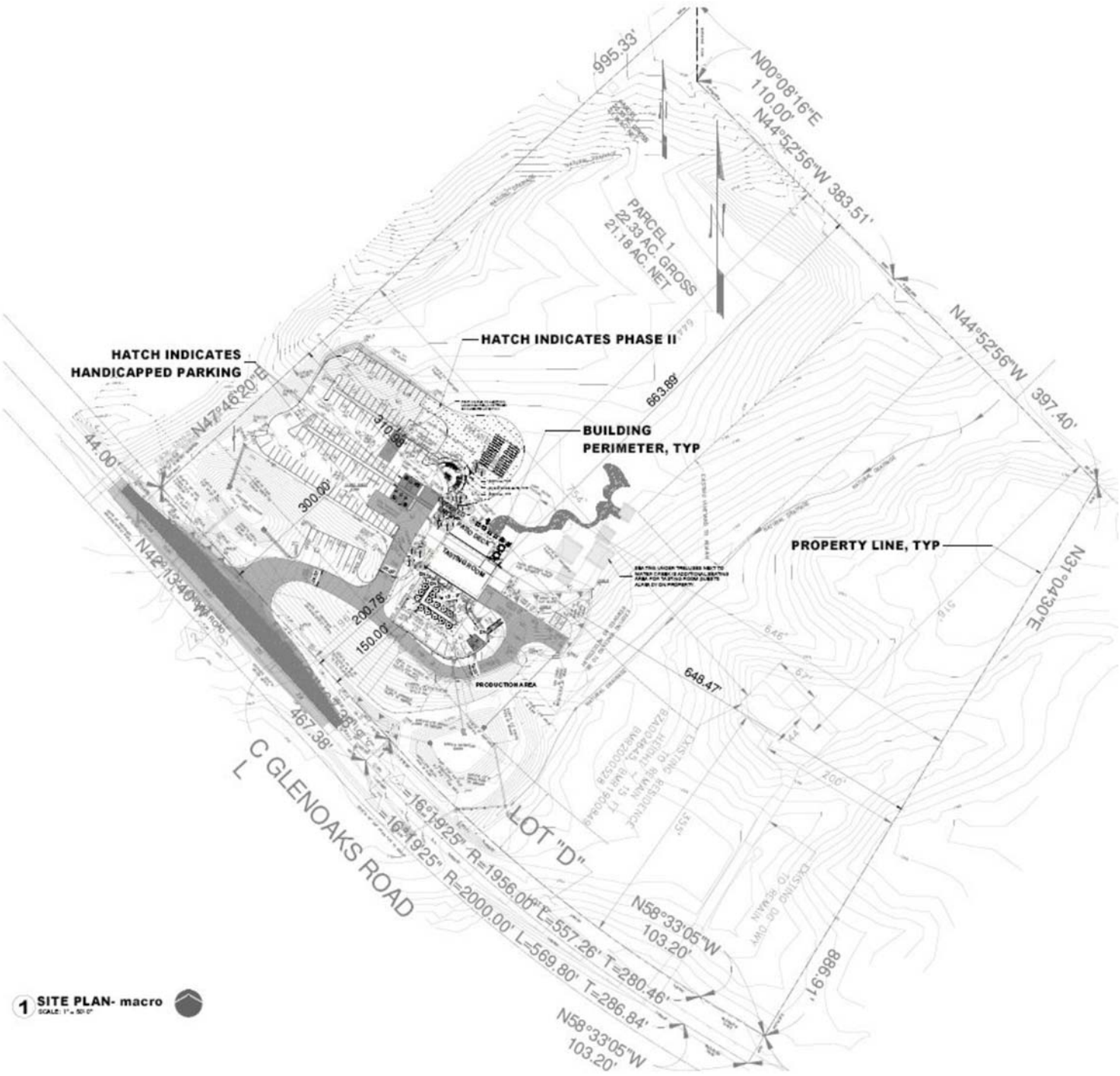
AUSTIN VINEYARD CLASS V WINERY
AIR QUALITY AND GREENHOUSE GAS IMPACT STUDY
County of Riverside, California



1 SITE PLAN- macro
SCALE: 1" = 50'-0"

AUSTIN VINEYARD CLASS V WINERY
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County of Riverside, California

Prepared for:

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1.0 Introduction

This report contains the analyses of air quality and greenhouse gas (GHG) emissions for the proposed Austin Vineyard Class V Winery project (hereinafter referred to as project). The analyses contained within this report were conducted within the context of the California Environmental Quality Act (CEQA, California Public Resources Code Sections 21000, et seq.).

The purpose of this air quality and GHG impact study is to determine whether the estimated criteria air pollutants and greenhouse gas emissions generated from the construction and operation of the proposed project would cause significant impacts to air resources. The assessment and methodology follow the California Air Resources Board (CARB), the South Coast Air Quality Management District (SCAQMD), and County of Riverside recommendations for quantification of emissions and evaluation of potential impacts.

1.1 Site Location

The proposed project is located at 35620 Glen Oaks Road, in the Temecula Valley Wine County Community Plan area of the unincorporated County of Riverside. The project site is approximately 22.33 gross acres and currently consists of an existing vineyard and one (1) single family residential home.

The project site is located within the South Coast Air Basin (SCAB), the SCAQMD Temecula/Anza General Forecast Area, and the Temecula Valley Air Monitoring Area-26.

The project location map is provided in Exhibit A.

1.2 Project Description

The proposed project consists of constructing and operating a Class V winery with a tasting room, outdoor patio, cellar and outdoor wine production area. The project also proposes to host special events, such as weddings and group events. The site plan used for this analysis, provided by DZN PARTNERS, is illustrated in Exhibit B.

Table 1 summarizes the proposed project land uses.

Table 1
Land Use Summary

Project Land Use	CalEEMod Land Use Category	Quantity[1]	Metric
Wine Tasting Room & Patios	High Turnover (Sit-Down Restaurant)	8,092	Square Feet
Wine Production & Cellar	General Light Industrial	6,200	Square Feet
Paved Surfaces (On-Site Circulation and Parking)	Parking Lot	115	Spaces

[1] Rounded to the nearest zero and includes outdoor patio areas and crush pads.

The project is expected to require an export of approximately 5,000 cubic yards of earthwork material during grading phase. The project is expected to be operational in the year 2024.

Construction of the project is estimated to begin in the year 2023 and last approximately 10 months. Construction activities are expected to consist of site preparation, grading, building construction, paving, and architectural coating.

1.3 Sensitive Receptors

Sensitive receptors are considered land uses or other types of population groups that are more sensitive to air pollution exposure. Sensitive population groups include children, the elderly, the acutely and chronically ill, and those with cardio-respiratory diseases. For CEQA purposes, the SCAQMD considers a sensitive receptor to be a location where a sensitive individual could remain for 24-hours or longer, such as residences, hospitals, and schools (etc), as described in the Localized Significance Threshold Methodology (SCAQMD 2008a, page 3-2).

The nearest sensitive land uses to the project site include the following:

- Existing residential homes located approximately 100 feet south of the project's southern property line (south of Glen Oaks Road)

- Existing Don Fernando's Hideaway campground located approximately 350 feet north of the project's northern property line.

- Existing residential home located approximately 100 feet east of the project's eastern property line.

For conservative localized analysis purposes, the analysis considers sensitive receptors to be located less than 25 meters (82 feet) from the project site.

1.4 Summary of Air Quality and Greenhouse Gas Impacts

Table 2 provides a summary of the CEQA air quality impact analysis results.

Table 2
CEQA Air Quality Impact Criteria

Air Quality Impact Criteria	Potentially Significant	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with, or obstruct implementation of, the applicable air quality plan?			X	
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable Federal or State ambient air quality standard?			X	
d) Expose sensitive receptors to substantial pollutant concentrations?			X	
e) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

Table 3 provides a summary of the CEQA GHG impact criteria analysis results.

Table 3
CEQA GHG Impact Criteria

GHG Impact Criteria	Potentially Significant	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of greenhouse gases?			X	

1.5 Recommended Project Design Features

The following recommended project design features include standard dust control measures, construction best practices and building code requirements that are intended to reduce air quality and GHG emissions. Project design features are typically included as part of the conditions of approval for the project but are not considered mitigation under CEQA.

Construction Design Features:

DF-1 Follow the standard SCAQMD rules and requirements with regards to fugitive dust control, which includes, but are not limited to the following:

1. All active unpaved construction areas shall be watered two (2) times daily.
2. Speed on unpaved roads shall be reduced to less than 15 mph.
3. Any visible dirt deposition on any public roadway shall be swept or washed at the site access points within 30 minutes.
4. Any on-site stockpiles of debris, dirt or other dusty material shall be covered or watered twice daily.
5. All operations on any unpaved surface shall be suspended if winds exceed 15 mph.
6. Access points shall be washed or swept daily.
7. Construction sites shall be sandbagged for erosion control.
8. Cover all trucks hauling dirt, sand, soil, or other loose materials, and maintain at least 2 feet of freeboard space in accordance with the requirements of California Vehicle Code (CVC) section 23114.
9. Pave or gravel access points and use track-out grates.
10. Replace the ground cover of disturbed areas as quickly possible.

DF-3 Construction equipment shall be maintained in proper tune.

DF-4 All construction vehicles shall be prohibited from excessive idling. Excessive idling is defined as five (5) minutes or longer.

DF-5 Minimize the simultaneous operation of multiple construction equipment units.

DF-6 The use of heavy construction equipment and earthmoving activity shall be suspended during Air Alerts when the Air Quality Index reaches the "Unhealthy" level.

DF-7 Utilize low emission "clean diesel" equipment with new or modified Tier 4 engines that include diesel oxidation catalysts, diesel particulate filters or Moyer Program retrofits that meet CARB best available control technology, when feasible.

DF-8 Establish an electricity supply to the construction site and use electric powered equipment instead of diesel-powered equipment or generators, where feasible.

DF-9 Establish staging areas for the construction equipment that are as distant as possible from adjacent sensitive receptors.

DF-10 Use haul trucks with on-road engines instead of off-road engines for on-site hauling.

DF-11 Utilize zero VOC and low VOC paints and solvents, where feasible.

Operational Design Features

DF-12 Comply with the mandatory requirements of the California Building Standards Code, Title 24, Part 6 (Energy Code) and Part 11 (CALGreen), including, but not limited to:

- Install low flow fixtures and toilets, water efficient irrigation systems, drought tolerant/native landscaping, and reduce the amount of turf.

- Provide the necessary infrastructure to support electric vehicle charging.

2.0 Air Quality Setting

The Federal Clean Air Act (§ 7602) defines air pollution as any agent or combination of such agents, including any physical, chemical, biological, or radioactive substance which is emitted into or otherwise enters the ambient air. Household combustion devices, motor vehicles, industrial facilities and forest fires are common sources of air pollution. Air pollution can cause disease, allergies and even death. It affects soil, water, crops, vegetation, manmade materials, animals, wildlife, weather, visibility, and climate. It can also cause damage to and deterioration of property, present hazards to transportation, and negatively impact the economy.

This section provides background information on criteria air pollutants, the applicable federal, state and local regulations concerning air pollution, and the existing physical setting of the project within the context of local air quality.

2.1 Description of Air Pollutants[1].

The following section describes the air pollutants of concern related to the project. Criteria air pollutants are defined as those pollutants for which the federal and state governments have established air quality standards for outdoor or ambient concentrations to protect public health. The following descriptions of criteria air pollutants have been provided by the SCAQMD.

- **Carbon Monoxide (CO)** is a colorless, odorless, toxic gas produced by incomplete combustion of carbon-containing fuels (e.g., gasoline, diesel fuel, and biomass). Sources include motor vehicle exhaust, industrial processes (metals processing and chemical manufacturing), residential wood burning, and natural sources. CO is somewhat soluble in water; therefore, rainfall and fog can suppress CO conditions. CO enters the body through the lungs, dissolves in the blood, and competes with oxygen, often replacing it in the blood, thus reducing the blood's ability to transport oxygen to vital organs in the body. The ambient air quality standard for carbon monoxide is intended to protect persons whose medical condition already compromises their circulatory system's ability to deliver oxygen. These medical conditions include certain heart ailments, chronic lung diseases, and anemia. Persons with these conditions have reduced exercise capacity even when exposed to relatively low levels of CO. Fetuses are at risk because their blood has an even greater affinity to bind with CO. Smokers are also at risk from ambient CO levels because smoking

[1] SCAQMD. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning (May 6, 2005)

increases the background level of CO in their blood. The South Coast basin has recently achieved attainment status for carbon monoxide by both USEPA and CARB.

- **Nitrogen Dioxide (NO_2)** is a byproduct of fuel combustion. The principal form of nitrogen oxide produced by combustion is nitric oxide (NO), but NO reacts quickly to form NO_2, creating the mixture of NO and NO_2 commonly called NO_x. NO_2 acts as an acute irritant and, in equal concentrations, is more injurious than NO. At atmospheric concentrations, however, NO_2 is only potentially irritating. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase in bronchitis in young children has also been observed at concentrations below 0.3 parts per million (ppm). NO_2 absorbs blue light which results in a brownish red cast to the atmosphere and reduced visibility. Although NO_2 concentrations have not exceeded national standards since 1991 and the state hourly standard since 1993, NO_x emissions remain of concern because of their contribution to the formation of O_3 and particulate matter.

- **Ozone (O_3)** is one of several substances called photochemical oxidants that are formed when volatile organic compounds (VOC) and NO_x react in the presence of ultraviolet sunlight. O_3 concentrations in the South Coast basin are typically among the highest in the nation, and the damaging effects of photochemical smog, which is a popular name for a number of oxidants in combination, are generally related to the concentrations of O_3. Individuals exercising outdoors, children, and people with preexisting lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the subgroups most susceptible to O_3 effects. Short-term exposures (lasting for a few hours) to O_3 at levels typically observed in southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. In recent years, a correlation between elevated ambient O_3 levels and increases in daily hospital admission rates, as well as mortality, has also been reported. The South Coast Air Basin is designated by the USEPA as an extreme non-attainment area for ozone. Although O_3 concentrations have declined substantially since the early 1990s, the South Coast basin continues to have peak O_3 levels that exceed both state and federal standards.

- **Fine Particulate Matter (PM_{10})** consists of extremely small, suspended particles or droplets 10 microns or smaller in diameter that can lodge in the lungs, contributing to respiratory problems. PM_{10} arises from such sources as re-entrained road dust, diesel soot, combustion products, tire and brake abrasion, construction operations, and fires. It is also formed in the atmosphere from NO_x and SO_2 reactions with ammonia. PM_{10} scatters light and significantly reduces visibility. Inhalable particulates

pose a serious health hazard, alone or in combination with other pollutants. More than half of the smallest particles inhaled will be deposited in the lungs and can cause permanent lung damage. Inhalable particulates can also have a damaging effect on health by interfering with the body's mechanism for clearing the respiratory tract or by acting as a carrier of an absorbed toxic substance. The South Coast basin has recently achieved federal attainment status for PM_{10}, but is non-attainment based on state requirements.

- **Ultra-Fine Particulate Matter ($PM_{2.5}$)** is defined as particulate matter with a diameter less than 2.5 microns and is a subset of PM_{10}. $PM_{2.5}$ consists mostly of products from the reaction of NO_x and SO_2 with ammonia, secondary organics, finer dust particles, and the combustion of fuels, including diesel soot. $PM_{2.5}$ can cause exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease, declines in pulmonary function growth in children, and increased risk of premature death from heart or lung diseases in the elderly. Daily fluctuations in $PM_{2.5}$ levels have been related to hospital admissions for acute respiratory conditions, school absences, and increased medication use in children and adults with asthma. The South Coast basin is designated as non-attainment for $PM_{2.5}$ by both federal and state standards.

- **Sulfur Dioxide (SO_2)** is a colorless, pungent gas formed primarily by the combustion of sulfur-containing fossil fuels. Health effects include acute respiratory symptoms and difficulty in breathing for children. Individuals with asthma may experience constriction of airways with exposure to SO_2. Though SO_2 concentrations have been reduced to levels well below state and federal standards, further reductions in SO_2 emissions are needed because SO_2 is a precursor to sulfate and PM_{10}. The South Coast basin is considered a SO_2 attainment area by USEPA and CARB.

- **Lead (Pb)** is a toxic heavy metal that can be emitted into the air through some industrial processes, burning of leaded gasoline and past use of lead-based consumer products. Lead is a neurotoxin that accumulates in soft tissues and bones, damages the nervous system, and causes blood disorders. It is particularly problematic in children, in that permanent brain damage may result, even if blood levels are promptly normalized with treatment. Concentrations of lead once exceeded the state and federal air quality standards by a wide margin, but as a result of the removal of lead from motor vehicle gasoline, ambient air quality standards for lead have not been exceeded since 1982. Though special monitoring sites immediately downwind of lead sources recorded localized violations of the state standard in 1994, no violations have been recorded since. Consequently, the South Coast basin is designated as an attainment area for lead by both the USEPA and CARB. This report

does not analyze lead emissions from the project, as it is not expected to emit lead in any significant measurable quantity.

- **Volatile Organic Compounds (VOC),** although not actually a criteria air pollutant, VOCs are regulated by the SCAQMD because they cause chemical reactions which contribute to the formation of ozone. VOCs are also transformed into organic aerosols in the atmosphere, contributing to higher PM_{10} and lower visibility levels. Sources of VOCs include combustion engines, and evaporative emissions associated with fuel, paints and solvents, asphalt paving, and the use of household consumer products such as aerosols. Although health-based standards have not been established for VOCs, health effects can occur from exposures to high concentrations of VOC. Some hydrocarbon components classified as VOC emissions are hazardous air pollutants. Benzene, for example, is a hydrocarbon component of VOC emissions that are known to be a human carcinogen. The term reactive organic gases (ROG) are often used interchangeably with VOC.

- **Toxic Air Contaminants (TACs)** are defined as air pollutants which may cause or contribute to an increase in mortality or serious illness, or which may pose a hazard to human health, and for which there is no concentration that does not present some risk. This contrasts with the criteria pollutants, in that there is no threshold level for TAC exposure below which adverse health impacts are not expected to occur. The majority of the estimated health risk from TACs can be attributed to a relatively few compounds, the most common being diesel particulate matter (DPM) from diesel engine exhaust. In addition to DPM, benzene and 1,3-butadiene are also significant contributors to overall ambient public health risk in California.

2.2 Federal and State Ambient Air Quality Standards

The Federal Clean Air Act, which was last amended in 1990, requires the EPA to set National Ambient Air Quality Standards (NAAQS) for criteria pollutants considered harmful to public health and the environment. The State of California has also established additional and more stringent California Ambient Air Quality Standards (CAAQS) in addition to the seven criteria pollutants designated by the federal government.

