Appendix

Appendix A Air Quality and Greenhouse Gas Analyses

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Air Quality and Greenhouse Gas Appendix

Air Quality and Greenhouse Gas Background and Modeling Data

AIR QUALITY

Climate/Meteorology

SOUTH COAST AIR BASIN

The project site lies in the South Coast Air Basin (SoCAB), which includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The SoCAB is in a coastal plain with connecting broad valleys and low hills and is bounded by the Pacific Ocean in the southwest quadrant, with high mountains forming the remainder of the perimeter. The general region lies in the semi-permanent high-pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. This usually mild weather pattern is interrupted infrequently by periods of extremely hot weather, winter storms, and Santa Ana winds (South Coast AQMD 2005).

Temperature and Precipitation

The annual average temperature varies little throughout the SoCAB, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The climatological station nearest to the project site with temperature data is the Montebello, California Monitoring Station (ID No. 045790). The lowest average temperature is reported at 47.2°F in December, and the highest average temperature is 89.7°F in August (WRCC 2021).

In contrast to a very steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all rain falls from October through April. Summer rainfall is normally restricted to widely scattered thundershowers near the coast, with slightly heavier shower activity in the east and over the mountains. Rainfall historically averages 14.78 inches per year in the project area (WRCC 2021).

Humidity

Although the SoCAB has a semiarid climate, the air near the earth's surface is typically moist because of the presence of a shallow marine layer. Except for infrequent periods when dry, continental air is brought into the SoCAB by offshore winds, the "ocean effect" is dominant. Periods of heavy fog, especially along the coast, are frequent. Low clouds, often referred to as high fog, are a characteristic climatic feature. Annual average humidity is 70 percent at the coast and 57 percent in the eastern portions of the (South Coast AQMD 2005).

Wind

Wind patterns across the south coastal region are characterized by westerly or southwesterly onshore winds during the day and by easterly or northeasterly breezes at night. Wind speed is somewhat greater during the dry summer months than during the rainy winter season.

Between periods of wind, periods of air stagnation may occur, both in the morning and evening hours. Air stagnation is one of the critical determinants of air quality conditions on any given day. During the winter and fall months, surface high-pressure systems over the SoCAB, combined with other meteorological conditions, can result in very strong, downslope Santa Ana winds. These winds normally continue a few days before predominant meteorological conditions are reestablished.

The mountain ranges to the east affect the transport and diffusion of pollutants by inhibiting their eastward transport. Air quality in the SoCAB generally ranges from fair to poor and is similar to air quality in most of coastal southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions (South Coast AQMD 2005).

Inversions

In conjunction with the two characteristic wind patterns that affect the rate and orientation of horizontal pollutant transport, there are two similarly distinct types of temperature inversions that control the vertical depth through which pollutants are mixed. These are the marine/subsidence inversion and the radiation inversion. The combination of winds and inversions are critical determinants in leading to the highly degraded air quality in summer and the generally good air quality in the winter in the project area (South Coast AQMD 2005).

Air Quality Regulations

The proposed project has the potential to release gaseous emissions of criteria pollutants and dust into the ambient air; therefore, it falls under the ambient air quality standards promulgated at the local, state, and federal levels. The project site is in the SoCAB and is subject to the rules and regulations imposed by the South Coast Air Quality Management District (South Coast AQMD). However, South Coast AQMD reports to California Air Resources board (CARB), and all criteria emissions are also governed by the California and national Ambient Air Quality Standards (AAQS). Federal, state, regional, and local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized below.

AMBIENT AIR QUALITY STANDARDS

The Clean Air Act (CAA) was passed in 1963 by the US Congress and has been amended several times. The 1970 Clean Air Act amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including nonattainment requirements for areas not meeting National AAQS and the Prevention of Significant Deterioration program. The 1990 amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the United States. The CAA allows states to adopt more stringent standards or to include other pollution species. The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of the state to achieve

and maintain the California AAQS by the earliest practical date. The California AAQS tend to be more restrictive than the National AAQS, based on even greater health and welfare concerns.

These National AAQS and California AAQS are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect "sensitive receptors" most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Both California and the federal government have established health-based AAQS for seven air pollutants. As shown in Table 1, these pollutants include ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), coarse inhalable particulate matter (PM_{10}), fine inhalable particulate matter ($PM_{2.5}$), and lead (Pb). In addition, the state has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

Table 1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard[1]	Federal Primary Standard[2]	Major Pollutant Sources
Ozone (O_3)[3]	1 hour	0.09 ppm	*	Motor vehicles, paints, coatings, and solvents.
	8 hours	0.070 ppm	0.070 ppm	
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm	0.053 ppm	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.18 ppm	0.100 ppm	
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	*	0.030 ppm	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	0.075 ppm	
	24 hours	0.04 ppm	0.14 ppm	
Respirable Coarse Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 µg/m^3	*	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	50 µg/m^3	150 µg/m^3	
Respirable Fine Particulate Matter ($PM_{2.5}$)[4]	Annual Arithmetic Mean	12 µg/m^3	12 µg/m^3	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	*	35 µg/m^3	

Table 1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard[1]	Federal Primary Standard[2]	Major Pollutant Sources
Lead (Pb)	30-Day Average	1.5 µg/m^3	*	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Calendar Quarter	*	1.5 µg/m^3	
	Rolling 3-Month Average	*	0.15 µg/m^3	
Sulfates (SO_4)[5]	24 hours	25 µg/m^3	*	Industrial processes.
Visibility Reducing Particles	8 hours	ExCo =0.23/km visibility of 10≥ miles	No Federal Standard	Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt.
Hydrogen Sulfide	1 hour	0.03 ppm	No Federal Standard	Hydrogen sulfide (H_2S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas and can be emitted as the result of geothermal energy exploitation.
Vinyl Chloride	24 hours	0.01 ppm	No Federal Standard	Vinyl chloride (chloroethene), a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents.

