTIONWKT
PROJCS["UTM_6326_Zone11",GEOGCS["WGS_84",DATUM["World_Geodetic_System_1984",SPHEROID["WGS_1984",6378137,298.257223563],TOWGS84[0,0,0,0,0,0,0]],PRIMEM["G
reenwich",0],UNIT["Degree",0.0174532925199433]],PROJECTION["Universal_Transverse_Mercator"],PARAMETER["Zone",11],UNIT["Meter",1,AUTHORITY["EPSG","9001"]
]]
** PROJECTION  UTM
** DATUM  WGE
** UNITS  METER
** ZONE  11
** HEMISPHERE  N
** ORIGINLON  0
** ORIGINLAT  0
** PARALLEL1  0
** PARALLEL2  0
** AZIMUTH  0
** SCALEFACT  0
** FALSEEAST  0
** FALSENORTH  0
```

```
** POSTFMT  UNFORM
** TEMPLATE UserDefined
** AERMODEXE  AERMOD_BREEZE_19191_64.EXE
** AERMAPEXE  AERMAP_EPA_18081_64.EXE



  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W186      60       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used          0.40
 MX W403      60       PFLCNV: Turbulence data is being used w/o ADJ_U* option       SigA Data

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

↟ *** AERMOD - VERSION  19191 ***   ***  Construction DPM Mitigated                                          ***        09/29/21
 *** AERMET - VERSION  15181 ***   ***                                                                       ***        12:19:37
                                                                                                                      PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL  SigA Data

                                        ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses RURAL Dispersion Only.

 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.

 **Other Options Specified:
        CCVR_Sub - Meteorological data includes CCVR substitutions
        TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM10

 **Model Calculates ANNUAL Averages Only

 **This Run Includes:      1 Source(s);       1 Source Group(s); and       4 Receptor(s)

               with:       0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                and:       0 VOLUME source(s)
                and:       1 AREA type source(s)
                and:       0 LINE source(s)
                and:       0 RLINE/RLINEXT source(s)
                and:       0 OPENPIT source(s)
                and:       0 BUOYANT LINE source(s) with      0 line(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  15181

 **Output Options Selected:
         Model Outputs Tables of ANNUAL Averages by Receptor

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing Hours
                                                                 b for Both Calm and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =     0.00 ;  Decay Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                            ;  Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.5 MB of RAM.
```

**Input Runstream File: aermod.inp
**Output Print File: aermod.out

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data

*** AREAPOLY SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	LOCATION OF AREA X (METERS)	LOCATION OF AREA Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	NUMBER OF VERTS.	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
0E90J000	0	0.72700E-08	485008.4	3688283.8	0.0	3.00	26	1.00	NO	

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL	0E90J000 ,

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54,   3.09,   5.14,   8.23, 10.80,

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: C:\Users\RYAN~1.DES\OneDrive\LDNONE~1\COUNTY~1\15-131~1\6-27-19\AERMOD\ESCONDIDO   Met Version: 15181
Profile file: C:\Users\RYAN~1.DES\OneDrive\LDNONE~1\COUNTY~1\15-131~1\6-27-19\AERMOD\ESCONDIDO
Surface format: FREE
Profile format: FREE
Surface station no.:   53120   Upper air station no.:   3190
Name: UNKNOWN   Name: UNKNOWN
Year: 2012   Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
12	01	01	1	01	-0.6	0.029	-9.000	-9.000	-999.	12.	3.3	0.47	1.10	1.00	0.44	51.	10.0	282.5	10.0
12	01	01	1	02	-0.6	0.029	-9.000	-9.000	-999.	12.	3.3	0.47	1.10	1.00	0.44	64.	10.0	281.9	10.0
12	01	01	1	03	-0.6	0.029	-9.000	-9.000	-999.	12.	3.3	0.47	1.10	1.00	0.44	31.	10.0	280.9	10.0
12	01	01	1	04	-2.9	0.056	-9.000	-9.000	-999.	32.	5.5	0.15	1.10	1.00	1.18	130.	10.0	280.4	10.0
12	01	01	1	05	-0.6	0.029	-9.000	-9.000	-999.	12.	3.3	0.47	1.10	1.00	0.44	47.	10.0	280.4	10.0
12	01	01	1	06	-0.6	0.029	-9.000	-9.000	-999.	12.	3.3	0.47	1.10	1.00	0.44	39.	10.0	279.8	10.0
12	01	01	1	07	-0.7	0.029	-9.000	-9.000	-999.	12.	3.3	0.47	1.10	1.00	0.44	60.	10.0	279.2	10.0
12	01	01	1	08	-0.5	0.029	-9.000	-9.000	-999.	12.	4.0	0.47	1.10	0.50	0.44	42.	10.0	280.4	10.0
12	01	01	1	09	33.3	0.106	0.323	0.014	36.	83.	-3.2	0.47	1.10	0.30	0.44	44.	10.0	285.4	10.0
12	01	01	1	10	85.9	0.121	0.634	0.011	106.	101.	-1.8	0.48	1.10	0.23	0.44	232.	10.0	291.4	10.0
12	01	01	1	11	123.6	0.252	0.982	0.005	273.	303.	-11.5	0.48	1.10	0.21	1.34	242.	10.0	297.5	10.0
12	01	01	1	12	141.2	0.255	1.253	0.005	496.	309.	-10.4	0.48	1.10	0.20	1.34	249.	10.0	299.8	10.0
12	01	01	1	13	139.0	0.308	1.399	0.005	700.	410.	-18.6	0.48	1.10	0.20	1.78	244.	10.0	300.4	10.0
12	01	01	1	14	118.4	0.303	1.510	0.005	1033.	401.	-20.9	0.48	1.10	0.21	1.78	241.	10.0	301.4	10.0
12	01	01	1	15	79.3	0.291	1.390	0.005	1204.	377.	-27.6	0.48	1.10	0.24	1.78	260.	10.0	301.4	10.0
12	01	01	1	16	24.5	0.162	0.951	0.005	1244.	167.	-15.4	0.51	1.10	0.34	0.89	292.	10.0	299.8	10.0
12	01	01	1	17	-2.5	0.060	-9.000	-9.000	-999.	45.	7.5	0.51	1.10	0.61	0.89	282.	10.0	296.9	10.0
12	01	01	1	18	-0.6	0.029	-9.000	-9.000	-999.	12.	3.4	0.47	1.10	1.00	0.44	10.	10.0	293.1	10.0