AAQS are designed to protect the health and welfare of the populace with a reasonable margin of safety. The standards are divided into two categories, primary standards, and secondary standards. Primary standards are implemented to provide protection for the "sensitive" populations such as those with asthma, or the children and elderly. Secondary standards are to provide protection against visible pollution as well as damage to the surrounding environment, including animals, crops, and buildings.

Table 4 shows the Federal and State Ambient Air Quality Standards.

Table 4
Federal and State Ambient Air Quality Standards (AAQS)[1]

Air Pollutant	Averaging Time [2]	Federal Standard (NAAQS)[2]	California Standard (CAAQS)[2]
Ozone	1 Hour	--	0.09 ppm
	8 Hour	0.070 ppm	0.070 ppm
Carbon Monoxide (CO)	1 Hour	35 ppm	20 ppm
	8 Hour	9 ppm	9 ppm
Nitrogen Dioxide (NO_2)	1 Hour	0.100 ppm	0.18 ppm
	Annual	0.053 ppm	0.030 ppm
Sulfur Dioxide (SO_2)	1 Hour	0.075 ppm	0.25 ppm
	3 Hour	0.5 ppm[3]	--
	24 Hour	--	0.04 ppm
Particulate Matter (PM_{10})	24 Hour	150 $\mu g/m^3$	50 $\mu g/m^3$
	Mean	--	20 $\mu g/m^3$
Particulate Matter (PM2.5)	24 Hour	35 $\mu g/m^3$	--
	Annual	12 $\mu g/m^3$	12 $\mu g/m^3$
Lead	30-day	--	1.5 $\mu g/m$
	Quarter	1.5 $\mu g/m$	--
	3-month average	0.15 $\mu g/m$	--
Visibility reducing particles	8 Hour	--	0.23/km extinction coefficient. (10-mile visibility standard)
Sulfates	24 Hour	--	25 $\mu g/m$
Vinyl chloride	24 Hour	--	0.01 ppm
Hydrogen sulfide	24 Hour	--	0.03 ppm

[1] Source: USEPA: https://www.epa.gov/criteria-air-pollutants/naaqs-table and
CARB: https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards

[2] ppm = parts per million of air, by volume; µg/m3 = micrograms per cubic meter; Annual = Annual Arithmetic Mean; 30-day = 30-day average; Quarter = Calendar quarter.

[3] Secondary standards

Several pollutants listed in Table 4 are not addressed in this analysis. Lead is not included because the project is not anticipated to emit lead. Visibility-reducing particles are not explicitly addressed in this analysis because particulate matter is addressed. The project is not expected to generate or be exposed to vinyl chloride because proposed project uses do not utilize the chemical processes that create this pollutant. The proposed project is not expected to cause exposure to hydrogen sulfide because it would not generate hydrogen sulfide in any substantial quantity.

2.3 Attainment Status

The Clean Air Act requires states to prepare a State Implementation Plan (SIP) to ensure air quality meets the NAAQS. The California Air Resources Board (CARB) provides designations of attainment for air basins where AAQS are either met or exceeded. If the AAQS are met, the area is designated as being in "attainment", if the air pollutant concentrations exceed the AAQS, than the area is designated as being "nonattainment". If there is inadequate or inconclusive data to make a definitive attainment designation, the area is considered "unclassified."

National nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards. Each standard has a different definition, or 'form' of what constitutes attainment, based on specific air quality statistics. For example, the Federal 8-hour CO standard is not to be exceeded more than once per year; therefore, an area is in attainment of the CO standard if no more than one 8-hour ambient air monitoring values exceeds the threshold per year. In contrast, the federal annual $PM_{2.5}$ standard is met if the three-year average of the annual average $PM_{2.5}$ concentration is less than or equal to the standard.

When a state submits a request to the EPA to re-designate a nonattainment area to attainment, the Clean Air Act (CAA) section 175A(a) requires that the state (or states, if the area is a multi-state area) submit a maintenance plan ensuring the area can maintain the air quality standard for which the area is to be re-designated for at least 10 years following the effective date of re-designation.

Table 5 lists the attainment status for the criteria pollutants in the South Coast Air Basin (SCAB).

Table 5
South Coast Air Basin Attainment Status[1]

Pollutant	State Status	National Status
Ozone	Nonattainment	Nonattainment (Extreme)[2]
Carbon monoxide	Attainment	Attainment (Maintenance)
Nitrogen dioxide	Attainment	Attainment (Maintenance)
PM_{10}	Nonattainment	Attainment (Maintenance)
$PM_{2.5}$	Nonattainment	Nonattainment
Lead	Attainment	Nonattainment (Partial)[3]
Sulfur Dioxide	Attainment	Unclassified/Attainment

[1] Source: California Air Resources Board. http://www.arb.ca.gov/desig/adm/adm.htm
[2] 8-Hour Ozone.
[3] Partial Nonattainment designation – Los Angeles County portion of Basin only.

2.4 South Coast Air Quality Management District (SCAQMD)

The agency responsible for air pollution control for the South Coast Air Basin (SCAB) is the South Coast Air Quality Management District (SCAQMD). SCAQMD is responsible for controlling emissions primarily from stationary sources. SCAQMD maintains air quality monitoring stations throughout the SCAB. SCAQMD, in coordination with the Southern California Association of Governments, is also responsible for developing, updating, and implementing the Air Quality Management Plan (AQMP) for the SCAB. An AQMP is a plan prepared and implemented by an air pollution district for a county or region designated as nonattainment of the federal and/or California ambient air quality standards. The term nonattainment area is used to refer to an air basin where one or more ambient air quality standards are exceeded.

The latest version is the 2016 AQMP. The 2016 AQMP is a regional blueprint for achieving the federal air quality standards and healthful air. While air quality has dramatically improved over the years, the SCAB still exceeds federal public health standards for both ozone and particulate matter (PM) and experiences some of the worst air pollution in the nation. The 2016 AQMP includes both stationary and mobile source strategies to ensure that rapidly approaching attainment deadlines are met, that public health is protected to the maximum extent feasible, and that the region is not faced with burdensome sanctions if the Plan is not approved or if the NAAQS are not met on time.

According to the 2016 AQMP, the most significant air quality challenge in the SCAB is to reduce nitrogen oxide (NOx) emissions sufficiently to meet the upcoming ozone standard deadlines. Based on the inventory and modeling results, 522 tons per day (tpd) of total SCAB NOx 2012 emissions are projected to drop to 255 tpd and 214 tpd in the 8-hour ozone attainment years of 2023 and 2031 respectively, due to continued implementation of already adopted regulatory actions ("baseline emissions"). The analysis suggests that total SCAB emissions of NOx must be reduced to approximately 141 tpd in 2023 and 96 tpd in 2031 to attain the 8-hour ozone standards. This represents an additional 45 percent reduction in NOx in 2023, and an additional 55 percent NOx reduction beyond 2031 levels.[2]

2.4.1 SCAQMD Rules and Regulations

The SCAQMD establishes a program of rules and regulations to obtain attainment of the state and federal standards in conjunction with the AQMP. Several of the rules and regulations that may be applicable to this project include, but are not limited to, the following:

- **SCAQMD Rule 402** prohibits a person from discharging from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

- **SCAQMD Rule 403** governs emissions of fugitive dust during construction and operation activities. Compliance with this rule is achieved through application of standard Best Management Practices, such as application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles per hour, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph, and establishing a permanent ground cover on finished sites.

- **SCAQMD Rule 445** restricts wood burning devices from being installed into any new development and is intended to reduce the emissions of particulate matter for wood burning devices.

[2] SCAQMD. Final 2016 Air Quality Management Plan. http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/final-2016-aqmp

- **SCAQMD Rule 1113** governs the sale, use, and manufacturing of architectural coating and limits the VOC content in paints and paint solvents. This rule regulates the VOC content of paints available during construction. Therefore, all paints and solvents used during construction and operation of project must comply with Rule 1113.

- **SCAQMD Rule 1143** governs the manufacture, sale, and use of paint thinners and solvents used in thinning of coating materials, cleaning of coating application equipment, and other solvent cleaning operations by limiting their VOC content. This rule regulates the VOC content of solvents used during construction. Solvents used during the construction phase must comply with this rule.

- **SCAQMD Rule 1186** limits the presence of fugitive dust on paved and unpaved roads and sets certification protocols and requirements for street sweepers that are under contract to provide sweeping services to any federal, state, county, agency or special district such as water, air, sanitation, transit, or school district.

2.5 Local Climate and Meteorology

The project is located in the South Coast Air Basin (SCAB). Climatological data from the years 1893 to 2016 at the Sun City, California Monitoring Station (048655) is summarized in Table 6. The Sun City station is located approximately 15 miles from the project site and is the nearest monitoring location.

Table 6
Meteorological Summary[1]

Month	Temperature (˚F)			Mean Precipitation (inches)
	Max.	Min.	Mean	
January	66.1	36.3	51.1	2.66
February	68.4	38.7	53.5	3.25
March	69.6	41.1	55.4	1.96
April	76.7	44.4	60.5	0.66
May	82.1	49.6	65.9	0.31
June	91.9	54.0	72.9	0.05
July	97.4	58.9	78.1	0.03
August	98.0	59.4	78.7	0.24
September	92.6	57.5	75.0	0.15
October	84.2	49.2	66.8	0.25
November	73.8	39.8	56.8	0.66
December	67.6	34.5	51.0	1.02
Annual	**80.7**	**46.9**	**63.8**	**11.22**

[1] Source: Western Regional Climate Center 2016-2022. Averages derived from measurements recorded between 1893 and 2016 at Sun City, (048655).

2.6 Local Air Quality

The air quality at any site is dependent on the regional air quality and local pollutant sources. Regional air quality is determined by the release of pollutants throughout the air basin. Estimates of the existing emissions in the Basin provided in the Final 2016 Air Quality Management Plan, prepared by SCAQMD, March 2017, indicate that collectively, mobile sources account for 60 percent of the VOC, 90 percent of the NOx emissions, 95 percent of the CO emissions and 34 percent of directly emitted PM2.5, with another 13 percent of PM2.5 from road dust.

The SCAQMD has divided the SCAB into fourteen general forecasting areas and thirty eight Source Receptor Areas (SRA) for monitoring and reporting local air quality. The SCAQMD provides daily reports of the current air quality conditions in each general forecast area and SRA. The monitoring areas provide a general representation of the local meteorological, terrain, and air quality conditions within the SCAB.

The project is located within the Temecula/Anza Area general forecasting area and Temecula Valley air monitoring area (SRA-26). For air quality data do not present within Temecula Valley air monitoring station, air quality data is derived from the nearest adjacent stations such as Lake Elsinore (SRA-25) and Metropolitan Riverside Station 1 (SRA-23).

Table 7 summarizes the published air quality monitoring for the most recent 3-year period available. These pollutant levels were used to comprise a "background" for the project location and existing local air quality.

Table 7
Local Air Quality

Air Pollutant Location	Averaging Time	Item	2018	2019	2020
Carbon Monoxide -- Lake Elsinore	1 Hour	Max 1-Hour (ppm)	1.1	1.6	0.9
		Exceeded State Standard (20 ppm)	No	No	No
		Exceeded National Standard (35 ppm)	No	No	No
	8 Hour	Max 8 Hour (ppm)	0.8	0.7	0.7
		Days > State Standard (9 ppm)	No	No	No
		Days >National Standard (9 ppm)	No	No	No
Ozone -- Temecula Valley	1 Hour	Max 1-Hour (ppm)	0.107	0.091	0.108
		Days > State Standard (0.09 ppm)	2.0	4.0	5.0
	8 Hour	Max 8 Hour (ppm)	0.085	0.079	0.091
		Days > State Standard (0.070 ppm)	15	6	37
		Days >National Standard (0.070 ppm)	15	6	37
Nitrogen Dioxide -- Lake Elsinore	1 Hour	Max 1-Hour (ppm)	0.041	0.038	0.044
		Exceeded State Standard (0.18 ppm)	No	No	No
	Annual	Annual Average (ppm)	0.009	0.007	0.007
		Exceeded State Standard (0.030 ppm)	No	No	No
		Exceeded National Standard (0.053 ppm)	No	No	No
Sulfur Dioxide -- Metropolitan Riverside County 1	1 Hour	Max 1 Hour (ppm)	0.0017	0.0018	0.0022
		Exceeded State Standard (0.25 ppm)	No	No	No
		Exceeded National Standard (0.075 ppm)	No	No	No
Suspended Particles (PM10) -- Lake Elsinore	24 Hour	Max 24-Hour ($\mu g/m^3$)	104	93	84
		Days > State Standard (50 $\mu g/m^3$)	9	5	7
		Days >National Standard (150 $\mu g/m^3$)	0	0	0
	Annual	Annual Average ($\mu g/m^3$)	22.40	18.70	22.00
		Exceeded State Standard (20 $\mu g/m^3$)	Yes	No	Yes
Fine Particulates (PM2.5) -- Metropolitan Riverside County 1	24 Hour	Max 24-Hour ($\mu g/m^3$)	50.70	46.70	41.00
		Days >National Standard (35 $\mu g/m^3$)	2	4	4
	Annual	Annual Average ($\mu g/m^3$)	12.41	11.13	12.63
		Exceeded State Standard (12 $\mu g/m^3$)	Yes	No	Yes
		Exceeded National Standard (15 $\mu g/m^3$)	No	No	No

Source : https://www.aqmd.gov/home/air-quality/historical-air-quality-data/historical-data-by-year
$\mu g/m^3$ = micrograms per cubic meter
ARB = California Air Resource Board
EPA= Environmental Protection Agency
ppm = part per million
(- -) = Data not provided

3.0 Global Climate Change Setting

Global climate change is the change in the average weather of the earth that is measured by such things as alterations in temperature, wind patterns, storms, and precipitation. Current data shows that the recent period of warming is occurring more rapidly than past geological events. The average global surface temperature has increased by approximately 1.4° Fahrenheit since the early 20th Century. 1.4° Fahrenheit may seem like a small change, but it's an unusual event in Earth's recent history, and as we are seeing, even small changes in temperature can cause enormous changes in the environment.

The planet's climate record, preserved in tree rings, ice cores, and coral reefs, shows that the global average temperature has been stable over long periods of time. For example, at the end of the last ice age, when the Northeast United States was covered by more than 3,000 feet of ice, average global temperatures were only 5° to 9° Fahrenheit cooler than today. The Intergovernmental Panel on Climate Change (IPCC), which includes more than 1,300 scientists from the United States and other countries, forecasts a temperature rise of 2.5° to 10° Fahrenheit over the next century. Therefore, significant changes to the environment are expected in the near future.

The consequences of global climate change include more frequent and severe weather, worsening air pollution by increasing ground level ozone, higher rates of plant and animal extinction, more acidic and oxygen depleted oceans, strain on food and water resources, and threats to densely populated coastal and low lying areas from sea level rise.

The impacts of climate change are already visible in the Southwest United States. In California, the consequences of climate change include;

- A rise in sea levels resulting in the displacement of coastal businesses and residencies
- A reduction in the quality and supply of water from the Sierra snowpack
- Increased risk of large wildfires
- Exacerbation of air quality problems
- Reductions in the quality and quantity of agricultural products
- An increased temperature and extreme weather events
- A decrease in the health and productivity of California's forests

3.1 Greenhouse Gases

GHGs comprise less than 0.1 percent of the total atmospheric composition, yet they play an essential role in influencing climate. Greenhouse gases include naturally occurring compounds such as carbon dioxide (CO_2), methane (CH_4), water vapor (H_2O), and nitrous oxide (N_2O), while others are synthetic. Man-made GHGs include the chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs) and Perfluorocarbons (PFCs), as well as sulfur hexafluoride (SF_6). Different GHGs have different effects on the Earth's warming. GHGs differ from each other in their ability to absorb energy (their "radiative efficiency") and how long they stay in the atmosphere, also known as the "lifetime".

The Global Warming Potential (GWP) was developed to allow comparisons of the global warming impacts of different gases. Specifically, it is a measure of how much energy the emissions of 1 ton of a gas will absorb over a given period of time, relative to the emissions of 1 ton of CO_2. The larger the GWP, the more that a given gas warms the Earth compared to CO_2 over that time period. The time period usually used for GWPs is 100 years. GWPs provide a common unit of measure, which allows analysts to add up emissions estimates of different gases and allows policymakers to compare emissions reduction opportunities across sectors and gases.

Table 8 lists the 100-year GWP of GHGs from the Intergovernmental Panel on Climate Change (IPCC) fifth assessment report (AR5) and IPCC sixth (6^{th}) assessment report (AR6).

Table 8
Global Warming Potential of Greenhouse Gases[1, 2]

Gas Name	Formula	Lifetime (years)	GWP
Carbon Dioxide	CO_2		1
Methane	CH_4 (Fossil Origin)	12	29.8
	CH_4 (Non-Fossil Origin)		27.2
Nitrous Oxide	N_2O	114	273
Sulphur Hexafluoride	SF_6	3200	23,500
Nitrogen Trifluoride	NF_3	740	16,100
Chlorofluorocarbon (CFC-11)	CFC-11	52	8,321
Hexafluoroethane (PFC-116)	C_2F_6	10,000	11,100
Octafluoropropane (PFC-218)	C_3F_8	2,600	8,900
Octafluorocyclobutane (PFC-318)	C_4F_8	3,200	9,540
Tetrafluoromethane (PFC-14)	CF_4	50,000	5,301
Hydrofluorocarbon 125	HFC-125	29	3,170
Hydrofluorocarbon 134a	HFC-134a	14	1,526
Hydrofluorocarbon 143a	HFC-143a	52	4,800
Hydrofluorocarbon 152a	HFC-152a	1	138
Hydrofluorocarbon 227ea	HFC-227ea	34	3,350
Hydrofluorocarbon 23	HFC-23	270	12,400
Hydrofluorocarbon 236fa	HFC-236fa	240	8,060
Hydrofluorocarbon 245fa	HFC-245fa	8	858
Hydrofluorocarbon 32	HFC-32	5	771
Hydrofluorocarbon 365mfc	HFC-365mfc	9	804
Hydrofluorocarbon 43-10mee	HFC-43-10mee	16	1,650

[1] Source: IPCC Sixth Assessment Report (AR6), https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Full_Report.pdf & https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_Chapter08_FINAL.pdf

[2] GWPs are used to convert GHG emission values to "carbon dioxide equivalent" (CO_2e) units

3.2 GHG Regulatory Setting – State of California

The State of California has been a leader in climate change legislation and has passed numerous bills to reduce greenhouse gas emissions across all sectors of the economy. Some of the key climate legislation and regulation in the State include the following:

- **Assembly Bill (AB) 32, California Global Warming Solutions Act of 2006.** AB 32 set the stage for the State's transition to a sustainable, low-carbon future. AB 32 was the first program in the country to take a comprehensive, long-term approach to addressing climate change.[3]

- **Senate Bill (SB) 375, Sustainable Communities & Climate Protection Act of 2008.** SB 375 requires the Air Resources Board to develop regional greenhouse gas emission reduction targets for passenger vehicles GHG reduction targets for 2020 and 2035 for each region covered by the State's 18 metropolitan planning organizations.[4]

- **Senate Bill (SB) 100, California Renewables Portfolio Standard Program.** SB 100 established a landmark policy requiring renewable energy and zero-carbon resources supply 100 percent of electric retail sales to end-use customers by 2045.[5]

- **California Building Standards Code – Title 24.** The California Building Standards Code Title 24 Part 6 (Energy Code) and Title 24 Part 11 (CALGreen) requires multiple building provisions to reduce energy usage and GHG emissions and is updated on a triennial basis.