Source: CARB 2016.
Notes: ppm: parts per million; µg/m^3: micrograms per cubic meter
* Standard has not been established for this pollutant/duration by this entity.
1 California standards for O_3, CO (except 8-hour Lake Tahoe), SO_2 (1 and 24 hour), NO_2, and particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2 National standards (other than O_3, PM, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The O_3 standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.
3 On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
4 On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m^3 to 12.0 µg/m^3. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 µg/m^3, as was the annual secondary standard of 15 µg/m^3. The existing 24-hour PM_{10} standards (primary and secondary) of 150 µg/m^3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
5 On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. The 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

California has also adopted a host of other regulations that reduce criteria pollutant emissions, including:

- AB 1493: Pavley Fuel Efficiency Standards
- Title 20 California Code of Regulations (CCR): Appliance Energy Efficiency Standards
- Title 24, Part 6, CCR: Building and Energy Efficiency Standards

- Title 24, Part 11, CCR: Green Building Standards Code

CRITERIA AIR POLLUTANTS

The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law. Air pollutants are categorized as primary or secondary pollutants. Primary air pollutants are those that are emitted directly from sources and include CO, VOC, NO_2, SO_X, PM_{10}, $PM_{2.5}$, and Pb. Of these, CO, SO_2, NO_2, PM_{10}, and $PM_{2.5}$ are "criteria air pollutants," which means that ambient air quality standards (AAQS) have been established for them. VOC and oxides of nitrogen (NO_x) are air pollutant precursors that form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O_3) and NO_2 are the principal secondary pollutants. A description of each of the primary and secondary criteria air pollutants and their known health effects is presented below.

Carbon Monoxide (CO) is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. CO is a primary criteria air pollutant. CO concentrations tend to be the highest during winter mornings with little to no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion, engines and motor vehicles operating at slow speeds are the primary source of CO in the SoCAB. The highest ambient CO concentrations are generally found near traffic-congested corridors and intersections. The primary adverse health effect associated with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation (South Coast AQMD 2005, USEPA 2021). The SoCAB is designated as being in attainment under the California AAQS and attainment (serious maintenance) under the National AAQS (CARB 2021a).

Volatile Organic Compounds (VOC) are compounds composed primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. Other sources of VOCs include evaporative emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. There are no ambient air quality standards established for VOCs. However, because they contribute to the formation of ozone (O_3), South Coast AQMD has established a significance threshold for this pollutant (South Coast AQMD 2005).

Nitrogen Oxides (NO_x) are a byproduct of fuel combustion and contribute to the formation of O_3, PM_{10}, and $PM_{2.5}$. The two major forms of NO_x are nitric oxide (NO) and nitrogen dioxide (NO_2). The principal form of NO_2 produced by combustion is NO, but NO reacts with oxygen 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 children (two and three years old) has also been observed at concentrations below 0.3 part per million (ppm). NO_2 absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure (South Coast AQMD 2005, USEPA 2021). The SoCAB is designated as an attainment (maintenance) area under the National AAQS and attainment area under the California AAQS (CARB 2021a).

Sulfur Dioxide (SO_2) is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. It enters the atmosphere as a result of burning high-sulfur-content fuel oils and coal and from chemical processes at chemical plants and refineries. Gasoline and natural gas have very low sulfur content and do not release significant quantities of SO_2 (South Coast AQMD 2005, USEPA 2021). When sulfur dioxide forms sulfates (SO_4) in the atmosphere, together these pollutants are referred to as sulfur oxides (SO_X). Thus, SO_2 is both a primary and secondary criteria air pollutant. At sufficiently high concentrations, SO_2 may irritate the upper respiratory tract. At lower concentrations and when combined with particulates, SO_2 may do greater harm by injuring lung tissue. The SoCAB is designated as attainment under the California and National AAQS (CARB 2021a).

Suspended Particulate Matter (PM_{10} and $PM_{2.5}$) consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized and regulated. Inhalable coarse particles, or PM_{10}, include the particulate matter with an aerodynamic diameter of 10 microns (i.e., 10 millionths of a meter or 0.0004 inch) or less. Inhalable fine particles, or $PM_{2.5}$, have an aerodynamic diameter of 2.5 microns (i.e., 2.5 millionths of a meter or 0.0001 inch) or less. Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. However, wind action on arid landscapes also contributes substantially to local particulate loading (i.e., fugitive dust). Both PM_{10} and $PM_{2.5}$ may adversely affect the human respiratory system, especially in people who are naturally sensitive or susceptible to breathing problems (South Coast AQMD 2005).

The US Environmental Protection Agency's (EPA) scientific review concluded that $PM_{2.5}$, which penetrates deeply into the lungs, is more likely than PM_{10} to contribute to health effects and at concentrations that extend well below those allowed by the current PM_{10} standards. These health effects include premature death and increased hospital admissions and emergency room visits (primarily the elderly and individuals with cardiopulmonary disease); increased respiratory symptoms and disease (children and individuals with cardiopulmonary disease such as asthma); decreased lung functions (particularly in children and individuals with asthma); and alterations in lung tissue and structure and in respiratory tract defense mechanisms (South Coast AQMD 2005). There has been emerging evidence that even smaller particulates with an aerodynamic diameter of <0.1 microns or less (i.e., ≤ 0.1 millionths of a meter or <0.000004 inch), known as ultrafine particulates (UFPs), have human health implications, because UFPs toxic components may initiate or facilitate biological processes that may lead to adverse effects to the heart, lungs, and other organs (South Coast AQMD 2013). However, the EPA or CARB have yet to adopt AAQS to regulate these particulates. Diesel particulate matter (DPM) is classified by the CARB as a carcinogen (CARB 1998). Particulate matter can also cause environmental effects such as visibility impairment,[1] environmental damage,[2] and aesthetic damage[3] (South Coast AQMD 2005; USEPA 2021). The SoCAB is in nonattainment and serious nonattainment for $PM_{2.5}$ under the California

[1] $PM_{2.5}$ is the main cause of reduced visibility (haze) in parts of the United States.

[2] Particulate matter can be carried over long distances by wind and then settle on ground or water, making lakes and streams acidic; changing the nutrient balance in coastal waters and large river basins; depleting the nutrients in soil; damaging sensitive forests and farm crops; and affecting the diversity of ecosystems.

[3] Particulate matter can stain and damage stone and other materials, including culturally important objects such as statues and monuments.

and National AAQS, respectively. For PM_{10}, the SoCAB is nonattainment under the California AAQS and in attainment (serious maintenance) under the National AAQS (CARB 2021a).[4]

Ozone (O_3) is commonly referred to as "smog" and is a gas that is formed when VOCs and NO_x, both by-products of internal combustion engine exhaust, undergo photochemical reactions in the presence of sunlight. O_3 is a secondary criteria air pollutant. O_3 concentrations are generally highest during the summer months when direct sunlight, light winds, and warm temperatures create favorable conditions for the formation of this pollutant. O_3 poses a health threat to those who already suffer from respiratory diseases as well as to healthy people. Breathing O_3 can trigger a variety of health problems, including chest pain, coughing, throat irritation, and congestion. It can worsen bronchitis, emphysema, and asthma. Ground-level O_3 also can reduce lung function and inflame the linings of the lungs. Repeated exposure may permanently scar lung tissue. O_3 also affects sensitive vegetation and ecosystems, including forests, parks, wildlife refuges, and wilderness areas. In particular, O_3 harms sensitive vegetation during the growing season (South Coast AQMD 2005; USEPA 2021). The SoCAB is designated as extreme nonattainment under the National AAQS (8-hour) and as nonattainment under the California AAQS (1-hour and 8-hour). (CARB 2021a).