```
 12 01 01   1 19   -4.0  0.066 -9.000 -9.000 -999.   40.      6.3  0.11   1.10   1.00    1.48  329.   10.0  290.4   10.0
 12 01 01   1 20   -0.6  0.029 -9.000 -9.000 -999.   12.      3.3  0.47   1.10   1.00    0.44   65.   10.0  288.1   10.0
 12 01 01   1 21   -0.6  0.029 -9.000 -9.000 -999.   12.      3.3  0.47   1.10   1.00    0.44   61.   10.0  286.4   10.0
 12 01 01   1 22   -0.6  0.029 -9.000 -9.000 -999.   12.      3.3  0.47   1.10   1.00    0.44   33.   10.0  285.4   10.0
 12 01 01   1 23   -0.6  0.029 -9.000 -9.000 -999.   12.      3.3  0.47   1.10   1.00    0.44   50.   10.0  284.2   10.0
 12 01 01   1 24   -0.6  0.029 -9.000 -9.000 -999.   12.      3.3  0.47   1.10   1.00    0.44   42.   10.0  283.1   10.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 12 01 01 01   10.0 1   51.    0.44   282.6   30.0  -99.00    0.20

 F indicates top of profile (=1) or below (=0)
1 *** AERMOD - VERSION  19191 ***   ***  Construction DPM Mitigated                                          ***        09/29/21
 *** AERMET - VERSION  15181 ***   ***                                                                      ***        12:19:37
                                                                                                                      PAGE   6
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL  SigA Data

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   1 YEARS FOR SOURCE GROUP: ALL      ***
                                INCLUDING SOURCE(S):     0E90J000    ,

                                        *** SENSITIVE DISCRETE RECEPTOR POINTS ***

                                     ** CONC OF PM10     IN MICROGRAMS/M**3                        **

       X-COORD (M)   Y-COORD (M)        CONC                      X-COORD (M)   Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
        484866.10    3688006.80        0.02232                     484868.10    3688134.80        0.06051
        484869.60    3688214.30        0.05845                     484913.90    3688319.70        0.01285
2 *** AERMOD - VERSION  19191 ***   ***  Construction DPM Mitigated                                          ***        09/29/21
 *** AERMET - VERSION  15181 ***   ***                                                                      ***        12:19:37
                                                                                                                      PAGE   7
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL  SigA Data

                                  *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER   1 YEARS ***


                                   ** CONC OF PM10     IN MICROGRAMS/M**3                          **

                                                                                                          NETWORK
GROUP ID                       AVERAGE CONC               RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