[3] California Air Resources Board. AB 32 Global Warming Solutions Act of 2006. https://ww2.arb.ca.gov/resources/fact-sheets/ab-32-global-warming-solutions-act-2006
[4] California Air Resources Board. Sustainable Communities and Climate Protection Program. https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-climate-protection-program/about
[5] California Energy Commission. SB 100 Joint Agency Report. https://www.energy.ca.gov/sb100

3.3 GHG Emissions Inventory

Table 9 shows the latest GHG emission inventories at the national, state, regional and local levels.

Table 9
GHG Emissions Inventory[1]

United States (2019)[2]	State of California (2019)[3]	SCAG (2020)[4]	County of Riverside (2030)[5]
6,558 $MMTCO_2e$	418 $MMTCO_2e$	216.4 $MMTCO_2e$	6.37 $MMTCO_2e$

[1] $MMTCO_2e$ = Million Metric Tons of Carbon Dioxide Equivalent

[2] https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks

[3] https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2019/ghg_inventory_trends_00-19.pdf

[4] http://www.scag.ca.gov/programs/Pages/GreenhouseGases.aspx. Projected Emission from SACG - Regional GHG Inventory and Reference Case Projections, 1990-2035, dated May 30, 2012.

[5] https://planning.rctlma.org/Portals/14/CAP/2019/2019_CAP_Update_Full.pdf. Estimated 2030 BAU Emissions.

4.0 Modeling Parameters and Assumptions

The California Emissions Estimator Model Version 2020.4.0 (CalEEMod) was used to calculate criteria air pollutants and GHG emissions from the construction and operation of the project. CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify criteria air pollutant and GHG emissions.

The model quantifies direct emissions from construction and operation activities (including vehicle use), as well as indirect emissions, such as GHG emissions from off-site energy generation, solid waste disposal, vegetation planting and/or removal, and water use. The model also identifies design features to reduce criteria pollutant and GHG emissions. The model was developed for the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the California air districts.

4.1 Construction Assumptions

Construction of the project is estimated to begin in the year 2023 and last approximately 10 months. Construction activities are expected to consist of site preparation, grading, building construction, paving, and architectural coating. The project is expected to be operational in the year 2024. For purposes of this analysis, construction phases are not expected to overlap.

The project is expected to require an export of approximately 5,000 cubic yards of earthwork material during grading phase.

The CalEEMod default construction equipment list is based on survey data and the size of the site. The parameters used to estimate construction emissions, such as the worker and vendor trips and trip lengths, utilize the CalEEMod defaults. The construction equipment list is shown in Table 10.

The project will be required to comply with several standard fugitive dust control measures, per SCAQMD Rule 403. The following key inputs are utilized in CalEEMod and are based upon data provided from SCAQMD[6]:

- Utilize soil stabilizers - 30% PM_{10} and $PM_{2.5}$ reduction.

[6] SCAQMD. Fugitive Dust Mitigation Measures. http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/mitigation-measures-and-control-efficiencies/fugitive-dust

- Replace ground cover - 15% PM_{10} and $PM_{2.5}$ reduction.
- Water exposed areas 2x per day.
- Unpaved road moisture content – 25%.
- Unpaved road vehicle speed – 15 mph.

Table 10
Construction Equipment Assumptions[1]

Phase	Equipment	Number	Hours Per Day	Soil Disturbance Rate (Acres/ 8hr-Day)[2]	Off-Road Equipment Daily Disturbance Footprint (Acres)	Total Daily Disturbance Footprint (Acres)
Site Preparation	Graders	1	8	0.5	0.50	1.4
	Rubber Tired Dozers	1	7	0.5	0.44	
	Tractors/Loaders/Backhoes	1	8	0.5	0.50	
Grading	Graders	1	8	0.5	0.50	1.9
	Rubber Tired Dozers	1	8	0.5	0.50	
	Tractors/Loaders/Backhoes	2	7	0.5	0.88	
Building Construction	Cranes	1	6	0.0	0.00	0.4
	Forklifts	1	6	0.0	0.00	
	Generator Sets	1	8	0.0	0.00	
	Tractors/Loaders/Backhoes	1	6	0.5	0.38	
	Welders	3	8	0.0	0.00	
Paving	Cement and Mortar Mixers	1	6	0.0	0.00	0.5
	Pavers	1	6	0.0	0.00	
	Paving Equipment	1	8	0.0	0.00	
	Rollers	2	7	0.0	0.00	
	Tractors/Loaders/Backhoes	1	8	0.5	0.50	
Architectural Coating	Air Compressors	1	6	0.0	0.00	0.0

[1] CalEEMod Defaults

4.2 Localized Construction Analysis Modeling Parameters

CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily disturbance activity possible for each piece of equipment. This report identifies the following parameters in the project design or applicable mitigation measures

in order to compare CalEEMod reported emissions against the localized significance threshold lookup tables:

1) The off-road equipment list (including type of equipment, horsepower, and hours of operation) assumed for the day of construction activity with maximum emissions.
2) The maximum number of acres disturbed on the peak day.
3) Any emission control devices added onto off-road equipment.
4) Specific dust suppression techniques used on the day of construction activity with maximum emissions.

Based on recent discussions with SCAQMD, the Fact Sheet for Applying CalEEMod to Localized Significance Thresholds should no longer be used to determine disturbance acreage for the localized analysis.

4.3 Operational Assumptions

Operational emissions occur over the life of the project and are considered "long-term" sources of emissions. Operational emissions include both direct and indirect sources. This section briefly describes the operational sources of emissions analyzed for the project.

4.3.1 Mobile Source Emissions

Mobile source emissions are the largest source of long-term air pollutants from the operation of the project. Mobile sources are direct sources of project emissions that are primarily attributed to tailpipe exhaust and road dust (tire, brake, clutch, and road surface wear) from motor vehicles traveling to and from the site.

Estimates of mobile source emissions require information on four parameters: trip generation, trip length, vehicle/fleet mix, and emission factors (quantity of emission for each mile traveled or time spent idling by each vehicle).

The trip generation rates, trip length and trip percentages for this project are based on the CalEEMod defaults.

The Emission Factors (EMFAC2017) 2017 model and off-model adjustments factors to account for the SAFE Vehicle Rule is used to estimate the mobile source emissions are embedded in the CalEEMod emissions model. No adjustments have been made to default emission factors.

The project's total vehicle miles traveled estimated by CalEEMod is shown in the Table 11 for this project.

Table 11
Operational Vehicle Miles Traveled[1]

Land Use	Annual Vehicle Miles Traveled (VMT)
Wine Production and Cellar	114,277
Wine Tasting Room	659,659
Total	**773,936**

[1] CalEEMod defaults.

Table 12 summarizes the default vehicle mix used for winery production and storage uses of the project.

Table 12
Operational Vehicle Mix – Wine Production [1]

YUY	Vehicle Mix (%)
Light Duty Automobile (LDA)	53.48%
Light Duty Truck (LDTI)	5.60%
Light Duty Truck (LDT2)	17.26%
Medium Duty Truck (MDV)	14.10%
Light Heavy Truck (LHD1)	2.66%
Light Heavy Truck (LHD2)	0.73%
Medium Heavy Truck (MHD)	1.13%
Heavy Heavy Truck (HHD)	1.87%
Other Bus (OBUS)	0.06%
Urban Bus (UBUS)	0.03%
Motorcycle (MCY)	2.41%
School Bus (SBUS)	0.11%
Motor Home (MH)	0.55%
Total	**100.0%**

[1] CalEEMod defaults.

Table 13 summarizes adjusted vehicle mix used for wine tasting room and restaurant part of the project.

Table 13
Operational Vehicle Mix – Wine Tasting Room[1]

YUY	Vehicle Mix (%)
Light Duty Automobile (LDA)	55.17%
Light Duty Truck (LDTI)	5.77%
Light Duty Truck (LDT2)	17.76%
Medium Duty Truck (MDV)	14.20%
Light Heavy Truck (LHD1)	2.66%
Light Heavy Truck (LHD2)	0.32%
Medium Heavy Truck (MHD)	0.51%
Heavy Heavy Truck (HHD)	0.84%
Other Bus (OBUS)	0.03%
Urban Bus (UBUS)	0.01%
Motorcycle (MCY)	2.44%
School Bus (SBUS)	0.05%
Motor Home (MH)	0.23%
Total	**100.0%**

[1] Adjusted fleet mix to include 2% total trucks over 10,000 lbs. GVWR. (LHD2, MHD, HHD, OBUS, UBUS, SBUS, MH).

To be conservative, the Air Quality/GHG analysis has assumed that 2% of the total trips associated with the wine tasting will be heavy trucks with a gross vehicle weight rating (GVWR) of 10,000 pound or greater. This includes LHD2, MHD, HHD, OBUS, UBUS, and SBUS vehicles. The adjusted vehicle mix is proportioned according to the default CalEEMod vehicle mix.

4.3.2 Energy Source Emissions

Energy usage includes both direct and indirect sources of emissions. Direct sources of emissions include on-site natural gas usage (non-hearth) for heating, while indirect emissions include electricity generated by offsite power plants. Natural gas use is measured in units of a thousand British Thermal Units (kBTU) per size metric for each land use subtype and electricity use is measured in kilowatt hours (kWh) per size metric for each land use subtype.

CalEEMod divides building electricity and natural gas use into uses that are subject to Title 24 standards and those that are not. Lighting electricity usage is also calculated as a separate category in CalEEMod. For electricity, Title 24 uses include the major building envelope systems covered by Part 6 (California Energy Code) of Title 24, such as space heating, space cooling, water heating, and ventilation. Non-Title 24 uses include all other end uses, such as appliances, electronics, and other miscellaneous plug-in uses. Because some lighting is not considered as part of the building envelope energy budget, and since a separate mitigation measure is applicable to this end use, CalEEMod makes lighting a separate category.

For natural gas, uses are likewise categorized as Title 24 or Non-Title 24. Title 24 uses include building heating and hot water end uses. Non-Title 24 natural gas uses include cooking and appliances (including pool/spa heaters).

The baseline values are based on the California Energy Commission (CEC) sponsored California Commercial End Use Survey (CEUS) and Residential Appliance Saturation Survey (RASS) studies.

Table 14
Electricity and Natural Gas Usage

Land Use	Electricity Usage[1] (KWhr/yr)[2]	Natural Gas Usage[1] (KBTU/yr)[2]
Winery Production & Cellar	61,504	200,446
Wine Tasting Room	373,527	2,206,360
Boilers	0	25
Parking Lot	16,100	0
Total	**451,131**	**2,406,831**

[1] CalEEMod default estimates.

[2] KWhr/yr = Kilowatt Hours per Year
KBTU/yr = Thousand British Thermal Units per Year

4.3.3 Area Source Emissions

Area source emissions are direct sources of emissions that fall under four categories; hearths, consumer products, architectural coatings, and landscaping equipment. Per

SCAQMD rule 445, no wood burning devices are allowed in new developments; therefore, no wood hearths are included in this project.

Consumer products are various solvents used in non-industrial applications which emit ROGs during their product use. These typically include cleaning supplies, kitchen aerosols, cosmetics and toiletries.

4.3.4 Other Sources of Operational Emissions

Water. Greenhouse gas emissions are generated from the upstream energy required to supply and treat the water used on the project site. Indirect emissions from water usage are counted as part of the project's overall impact. The estimated water usage for the project is reported in Table 15 and recommendations to reduce water usage are discussed in Section 6.0.

Waste. CalEEMod calculates the indirect GHG emissions associated with waste that is disposed of at a landfill. The program uses annual waste disposal rates from the California Department of Resources Recycling and Recovery (CalRecycle) data for individual land uses. The program quantifies the GHG emissions associated with the decomposition of the waste which generates methane based on the total amount of degradable organic carbon.

The estimated waste generation by the project is reported in Table 15 and recommendations to reduce waste generation in landfills are discussed in Section 6.0

Table 15
Operational Water Usage and Waste Generation[1]

Land Use	Water Usage (gallons/year)			Waste Generation (tons/year)[1]
	Indoor	Outdoor	Total	
Winery Production & Cellar	1,433,750	-	1,433,750	7.69
Wine Tasting Room	2,455,590	156,740	2,612,330	96.27
Total	**3,889,340**	**156,740**	**4,046,080**	**103.96**

[1] CalEEMod default unmitigated estimates.

Operational Stationary Equipment. Emissions from stationary equipment used in the winery production process are included in this analysis. Emissions from one (1) CNG boiler with a rating of 0.199 MMBtu/hr are included. The boiler specifications are based on a Rheem Standard Recovery Commercial Gas Water Heater with 119-gallon tank capacity[7].

[7] The specific equipment type to be used for the project was not available at the time this analysis was prepared. Therefore, RK utilized referenced specifications from equipment used on other similar type projects.

5.0 Significance Thresholds

5.1 Air Quality Significance Thresholds

The SCAQMD has established air quality emissions thresholds for criteria air pollutants for the purposes of determining whether a project may have a significant effect on the environment per Section 15002(g) of the Guidelines for implementing CEQA, which states that a significant effect on air quality would occur if a project:

a) Conflicts with, or obstructs implementation of, the applicable air quality plan;

b) Results in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable Federal or State ambient air quality standard;

c) Exposes sensitive receptors to substantial pollutant concentrations; or

d) Results in other emissions (such as those leading to odors, adversely affecting a substantial number of people.

By complying with the thresholds of significance, the project would be in compliance with the SCAQMD Air Quality Management Plan (AQMP) and the federal and state air quality standards.

Table 16 lists the air quality significance thresholds for the six air pollutants analyzed in this report. Lead is not included as part of this analysis as the project is not expected to emit lead in any significant measurable quantity.

Table 16
SCAQMD Air Quality Significance Thresholds

Pollutant	Construction (lbs/day)	Operation (lbs/day)
NO_X	100	55
VOC	75	55
PM_{10}	150	150
$PM_{2.5}$	55	55
SO_X	150	150
CO	550	550

[1] Source: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf

5.2 Air Quality Localized Significance Thresholds

Air quality emissions were analyzed using the SCAQMD's Mass Rate Localized Significant Threshold (LST) Look-up Tables.

Table 17 lists the Localized Significance Thresholds (LST) used to determine whether a project may generate significant adverse localized air quality impacts. LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard. LSTs are developed based on the ambient concentrations of four applicable air pollutants for source receptor area (SRA) 26 – Temecula Valley.

The nearest existing sensitive receptors are located along the property line to the east of the project site, less than 25 meters from potential areas of on-site construction and operational activity. Although receptors are located closer than 25 meters to the site, SCAQMD LST methodology states that projects with boundaries located closer than 25 meters to the nearest receptor should use the LSTs for receptors located at 25 meters.

The daily disturbance area is calculated to be 1.9 acres, however LST thresholds are only based on 1, 2 and 5-acre sites. In order to be conservative, the threshold for 1-acre site is used to establish the LST thresholds.

Table 17
SCAQMD Localized Significance Thresholds[1] (LST)

Pollutant	Construction (lbs/day)	Operation (lbs/day)
NO_X	162.0	162.0
CO	750.0	750.0
PM_{10}	4.0	1.0
$PM_{2.5}$	3.0	1.0

[1] Source: SCAQMD Mass Rate Localized Significance Thresholds for 1-acre site in SRA-26 at 25 meters

5.3 GHG Significance Thresholds – County of Riverside CAP

Riverside County is the lead agency under CEQA for the proposed project, and therefore, GHG thresholds of significance are based on the adopted Riverside County Climate Action Plan (CAP). Riverside County adopted the updated CAP in November 2019 in an effort to reduce community-wide GHG emissions. The purpose of the CAP is to adopt a plan that is consistent with and complementary to the GHG emissions reduction efforts being conducted by the State of California through the Global Warming Solutions Act (AB 32).

The implementation mechanisms for the CAP are the Screening Tables for New Development. The Screening Tables allow new development projects a streamlined option for complying with CEQA requirements for addressing GHG emissions, which state that a significant effect would occur if a project:

a) Generates greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or

b) Conflicts with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of greenhouse gases.

Additionally, Riverside County's Climate Action Plan details policies to reduce emissions from municipal and community-wide sources, including emissions from existing buildings and new development. Projects have the option of preparing a project-specific technical analysis to quantify and mitigate GHG emissions.

- A threshold level above 3,000 MTCO2e per year will be used to identify projects that require the use of Screening Tables or a project-specific technical analysis to quantify and mitigate project emissions.

The screening tables are setup similar to a checklist, with points allocated to certain elements that reduce greenhouse gas emissions. If a project garners 100 points (by including enough GHG reducing elements), then the project is consistent with Riverside County's plan for reducing emissions.

Furthermore, the project will also be required to comply with several efficiency measures including compliance with Title 24 Part 11 of the California Building Standards Code (CALGreen) and Title 24 Part 6 (Energy Code) to further reduce energy usage and GHG emissions through building design and operation. The project will also be required to comply with several water and waste efficiency measures consistent with building code requirements and the County's landscaping standards and waste management agreements.

6.0 Air Quality Impact Analysis

6.1 Short Term Air Quality Impacts - Construction

6.1.1 Daily Emissions - Construction

Daily air quality emissions include both on-site and off-site emissions associated with construction of the project.

Table 18
Daily Construction Emissions

Maximum Daily Emissions (lbs/day)[1]						
Activity	**VOC**	**NO_x**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Site Preparation	1.17	12.45	7.02	0.02	3.03	1.65
Grading	1.72	31.03	13.47	0.11	6.45	2.85
Building Construction	1.64	12.16	13.95	0.03	0.97	0.62
Paving	0.97	6.27	9.42	0.02	0.51	0.34
Architectural Coating	14.73	1.23	2.03	0.00	0.14	0.08
Maximum[1]	**14.73**	**31.03**	**13.95**	**0.11**	**6.45**	**2.85**
SCAQMD Threshold	75	100	550	150	150	55
Exceeds Threshold (?)	**No**	**No**	**No**	**No**	**No**	**No**

[1] Maximum daily emission during summer or winter; includes both on-site and off-site project emissions.