Lead (Pb) is a metal found naturally in the environment as well as in manufactured products. Once taken into the body, lead distributes throughout the body in the blood and accumulates in the bones. Depending on the level of exposure, lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems, and the cardiovascular system. Lead exposure also affects the oxygen-carrying capacity of the blood. The effects of lead most commonly encountered in current populations are neurological effects in children and cardiovascular effects in adults (e.g., high blood pressure and heart disease). Infants and young children are especially sensitive to even low levels of lead, which may contribute to behavioral problems, learning deficits, and lowered IQ (South Coast AQMD 2005; USEPA 2021). The major sources of lead emissions have historically been mobile and industrial sources. As a result of the EPA's regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector dramatically declined by 95 percent between 1980 and 1999, and levels of lead in the air decreased by 94 percent between 1980 and 1999. Today, the highest levels of lead in air are usually found near lead smelters. The major sources of lead emissions today are ore and metals processing and piston-engine aircraft operating on leaded aviation gasoline. However, in 2008 the EPA and CARB adopted stricter lead standards, and special monitoring sites immediately downwind of lead sources recorded very localized violations of the new state and federal standards.[5] As a result of these violations, the Los Angeles County portion of the SoCAB is designated nonattainment under the National AAQS for lead (South Coast AQMD 2012; CARB 2021a). Because emissions of lead are found only in projects that are permitted by South Coast AQMD, lead is not a pollutant of concern for the project.

[4] CARB approved the South Coast AQMD's request to redesignate the SoCAB from serious nonattainment for PM_{10} to attainment for PM_{10} under the National AAQS on March 25, 2010, because the SoCAB did not violate federal 24-hour PM_{10} standards from 2004 to 2007. The EPA approved the State of California's request to redesignate the South Coast PM_{10} nonattainment area to attainment of the PM_{10} National AAQS, effective on July 26, 2013.

[5] Source-oriented monitors record concentrations of lead at lead-related industrial facilities in the SoCAB, which include Exide Technologies in the City of Commerce; Quemetco, Inc., in the City of Industry; Trojan Battery Company in Santa Fe Springs; and Exide Technologies in Vernon. Monitoring conducted between 2004 through 2007 showed that the Trojan Battery Company and Exide Technologies exceed the federal standards (South Coast AQMD 2012).

TOXIC AIR CONTAMINANTS

The public's exposure to air pollutants classified as toxic air contaminants (TACs) is a significant environmental health issue in California. In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health. The California Health and Safety Code defines a TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." A substance that is listed as a hazardous air pollutant (HAP) pursuant to Section 112(b) of the federal Clean Air Act (42 United States Code §7412[b]) is a toxic air contaminant. Under state law, the California Environmental Protection Agency (Cal/EPA), acting through CARB, is authorized to identify a substance as a TAC if it determines that the substance is an air pollutant that may cause or contribute to an increase in mortality or to an increase in serious illness, or may pose a present or potential hazard to human health.

California regulates TACs primarily through Assembly Bill (AB) 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics "Hot Spot" Information and Assessment Act of 1987). The Tanner Air Toxics Act sets forth a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an "airborne toxics control measure" for sources that emit designated TACs. If there is a safe threshold for a substance (i.e., a point below which there is no toxic effect), the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology to minimize emissions. To date, CARB has established formal control measures for 11 TACs, all of which are identified as having no safe threshold.

Air toxics from stationary sources are also regulated in California under the Air Toxics "Hot Spot" Information and Assessment Act of 1987. Under AB 2588, toxic air contaminant emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High priority facilities are required to perform a health risk assessment and, if specific thresholds are exceeded, are required to communicate the results to the public in the form of notices and public meetings.

By the last update to the TAC list in December 1999, CARB had designated 244 compounds as TACs (CARB 1999). Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. The majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most important being particulate matter from diesel-fueled engines.

Diesel Particulate Matter

In 1998, CARB identified particulate emissions from diesel-fueled engines (diesel PM) as a TAC. Previously, the individual chemical compounds in diesel exhaust were considered TACs. Almost all diesel exhaust particle mass is 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

CARB has promulgated the following specific rules to limit TAC emissions:

- 13 CCR Chapter 10, Section 2485, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling

- 13 CCR Chapter 10, Section 2480, Airborne Toxic Control Measure to Limit School Bus Idling and Idling at Schools
- 13 CCR Section 2477 and Article 8, Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets and Facilities Where TRUs Operate

Community Risk

In addition, to reduce exposure to TACs, CARB developed and approved the *Air Quality and Land Use Handbook: A Community Health Perspective* (2005) to provide guidance regarding the siting of sensitive land uses in the vicinity of freeways, distribution centers, rail yards, ports, refineries, chrome-plating facilities, dry cleaners, and gasoline-dispensing facilities. This guidance document was developed to assess compatibility and associated health risks when placing sensitive receptors near existing pollution sources. CARB's recommendations on the siting of new sensitive land uses were based on a compilation of recent studies that evaluated data on the adverse health effects from proximity to air pollution sources. The key observation in these studies is that proximity to air pollution sources substantially increases exposure and the potential for adverse health effects. There are three carcinogenic toxic air contaminants that constitute the majority of the known health risks from motor vehicle traffic, DPM from trucks, and benzene and 1,3-butadiene from passenger vehicles. CARB recommendations are based on data that show that localized air pollution exposures can be reduced by as much as 80 percent by following CARB minimum distance separations.

Multiple Airborne Toxics Exposure Study (MATES)

The Multiple Air Toxics Exposure Study (MATES) is a monitoring and evaluation study on ambient concentrations of TACs and estimated the potential health risks from air toxics in the SoCAB. In 2008, South Coast AQMD conducted its third update to the MATES study (MATES III). The results showed that the overall risk for excess cancer from a lifetime exposure to ambient levels of air toxics was about 1,200 in a million. The largest contributor to this risk was diesel exhaust, accounting for 84 percent of the cancer risk (South Coast AQMD 2008b).

South Coast AQMD recently released the fourth update (MATES IV). The results showed that the overall monitored risk for excess cancer from a lifetime exposure to ambient levels of air toxics decreased to approximately 418 in one million. Compared to the 2008 MATES III, monitored excess cancer risks decreased by approximately 65 percent. Approximately 90 percent of the risk is attributed to mobile sources while 10 percent is attributed to TACs from stationary sources, such as refineries, metal processing facilities, gas stations, and chrome plating facilities. The largest contributor to this risk was diesel exhaust, accounting for approximately 68 percent of the air toxics risk. Compared to MATES III, MATES IV found substantial improvement in air quality and associated decrease in air toxics exposure. As a result, the estimated basin-wide population-weighted risk decreased by approximately 57 percent compared to the analysis done for the MATES III time period (South Coast AQMD 2015a).