ALL       1ST HIGHEST VALUE IS       0.06051 AT (  484868.10,  3688134.80,     0.00,     0.00,    0.00)  SR
          2ND HIGHEST VALUE IS       0.05845 AT (  484869.60,  3688214.30,     0.00,     0.00,    0.00)  SR
          3RD HIGHEST VALUE IS       0.02232 AT (  484866.10,  3688006.80,     0.00,     0.00,    0.00)  SR
          4TH HIGHEST VALUE IS       0.01285 AT (  484913.90,  3688319.70,     0.00,     0.00,    0.00)  SR
          5TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,     0.00,     0.00,    0.00)
          6TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,     0.00,     0.00,    0.00)
          7TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,     0.00,     0.00,    0.00)
          8TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,     0.00,     0.00,    0.00)
          9TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,     0.00,     0.00,    0.00)
         10TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,     0.00,     0.00,    0.00)


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
3 *** AERMOD - VERSION  19191 ***   ***  Construction DPM Mitigated                                          ***        09/29/21
 *** AERMET - VERSION  15181 ***   ***                                                                      ***        12:19:37
                                                                                                                      PAGE   8
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL  SigA Data

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of          378 Informational Message(s)

 A Total of         8784 Hours Were Processed

 A Total of          250 Calm Hours Identified

 A Total of          128 Missing Hours Identified (  1.46 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W186      60       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used          0.40
 MX W403      60       PFLCNV: Turbulence data is being used w/o ADJ_U* option       SigA Data

    ***********************************
    *** AERMOD Finishes Successfully ***
    ***********************************
```

ATTACHMENT C

Health Risk Calculations

Air Quality Health Risk Calculations (Worst-Case)
Pala Plaza Unmitigated

From CalEE Annual Output	Emission per day (Ton/Total Construction Duration)	**0.063**
	Construction Start	**1/1/2022**
	Construction Complete	**10/31/2022**
	Days	**303**
	Construction Emission per day (lb/day)	**0.415841584**
	Annual Duration (Days)	**365**
	Annualized Emission Rate (Grams/Second)	**2.18E-03**
	Project Site Size (Acres)	**3.88**
	Project Site Size (meters^2)	**15701.80292**
	Length of Smalles Side (meters)	**125.3068351**
Used as an input to SCREEN3	Emission Rate over Grading Area(g/s-m^2)	**1.39E-07**
From SCREEN3*0.08	Concentration Annual (Ug/M^3)	**1.16**

	Days	Days to years				
Duration	303	0.830136986				
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From F15	1.16	1.16	1.16	1.16	1.16	1.16
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	0.00040201	0.00121382	0.00095881	0.00082963	0.00037306	0.00032294
Construction Days	303	0.830136986				
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	0.830136986	0.830136986	0.830136986	0.830136986	0.830136986
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	1.34242E-05	0.000134592	2.70166E-05	2.33767E-05	3.55256E-06	3.07535E-06
Risk per million Exposed	13.42424914	134.5919406	27.01659013	23.37672432	3.552558994	3.075349577

Cancer Risk Per Million 9-years	175.03
Cancer Risk Per Million 30-years	174.95
Cancer Risk Per Million 70-years	**174.47**

Air Quality Health Risk Calculations (Worst-Case)
Pala Plaza Tier 4 Mitigations

From CalEE Annual Output	Emission per day (Ton/Total Construction Duration)	**0.0033**
	Construction Start	**1/1/2022**
	Construction Complete	**10/31/2022**
	Days	**303**
	Construction Emission per day (lb/day)	**0.021782178**
	Annual Duration (Days)	**365**
	Annualized Emission Rate (Grams/Second)	**0.000114**
	Project Site Size (Acres)	**3.88**
	Project Site Size (meters^2)	**15701.80292**
	Length of Smalles Side (meters)	**125.3068351**
Used as an input to SCREEN3	Emission Rate over Grading Area(g/s-m^2)	**7.27E-09**
From SCREEN3*0.08	Concentration Annual (Ug/M^3)	**0.061**

	Days		Days to years				
Duration	303		0.830136986				
Age (Years)	3rd Trimester (0.25)		0-2	2-9	2-16	16-30	16-70
Cair (annual) - From F15	0.061		0.061	0.061	0.061	0.061	0.061
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	0.00002114		0.00006383	0.00005042	0.00004363	0.00001962	0.00001698
Construction Days	303		0.830136986				
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		0.830136986	0.830136986	0.830136986	0.830136986	0.830136986
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	7.0593E-07		7.07768E-06	1.4207E-06	1.22929E-06	1.86816E-07	1.61721E-07
Risk per million Exposed	0.705930343		7.077679637	1.420699998	1.229293262	0.186815602	0.161720969
Cancer Risk Per Million 9-years	9.20						
Cancer Risk Per Million 30-years	9.20						
Cancer Risk Per Million 70-years	**9.17**						
		27.58	90.68796069	118.27	76.87943148	73.84695278	150.7263843