The project must follow mandatory SCAQMD rules and requirements with regards to fugitive dust control, as described in Section 6.1.3. Compliance with the standard dust control measures is considered to be part of the conditions of approval for the project and built into the design features.

Table 18 shows that, the project's daily construction emissions will be below the applicable SCAQMD air quality standards and thresholds of significance. As a result, the project would not contribute substantially to an existing or projected air quality violation.

Furthermore, by complying with the SCAQMD standards, the project would not contribute to 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors).

The project's short-term construction impact on regional air resources is less than significant.

6.1.2 Localized Emissions - Construction

Table 19 illustrates the construction related localized emissions and compares the results to SCAQMD LST thresholds. As shown in Table 19, the emissions will be below the SCAQMD thresholds of significance for localized construction emissions. The project must follow all standard SCAQMD rules and requirements with regards to fugitive dust control, as described in Section 6.1.3. Compliance with the dust control is considered a standard requirement and included as part of the project's design features, not mitigation.

Table 19
Localized Construction Emissions

Maximum Daily Emissions (lbs/day)[1]				
Activity	**NOx**	**CO**	**PM_{10}**	**$PM_{2.5}$**
On-site Emissions	14.47	12.61	3.37	0.00
SCAQMD Construction Threshold[2]	162.0	750.0	4.0	3.0
Exceeds Threshold (?)	**No**	**No**	**No**	**No**

[1] Maximum unmitigated daily emission during summer or winter; includes on-site project emissions only.
[2] Reference 2006-2008 SCAQMD Mass Rate Localized Significant Thresholds for construction and operation. SRA-26, Temecula Valley, 1-acre site, receptor distance 25 meters.

The project's short-term construction impact to localized air resources is less than significant.

6.1.3 Fugitive Dust - Construction

The Project is required to comply with standard SCAQMD rules that assist in reducing short-term air pollutant emissions associated with suspended particulate matter, also known as fugitive dust. Fugitive dust emissions are commonly associated with land clearing activities, cut-and-fill grading operations, and exposure of soils to the air and wind. SCAQMD Rule 403 requires that fugitive dust is controlled with best-available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rules 402 and 403 require implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site.

To ensure full compliance with the applicable dust control standards, the following project design are recommended for the project:

DF-1 Follow the standard SCAQMD rules and requirements with regards to fugitive dust control, which includes, but are not limited to the following:

1. All active unpaved construction areas shall be watered two (2) times daily.
2. Speed on unpaved roads shall be reduced to less than 15 mph.
3. Any visible dirt deposition on any public roadway shall be swept or washed at the site access points within 30 minutes.
4. Any on-site stockpiles of debris, dirt or other dusty material shall be covered or watered twice daily.
5. All operations on any unpaved surface shall be suspended if winds exceed 15 mph.
6. Access points shall be washed or swept daily.
7. Construction sites shall be sandbagged for erosion control.
8. Cover all trucks hauling dirt, sand, soil, or other loose materials, and maintain at least 2 feet of freeboard space in accordance with the requirements of California Vehicle Code (CVC) section 23114.
9. Pave or gravel access points and use track-out grates.
10. Replace the ground cover of disturbed areas as quickly possible.

6.1.4 Odors - Construction

Heavy-duty equipment in the project area during construction will emit odors; however, the construction activity would cease to occur after individual construction is completed. The project is required to comply with Rule 402 during construction, which states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. No other sources of objectionable odors have been identified for the proposed Project.

The project impact from odor emissions is less than significant.

6.1.5 Asbestos - Construction

Asbestos is a carcinogen and is categorized as a hazardous air pollutant by the Environmental Protection Agency (EPA). Asbestos fibers imbedded within construction materials become a health hazard once they are disturbed and rendered airborne, such as through physical contact like building renovation and demolition activities. Asbestos is regulated through the National Emissions Standards for Hazardous Air Pollutants (NESHAP) and SCAQMD is the local enforcement authority for asbestos.

The project is not expected to require the demolition of existing building or structures. Therefore, the potential risk from exposure to asbestos during construction is small.

Asbestos also occurs naturally in serpentine and ultramafic rock. Based on the California Division of Mines and Geology General Location Guide for Ultramafic Rocks in California - Areas More Likely to Contain Naturally Occurring Asbestos, naturally occurring asbestos has not been shown to occur within in the vicinity of the project site. Therefore, the potential risk for naturally occurring asbestos (NOA) during project construction is small.

In the event asbestos is found on the site, the project will be required to comply with SCAQMD and NESHAP standards and protocols. SCAQMD Rule 1403 establishes the survey requirements, notification, and work practice requirements to prevent asbestos emissions during construction activities. By following the required asbestos abatement protocols, the project impact from asbestos would be less than significant.

6.1.6 Diesel Particulate Matter - Construction

The project will generate diesel particulate matter (DPM) during construction from off-road diesel equipment and trucks. The California Office of Environmental Health Hazard Assessment (OEHHA) adopted the Guidance Manual for Preparation of Health Risk Assessments (HRA Guidelines) to provide procedures for use in the Air Toxics Hot Spots Program or for the permitting of existing, new, or modified stationary sources.[8]

The HRA Guidelines provide risk factors based on exposure to toxic substances over a 30-year lifetime span. The proposed project's construction activity is not expected to be a long-term (i.e., 30 years) source of toxic air contaminant emissions and short-term risk factors have not been developed. Due the significantly reduced risk from short-term

[8] OEHHA. Air Toxics Hot Spots Program. Risk Assessment Guidelines. Guidance for Preparation of Health Risk Assessments. February 2015.

exposure, SCAQMD does not typically require the evaluation of long-term cancer risk or chronic health impacts for construction operations from a project such as the one being proposed.

The project is expected to use Tier 4 engines on all off-road diesel equipment. Tier 4 engines, along with the latest national fuel standards, have been shown to yield PM reductions of over 95% from the typical Tier 2 and Tier 3 engines.[9] Thus ensuring the potential DPM exposure to adjacent sensitive receptors is reduced to the maximum extent feasible. In addition, the following design features will help reduce diesel exhaust emissions and are recommended to be included as part of the conditions of approval.

DF-2 Construction equipment should be maintained in proper tune.

DF-3 All construction vehicles should be prohibited from excessive idling. Excessive idling is defined as five (5) minutes or longer.

DF-4 Minimize the simultaneous operation of multiple construction equipment units, to the maximum extent feasible.

DF-5 The use of heavy construction equipment and earthmoving activity should be suspended during Air Alerts when the Air Quality Index reaches the "Unhealthy" level.

DF-6 Utilize low emission "clean diesel" equipment with new or modified Tier 4 engines that include diesel oxidation catalysts, diesel particulate filters or Moyer Program retrofits that meet CARB best available control technology, when feasible.

DF-7 Establish an electricity supply to the construction site and use electric powered equipment instead of diesel-powered equipment or generators, where feasible.

DF-8 Establish staging areas for the construction equipment that as far from adjacent residential homes, as feasible.

DF-9 Use haul trucks with on-road engines instead of off-road engines for on-site hauling.

[9] EPA. Control of Emissions of Air Pollution from Nonroad Diesel Engines and Fuel; Final Rule. (40 CFR Parts 9, 69, et al.)

DF-10 Utilize zero VOC and low VOC paints and solvents, where feasible.

6.2 Long Term Air Quality Impacts - Operation

6.2.1 Daily Emissions - Operation

Long-term operational air pollutant impacts from the project are shown in Table 20. The project is not expected to exceed any of the allowable daily emissions thresholds for criteria pollutants at the regional level. CalEEMod daily emissions outputs are provided in Appendix A.

The project's daily operational emissions will be below the applicable SCAQMD air quality thresholds of significance and the project would not contribute substantially to an existing or projected air quality violation. Furthermore, by complying with the SCAQMD standards, the project would not contribute to 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors).

The project related long-term air quality impacts are less than significant.

Table 20
Daily Operational Emissions

Maximum Daily Emissions (lbs/day)[1,2]						
Activity	**VOC**	**NO_x**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Mobile Sources	2.36	1.94	16.93	0.03	3.45	0.93
Energy Sources	0.07	0.65	0.54	0.00	0.05	0.05
Area Sources	0.34	0.00	0.01	0.00	0.00	0.00
Stationary Source	0.01	0.02	0.19	0.00	0.01	0.01
Total	**2.78**	**2.61**	**17.67**	**0.03**	**3.51**	**0.99**
SCAQMD Threshold	55	55	550	150	150	55
Exceeds Threshold (?)	**No**	**No**	**No**	**No**	**No**	**No**

[1] Maximum daily emission during summer or winter; includes both on-site and off-site project emissions.
[2] Daily emissions reports are provided in Appendix A.

6.2.2 Localized Operational Emissions - Operation

Table 21 shows the localized operational emissions and compares the results to SCAQMD LST thresholds of significance. As shown in Table 21, the emissions will be below the SCAQMD thresholds of significance for localized operational emissions. **The project will result in less than significant localized operational emissions impacts.**

Table 21
Localized Operational Emissions

Maximum Daily Emissions (lbs/day)[1]				
LST Pollutants	NOx (lbs/day)	CO (lbs/day)	PM_{10} (lbs/day)	$PM_{2.5}$ (lbs/day)
On-site Emissions[1]	0.77	1.59	0.2	0.1
SCAQMD Operation Threshold[2,3]	162.0	750.0	1.0	1.0
Exceeds Threshold (?)	**No**	**No**	**No**	**No**

[1] Maximum daily emission in summer or winter.
[2] Mobile source emissions include on-site vehicle emissions only. It is estimated that approximately 5% of mobile emissions will occur on the project site.
[3] Reference: 2006-2008 SCAQMD Mass Rate Localized Significant Thresholds for construction and operation Table C-1 through C-6; SRA 26, Temecula Valley disturbance area of 1-acre and receptor distance of 25 meters.

6.2.3 Odors - Operation

Land uses that commonly receive odor complaints include agricultural uses (i.e. livestock), chemical plants, composting operations, dairies, fiberglass molding facilities, food processing plants, landfills, refineries, rail yards, and wastewater treatment plants. The proposed project does not contain land uses that would typically be associated with significant odor emissions.

The project will be required to comply with standard building code requirements related to exhaust ventilation, as well as comply with SCAQMD Rule 402. Rule 402 requires that a person may not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. Project related odors are not expected to meet the criteria of being a nuisance. **The project's operation would result in less than significant odor impacts.**

6.2.4 Toxic Air Contaminants - Operations

The project would consist of a wine tasting room with a small light industrial production component. This type of project does not include major sources of toxic air contaminants (TAC) emissions that would result in significant exposure of sensitive receptors to substantial pollutant concentrations, such as a large high-cube warehouse or other industrial type uses that would require an air permit to operate.

The project impact is considered less than significant.

6.3 Project Consistency with Local Regulations

6.3.1 South Coast Air Quality Management Plan Consistency

The project is consistent with the zoning designation, Wine Country – Winery (WC-W), for the site. As a result, the project is expected to be consistent with the growth projections in the AQMP. Additionally, air quality emissions from the project have been shown to be less than the established thresholds by SCAQMD. Therefore, the project is consistent with the AQMP.

6.3.2 General Plan Consistency

The County of Riverside General Plan Air Quality Element, Policy AQ 1.4 states that the County will coordinate with the SCAQMD and MDAQMD to ensure that all elements of air quality plans regarding reduction of air pollutant emission are being enforced. The project is located within the SCAB and therefore is required to comply with all SCAQMD rules and regulations. The applicable SCAQMD rules and regulations will be enforced as part of the conditions of approval of the project. As a result, the project is expected to be consistent with the County's General Plan requirements.

The project will not conflict with an applicable plan, policy or regulation for the purpose of reducing the emissions of criteria pollutants, and the impact is considered less than significant.

7.0 Greenhouse Gas Impact Analysis

7.1 Greenhouse Gas Emissions - Construction

Greenhouse gas emissions are estimated for on-site and off-site construction activity using CalEEMod. Table 22 shows the construction greenhouse gas emissions, including equipment and worker vehicle emissions for all phases of construction. Construction emissions are averaged over 30 years and added to the long-term operational emissions, pursuant to SCAQMD recommendations.

CalEEMod annual GHG output calculations are provided in Appendix A.

Table 22
Construction Greenhouse Gas Emissions

Activity	Emissions ($MTC0_2e$)[1]		
	On-site	Off-site	Total
Site Preparation	1.52	0.09	1.61
Grading	3.65	17.66	21.31
Building Construction	182.37	48.44	230.81
Paving	5.93	0.74	6.67
Architectural Coating	1.28	0.28	1.56
Total	194.75	67.21	261.96
Amortized over 30 years[2]	**6.49**	**2.24**	**8.73**

[1] $MTCO_2e$ = metric tons of carbon dioxide equivalents (includes carbon dioxide, methane, nitrous oxide, and/or hydrofluorocarbon).
[2] The emissions are amortized over 30 years and added to the operational emissions, pursuant to SCAQMD recommendations.

Because impacts from construction activities occur over a relatively short-term period of time, they contribute a relatively small portion of the overall lifetime project GHG emissions. By itself, the construction activities from this project are less than significant when compared to the thresholds recommended by SCAQMD. However, SCAQMD recommends that construction emissions be amortized over a 30-year project lifetime and added to the overall project operational emissions. In doing so, construction GHG emissions are included in the overall contribution of the project, as further discussed in the following section.

7.2 Greenhouse Gas Emissions - Operation

Greenhouse gas emissions are estimated for on-site and off-site operational activity using CalEEMod. Greenhouse gas emissions from mobile sources, area sources and energy sources are shown in Table 23. CalEEMod annual GHG output calculations are provided in Appendix A.

Table 23
Operational Greenhouse Gas Emissions – Unmitigated

Emission Source	GHG Emissions ($MTCO_2e$)[1]
Mobile Source	254.37
Energy Source	209.62
Area Source	0.00
Water	14.63
Waste	52.28
Stationary Source	1.33
Construction (30 year amortization)	8.73
Total Annual Emissions	**540.96**
Riverside County CAP Threshold	3,000
Exceed Riverside County CAP Threshold?	**No**

[1] $MTCO_2e$ = metric tons of carbon dioxide equivalents.

As shown in Table 23, the project GHG emissions are not expected to exceed the County's GHG emissions threshold of 3,000 $MTCO_2e$.

7.3 Project Consistency with Riverside County CAP

The Riverside County Climate Action Plan (CAP) establishes a threshold of significance of 3,000 MTCO2e for land use development projects. Projects that exceed the CAP threshold may result in a potentially significant GHG impact and would require the use of Screening Tables to mitigate the project emissions.

The screening tables are setup similar to a checklist, with points allocated to certain elements of the project that would contribute to reduced greenhouse gas emissions. If a project garners 100 points (by including enough GHG reducing elements), then the project is consistent with Riverside County's plan for reducing emissions.

Based on the results of the quantified GHG emissions analysis, the proposed project is not expected to exceed the CAP threshold of significance and it does not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of greenhouse gases. Hence, it would not be required to implement the CAP screening tables as a mitigation measure.

The project will comply with the mandatory requirements of Title 24 part 11 of the California Building Standards Code (CALGreen) and Title 24 Part 6 Building Efficiency Standards to further reduce energy usage and GHG emissions. CALGreen and building code compliance are considered part of the project's design features.

By complying with the goals and policies of the CAP, the project will also be in compliant with the broader statewide goals for combating climate change, such as those required in the CARB Scoping Plan and SB 32. The purpose of the County's CAP is to ensure compliance with the state's climate initiatives for reducing GHG emissions.

The project will not conflict with an applicable plan, policy or regulation for the purpose of reducing the emissions of greenhouse gases and the impact is considered less than significant.

Exhibits

Exhibit A

Location Map

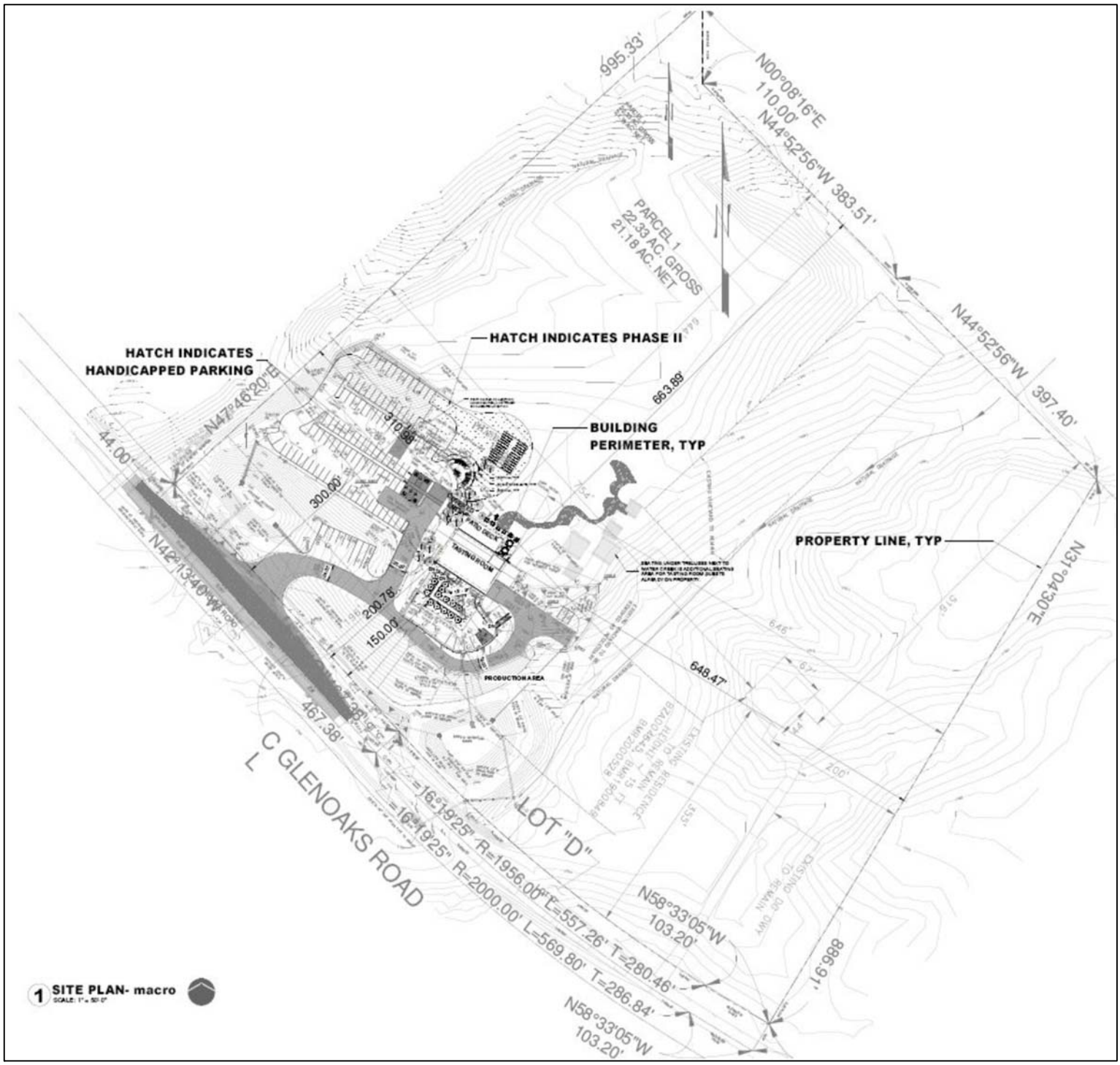
Legend:

- = Project Site Boundary
- = Project Site

N

Exhibit B

Site Plan



Appendices

Appendix A

Unmitigated Emissions Calculations Output
(CalEEMod)

AUSTIN VINEYARD CLASS V WINERY - Riverside-South Coast County, Summer

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

AUSTIN VINEYARD CLASS V WINERY

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High Turnover (Sit Down Restaurant)	8.09	1000sqft	0.19	8,092.00	0
General Light Industry	6.20	1000sqft	0.14	6,200.00	0
Parking Lot	115.00	Space	1.03	46,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Land use assumptions based on project development plan.