The Office of Environmental Health Hazard Assessment (OEHHA) updated the guidelines for estimating cancer risks on March 6, 2015. The new method utilizes higher estimates of cancer potency during early life exposures, which result in a higher calculation of risk. There are also differences in the assumptions on

breathing rates and length of residential exposures. When combined together, South Coast AQMD estimates that risks for a given inhalation exposure level will be about 2.7 times higher using the proposed updated methods identified in MATES IV (e.g., 2.7 times higher than 418 in one million overall excess cancer risk) (South Coast AQMD 2015a).

Air Quality Management Planning

The South Coast AQMD is the agency responsible for preparing the air quality management plan (AQMP) for the SoCAB in coordination with the Southern California Association of Governments (SCAG). Since 1979, a number of AQMPs have been prepared.

2016 AQMP

On March 3, 2017, the South Coast AQMD adopted the 2016 AQMP as an update to the 2012 AQMP. The 2016 AQMP addresses strategies and measures to attain the following National AAQS:

- 2008 National 8-hour ozone standard by 2031,
- 2012 National annual $PM_{2.5}$ standard by 2025[6],
- 2006 National 24-hour $PM_{2.5}$ standard by 2019,
- 1997 National 8-hour ozone standard by 2023, and the
- 1979 National 1-hour ozone standard by year 2022.

It is projected that total NO_X emissions in the SoCAB would need to be reduced to 150 tons per day (tpd) by year 2023 and to 100 tpd in year 2031 to meet the 1997 and 2008 federal 8-hour ozone standards. The strategy to meet the 1997 federal 8-hour ozone standard would also lead to attaining the 1979 federal 1-hour ozone standard by year 2022 (South Coast AQMD 2017), which requires reducing NO_X emissions in the SoCAB to 250 tpd. This is approximately 45 percent additional reductions above existing regulations for the 2023 ozone standard and 55 percent additional reductions above existing regulations to meet the 2031 ozone standard.

Reducing NO_X emissions would also reduce $PM_{2.5}$ concentrations in the SoCAB. However, as the goal is to meet the 2012 federal annual $PM_{2.5}$ standard no later than year 2025, South Coast AQMD is seeking to reclassify the SoCAB from "moderate" to "serious" nonattainment under this federal standard. A "moderate" non-attainment would require meeting the 2012 federal standard by no later than 2021.

Overall, the 2016 AQMP is composed of stationary and mobile-source emission reductions from regulatory control measures, incentive-based programs, co-benefits from climate programs, mobile-source strategies, and reductions from federal sources such as aircrafts, locomotives, and ocean-going vessels. Strategies outlined in the 2016 AQMP would be implemented in collaboration between CARB and the EPA (South Coast AQMD 2017).

[6] The 2016 AQMP requests a reclassification from moderate to serious non-attainment for the 2012 National $PM_{2.5}$ standard.

LEAD STATE IMPLEMENTATION PLAN

In 2008, EPA designated the Los Angeles County portion of the SoCAB nonattainment under the federal lead (Pb) classification due to the addition of source-specific monitoring under the new federal regulation. This designation was based on two source-specific monitors in Vernon and the City of Industry exceeding the new standard. The rest of the SoCAB, outside the Los Angeles County nonattainment area remains in attainment of the new standard. On May 24, 2012, CARB approved the SIP revision for the federal lead standard, which the EPA revised in 2008. Lead concentrations in this nonattainment area have been below the level of the federal standard since December 2011. The SIP revision was submitted to EPA for approval.

AREA DESIGNATIONS

The AQMP provides the framework for air quality basins to achieve attainment of the state and federal ambient air quality standards through the State Implementation Plan (SIP). Areas are classified as attainment or nonattainment areas for particular pollutants, depending on whether they meet ambient air quality standards. Severity classifications for ozone nonattainment range in magnitude from marginal, moderate, and serious to severe and extreme.

- **Unclassified:** a pollutant is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.

- **Attainment:** a pollutant is in attainment if the CAAQS for that pollutant was not violated at any site in the area during a three-year period.

- **Nonattainment:** a pollutant is in nonattainment if there was at least one violation of a state AAQS for that pollutant in the area.

- **Nonattainment/Transitional:** a subcategory of the nonattainment designation. An area is designated nonattainment/transitional to signify that the area is close to attaining the AAQS for that pollutant.

The attainment status for the SoCAB is shown in Table 2. The SoCAB is designated in attainment of the California AAQS for sulfates. The SoCAB is designated as nonattainment for lead (Los Angeles County only) under the National AAQS.

Table 2 Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	State	Federal
Ozone – 1-hour	Nonattainment	No Federal Standard
Ozone – 8-hour	Nonattainment	Extreme Nonattainment
PM_{10}	Nonattainment	Attainment (Serious Maintenance)
$PM_{2.5}$	Nonattainment	Nonattainment[1]
CO	Attainment	Attainment
NO_2	Attainment	Attainment (Maintenance)
SO_2	Attainment	Attainment
Lead	Attainment	Nonattainment (Los Angeles County only)[2]

Table 2 Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	State	Federal
All others	Attainment/Unclassified	Attainment/Unclassified

Source: CARB 2021a.
[1] The South Coast AQMD is seeking to reclassify the SoCAB from "moderate" to "serious" nonattainment under federal $PM_{2.5}$ standard.
[2] In 2010, the Los Angeles portion of the SoCAB was designated nonattainment for lead under the new federal and existing state AAQS as a result of large industrial emitters. Remaining areas in the SoCAB are unclassified.

Existing Ambient Air Quality

Existing levels of ambient air quality and historical trends and projections in the vicinity of the project site are best documented by measurements taken by the South Coast AQMD. The project site is located within Source Receptor Area (SRA) 5 – Southeast LA County. The air quality monitoring station closest to the project site is the Pico Rivera - 4144 San Gabriel Monitoring Station, which monitors O_3, NO_x, and $PM_{2.5}$. Information regarding PM_{10} is supplemented by data from the Azusa Monitoring Station. The most current five years of data from these monitoring stations are included in Table 3, *Ambient Air Quality Monitoring Summary*. The data show regular violations of the state and federal O_3, state PM_{10}, and federal $PM_{2.5}$ standards in the last five years.

Table 3 Ambient Air Quality Monitoring Summary

Pollutant/Standard	Number of Days Threshold Were Exceeded and Maximum Levels during Such Violations				
	2016	2017	2018	2019	2020
Ozone (O_3)[1]					
State 1-Hour ≥ 0.09 ppm (days exceed threshold)	9	7	3	5	20
State & Federal 8-hour ≥ 0.07 ppm (days exceed threshold)	6	9	5	7	23
Max. 1-Hour Conc. (ppm)	0.111	0.118	0.115	0.108	0.169
Max. 8-Hour Conc. (ppm)	0.081	0.086	0.082	0.091	0.114
Nitrogen Dioxide (NO_2)[1]					
State 1-Hour ≥ 0.18 ppm (days exceed threshold)	0	0	0	0	0
Federal 1-Hour ≥ 0.100 ppm (days exceed threshold)	0	0	0	0	0
Max. 1-Hour Conc. (ppb)	0.0632	0.0750	0.0768	0.0618	0.0692
Coarse Particulates (PM_{10})[2]					
State 24-Hour > 50 µg/m^3 (days exceed threshold)	12	7	10	4	9
Federal 24-Hour > 150 µg/m^3 (days exceed threshold)	0	0	0	0	0
Max. 24-Hour Conc. (µg/m^3)	74.0	83.9	78.3	82.0	152.3
Fine Particulates ($PM_{2.5}$)[1]					
Federal 24-Hour > 35 µg/m^3 (days exceed threshold)	2	1	2	1	5
Max. 24-Hour Conc. (µg/m^3)	46.5	49.5	56.3	50.2	82.9

Source: CARB 2021b.
ppm: parts per million; parts per billion, µg/m^3: micrograms per cubic meter
Notes: * Data not available.
[1] Data obtained from the Pico Rivera-4144 San Gabriel Monitoring Station
[2] Data obtained from the Azusa Monitoring Station

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardio-respiratory diseases.

Residential areas are also considered to be sensitive receptors to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Schools are also considered sensitive receptors, as children are present for extended durations and engage in regular outdoor activities. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial and commercial areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent, as the majority of the workers tend to stay indoors most of the time. In addition, the working population is generally the healthiest segment of the public. The nearest sensitive receptors to the proposed project site are the residences along Goodbee Street and Birchleaf Avenue to the northwest.

Methodology

Projected construction-related air pollutant emissions are calculated using the California Emissions Estimator Model (CalEEMod), Version 2020.4. CalEEMod compiles an emissions inventory of construction (fugitive dust, off-gas emissions, on-road emissions, and off-road emissions), area sources, indirect emissions from energy use, mobile sources, indirect emissions from waste disposal (annual only), and indirect emissions from water/wastewater (annual only) use. The calculated emissions of the project are compared to thresholds of significance for individual projects using the South Coast AQMD's *CEQA Air Quality Analysis Guidance Handbook*.

Thresholds of Significance

The analysis of the proposed project's air quality impacts follows the guidance and methodologies recommended in South Coast AQMD's *CEQA Air Quality Handbook* and the significance thresholds on South Coast AQMD's website (South Coast AQMD 1993). CEQA allows the significance criteria established by the applicable air quality management or air pollution control district to be used to assess impacts of a project on air quality. South Coast AQMD has established thresholds of significance for regional air quality emissions for construction activities and project operation. In addition to the daily thresholds listed above, projects are also subject to the AAQS. These are addressed though an analysis of localized CO impacts and localized significance thresholds (LSTs).

REGIONAL SIGNIFICANCE THRESHOLDS

The South Coast AQMD has adopted regional construction and operational emissions thresholds to determine a project's cumulative impact on air quality in the SoCAB. Table 4 lists South Coast AQMD's regional significance thresholds that are applicable for all projects uniformly regardless of size or scope. There is

growing evidence that although ultrafine particulates contribute a very small portion of the overall atmospheric mass concentration, they represent a greater proportion of the health risk from PM. However, the EPA or CARB have not yet adopted AAQS to regulate ultrafine particulates; therefore, South Coast AQMD has not developed thresholds for them.

Table 4 South Coast AQMD Significance Thresholds

Air Pollutant	Construction Phase	Operational Phase
Reactive Organic Gases (ROGs)/ Volatile Organic Compounds (VOCs)	75 lbs/day	55 lbs/day
Nitrogen Oxides (NO_X)	100 lbs/day	55 lbs/day
Carbon Monoxide (CO)	550 lbs/day	550 lbs/day
Sulfur Oxides (SO_X)	150 lbs/day	150 lbs/day
Particulates (PM_{10})	150 lbs/day	150 lbs/day
Particulates ($PM_{2.5}$)	55 lbs/day	55 lbs/day

Source: South Coast AQMD 2019.

Projects that exceed the regional significance threshold contribute to the nonattainment designation of the SoCAB. The attainment designations are based on the AAQS, which are set at levels of exposure that are determined to not result in adverse health. Exposure to fine particulate pollution and ozone causes myriad health impacts, particularly to the respiratory and cardiovascular systems:

- Linked to increased cancer risk ($PM_{2.5}$, TACs)
- Aggravates respiratory disease (O_3, $PM_{2.5}$)
- Increases bronchitis (O_3, $PM_{2.5}$)
- Causes chest discomfort, throat irritation, and increased effort to take a deep breath (O_3)
- Reduces resistance to infections and increases fatigue (O_3)
- Reduces lung growth in children ($PM_{2.5}$)
- Contributes to heart disease and heart attacks ($PM_{2.5}$)
- Contributes to premature death (O_3, $PM_{2.5}$)
- Linked to lower birth weight in newborns ($PM_{2.5}$) (South Coast AQMD 2015b)

Exposure to fine particulates and ozone aggravates asthma attacks and can amplify other lung ailments such as emphysema and chronic obstructive pulmonary disease. Exposure to current levels of $PM_{2.5}$ is responsible for an estimated 4,300 cardiopulmonary-related deaths per year in the SoCAB. In addition, University of Southern California scientists responsible for a landmark children's health study found that lung growth improved as air pollution declined for children aged 11 to 15 in five communities in the SoCAB (South Coast AQMD 2015c).

Mass emissions in Table 4 are not correlated with concentrations of air pollutants but contribute to the cumulative air quality impacts in the SoCAB. Therefore, regional emissions from a single project do not single-handedly trigger a regional health impact. South Coast AQMD is the primary agency responsible for ensuring the health and welfare of sensitive individuals to elevated concentrations of air quality in the SoCAB. To achieve

the health-based standards established by the EPA, South Coast AQMD prepares an AQMP that details regional programs to attain the AAQS.