Construction Phase -

Grading - Project is expected to export approximately 5,000 cubic yards of earthwork during grading phase.

Trips and VMT -

Vehicle Trips - Trip Generation rates are based on the Austin Vineyard Traffic Impact Study, August 2022.

Landscape Equipment -

Fleet Mix - 2% trucks over 10,000 GVWR.

Stationary Sources - Emergency Generators and Fire Pumps -

AUSTIN VINEYARD CLASS V WINERY - Riverside-South Coast County, Summer

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

Stationary Sources - Process Boilers - Boiler Specs are based on a Rheem Standard Recovery Commercial Gas Water Heater with 119 gallon tank capacity or similar.

Construction Off-road Equipment Mitigation - Project will be required to comply with SCAQMD Rule 403 regarding fugitive dust control.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	25
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFleetMix	HHD	0.02	8.4140e-003
tblFleetMix	LDA	0.54	0.55
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LHD1	0.03	0.03
tblFleetMix	LHD2	7.1910e-003	3.2240e-003
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MDV	0.14	0.14
tblFleetMix	MH	5.1890e-003	2.3260e-003
tblFleetMix	MHD	0.01	5.1320e-003
tblFleetMix	OBUS	6.1100e-004	2.7400e-004
tblFleetMix	SBUS	1.0970e-003	4.9200e-004
tblFleetMix	UBUS	3.0900e-004	1.3900e-004
tblGrading	MaterialExported	0.00	5,000.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblStationaryBoilersUse	AnnualHeatInput	0.00	25.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	2.00
tblStationaryBoilersUse	DailyHeatInput	0.00	2.00
tblStationaryBoilersUse	NumberOfEquipment	0.00	1.00
tblVehicleTrips	ST_TR	1.99	0.69
tblVehicleTrips	ST_TR	122.40	113.82
tblVehicleTrips	SU_TR	5.00	0.69
tblVehicleTrips	SU_TR	142.64	113.82

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

tblVehicleTrips	WD_TR	4.96	4.87
tblVehicleTrips	WD_TR	112.18	25.58

2.0 Emissions Summary

AUSTIN VINEYARD CLASS V WINERY - Riverside-South Coast County, Summer

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

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	1.7186	30.1002	13.9460	0.1078	10.1261	0.7934	10.9194	4.2383	0.7368	4.9752	0.0000	11,299.1482	11,299.1482	0.7782	1.4477	11,750.0184
2024	14.7291	5.8940	9.4071	0.0152	0.1957	0.2819	0.4776	0.0519	0.2602	0.3121	0.0000	1,468.9456	1,468.9456	0.4146	3.5600e-003	1,480.3735
Maximum	**14.7291**	**30.1002**	**13.9460**	**0.1078**	**10.1261**	**0.7934**	**10.9194**	**4.2383**	**0.7368**	**4.9752**	**0.0000**	**11,299.1482**	**11,299.1482**	**0.7782**	**1.4477**	**11,750.0184**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	1.7186	30.1002	13.9460	0.1078	5.6548	0.7934	6.4482	2.1088	0.7368	2.8456	0.0000	11,299.1482	11,299.1482	0.7782	1.4477	11,750.0184
2024	14.7291	5.8940	9.4071	0.0152	0.1957	0.2819	0.4776	0.0519	0.2602	0.3121	0.0000	1,468.9456	1,468.9456	0.4146	3.5600e-003	1,480.3735
Maximum	**14.7291**	**30.1002**	**13.9460**	**0.1078**	**5.6548**	**0.7934**	**6.4482**	**2.1088**	**0.7368**	**2.8456**	**0.0000**	**11,299.1482**	**11,299.1482**	**0.7782**	**1.4477**	**11,750.0184**

AUSTIN VINEYARD CLASS V WINERY - Riverside-South Coast County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**43.32**	**0.00**	**39.23**	**49.64**	**0.00**	**40.28**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3403	1.2000e-004	0.0132	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0283	0.0283	7.0000e-005		0.0301
Energy	0.0711	0.6465	0.5430	3.8800e-003		0.0491	0.0491		0.0491	0.0491		775.7649	775.7649	0.0149	0.0142	780.3749
Mobile	2.3639	1.8320	16.9271	0.0328	3.4243	0.0233	3.4476	0.9110	0.0217	0.9328		3,388.5607	3,388.5607	0.2094	0.1547	3,439.8992
Stationary	0.0108	0.0220	0.1922	1.1800e-003		0.0149	0.0149		0.0149	0.0149		235.2981	235.2981	4.5100e-003		235.4109
Total	**2.7861**	**2.5006**	**17.6755**	**0.0379**	**3.4243**	**0.0874**	**3.5117**	**0.9110**	**0.0858**	**0.9968**		**4,399.6521**	**4,399.6521**	**0.2288**	**0.1689**	**4,455.7152**

AUSTIN VINEYARD CLASS V WINERY - Riverside-South Coast County, Summer

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	lb/day										lb/day					
Area	0.3403	1.2000e-004	0.0132	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0283	0.0283	7.0000e-005		0.0301
Energy	0.0711	0.6465	0.5430	3.8800e-003		0.0491	0.0491		0.0491	0.0491		775.7649	775.7649	0.0149	0.0142	780.3749
Mobile	2.3639	1.8320	16.9271	0.0328	3.4243	0.0233	3.4476	0.9110	0.0217	0.9328		3,388.5607	3,388.5607	0.2094	0.1547	3,439.8992
Stationary	0.0108	0.0220	0.1922	1.1800e-003		0.0149	0.0149		0.0149	0.0149		235.2981	235.2981	4.5100e-003		235.4109
Total	**2.7861**	**2.5006**	**17.6755**	**0.0379**	**3.4243**	**0.0874**	**3.5117**	**0.9110**	**0.0858**	**0.9968**		**4,399.6521**	**4,399.6521**	**0.2288**	**0.1689**	**4,455.7152**

	ROG	NOx	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	3/4/2023	3/7/2023	5	2	
2	Grading	Grading	3/8/2023	3/13/2023	5	4	
3	Building Construction	Building Construction	3/14/2023	12/18/2023	5	200	
4	Paving	Paving	12/19/2023	1/1/2024	5	10	

5	Architectural Coating	Architectural Coating	1/2/2024	1/15/2024	5	10	

Acres of Grading (Site Preparation Phase): 1.88

Acres of Grading (Grading Phase): 4

Acres of Paving: 1.03

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 21,438; Non-Residential Outdoor: 7,146; Striped Parking Area: 2,760 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
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
Grading	Graders	1	8.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
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
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

AUSTIN VINEYARD CLASS V WINERY - Riverside-South Coast County, Summer

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

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	625.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	25.00	10.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2662	0.0000	6.2662	3.0041	0.0000	3.0041			0.0000			0.0000
Off-Road	1.1339	12.4250	6.6420	0.0172		0.5074	0.5074		0.4668	0.4668		1,666.0573	1,666.0573	0.5388		1,679.5282
Total	**1.1339**	**12.4250**	**6.6420**	**0.0172**	**6.2662**	**0.5074**	**6.7736**	**3.0041**	**0.4668**	**3.4709**		**1,666.0573**	**1,666.0573**	**0.5388**		**1,679.5282**

AUSTIN VINEYARD CLASS V WINERY - Riverside-South Coast County, Summer

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

3.2 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0349	0.0231	0.3828	1.0500e-003	0.1204	5.5000e-004	0.1210	0.0319	5.1000e-004	0.0324		107.8807	107.8807	2.1700e-003	2.3600e-003	108.6397
Total	**0.0349**	**0.0231**	**0.3828**	**1.0500e-003**	**0.1204**	**5.5000e-004**	**0.1210**	**0.0319**	**5.1000e-004**	**0.0324**		**107.8807**	**107.8807**	**2.1700e-003**	**2.3600e-003**	**108.6397**

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					2.3968	0.0000	2.3968	1.1491	0.0000	1.1491			0.0000			0.0000
Off-Road	1.1339	12.4250	6.6420	0.0172		0.5074	0.5074		0.4668	0.4668	0.0000	1,666.0573	1,666.0573	0.5388		1,679.5282
Total	**1.1339**	**12.4250**	**6.6420**	**0.0172**	**2.3968**	**0.5074**	**2.9042**	**1.1491**	**0.4668**	**1.6159**	**0.0000**	**1,666.0573**	**1,666.0573**	**0.5388**		**1,679.5282**

AUSTIN VINEYARD CLASS V WINERY - Riverside-South Coast County, Summer

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

3.2 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0349	0.0231	0.3828	1.0500e-003	0.1204	5.5000e-004	0.1210	0.0319	5.1000e-004	0.0324		107.8807	107.8807	2.1700e-003	2.3600e-003	108.6397
Total	**0.0349**	**0.0231**	**0.3828**	**1.0500e-003**	**0.1204**	**5.5000e-004**	**0.1210**	**0.0319**	**5.1000e-004**	**0.0324**		**107.8807**	**107.8807**	**2.1700e-003**	**2.3600e-003**	**108.6397**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.2409	0.0000	7.2409	3.4487	0.0000	3.4487			0.0000			0.0000
Off-Road	1.3330	14.4676	8.7038	0.0206		0.6044	0.6044		0.5560	0.5560		1,995.6147	1,995.6147	0.6454		2,011.7503
Total	**1.3330**	**14.4676**	**8.7038**	**0.0206**	**7.2409**	**0.6044**	**7.8452**	**3.4487**	**0.5560**	**4.0047**		**1,995.6147**	**1,995.6147**	**0.6454**		**2,011.7503**

AUSTIN VINEYARD CLASS V WINERY - Riverside-South Coast County, Summer

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

3.3 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3419	15.6037	4.2908	0.0859	2.7347	0.1883	2.9230	0.7497	0.1802	0.9299		9,168.6826	9,168.6826	0.1301	1.4448	9,602.4685
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	0.0436	0.0288	0.4785	1.3200e-003	0.1505	6.9000e-004	0.1512	0.0399	6.4000e-004	0.0406		134.8509	134.8509	2.7200e-003	2.9600e-003	135.7997
Total	**0.3855**	**15.6326**	**4.7693**	**0.0872**	**2.8852**	**0.1890**	**3.0742**	**0.7896**	**0.1808**	**0.9705**		**9,303.5334**	**9,303.5334**	**0.1328**	**1.4477**	**9,738.2681**

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					2.7696	0.0000	2.7696	1.3191	0.0000	1.3191			0.0000			0.0000
Off-Road	1.3330	14.4676	8.7038	0.0206		0.6044	0.6044		0.5560	0.5560	0.0000	1,995.6147	1,995.6147	0.6454		2,011.7503
Total	**1.3330**	**14.4676**	**8.7038**	**0.0206**	**2.7696**	**0.6044**	**3.3740**	**1.3191**	**0.5560**	**1.8751**	**0.0000**	**1,995.6147**	**1,995.6147**	**0.6454**		**2,011.7503**

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

3.3 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3419	15.6037	4.2908	0.0859	2.7347	0.1883	2.9230	0.7497	0.1802	0.9299		9,168.6826	9,168.6826	0.1301	1.4448	9,602.4685
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	0.0436	0.0288	0.4785	1.3200e-003	0.1505	6.9000e-004	0.1512	0.0399	6.4000e-004	0.0406		134.8509	134.8509	2.7200e-003	2.9600e-003	135.7997
Total	**0.3855**	**15.6326**	**4.7693**	**0.0872**	**2.8852**	**0.1890**	**3.0742**	**0.7896**	**0.1808**	**0.9705**		**9,303.5334**	**9,303.5334**	**0.1328**	**1.4477**	**9,738.2681**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968		2,001.7877	2,001.7877	0.3399		2,010.2858
Total	**1.5233**	**11.7104**	**12.6111**	**0.0221**		**0.5145**	**0.5145**		**0.4968**	**0.4968**		**2,001.7877**	**2,001.7877**	**0.3399**		**2,010.2858**

AUSTIN VINEYARD CLASS V WINERY - Riverside-South Coast County, Summer

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

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0118	0.3560	0.1388	1.9800e-003	0.0733	3.2500e-003	0.0765	0.0211	3.1100e-003	0.0242		209.4790	209.4790	2.0900e-003	0.0309	218.7475
Worker	0.1090	0.0720	1.1962	3.2900e-003	0.3763	1.7300e-003	0.3780	0.0998	1.5900e-003	0.1014		337.1271	337.1271	6.8000e-003	7.3900e-003	339.4991
Total	**0.1208**	**0.4281**	**1.3349**	**5.2700e-003**	**0.4496**	**4.9800e-003**	**0.4546**	**0.1209**	**4.7000e-003**	**0.1256**		**546.6061**	**546.6061**	**8.8900e-003**	**0.0383**	**558.2467**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968	0.0000	2,001.7877	2,001.7877	0.3399		2,010.2858
Total	**1.5233**	**11.7104**	**12.6111**	**0.0221**		**0.5145**	**0.5145**		**0.4968**	**0.4968**	**0.0000**	**2,001.7877**	**2,001.7877**	**0.3399**		**2,010.2858**

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

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0118	0.3560	0.1388	1.9800e-003	0.0733	3.2500e-003	0.0765	0.0211	3.1100e-003	0.0242		209.4790	209.4790	2.0900e-003	0.0309	218.7475
Worker	0.1090	0.0720	1.1962	3.2900e-003	0.3763	1.7300e-003	0.3780	0.0998	1.5900e-003	0.1014		337.1271	337.1271	6.8000e-003	7.3900e-003	339.4991
Total	**0.1208**	**0.4281**	**1.3349**	**5.2700e-003**	**0.4496**	**4.9800e-003**	**0.4546**	**0.1209**	**4.7000e-003**	**0.1256**		**546.6061**	**546.6061**	**8.8900e-003**	**0.0383**	**558.2467**

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6446	6.2357	8.8024	0.0136		0.3084	0.3084		0.2846	0.2846		1,297.6880	1,297.6880	0.4114		1,307.9725
Paving	0.2699					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9145**	**6.2357**	**8.8024**	**0.0136**		**0.3084**	**0.3084**		**0.2846**	**0.2846**		**1,297.6880**	**1,297.6880**	**0.4114**		**1,307.9725**

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

3.5 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0567	0.0375	0.6220	1.7100e-003	0.1957	9.0000e-004	0.1966	0.0519	8.3000e-004	0.0527		175.3061	175.3061	3.5300e-003	3.8400e-003	176.5396
Total	**0.0567**	**0.0375**	**0.6220**	**1.7100e-003**	**0.1957**	**9.0000e-004**	**0.1966**	**0.0519**	**8.3000e-004**	**0.0527**		**175.3061**	**175.3061**	**3.5300e-003**	**3.8400e-003**	**176.5396**

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	0.6446	6.2357	8.8024	0.0136		0.3084	0.3084		0.2846	0.2846	0.0000	1,297.6880	1,297.6880	0.4114		1,307.9725
Paving	0.2699					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9145**	**6.2357**	**8.8024**	**0.0136**		**0.3084**	**0.3084**		**0.2846**	**0.2846**	**0.0000**	**1,297.6880**	**1,297.6880**	**0.4114**		**1,307.9725**

AUSTIN VINEYARD CLASS V WINERY - Riverside-South Coast County, Summer

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

3.5 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0567	0.0375	0.6220	1.7100e-003	0.1957	9.0000e-004	0.1966	0.0519	8.3000e-004	0.0527		175.3061	175.3061	3.5300e-003	3.8400e-003	176.5396
Total	**0.0567**	**0.0375**	**0.6220**	**1.7100e-003**	**0.1957**	**9.0000e-004**	**0.1966**	**0.0519**	**8.3000e-004**	**0.0527**		**175.3061**	**175.3061**	**3.5300e-003**	**3.8400e-003**	**176.5396**

3.5 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6180	5.8607	8.8253	0.0136		0.2810	0.2810		0.2594	0.2594		1,297.8688	1,297.8688	0.4114		1,308.1547
Paving	0.2699					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8878**	**5.8607**	**8.8253**	**0.0136**		**0.2810**	**0.2810**		**0.2594**	**0.2594**		**1,297.8688**	**1,297.8688**	**0.4114**		**1,308.1547**

AUSTIN VINEYARD CLASS V WINERY - Riverside-South Coast County, Summer

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

3.5 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0529	0.0333	0.5818	1.6600e-003	0.1957	8.6000e-004	0.1965	0.0519	7.9000e-004	0.0527		171.0768	171.0768	3.1900e-003	3.5600e-003	172.2188
Total	**0.0529**	**0.0333**	**0.5818**	**1.6600e-003**	**0.1957**	**8.6000e-004**	**0.1965**	**0.0519**	**7.9000e-004**	**0.0527**		**171.0768**	**171.0768**	**3.1900e-003**	**3.5600e-003**	**172.2188**

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	0.6180	5.8607	8.8253	0.0136		0.2810	0.2810		0.2594	0.2594	0.0000	1,297.8688	1,297.8688	0.4114		1,308.1547
Paving	0.2699					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8878**	**5.8607**	**8.8253**	**0.0136**		**0.2810**	**0.2810**		**0.2594**	**0.2594**	**0.0000**	**1,297.8688**	**1,297.8688**	**0.4114**		**1,308.1547**

AUSTIN VINEYARD CLASS V WINERY - Riverside-South Coast County, Summer

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

3.5 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0529	0.0333	0.5818	1.6600e-003	0.1957	8.6000e-004	0.1965	0.0519	7.9000e-004	0.0527		171.0768	171.0768	3.1900e-003	3.5600e-003	172.2188
Total	**0.0529**	**0.0333**	**0.5818**	**1.6600e-003**	**0.1957**	**8.6000e-004**	**0.1965**	**0.0519**	**7.9000e-004**	**0.0527**		**171.0768**	**171.0768**	**3.1900e-003**	**3.5600e-003**	**172.2188**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	14.5279					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**14.7087**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