CO HOTSPOTS

Areas of vehicle congestion have the potential to create pockets of CO called hot spots. These pockets have the potential to exceed the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to ambient air quality standards is typically demonstrated through an analysis of localized CO concentrations. Hot spots are typically produced at intersections, where traffic congestion is highest because vehicles queue for longer periods and are subject to reduced speeds. With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations in the SoCAB and in the state have steadily declined.

In 2007, the SoCAB was designated in attainment for CO under both the California AAQS and National AAQS. The CO hot spot analysis conducted for the attainment by the South Coast AQMD for busiest intersections in Los Angeles during the peak morning and afternoon periods plan did not predict a violation of CO standards.[7] As identified in the South Coast AQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan), peak carbon monoxide concentrations in the SoCAB in previous years, prior to redesignation, were a result of unusual meteorological and topographical conditions and not a result of congestion at a particular intersection. Under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact (BAAQMD 2017).

LOCALIZED SIGNIFICANCE THRESHOLDS

The South Coast AQMD developed LSTs for emissions of NO_2, CO, PM_{10}, and $PM_{2.5}$ generated at the project site (offsite mobile-source emissions are not included in the LST analysis). LSTs represent the maximum emissions at a project site that are not expected to cause or contribute to an exceedance of the most stringent federal or state AAQS and are shown in Table 5.

[7] The four intersections were: Long Beach Boulevard and Imperial Highway; Wilshire Boulevard and Veteran Avenue; Sunset Boulevard and Highland Avenue; and La Cienega Boulevard and Century Boulevard. The busiest intersection evaluated (Wilshire and Veteran) had a daily traffic volume of approximately 100,000 vehicles per day with LOS E in the morning peak hour and LOS F in the evening peak hour.

Table 5 South Coast AQMD Localized Significance Thresholds

Air Pollutant (Relevant AAQS)	Concentration
1-Hour CO Standard (CAAQS)	20 ppm
8-Hour CO Standard (CAAQS)	9.0 ppm
1-Hour NO_2 Standard (CAAQS)	0.18 ppm
Annual NO_2 Standard (CAAQS)	0.03 ppm
24-Hour PM_{10} Standard – Construction (South Coast AQMD)[1]	10.4 µg/m^3
24-Hour $PM_{2.5}$ Standard – Construction (South Coast AQMD)[1]	10.4 µg/m^3
24-Hour PM_{10} Standard – Operation (South Coast AQMD)[1]	2.5 µg/m^3
24-Hour $PM_{2.5}$ Standard – Operation (South Coast AQMD)[1]	2.5 µg/m^3

Source: South Coast AQMD 2019.
ppm – parts per million; µg/m^3 – micrograms per cubic meter
[1] Threshold is based on South Coast AQMD Rule 403. Since the SoCAB is in nonattainment for PM_{10} and $PM_{2.5}$, the threshold is established as an allowable change in concentration. Therefore, background concentration is irrelevant.

To assist lead agencies, South Coast AQMD developed screening-level LSTs to back-calculate the mass amount (lbs. per day) of emissions generated onsite that would trigger the levels shown in Table 5 for projects under 5-acres. These "screening-level" LSTs tables are the localized significance thresholds for all projects of five acres and less; however, it can be used as screening criteria for larger projects to determine whether or not dispersion modeling may be required to compare concentrations of air pollutants generated by the project to the localized concentrations shown in Table 5.

In accordance with South Coast AQMD's LST methodology, the screening-level construction LSTs are based on the acreage disturbed per day based on equipment use. The screening-level construction LSTs for the project site in SRA 5 are shown in Table 6, *South Coast AQMD Screening-Level Construction Localized Significance Thresholds,* for sensitive receptors within 82 feet (25 meters).

Table 6 South Coast AQMD Screening-Level Construction Localized Significance Thresholds

	Threshold (lbs/day)[1]			
Acreage Disturbed	Nitrogen Oxides (NO_X)	Carbon Monoxide (CO)	Coarse Particulates (PM_{10})	Fine Particulates ($PM_{2.5}$)
≤1.00 Acre Disturbed Per Day	80	571	4.00	3.00
1.38 Acres Disturbed Per Day	93	680	5.12	3.37
1.94 Acres Disturbed Per Day	112	843	6.81	3.94
2.00 Acres Disturbed Per Day	114	861	7.00	4.00
2.85 Acres Disturbed Per Day	130	1,036	8.98	4.85

Source: South Coast AQMD 2008a and 2011.
[1] LSTs are based on receptors within 82 feet (25 meters) in SRA 5.

Because the project is not an industrial project that has the potential to emit substantial sources of stationary emissions, operational LSTs are not an air quality impact of concern associated with the project.

Health Risk

Whenever a project would require use of chemical compounds that have been identified in South Coast AQMD Rule 1401, placed on CARB's air toxics list pursuant to AB 1807, or placed on the EPA's National Emissions Standards for Hazardous Air Pollutants, a health risk assessment is required by the South Coast AQMD. Table 7, *Toxic Air Contaminants Incremental Risk Thresholds*, lists the TAC incremental risk thresholds for operation of a project. The purpose of this environmental evaluation is to identify the significant effects of the proposed project on the environment, not the significant effects of the environment on the proposed project. (*California Building Industry Association v. Bay Area Air Quality Management District (2015) 62 Cal.4th 369 (Case No. S213478)*). CEQA does not require CEQA-level environmental document to analyze the environmental effects of attracting development and people to an area. However, the environmental document must analyze the impacts of environmental hazards on future users, when a proposed project exacerbates an existing environmental hazard or condition. Residential, commercial, and office uses do not use substantial quantities of TACs and typically do not exacerbate existing hazards, so these thresholds are typically applied to new industrial projects.

Table 7 South Coast AQMD Toxic Air Contaminants Incremental Risk Thresholds

Maximum Incremental Cancer Risk	≥ 10 in 1 million
Hazard Index (project increment)	≥ 1.0
Cancer Burden in areas ≥ 1 in 1 million	> 0.5 excess cancer cases

Source: South Coast AQMD 2019.

GREENHOUSE GAS EMISSIONS

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as GHG, to the atmosphere. Climate change is the variation of Earth's climate over time, whether due to natural variability or as a result of human activities. The primary source of these GHG is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHG—water vapor,[8] carbon (CO_2), methane (CH_4), and ozone (O_3)—that are the likely cause of an increase in global average temperatures observed within the 20th and 21st centuries. Other GHG identified by the IPCC that contribute to global warming to a lesser extent include nitrous oxide (N_2O), sulfur hexafluoride (SF_6), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons (IPCC 2001).[9] The major GHG are briefly described below.

[8] Water vapor (H_2O) is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals). However, water vapor is not considered a pollutant, but part of the feedback loop rather than a primary cause of change.