AUSTIN VINEYARD CLASS V WINERY - Riverside-South Coast County, Summer

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

3.6 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0204	0.0128	0.2238	6.4000e-004	0.0753	3.3000e-004	0.0756	0.0200	3.0000e-004	0.0203		65.7988	65.7988	1.2300e-003	1.3700e-003	66.2380
Total	**0.0204**	**0.0128**	**0.2238**	**6.4000e-004**	**0.0753**	**3.3000e-004**	**0.0756**	**0.0200**	**3.0000e-004**	**0.0203**		**65.7988**	**65.7988**	**1.2300e-003**	**1.3700e-003**	**66.2380**

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	14.5279					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**14.7087**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

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

3.6 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0204	0.0128	0.2238	6.4000e-004	0.0753	3.3000e-004	0.0756	0.0200	3.0000e-004	0.0203		65.7988	65.7988	1.2300e-003	1.3700e-003	66.2380
Total	**0.0204**	**0.0128**	**0.2238**	**6.4000e-004**	**0.0753**	**3.3000e-004**	**0.0756**	**0.0200**	**3.0000e-004**	**0.0203**		**65.7988**	**65.7988**	**1.2300e-003**	**1.3700e-003**	**66.2380**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

AUSTIN VINEYARD CLASS V WINERY - Riverside-South Coast County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.3639	1.8320	16.9271	0.0328	3.4243	0.0233	3.4476	0.9110	0.0217	0.9328		3,388.5607	3,388.5607	0.2094	0.1547	3,439.8992
Unmitigated	2.3639	1.8320	16.9271	0.0328	3.4243	0.0233	3.4476	0.9110	0.0217	0.9328		3,388.5607	3,388.5607	0.2094	0.1547	3,439.8992

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	30.19	4.28	4.28	114,277	114,277
High Turnover (Sit Down Restaurant)	206.99	921.03	921.03	659,659	659,659
Parking Lot	0.00	0.00	0.00		
Total	237.19	925.31	925.31	773,936	773,936

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
General Light Industry	18.50	10.10	7.90	59.00	28.00	13.00	92	5	3
High Turnover (Sit Down	18.50	10.10	7.90	8.50	72.50	19.00	37	20	43
Parking Lot	18.50	10.10	7.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
High Turnover (Sit Down Restaurant)	0.551701	0.057673	0.177647	0.141970	0.026573	0.003224	0.005132	0.008414	0.000274	0.000139	0.024435	0.000492	0.002326

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

Parking Lot	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0711	0.6465	0.5430	3.8800e-003		0.0491	0.0491		0.0491	0.0491		775.7649	775.7649	0.0149	0.0142	780.3749
NaturalGas Unmitigated	0.0711	0.6465	0.5430	3.8800e-003		0.0491	0.0491		0.0491	0.0491		775.7649	775.7649	0.0149	0.0142	780.3749

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					
General Light Industry	549.167	5.9200e-003	0.0538	0.0452	3.2000e-004		4.0900e-003	4.0900e-003		4.0900e-003	4.0900e-003		64.6079	64.6079	1.2400e-003	1.1800e-003	64.9918
High Turnover (Sit Down Restaurant)	6044.83	0.0652	0.5926	0.4978	3.5600e-003		0.0450	0.0450		0.0450	0.0450		711.1570	711.1570	0.0136	0.0130	715.3831
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0711**	**0.6465**	**0.5430**	**3.8800e-003**		**0.0491**	**0.0491**		**0.0491**	**0.0491**		**775.7649**	**775.7649**	**0.0149**	**0.0142**	**780.3749**

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					
General Light Industry	0.549167	5.9200e-003	0.0538	0.0452	3.2000e-004		4.0900e-003	4.0900e-003		4.0900e-003	4.0900e-003		64.6079	64.6079	1.2400e-003	1.1800e-003	64.9918
High Turnover (Sit Down Restaurant)	6.04483	0.0652	0.5926	0.4978	3.5600e-003		0.0450	0.0450		0.0450	0.0450		711.1570	711.1570	0.0136	0.0130	715.3831
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0711**	**0.6465**	**0.5430**	**3.8800e-003**		**0.0491**	**0.0491**		**0.0491**	**0.0491**		**775.7649**	**775.7649**	**0.0149**	**0.0142**	**780.3749**

6.0 Area Detail

6.1 Mitigation Measures Area

AUSTIN VINEYARD CLASS V WINERY - Riverside-South Coast County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3403	1.2000e-004	0.0132	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0283	0.0283	7.0000e-005		0.0301
Unmitigated	0.3403	1.2000e-004	0.0132	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0283	0.0283	7.0000e-005		0.0301

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	0.0398					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2993					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.2200e-003	1.2000e-004	0.0132	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0283	0.0283	7.0000e-005		0.0301
Total	**0.3403**	**1.2000e-004**	**0.0132**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**		**0.0283**	**0.0283**	**7.0000e-005**		**0.0301**

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	0.0398					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2993					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.2200e-003	1.2000e-004	0.0132	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0283	0.0283	7.0000e-005		0.0301
Total	**0.3403**	**1.2000e-004**	**0.0132**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**		**0.0283**	**0.0283**	**7.0000e-005**		**0.0301**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
Boiler	1	2	25	2	CNG

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	lb/day										lb/day					
Boiler - CNG (2 - 5 MMBTU)	0.0108	0.0220	0.1922	1.1800e-003		0.0149	0.0149		0.0149	0.0149		235.2981	235.2981	4.5100e-003		235.4109
Total	**0.0108**	**0.0220**	**0.1922**	**1.1800e-003**		**0.0149**	**0.0149**		**0.0149**	**0.0149**		**235.2981**	**235.2981**	**4.5100e-003**		**235.4109**

11.0 Vegetation

AUSTIN VINEYARD CLASS V WINERY - Riverside-South Coast County, Winter

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

AUSTIN VINEYARD CLASS V WINERY

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High Turnover (Sit Down Restaurant)	8.09	1000sqft	0.19	8,092.00	0
General Light Industry	6.20	1000sqft	0.14	6,200.00	0
Parking Lot	115.00	Space	1.03	46,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Land use assumptions based on project development plan.

Construction Phase -

Grading - Project is expected to export approximately 5,000 cubic yards of earthwork during grading phase.

Trips and VMT -

Vehicle Trips - Trip Generation rates are based on the Austin Vineyard Traffic Impact Study, August 2022.

Landscape Equipment -

Fleet Mix - 2% trucks over 10,000 GVWR.

Stationary Sources - Emergency Generators and Fire Pumps -

AUSTIN VINEYARD CLASS V WINERY - Riverside-South Coast County, Winter

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

Stationary Sources - Process Boilers - Boiler Specs are based on a Rheem Standard Recovery Commercial Gas Water Heater with 119 gallon tank capacity or similar.

Construction Off-road Equipment Mitigation - Project will be required to comply with SCAQMD Rule 403 regarding fugitive dust control.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	25
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFleetMix	HHD	0.02	8.4140e-003
tblFleetMix	LDA	0.54	0.55
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LHD1	0.03	0.03
tblFleetMix	LHD2	7.1910e-003	3.2240e-003
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MDV	0.14	0.14
tblFleetMix	MH	5.1890e-003	2.3260e-003
tblFleetMix	MHD	0.01	5.1320e-003
tblFleetMix	OBUS	6.1100e-004	2.7400e-004
tblFleetMix	SBUS	1.0970e-003	4.9200e-004
tblFleetMix	UBUS	3.0900e-004	1.3900e-004
tblGrading	MaterialExported	0.00	5,000.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblStationaryBoilersUse	AnnualHeatInput	0.00	25.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	2.00
tblStationaryBoilersUse	DailyHeatInput	0.00	2.00
tblStationaryBoilersUse	NumberOfEquipment	0.00	1.00
tblVehicleTrips	ST_TR	1.99	0.69
tblVehicleTrips	ST_TR	122.40	113.82
tblVehicleTrips	SU_TR	5.00	0.69
tblVehicleTrips	SU_TR	142.64	113.82

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

tblVehicleTrips	WD_TR	4.96	4.87
tblVehicleTrips	WD_TR	112.18	25.58

2.0 Emissions Summary

AUSTIN VINEYARD CLASS V WINERY - Riverside-South Coast 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					
2023	1.6892	31.0310	13.7129	0.1078	10.1261	0.7936	10.9197	4.2383	0.7371	4.9754	0.0000	11,300.7769	11,300.7769	0.7768	1.4500	11,752.3082
2024	14.7283	5.8952	9.2916	0.0151	0.1957	0.2819	0.4776	0.0519	0.2602	0.3121	0.0000	1,452.8502	1,452.8502	0.4146	3.6500e-003	1,464.3002
Maximum	**14.7283**	**31.0310**	**13.7129**	**0.1078**	**10.1261**	**0.7936**	**10.9197**	**4.2383**	**0.7371**	**4.9754**	**0.0000**	**11,300.7769**	**11,300.7769**	**0.7768**	**1.4500**	**11,752.3082**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	1.6892	31.0310	13.7129	0.1078	5.6548	0.7936	6.4485	2.1088	0.7371	2.8458	0.0000	11,300.7769	11,300.7769	0.7768	1.4500	11,752.3082
2024	14.7283	5.8952	9.2916	0.0151	0.1957	0.2819	0.4776	0.0519	0.2602	0.3121	0.0000	1,452.8502	1,452.8502	0.4146	3.6500e-003	1,464.3002
Maximum	**14.7283**	**31.0310**	**13.7129**	**0.1078**	**5.6548**	**0.7936**	**6.4485**	**2.1088**	**0.7371**	**2.8458**	**0.0000**	**11,300.7769**	**11,300.7769**	**0.7768**	**1.4500**	**11,752.3082**

AUSTIN VINEYARD CLASS V WINERY - Riverside-South Coast County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**43.32**	**0.00**	**39.23**	**49.64**	**0.00**	**40.28**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3403	1.2000e-004	0.0132	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0283	0.0283	7.0000e-005		0.0301
Energy	0.0711	0.6465	0.5430	3.8800e-003		0.0491	0.0491		0.0491	0.0491		775.7649	775.7649	0.0149	0.0142	780.3749
Mobile	1.9379	1.9412	15.4905	0.0303	3.4243	0.0233	3.4476	0.9110	0.0218	0.9328		3,133.0511	3,133.0511	0.2208	0.1588	3,185.8821
Stationary	0.0108	0.0220	0.1922	1.1800e-003		0.0149	0.0149		0.0149	0.0149		235.2981	235.2981	4.5100e-003		235.4109
Total	**2.3601**	**2.6098**	**16.2389**	**0.0354**	**3.4243**	**0.0874**	**3.5117**	**0.9110**	**0.0858**	**0.9969**		**4,144.1424**	**4,144.1424**	**0.2402**	**0.1730**	**4,201.6980**

AUSTIN VINEYARD CLASS V WINERY - Riverside-South Coast County, Winter

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	lb/day										lb/day					
Area	0.3403	1.2000e-004	0.0132	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0283	0.0283	7.0000e-005		0.0301
Energy	0.0711	0.6465	0.5430	3.8800e-003		0.0491	0.0491		0.0491	0.0491		775.7649	775.7649	0.0149	0.0142	780.3749
Mobile	1.9379	1.9412	15.4905	0.0303	3.4243	0.0233	3.4476	0.9110	0.0218	0.9328		3,133.0511	3,133.0511	0.2208	0.1588	3,185.8821
Stationary	0.0108	0.0220	0.1922	1.1800e-003		0.0149	0.0149		0.0149	0.0149		235.2981	235.2981	4.5100e-003		235.4109
Total	**2.3601**	**2.6098**	**16.2389**	**0.0354**	**3.4243**	**0.0874**	**3.5117**	**0.9110**	**0.0858**	**0.9969**		**4,144.1424**	**4,144.1424**	**0.2402**	**0.1730**	**4,201.6980**

	ROG	NOx	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	3/4/2023	3/7/2023	5	2	
2	Grading	Grading	3/8/2023	3/13/2023	5	4	
3	Building Construction	Building Construction	3/14/2023	12/18/2023	5	200	
4	Paving	Paving	12/19/2023	1/1/2024	5	10	

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

5	Architectural Coating	Architectural Coating	1/2/2024	1/15/2024	5	10	

Acres of Grading (Site Preparation Phase): 1.88

Acres of Grading (Grading Phase): 4

Acres of Paving: 1.03

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 21,438; Non-Residential Outdoor: 7,146; Striped Parking Area: 2,760 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
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
Grading	Graders	1	8.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
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
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

AUSTIN VINEYARD CLASS V WINERY - Riverside-South Coast County, Winter

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

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	625.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	25.00	10.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2662	0.0000	6.2662	3.0041	0.0000	3.0041			0.0000			0.0000
Off-Road	1.1339	12.4250	6.6420	0.0172		0.5074	0.5074		0.4668	0.4668		1,666.0573	1,666.0573	0.5388		1,679.5282
Total	**1.1339**	**12.4250**	**6.6420**	**0.0172**	**6.2662**	**0.5074**	**6.7736**	**3.0041**	**0.4668**	**3.4709**		**1,666.0573**	**1,666.0573**	**0.5388**		**1,679.5282**

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

3.2 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0335	0.0239	0.3068	9.5000e-004	0.1204	5.5000e-004	0.1210	0.0319	5.1000e-004	0.0324		97.7126	97.7126	2.1200e-003	2.4200e-003	98.4864
Total	**0.0335**	**0.0239**	**0.3068**	**9.5000e-004**	**0.1204**	**5.5000e-004**	**0.1210**	**0.0319**	**5.1000e-004**	**0.0324**		**97.7126**	**97.7126**	**2.1200e-003**	**2.4200e-003**	**98.4864**

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					2.3968	0.0000	2.3968	1.1491	0.0000	1.1491			0.0000			0.0000
Off-Road	1.1339	12.4250	6.6420	0.0172		0.5074	0.5074		0.4668	0.4668	0.0000	1,666.0573	1,666.0573	0.5388		1,679.5282
Total	**1.1339**	**12.4250**	**6.6420**	**0.0172**	**2.3968**	**0.5074**	**2.9042**	**1.1491**	**0.4668**	**1.6159**	**0.0000**	**1,666.0573**	**1,666.0573**	**0.5388**		**1,679.5282**

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

3.2 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0335	0.0239	0.3068	9.5000e-004	0.1204	5.5000e-004	0.1210	0.0319	5.1000e-004	0.0324		97.7126	97.7126	2.1200e-003	2.4200e-003	98.4864
Total	**0.0335**	**0.0239**	**0.3068**	**9.5000e-004**	**0.1204**	**5.5000e-004**	**0.1210**	**0.0319**	**5.1000e-004**	**0.0324**		**97.7126**	**97.7126**	**2.1200e-003**	**2.4200e-003**	**98.4864**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.2409	0.0000	7.2409	3.4487	0.0000	3.4487			0.0000			0.0000
Off-Road	1.3330	14.4676	8.7038	0.0206		0.6044	0.6044		0.5560	0.5560		1,995.6147	1,995.6147	0.6454		2,011.7503
Total	**1.3330**	**14.4676**	**8.7038**	**0.0206**	**7.2409**	**0.6044**	**7.8452**	**3.4487**	**0.5560**	**4.0047**		**1,995.6147**	**1,995.6147**	**0.6454**		**2,011.7503**

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

3.3 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3143	16.5335	4.3812	0.0860	2.7347	0.1886	2.9233	0.7497	0.1804	0.9302		9,183.0215	9,183.0215	0.1287	1.4470	9,617.4500
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	0.0418	0.0299	0.3834	1.1900e-003	0.1505	6.9000e-004	0.1512	0.0399	6.4000e-004	0.0406		122.1407	122.1407	2.6500e-003	3.0200e-003	123.1080
Total	**0.3561**	**16.5634**	**4.7646**	**0.0872**	**2.8852**	**0.1893**	**3.0745**	**0.7896**	**0.1811**	**0.9707**		**9,305.1622**	**9,305.1622**	**0.1314**	**1.4500**	**9,740.5579**

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					2.7696	0.0000	2.7696	1.3191	0.0000	1.3191			0.0000			0.0000
Off-Road	1.3330	14.4676	8.7038	0.0206		0.6044	0.6044		0.5560	0.5560	0.0000	1,995.6147	1,995.6147	0.6454		2,011.7503
Total	**1.3330**	**14.4676**	**8.7038**	**0.0206**	**2.7696**	**0.6044**	**3.3740**	**1.3191**	**0.5560**	**1.8751**	**0.0000**	**1,995.6147**	**1,995.6147**	**0.6454**		**2,011.7503**

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

3.3 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3143	16.5335	4.3812	0.0860	2.7347	0.1886	2.9233	0.7497	0.1804	0.9302		9,183.0215	9,183.0215	0.1287	1.4470	9,617.4500
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	0.0418	0.0299	0.3834	1.1900e-003	0.1505	6.9000e-004	0.1512	0.0399	6.4000e-004	0.0406		122.1407	122.1407	2.6500e-003	3.0200e-003	123.1080
Total	**0.3561**	**16.5634**	**4.7646**	**0.0872**	**2.8852**	**0.1893**	**3.0745**	**0.7896**	**0.1811**	**0.9707**		**9,305.1622**	**9,305.1622**	**0.1314**	**1.4500**	**9,740.5579**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968		2,001.7877	2,001.7877	0.3399		2,010.2858
Total	**1.5233**	**11.7104**	**12.6111**	**0.0221**		**0.5145**	**0.5145**		**0.4968**	**0.4968**		**2,001.7877**	**2,001.7877**	**0.3399**		**2,010.2858**

AUSTIN VINEYARD CLASS V WINERY - Riverside-South Coast County, Winter

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

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0110	0.3774	0.1432	1.9800e-003	0.0733	3.2600e-003	0.0766	0.0211	3.1200e-003	0.0242		209.9388	209.9388	2.0600e-003	0.0310	219.2342
Worker	0.1046	0.0747	0.9586	2.9800e-003	0.3763	1.7300e-003	0.3780	0.0998	1.5900e-003	0.1014		305.3518	305.3518	6.6200e-003	7.5600e-003	307.7700
Total	**0.1156**	**0.4521**	**1.1018**	**4.9600e-003**	**0.4496**	**4.9900e-003**	**0.4546**	**0.1209**	**4.7100e-003**	**0.1256**		**515.2905**	**515.2905**	**8.6800e-003**	**0.0386**	**527.0042**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968	0.0000	2,001.7877	2,001.7877	0.3399		2,010.2858
Total	**1.5233**	**11.7104**	**12.6111**	**0.0221**		**0.5145**	**0.5145**		**0.4968**	**0.4968**	**0.0000**	**2,001.7877**	**2,001.7877**	**0.3399**		**2,010.2858**