[9] Black carbon contributes to climate change both directly, by absorbing sunlight, and indirectly, by depositing on snow (making it melt faster) and by interacting with clouds and affecting cloud formation. Black carbon is the most strongly light-absorbing component of particulate matter (PM) emitted from burning fuels such as coal, diesel, and biomass. Reducing black carbon emissions globally can have immediate economic, climate, and public health benefits. California has been an international leader in reducing emissions of black carbon, with close to 95 percent control expected by 2020 due to existing programs that target reducing PM from diesel engines and burning activities (CARB 2017a). However, state and national GHG inventories do not yet include black carbon due to ongoing work resolving the precise global warming potential of black carbon. Guidance for CEQA documents does not yet include black carbon.

- **Carbon dioxide (CO_2)** enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and respiration, and also as a result of other chemical reactions (e.g. manufacture of cement). Carbon dioxide is removed from the atmosphere (sequestered) when it is absorbed by plants as part of the biological carbon cycle.

- **Methane (CH_4)** is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in municipal landfills and water treatment facilities.

- **Nitrous oxide (N_2O)** is emitted during agricultural and industrial activities as well as during combustion of fossil fuels and solid waste.

- **Fluorinated gases** are synthetic, strong GHGs that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting substances. These gases are typically emitted in smaller quantities, but because they are potent GHGs, they are sometimes referred to as high global-warming-potential (GWP) gases.

    - *Chlorofluorocarbons (CFCs*) are GHGs covered under the 1987 Montreal Protocol and used for refrigeration, air conditioning, packaging, insulation, solvents, or aerosol propellants. Since they are not destroyed in the lower atmosphere (troposphere, stratosphere), CFCs drift into the upper atmosphere where, given suitable conditions, they break down ozone. These gases are also ozone-depleting gases and are therefore being replaced by other compounds that are GHGs covered under the Kyoto Protocol.

    - *Perfluorocarbons (PFCs)* are a group of human-made chemicals composed of carbon and fluorine only. These chemicals (predominantly perfluoromethane [CF_4] and perfluoroethane [C_2F_6]) were introduced as alternatives, along with HFCs, to the ozone-depleting substances. In addition, PFCs are emitted as by-products of industrial processes and are used in manufacturing. PFCs do not harm the stratospheric ozone layer, but they have a high global warming potential.

    - *Sulfur Hexafluoride (SF_6)* is a colorless gas soluble in alcohol and ether, slightly soluble in water. SF_6 is a strong GHG used primarily in electrical transmission and distribution systems as an insulator.

    - *Hydrochlorofluorocarbons (HCFCs)* contain hydrogen, fluorine, chlorine, and carbon atoms. Although ozone-depleting substances, they are less potent at destroying stratospheric ozone than CFCs. They have been introduced as temporary replacements for CFCs and are also GHGs.

    - *Hydrofluorocarbons (HFCs)* contain only hydrogen, fluorine, and carbon atoms. They were introduced as alternatives to ozone-depleting substances to serve many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are also used in manufacturing. They do not significantly deplete the stratospheric ozone layer, but they are strong GHGs (IPCC 2001; USEPA 2020).

GHGs are dependent on the lifetime or persistence of the gas molecule in the atmosphere. Some GHGs have stronger greenhouse effects than others. These are referred to as high GWP gases. The GWP of GHG emissions are shown in Table 8. The GWP is used to convert GHGs to CO_2-equivalence (CO_2e) to show the relative potential that different GHGs have to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. For example, under IPCC's Fourth Assessment Report (AR4) GWP values for CH_4, a project that generates 10 metric tons (MT) of CH_4 would be equivalent to 250 MT of CO_2 (IPCC 2007).

Table 8 GHG Emissions and Their Relative Global Warming Potential Compared to CO_2

GHGs	Second Assessment Report Atmospheric Lifetime (Years)	Fourth Assessment Report Atmospheric Lifetime (Years)	Second Assessment Report Global Warming Potential Relative to CO_2[1]	Fourth Assessment Report Global Warming Potential Relative to CO_2[1]
Carbon Dioxide (CO_2)	50 to 200	50 to 200	1	1
Methane[2] (CH_4)	12 (±3)	12	21	25
Nitrous Oxide (N_2O)	120	114	310	298
Hydrofluorocarbons:				
HFC-23	264	270	11,700	14,800
HFC-32	5.6	4.9	650	675
HFC-125	32.6	29	2,800	3,500
HFC-134a	14.6	14	1,300	1,430
HFC-143a	48.3	52	3,800	4,470
HFC-152a	1.5	1.4	140	124
HFC-227ea	36.5	34.2	2,900	3,220
HFC-236fa	209	240	6,300	9,810
HFC-4310mee	17.1	15.9	1,300	1,030
Perfluoromethane: CF_4	50,000	50,000	6,500	7,390
Perfluoroethane: C_2F_6	10,000	10,000	9,200	12,200
Perfluorobutane: C_4F_{10}	2,600	NA	7,000	8,860
Perfluoro-2-methylpentane: C_6F_{14}	3,200	NA	7,400	9,300
Sulfur Hexafluoride (SF_6)	3,200	NA	23,900	22,800

Source: IPCC 1995, 2007, 2013.
Notes:
1 The methane GWP includes direct effects and indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO_2 is not included.
2 Based on 100-year time horizon of the GWP of the air pollutant compared to CO_2.
3 The GWP values in the IPCC's Fifth Assessment Report (2013) reflect new information on atmospheric lifetimes of GHGs and an improved calculation of the radiative forcing of CO_2. However, South Coast AQMD uses the AR4 GWP values to maintain consistency in statewide GHG emissions modeling. In addition, the 2017 Scoping Plan Update was based on the AR4 GWP values.

California's Greenhouse Gas Sources and Relative Contribution

In 2020, the statewide GHG emissions inventory was updated for 2000 to 2018 emissions using the GWPs in IPCC's AR4.[10] Based on these GWPs, California produced 425.3 $MMTCO_2e$ GHG emissions in 2018. California's transportation sector was the single largest generator of GHG emissions, producing 39.9 percent of the state's total emissions. Industrial sector emissions made up 21.0 percent, and electric power generation

[10] Methodology for determining the statewide GHG inventory is not the same as the methodology used to determine statewide GHG emissions under Assembly Bill 32 (2006).

made up 14.8 percent of the state's emissions inventory. Other major sectors of GHG emissions include commercial and residential (9.7 percent), agriculture and forestry (7.7 percent) high GWP (4.8 percent), and recycling and waste (2.1 percent) (CARB 2020a).