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

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0110	0.3774	0.1432	1.9800e-003	0.0733	3.2600e-003	0.0766	0.0211	3.1200e-003	0.0242		209.9388	209.9388	2.0600e-003	0.0310	219.2342
Worker	0.1046	0.0747	0.9586	2.9800e-003	0.3763	1.7300e-003	0.3780	0.0998	1.5900e-003	0.1014		305.3518	305.3518	6.6200e-003	7.5600e-003	307.7700
Total	**0.1156**	**0.4521**	**1.1018**	**4.9600e-003**	**0.4496**	**4.9900e-003**	**0.4546**	**0.1209**	**4.7100e-003**	**0.1256**		**515.2905**	**515.2905**	**8.6800e-003**	**0.0386**	**527.0042**

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6446	6.2357	8.8024	0.0136		0.3084	0.3084		0.2846	0.2846		1,297.6880	1,297.6880	0.4114		1,307.9725
Paving	0.2699					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9145**	**6.2357**	**8.8024**	**0.0136**		**0.3084**	**0.3084**		**0.2846**	**0.2846**		**1,297.6880**	**1,297.6880**	**0.4114**		**1,307.9725**

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

3.5 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0544	0.0389	0.4985	1.5500e-003	0.1957	9.0000e-004	0.1966	0.0519	8.3000e-004	0.0527		158.7829	158.7829	3.4400e-003	3.9300e-003	160.0404
Total	**0.0544**	**0.0389**	**0.4985**	**1.5500e-003**	**0.1957**	**9.0000e-004**	**0.1966**	**0.0519**	**8.3000e-004**	**0.0527**		**158.7829**	**158.7829**	**3.4400e-003**	**3.9300e-003**	**160.0404**

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	0.6446	6.2357	8.8024	0.0136		0.3084	0.3084		0.2846	0.2846	0.0000	1,297.6880	1,297.6880	0.4114		1,307.9725
Paving	0.2699					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9145**	**6.2357**	**8.8024**	**0.0136**		**0.3084**	**0.3084**		**0.2846**	**0.2846**	**0.0000**	**1,297.6880**	**1,297.6880**	**0.4114**		**1,307.9725**

AUSTIN VINEYARD CLASS V WINERY - Riverside-South Coast County, Winter

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

3.5 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0544	0.0389	0.4985	1.5500e-003	0.1957	9.0000e-004	0.1966	0.0519	8.3000e-004	0.0527		158.7829	158.7829	3.4400e-003	3.9300e-003	160.0404
Total	**0.0544**	**0.0389**	**0.4985**	**1.5500e-003**	**0.1957**	**9.0000e-004**	**0.1966**	**0.0519**	**8.3000e-004**	**0.0527**		**158.7829**	**158.7829**	**3.4400e-003**	**3.9300e-003**	**160.0404**

3.5 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6180	5.8607	8.8253	0.0136		0.2810	0.2810		0.2594	0.2594		1,297.8688	1,297.8688	0.4114		1,308.1547
Paving	0.2699					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8878**	**5.8607**	**8.8253**	**0.0136**		**0.2810**	**0.2810**		**0.2594**	**0.2594**		**1,297.8688**	**1,297.8688**	**0.4114**		**1,308.1547**

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

3.5 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0509	0.0345	0.4663	1.5000e-003	0.1957	8.6000e-004	0.1965	0.0519	7.9000e-004	0.0527		154.9814	154.9814	3.1100e-003	3.6500e-003	156.1455
Total	**0.0509**	**0.0345**	**0.4663**	**1.5000e-003**	**0.1957**	**8.6000e-004**	**0.1965**	**0.0519**	**7.9000e-004**	**0.0527**		**154.9814**	**154.9814**	**3.1100e-003**	**3.6500e-003**	**156.1455**

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	0.6180	5.8607	8.8253	0.0136		0.2810	0.2810		0.2594	0.2594	0.0000	1,297.8688	1,297.8688	0.4114		1,308.1547
Paving	0.2699					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8878**	**5.8607**	**8.8253**	**0.0136**		**0.2810**	**0.2810**		**0.2594**	**0.2594**	**0.0000**	**1,297.8688**	**1,297.8688**	**0.4114**		**1,308.1547**

AUSTIN VINEYARD CLASS V WINERY - Riverside-South Coast County, Winter

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

3.5 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0509	0.0345	0.4663	1.5000e-003	0.1957	8.6000e-004	0.1965	0.0519	7.9000e-004	0.0527		154.9814	154.9814	3.1100e-003	3.6500e-003	156.1455
Total	**0.0509**	**0.0345**	**0.4663**	**1.5000e-003**	**0.1957**	**8.6000e-004**	**0.1965**	**0.0519**	**7.9000e-004**	**0.0527**		**154.9814**	**154.9814**	**3.1100e-003**	**3.6500e-003**	**156.1455**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	14.5279					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**14.7087**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

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

3.6 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0196	0.0133	0.1794	5.8000e-004	0.0753	3.3000e-004	0.0756	0.0200	3.0000e-004	0.0203		59.6082	59.6082	1.2000e-003	1.4000e-003	60.0560
Total	**0.0196**	**0.0133**	**0.1794**	**5.8000e-004**	**0.0753**	**3.3000e-004**	**0.0756**	**0.0200**	**3.0000e-004**	**0.0203**		**59.6082**	**59.6082**	**1.2000e-003**	**1.4000e-003**	**60.0560**

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	14.5279					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**14.7087**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.6 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0196	0.0133	0.1794	5.8000e-004	0.0753	3.3000e-004	0.0756	0.0200	3.0000e-004	0.0203		59.6082	59.6082	1.2000e-003	1.4000e-003	60.0560
Total	**0.0196**	**0.0133**	**0.1794**	**5.8000e-004**	**0.0753**	**3.3000e-004**	**0.0756**	**0.0200**	**3.0000e-004**	**0.0203**		**59.6082**	**59.6082**	**1.2000e-003**	**1.4000e-003**	**60.0560**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

AUSTIN VINEYARD CLASS V WINERY - Riverside-South Coast County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.9379	1.9412	15.4905	0.0303	3.4243	0.0233	3.4476	0.9110	0.0218	0.9328		3,133.0511	3,133.0511	0.2208	0.1588	3,185.8821
Unmitigated	1.9379	1.9412	15.4905	0.0303	3.4243	0.0233	3.4476	0.9110	0.0218	0.9328		3,133.0511	3,133.0511	0.2208	0.1588	3,185.8821

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	30.19	4.28	4.28	114,277	114,277
High Turnover (Sit Down Restaurant)	206.99	921.03	921.03	659,659	659,659
Parking Lot	0.00	0.00	0.00		
Total	237.19	925.31	925.31	773,936	773,936

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
General Light Industry	18.50	10.10	7.90	59.00	28.00	13.00	92	5	3
High Turnover (Sit Down	18.50	10.10	7.90	8.50	72.50	19.00	37	20	43
Parking Lot	18.50	10.10	7.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
High Turnover (Sit Down Restaurant)	0.551701	0.057673	0.177647	0.141970	0.026573	0.003224	0.005132	0.008414	0.000274	0.000139	0.024435	0.000492	0.002326

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

Parking Lot	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0711	0.6465	0.5430	3.8800e-003		0.0491	0.0491		0.0491	0.0491		775.7649	775.7649	0.0149	0.0142	780.3749
NaturalGas Unmitigated	0.0711	0.6465	0.5430	3.8800e-003		0.0491	0.0491		0.0491	0.0491		775.7649	775.7649	0.0149	0.0142	780.3749

AUSTIN VINEYARD CLASS V WINERY - Riverside-South Coast 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					
General Light Industry	549.167	5.9200e-003	0.0538	0.0452	3.2000e-004		4.0900e-003	4.0900e-003		4.0900e-003	4.0900e-003		64.6079	64.6079	1.2400e-003	1.1800e-003	64.9918
High Turnover (Sit Down Restaurant)	6044.83	0.0652	0.5926	0.4978	3.5600e-003		0.0450	0.0450		0.0450	0.0450		711.1570	711.1570	0.0136	0.0130	715.3831
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0711**	**0.6465**	**0.5430**	**3.8800e-003**		**0.0491**	**0.0491**		**0.0491**	**0.0491**		**775.7649**	**775.7649**	**0.0149**	**0.0142**	**780.3749**

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					
General Light Industry	0.549167	5.9200e-003	0.0538	0.0452	3.2000e-004		4.0900e-003	4.0900e-003		4.0900e-003	4.0900e-003		64.6079	64.6079	1.2400e-003	1.1800e-003	64.9918
High Turnover (Sit Down Restaurant)	6.04483	0.0652	0.5926	0.4978	3.5600e-003		0.0450	0.0450		0.0450	0.0450		711.1570	711.1570	0.0136	0.0130	715.3831
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0711**	**0.6465**	**0.5430**	**3.8800e-003**		**0.0491**	**0.0491**		**0.0491**	**0.0491**		**775.7649**	**775.7649**	**0.0149**	**0.0142**	**780.3749**

6.0 Area Detail

6.1 Mitigation Measures Area

AUSTIN VINEYARD CLASS V WINERY - Riverside-South Coast County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3403	1.2000e-004	0.0132	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0283	0.0283	7.0000e-005		0.0301
Unmitigated	0.3403	1.2000e-004	0.0132	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0283	0.0283	7.0000e-005		0.0301

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	0.0398					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2993					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.2200e-003	1.2000e-004	0.0132	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0283	0.0283	7.0000e-005		0.0301
Total	**0.3403**	**1.2000e-004**	**0.0132**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**		**0.0283**	**0.0283**	**7.0000e-005**		**0.0301**

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	0.0398					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2993					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.2200e-003	1.2000e-004	0.0132	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0283	0.0283	7.0000e-005		0.0301
Total	**0.3403**	**1.2000e-004**	**0.0132**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**		**0.0283**	**0.0283**	**7.0000e-005**		**0.0301**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
Boiler	1	2	25	2	CNG

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	lb/day										lb/day					
Boiler - CNG (2 - 5 MMBTU)	0.0108	0.0220	0.1922	1.1800e-003		0.0149	0.0149		0.0149	0.0149		235.2981	235.2981	4.5100e-003		235.4109
Total	**0.0108**	**0.0220**	**0.1922**	**1.1800e-003**		**0.0149**	**0.0149**		**0.0149**	**0.0149**		**235.2981**	**235.2981**	**4.5100e-003**		**235.4109**

11.0 Vegetation

AUSTIN VINEYARD CLASS V WINERY - Riverside-South Coast County, Annual

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

AUSTIN VINEYARD CLASS V WINERY

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High Turnover (Sit Down Restaurant)	8.09	1000sqft	0.19	8,092.00	0
General Light Industry	6.20	1000sqft	0.14	6,200.00	0
Parking Lot	115.00	Space	1.03	46,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Land use assumptions based on project development plan.

Construction Phase -

Grading - Project is expected to export approximately 5,000 cubic yards of earthwork during grading phase.

Trips and VMT -

Vehicle Trips - Trip Generation rates are based on the Austin Vineyard Traffic Impact Study, August 2022.

Landscape Equipment -

Fleet Mix - 2% trucks over 10,000 GVWR.

Stationary Sources - Emergency Generators and Fire Pumps -

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Stationary Sources - Process Boilers - Boiler Specs are based on a Rheem Standard Recovery Commercial Gas Water Heater with 119 gallon tank capacity or similar.

Construction Off-road Equipment Mitigation - Project will be required to comply with SCAQMD Rule 403 regarding fugitive dust control.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	25
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFleetMix	HHD	0.02	8.4140e-003
tblFleetMix	LDA	0.54	0.55
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LHD1	0.03	0.03
tblFleetMix	LHD2	7.1910e-003	3.2240e-003
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MDV	0.14	0.14
tblFleetMix	MH	5.1890e-003	2.3260e-003
tblFleetMix	MHD	0.01	5.1320e-003
tblFleetMix	OBUS	6.1100e-004	2.7400e-004
tblFleetMix	SBUS	1.0970e-003	4.9200e-004
tblFleetMix	UBUS	3.0900e-004	1.3900e-004
tblGrading	MaterialExported	0.00	5,000.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblStationaryBoilersUse	AnnualHeatInput	0.00	25.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	2.00
tblStationaryBoilersUse	DailyHeatInput	0.00	2.00
tblStationaryBoilersUse	NumberOfEquipment	0.00	1.00
tblVehicleTrips	ST_TR	1.99	0.69
tblVehicleTrips	ST_TR	122.40	113.82
tblVehicleTrips	SU_TR	5.00	0.69
tblVehicleTrips	SU_TR	142.64	113.82

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tblVehicleTrips	WD_TR	4.96	4.87
tblVehicleTrips	WD_TR	112.18	25.58

2.0 Emissions Summary

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2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1722	1.3187	1.4524	3.0100e-003	0.0717	0.0554	0.1271	0.0236	0.0534	0.0770	0.0000	257.0253	257.0253	0.0352	6.1600e-003	259.7408
2024	0.0741	9.1100e-003	0.0147	3.0000e-005	4.7000e-004	4.5000e-004	9.1000e-004	1.2000e-004	4.4000e-004	5.6000e-004	0.0000	2.2140	2.2140	2.7000e-004	1.0000e-005	2.2230
Maximum	**0.1722**	**1.3187**	**1.4524**	**3.0100e-003**	**0.0717**	**0.0554**	**0.1271**	**0.0236**	**0.0534**	**0.0770**	**0.0000**	**257.0253**	**257.0253**	**0.0352**	**6.1600e-003**	**259.7408**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1722	1.3187	1.4524	3.0100e-003	0.0588	0.0554	0.1143	0.0175	0.0534	0.0709	0.0000	257.0250	257.0250	0.0352	6.1600e-003	259.7406
2024	0.0741	9.1100e-003	0.0147	3.0000e-005	4.7000e-004	4.5000e-004	9.1000e-004	1.2000e-004	4.4000e-004	5.6000e-004	0.0000	2.2140	2.2140	2.7000e-004	1.0000e-005	2.2230
Maximum	**0.1722**	**1.3187**	**1.4524**	**3.0100e-003**	**0.0588**	**0.0554**	**0.1143**	**0.0175**	**0.0534**	**0.0709**	**0.0000**	**257.0250**	**257.0250**	**0.0352**	**6.1600e-003**	**259.7406**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**17.76**	**0.00**	**10.01**	**25.73**	**0.00**	**7.88**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**2-6-2023**	**5-5-2023**	0.3506	0.3506
2	**5-6-2023**	**8-5-2023**	0.4529	0.4529
3	**8-6-2023**	**11-5-2023**	0.4531	0.4531
4	**11-6-2023**	**2-5-2024**	0.3278	0.3278
		Highest	0.4531	0.4531

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	0.0620	1.0000e-005	1.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.2100e-003	3.2100e-003	1.0000e-005	0.0000	3.4200e-003
Energy	0.0130	0.1180	0.0991	7.1000e-004		8.9700e-003	8.9700e-003		8.9700e-003	8.9700e-003	0.0000	208.4426	208.4426	9.2100e-003	3.1700e-003	209.6186
Mobile	0.1649	0.1686	1.3556	2.6700e-003	0.2912	2.0200e-003	0.2932	0.0776	1.8900e-003	0.0795	0.0000	250.2319	250.2319	0.0169	0.0125	254.3686
Stationary	7.0000e-005	1.4000e-004	1.2000e-003	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.3341	1.3341	3.0000e-005	0.0000	1.3348
Waste						0.0000	0.0000		0.0000	0.0000	21.1029	0.0000	21.1029	1.2472	0.0000	52.2816
Water						0.0000	0.0000		0.0000	0.0000	1.2339	9.2902	10.5241	0.1275	3.0900e-003	14.6321
Total	**0.2399**	**0.2867**	**1.4575**	**3.3900e-003**	**0.2912**	**0.0111**	**0.3023**	**0.0776**	**0.0110**	**0.0885**	**22.3369**	**469.3020**	**491.6388**	**1.4008**	**0.0187**	**532.2390**

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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	0.0620	1.0000e-005	1.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.2100e-003	3.2100e-003	1.0000e-005	0.0000	3.4200e-003
Energy	0.0130	0.1180	0.0991	7.1000e-004		8.9700e-003	8.9700e-003		8.9700e-003	8.9700e-003	0.0000	208.4426	208.4426	9.2100e-003	3.1700e-003	209.6186
Mobile	0.1649	0.1686	1.3556	2.6700e-003	0.2912	2.0200e-003	0.2932	0.0776	1.8900e-003	0.0795	0.0000	250.2319	250.2319	0.0169	0.0125	254.3686
Stationary	7.0000e-005	1.4000e-004	1.2000e-003	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.3341	1.3341	3.0000e-005	0.0000	1.3348
Waste						0.0000	0.0000		0.0000	0.0000	21.1029	0.0000	21.1029	1.2472	0.0000	52.2816
Water						0.0000	0.0000		0.0000	0.0000	1.2339	9.2902	10.5241	0.1275	3.0900e-003	14.6321
Total	**0.2399**	**0.2867**	**1.4575**	**3.3900e-003**	**0.2912**	**0.0111**	**0.3023**	**0.0776**	**0.0110**	**0.0885**	**22.3369**	**469.3020**	**491.6388**	**1.4008**	**0.0187**	**532.2390**

	ROG	NOx	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	3/4/2023	3/7/2023	5	2	
2	Grading	Grading	3/8/2023	3/13/2023	5	4	

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3	Building Construction	Building Construction	3/14/2023	12/18/2023	5	200	
4	Paving	Paving	12/19/2023	1/1/2024	5	10	
5	Architectural Coating	Architectural Coating	1/2/2024	1/15/2024	5	10	

Acres of Grading (Site Preparation Phase): 1.88

Acres of Grading (Grading Phase): 4

Acres of Paving: 1.03

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 21,438; Non-Residential Outdoor: 7,146; Striped Parking Area: 2,760 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
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
Grading	Graders	1	8.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
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
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

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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	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	625.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	25.00	10.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	19.80	7.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

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3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					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	1.1300e-003	0.0124	6.6400e-003	2.0000e-005		5.1000e-004	5.1000e-004		4.7000e-004	4.7000e-004	0.0000	1.5114	1.5114	4.9000e-004	0.0000	1.5236
Total	**1.1300e-003**	**0.0124**	**6.6400e-003**	**2.0000e-005**	**6.2700e-003**	**5.1000e-004**	**6.7800e-003**	**3.0000e-003**	**4.7000e-004**	**3.4700e-003**	**0.0000**	**1.5114**	**1.5114**	**4.9000e-004**	**0.0000**	**1.5236**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	3.2000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0907	0.0907	0.0000	0.0000	0.0914
Total	**3.0000e-005**	**2.0000e-005**	**3.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0907**	**0.0907**	**0.0000**	**0.0000**	**0.0914**

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3.2 Site Preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.4000e-003	0.0000	2.4000e-003	1.1500e-003	0.0000	1.1500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1300e-003	0.0124	6.6400e-003	2.0000e-005		5.1000e-004	5.1000e-004		4.7000e-004	4.7000e-004	0.0000	1.5114	1.5114	4.9000e-004	0.0000	1.5236
Total	**1.1300e-003**	**0.0124**	**6.6400e-003**	**2.0000e-005**	**2.4000e-003**	**5.1000e-004**	**2.9100e-003**	**1.1500e-003**	**4.7000e-004**	**1.6200e-003**	**0.0000**	**1.5114**	**1.5114**	**4.9000e-004**	**0.0000**	**1.5236**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	3.2000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0907	0.0907	0.0000	0.0000	0.0914
Total	**3.0000e-005**	**2.0000e-005**	**3.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0907**	**0.0907**	**0.0000**	**0.0000**	**0.0914**

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3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0145	0.0000	0.0145	6.9000e-003	0.0000	6.9000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6700e-003	0.0289	0.0174	4.0000e-005		1.2100e-003	1.2100e-003		1.1100e-003	1.1100e-003	0.0000	3.6208	3.6208	1.1700e-003	0.0000	3.6501
Total	**2.6700e-003**	**0.0289**	**0.0174**	**4.0000e-005**	**0.0145**	**1.2100e-003**	**0.0157**	**6.9000e-003**	**1.1100e-003**	**8.0100e-003**	**0.0000**	**3.6208**	**3.6208**	**1.1700e-003**	**0.0000**	**3.6501**

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	6.6000e-004	0.0329	8.6600e-003	1.7000e-004	5.3900e-003	3.8000e-004	5.7700e-003	1.4800e-003	3.6000e-004	1.8400e-003	0.0000	16.6463	16.6463	2.3000e-004	2.6200e-003	17.4339
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	6.0000e-005	8.1000e-004	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2268	0.2268	0.0000	1.0000e-005	0.2286
Total	**7.4000e-004**	**0.0330**	**9.4700e-003**	**1.7000e-004**	**5.6900e-003**	**3.8000e-004**	**6.0700e-003**	**1.5600e-003**	**3.6000e-004**	**1.9200e-003**	**0.0000**	**16.8731**	**16.8731**	**2.3000e-004**	**2.6300e-003**	**17.6624**

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3.3 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.5400e-003	0.0000	5.5400e-003	2.6400e-003	0.0000	2.6400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6700e-003	0.0289	0.0174	4.0000e-005		1.2100e-003	1.2100e-003		1.1100e-003	1.1100e-003	0.0000	3.6208	3.6208	1.1700e-003	0.0000	3.6501
Total	**2.6700e-003**	**0.0289**	**0.0174**	**4.0000e-005**	**5.5400e-003**	**1.2100e-003**	**6.7500e-003**	**2.6400e-003**	**1.1100e-003**	**3.7500e-003**	**0.0000**	**3.6208**	**3.6208**	**1.1700e-003**	**0.0000**	**3.6501**

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	6.6000e-004	0.0329	8.6600e-003	1.7000e-004	5.3900e-003	3.8000e-004	5.7700e-003	1.4800e-003	3.6000e-004	1.8400e-003	0.0000	16.6463	16.6463	2.3000e-004	2.6200e-003	17.4339
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	6.0000e-005	8.1000e-004	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2268	0.2268	0.0000	1.0000e-005	0.2286
Total	**7.4000e-004**	**0.0330**	**9.4700e-003**	**1.7000e-004**	**5.6900e-003**	**3.8000e-004**	**6.0700e-003**	**1.5600e-003**	**3.6000e-004**	**1.9200e-003**	**0.0000**	**16.8731**	**16.8731**	**2.3000e-004**	**2.6300e-003**	**17.6624**

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

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1523	1.1710	1.2611	2.2100e-003		0.0515	0.0515		0.0497	0.0497	0.0000	181.5991	181.5991	0.0308	0.0000	182.3701
Total	**0.1523**	**1.1710**	**1.2611**	**2.2100e-003**		**0.0515**	**0.0515**		**0.0497**	**0.0497**	**0.0000**	**181.5991**	**181.5991**	**0.0308**	**0.0000**	**182.3701**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1400e-003	0.0374	0.0141	2.0000e-004	7.2300e-003	3.3000e-004	7.5500e-003	2.0900e-003	3.1000e-004	2.4000e-003	0.0000	19.0212	19.0212	1.9000e-004	2.8100e-003	19.8633
Worker	9.8300e-003	7.6800e-003	0.1013	3.1000e-004	0.0370	1.7000e-004	0.0372	9.8200e-003	1.6000e-004	9.9800e-003	0.0000	28.3480	28.3480	6.1000e-004	7.0000e-004	28.5718
Total	**0.0110**	**0.0451**	**0.1154**	**5.1000e-004**	**0.0442**	**5.0000e-004**	**0.0447**	**0.0119**	**4.7000e-004**	**0.0124**	**0.0000**	**47.3692**	**47.3692**	**8.0000e-004**	**3.5100e-003**	**48.4351**

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

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1523	1.1710	1.2611	2.2100e-003		0.0515	0.0515		0.0497	0.0497	0.0000	181.5989	181.5989	0.0308	0.0000	182.3698
Total	**0.1523**	**1.1710**	**1.2611**	**2.2100e-003**		**0.0515**	**0.0515**		**0.0497**	**0.0497**	**0.0000**	**181.5989**	**181.5989**	**0.0308**	**0.0000**	**182.3698**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1400e-003	0.0374	0.0141	2.0000e-004	7.2300e-003	3.3000e-004	7.5500e-003	2.0900e-003	3.1000e-004	2.4000e-003	0.0000	19.0212	19.0212	1.9000e-004	2.8100e-003	19.8633
Worker	9.8300e-003	7.6800e-003	0.1013	3.1000e-004	0.0370	1.7000e-004	0.0372	9.8200e-003	1.6000e-004	9.9800e-003	0.0000	28.3480	28.3480	6.1000e-004	7.0000e-004	28.5718
Total	**0.0110**	**0.0451**	**0.1154**	**5.1000e-004**	**0.0442**	**5.0000e-004**	**0.0447**	**0.0119**	**4.7000e-004**	**0.0124**	**0.0000**	**47.3692**	**47.3692**	**8.0000e-004**	**3.5100e-003**	**48.4351**

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

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.9000e-003	0.0281	0.0396	6.0000e-005		1.3900e-003	1.3900e-003		1.2800e-003	1.2800e-003	0.0000	5.2976	5.2976	1.6800e-003	0.0000	5.3396
Paving	1.2100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.1100e-003**	**0.0281**	**0.0396**	**6.0000e-005**		**1.3900e-003**	**1.3900e-003**		**1.2800e-003**	**1.2800e-003**	**0.0000**	**5.2976**	**5.2976**	**1.6800e-003**	**0.0000**	**5.3396**

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	2.3000e-004	1.8000e-004	2.3700e-003	1.0000e-005	8.7000e-004	0.0000	8.7000e-004	2.3000e-004	0.0000	2.3000e-004	0.0000	0.6633	0.6633	1.0000e-005	2.0000e-005	0.6686
Total	**2.3000e-004**	**1.8000e-004**	**2.3700e-003**	**1.0000e-005**	**8.7000e-004**	**0.0000**	**8.7000e-004**	**2.3000e-004**	**0.0000**	**2.3000e-004**	**0.0000**	**0.6633**	**0.6633**	**1.0000e-005**	**2.0000e-005**	**0.6686**

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

3.5 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.9000e-003	0.0281	0.0396	6.0000e-005		1.3900e-003	1.3900e-003		1.2800e-003	1.2800e-003	0.0000	5.2976	5.2976	1.6800e-003	0.0000	5.3396
Paving	1.2100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.1100e-003**	**0.0281**	**0.0396**	**6.0000e-005**		**1.3900e-003**	**1.3900e-003**		**1.2800e-003**	**1.2800e-003**	**0.0000**	**5.2976**	**5.2976**	**1.6800e-003**	**0.0000**	**5.3396**

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	2.3000e-004	1.8000e-004	2.3700e-003	1.0000e-005	8.7000e-004	0.0000	8.7000e-004	2.3000e-004	0.0000	2.3000e-004	0.0000	0.6633	0.6633	1.0000e-005	2.0000e-005	0.6686
Total	**2.3000e-004**	**1.8000e-004**	**2.3700e-003**	**1.0000e-005**	**8.7000e-004**	**0.0000**	**8.7000e-004**	**2.3000e-004**	**0.0000**	**2.3000e-004**	**0.0000**	**0.6633**	**0.6633**	**1.0000e-005**	**2.0000e-005**	**0.6686**

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

3.5 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.1000e-004	2.9300e-003	4.4100e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.3000e-004	1.3000e-004	0.0000	0.5887	0.5887	1.9000e-004	0.0000	0.5934
Paving	1.3000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.4000e-004**	**2.9300e-003**	**4.4100e-003**	**1.0000e-005**		**1.4000e-004**	**1.4000e-004**		**1.3000e-004**	**1.3000e-004**	**0.0000**	**0.5887**	**0.5887**	**1.9000e-004**	**0.0000**	**0.5934**

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	2.5000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0719	0.0719	0.0000	0.0000	0.0725
Total	**2.0000e-005**	**2.0000e-005**	**2.5000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0719**	**0.0719**	**0.0000**	**0.0000**	**0.0725**

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

3.5 Paving - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.1000e-004	2.9300e-003	4.4100e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.3000e-004	1.3000e-004	0.0000	0.5887	0.5887	1.9000e-004	0.0000	0.5934
Paving	1.3000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.4000e-004**	**2.9300e-003**	**4.4100e-003**	**1.0000e-005**		**1.4000e-004**	**1.4000e-004**		**1.3000e-004**	**1.3000e-004**	**0.0000**	**0.5887**	**0.5887**	**1.9000e-004**	**0.0000**	**0.5934**

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	2.5000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0719	0.0719	0.0000	0.0000	0.0725
Total	**2.0000e-005**	**2.0000e-005**	**2.5000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0719**	**0.0719**	**0.0000**	**0.0000**	**0.0725**

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

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0726					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0000e-004	6.0900e-003	9.0500e-003	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784
Total	**0.0735**	**6.0900e-003**	**9.0500e-003**	**1.0000e-005**		**3.0000e-004**	**3.0000e-004**		**3.0000e-004**	**3.0000e-004**	**0.0000**	**1.2766**	**1.2766**	**7.0000e-005**	**0.0000**	**1.2784**

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	7.0000e-005	9.5000e-004	0.0000	3.7000e-004	0.0000	3.7000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2767	0.2767	1.0000e-005	1.0000e-005	0.2788
Total	**9.0000e-005**	**7.0000e-005**	**9.5000e-004**	**0.0000**	**3.7000e-004**	**0.0000**	**3.7000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.2767**	**0.2767**	**1.0000e-005**	**1.0000e-005**	**0.2788**

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3.6 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0726					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0000e-004	6.0900e-003	9.0500e-003	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784
Total	**0.0735**	**6.0900e-003**	**9.0500e-003**	**1.0000e-005**		**3.0000e-004**	**3.0000e-004**		**3.0000e-004**	**3.0000e-004**	**0.0000**	**1.2766**	**1.2766**	**7.0000e-005**	**0.0000**	**1.2784**

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	7.0000e-005	9.5000e-004	0.0000	3.7000e-004	0.0000	3.7000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2767	0.2767	1.0000e-005	1.0000e-005	0.2788
Total	**9.0000e-005**	**7.0000e-005**	**9.5000e-004**	**0.0000**	**3.7000e-004**	**0.0000**	**3.7000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.2767**	**0.2767**	**1.0000e-005**	**1.0000e-005**	**0.2788**

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	tons/yr										MT/yr					
Mitigated	0.1649	0.1686	1.3556	2.6700e-003	0.2912	2.0200e-003	0.2932	0.0776	1.8900e-003	0.0795	0.0000	250.2319	250.2319	0.0169	0.0125	254.3686
Unmitigated	0.1649	0.1686	1.3556	2.6700e-003	0.2912	2.0200e-003	0.2932	0.0776	1.8900e-003	0.0795	0.0000	250.2319	250.2319	0.0169	0.0125	254.3686

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	30.19	4.28	4.28	114,277	114,277
High Turnover (Sit Down Restaurant)	206.99	921.03	921.03	659,659	659,659
Parking Lot	0.00	0.00	0.00		
Total	237.19	925.31	925.31	773,936	773,936

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
General Light Industry	18.50	10.10	7.90	59.00	28.00	13.00	92	5	3
High Turnover (Sit Down	18.50	10.10	7.90	8.50	72.50	19.00	37	20	43
Parking Lot	18.50	10.10	7.90	0.00	0.00	0.00	0	0	0

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4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
High Turnover (Sit Down Restaurant)	0.551701	0.057673	0.177647	0.141970	0.026573	0.003224	0.005132	0.008414	0.000274	0.000139	0.024435	0.000492	0.002326
Parking Lot	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189

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	80.0060	80.0060	6.7500e-003	8.2000e-004	80.4188
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	80.0060	80.0060	6.7500e-003	8.2000e-004	80.4188
NaturalGas Mitigated	0.0130	0.1180	0.0991	7.1000e-004		8.9700e-003	8.9700e-003		8.9700e-003	8.9700e-003	0.0000	128.4366	128.4366	2.4600e-003	2.3500e-003	129.1998
NaturalGas Unmitigated	0.0130	0.1180	0.0991	7.1000e-004		8.9700e-003	8.9700e-003		8.9700e-003	8.9700e-003	0.0000	128.4366	128.4366	2.4600e-003	2.3500e-003	129.1998

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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					
General Light Industry	200446	1.0800e-003	9.8300e-003	8.2500e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	10.6966	10.6966	2.1000e-004	2.0000e-004	10.7601
High Turnover (Sit Down Restaurant)	2.20636e+006	0.0119	0.1082	0.0909	6.5000e-004		8.2200e-003	8.2200e-003		8.2200e-003	8.2200e-003	0.0000	117.7400	117.7400	2.2600e-003	2.1600e-003	118.4397
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
Total		**0.0130**	**0.1180**	**0.0991**	**7.1000e-004**		**8.9700e-003**	**8.9700e-003**		**8.9700e-003**	**8.9700e-003**	**0.0000**	**128.4366**	**128.4366**	**2.4700e-003**	**2.3600e-003**	**129.1998**

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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					
General Light Industry	200446	1.0800e-003	9.8300e-003	8.2500e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	10.6966	10.6966	2.1000e-004	2.0000e-004	10.7601
High Turnover (Sit Down Restaurant)	2.20636e+006	0.0119	0.1082	0.0909	6.5000e-004		8.2200e-003	8.2200e-003		8.2200e-003	8.2200e-003	0.0000	117.7400	117.7400	2.2600e-003	2.1600e-003	118.4397
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
Total		**0.0130**	**0.1180**	**0.0991**	**7.1000e-004**		**8.9700e-003**	**8.9700e-003**		**8.9700e-003**	**8.9700e-003**	**0.0000**	**128.4366**	**128.4366**	**2.4700e-003**	**2.3600e-003**	**129.1998**

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	61504	10.9075	9.2000e-004	1.1000e-004	10.9637
High Turnover (Sit Down Restaurant)	373527	66.2433	5.5900e-003	6.8000e-004	66.5850
Parking Lot	16100	2.8553	2.4000e-004	3.0000e-005	2.8700
Total		**80.0060**	**6.7500e-003**	**8.2000e-004**	**80.4188**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	61504	10.9075	9.2000e-004	1.1000e-004	10.9637
High Turnover (Sit Down Restaurant)	373527	66.2433	5.5900e-003	6.8000e-004	66.5850
Parking Lot	16100	2.8553	2.4000e-004	3.0000e-005	2.8700
Total		**80.0060**	**6.7500e-003**	**8.2000e-004**	**80.4188**

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	tons/yr										MT/yr					
Mitigated	0.0620	1.0000e-005	1.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.2100e-003	3.2100e-003	1.0000e-005	0.0000	3.4200e-003
Unmitigated	0.0620	1.0000e-005	1.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.2100e-003	3.2100e-003	1.0000e-005	0.0000	3.4200e-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	7.2600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0546					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.5000e-004	1.0000e-005	1.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.2100e-003	3.2100e-003	1.0000e-005	0.0000	3.4200e-003
Total	**0.0620**	**1.0000e-005**	**1.6500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.2100e-003**	**3.2100e-003**	**1.0000e-005**	**0.0000**	**3.4200e-003**

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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	7.2600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0546					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.5000e-004	1.0000e-005	1.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.2100e-003	3.2100e-003	1.0000e-005	0.0000	3.4200e-003
Total	**0.0620**	**1.0000e-005**	**1.6500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.2100e-003**	**3.2100e-003**	**1.0000e-005**	**0.0000**	**3.4200e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	10.5241	0.1275	3.0900e-003	14.6321
Unmitigated	10.5241	0.1275	3.0900e-003	14.6321

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	1.43375 / 0	3.7657	0.0470	1.1400e-003	5.2795
High Turnover (Sit Down Restaurant)	2.45559 / 0.15674	6.7584	0.0805	1.9500e-003	9.3526
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**10.5241**	**0.1275**	**3.0900e-003**	**14.6321**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	1.43375 / 0	3.7657	0.0470	1.1400e-003	5.2795
High Turnover (Sit Down Restaurant)	2.45559 / 0.15674	6.7584	0.0805	1.9500e-003	9.3526
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**10.5241**	**0.1275**	**3.0900e-003**	**14.6321**

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	21.1029	1.2472	0.0000	52.2816
Unmitigated	21.1029	1.2472	0.0000	52.2816

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	7.69	1.5610	0.0923	0.0000	3.8673
High Turnover (Sit Down Restaurant)	96.27	19.5419	1.1549	0.0000	48.4143
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**21.1029**	**1.2472**	**0.0000**	**52.2816**

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			
General Light Industry	7.69	1.5610	0.0923	0.0000	3.8673
High Turnover (Sit Down Restaurant)	96.27	19.5419	1.1549	0.0000	48.4143
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**21.1029**	**1.2472**	**0.0000**	**52.2816**

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
Boiler	1	2	25	2	CNG

User Defined Equipment

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Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Boiler - CNG (2 - 5 MMBTU)	7.0000e-005	1.4000e-004	1.2000e-003	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.3341	1.3341	3.0000e-005	0.0000	1.3348
Total	**7.0000e-005**	**1.4000e-004**	**1.2000e-003**	**1.0000e-005**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**	**0.0000**	**1.3341**	**1.3341**	**3.0000e-005**	**0.0000**	**1.3348**

11.0 Vegetation