Since the peak level in 2004, California statewide GHG emissions dropped below the 2020 GHG limit of 431 $MMCO_2e$ in 2016 and have remained below the 2020 GHG limit since then. In 2018, emissions from routine GHG emitting activities statewide were 6 $MMTCO_2e$ lower than the 2020 GHG limit. Per capita GHG emissions in California have dropped from a 2001 peak of 14.0 $MTCO_2e$ per person to 10.7 $MTCO_2e$ per person in 2018, a 24 percent decrease. Transportation emissions decreased in 2018 compared to the previous year, which is the first year over year decrease since 2013. Since 2008, California's electricity sector has followed an overall downward trend in emissions. In 2018, solar power generation has continued its rapid growth since 2013. Emissions from high-GWP gases increased 2.3 percent in 2018 (2000-2018 average year-over-year increase is 6.8 percent), continuing the increasing trend as they replace Ozone Depleting Substances (ODS) being phased out under the 1987 Montreal Protocol. Overall trends in the inventory also demonstrate that the carbon intensity of California's economy (the amount of carbon pollution per million dollars of gross domestic product (GDP)) is declining, representing a 43 percent decline since the 2001 peak, while the state's GDP has grown 59 percent during this period (CARB 2020a).

Regulatory Settings

REGULATION OF GHG EMISSIONS ON A NATIONAL LEVEL

The US Environmental Protection Agency (EPA) announced on December 7, 2009, that GHG emissions threaten the public health and welfare of the American people and that GHG emissions from on-road vehicles contribute to that threat. The EPA's final findings respond to the 2007 U.S. Supreme Court decision that GHG emissions fit within the Clean Air Act definition of air pollutants. The findings do not in and of themselves impose any emission reduction requirements but allow the EPA to finalize the GHG standards proposed in 2009 for new light-duty vehicles as part of the joint rulemaking with the Department of Transportation (USEPA 2009).

To regulate GHGs from passenger vehicles, EPA was required to issue an endangerment finding. The finding identifies emissions of six key GHGs—CO_2, CH_4, N_2O, hydrofluorocarbons, perfluorocarbons, and SF_6—that have been the subject of scrutiny and intense analysis for decades by scientists in the United States and around the world. The first three are applicable to the project's GHG emissions inventory because they constitute the majority of GHG emissions and, per South Coast AQMD guidance, are the GHG emissions that should be evaluated as part of a project's GHG emissions inventory.

US Mandatory Report Rule for GHGs (2009)

In response to the endangerment finding, the EPA issued the Mandatory Reporting of GHG Rule that requires substantial emitters of GHG emissions (large stationary sources, etc.) to report GHG emissions data. Facilities that emit 25,000 MT or more of CO_2 per year are required to submit an annual report.

Update to Corporate Average Fuel Economy Standards (2017 to 2026)

The federal government issued new Corporate Average Fuel Economy (CAFE) standards in 2012 for model years 2017 to 2025, which required a fleet average of 54.5 miles per gallon in 2025. On March 30, 2020, the EPA finalized an updated CAFE and GHG emissions standards for passenger cars and light trucks and established new standards covering model years 2021 through 2026, known as the Safer Affordable Fuel Efficient (SAFE) Vehicles Final Rule for Model Years 2021 to 2026. However, in May 2020, California and 22 other states; the District of Columbia; the cities of Los Angeles, Denver, and New York; and the counties of San Francisco and Denver filed a lawsuit with the U.S. Court of Appeals for the District of Columbia Circuit, challenging the SAFE Rule. To date, a ruling has not been made on the lawsuit. In addition, a consortium of automakers and California have agreed on a voluntary framework to reduce emissions that can serve as an alternative path forward for clean vehicle standards nationwide. Automakers who agreed to the framework are Ford, Honda, BMW of North America, and Volkswagen Group of America. The framework supports continued annual reductions of vehicle GHG emissions through the 2026 model year, encourages innovation to accelerate the transition to electric vehicles, and gives industry the certainty needed to make investments and create jobs. This commitment means that the auto companies which are party to the voluntary agreement will only sell cars in the United States that meet these standards (CARB 2020b).

EPA Regulation of Stationary Sources under the Clean Air Act (Ongoing)

Pursuant to its authority under the Clean Air Act, the EPA has been developing regulations for new, large, stationary sources of emissions, such as power plants and refineries. Under former President Obama's 2013 Climate Action Plan, the EPA was directed to develop regulations for existing stationary sources as well. On June 19, 2019, the EPA issued the final Affordable Clean Energy (ACE) rule which became effective on August 19, 2019. The ACE rule was crafted under the direction of President Trump's Energy Independence Executive Order. It officially rescinds the Clean Power Plan rule issued during the Obama Administration and sets emissions guidelines for states in developing plans to limit CO_2 emissions from coal-fired power plants.

REGULATION OF GHG EMISSIONS ON A STATE LEVEL

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in Executive Order S-3-05, Executive Order B-30-15, Assembly Bill 32 (AB 32), Senate Bill 32 (SB 32) and Senate Bill 375 (SB 375).

Executive Order S-3-05

Executive Order S-3-05, signed June 1, 2005. Executive Order S-3-05 set the following GHG reduction targets for the State:

- 2000 levels by 2010
- 1990 levels by 2020
- 80 percent below 1990 levels by 2050

Assembly Bill 32, the Global Warming Solutions Act (2006)

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in AB 32. AB 32 was passed by the California state legislature on August 31, 2006, to place the state on a course toward reducing its contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction targets established in Executive Order S-03-05.

CARB 2008 Scoping Plan

The final Scoping Plan was adopted by CARB on December 11, 2008. The *2008 Scoping Plan* identified that GHG emissions in California are anticipated to be approximately 596 $MMTCO_2e$ in 2020. In December 2007, CARB approved a 2020 emissions limit of 427 $MMTCO_2e$ (471 million tons) for the state (CARB 2008). In order to effectively implement the emissions cap, AB 32 directed CARB to establish a mandatory reporting system to track and monitor GHG emissions levels for large stationary sources that generate more than 25,000 $MTCO_2e$ per year, prepare a plan demonstrating how the 2020 deadline can be met, and develop appropriate regulations and programs to implement the plan by 2012.

First Update to the Scoping Plan

CARB completed a five-year update to the 2008 Scoping Plan, as required by AB 32. The First Update to the Scoping Plan was adopted at the May 22, 2014, board hearing. The update highlights California's progress toward meeting the near-term 2020 GHG emission reduction goals defined in the original 2008 Scoping Plan. As part of the update, CARB recalculated the 1990 GHG emission levels with the updated AR4 GWPs, and the 427 $MMTCO_2e$ 1990 emissions level and 2020 GHG emissions limit, established in response to AB 32, is slightly higher at 431 $MMTCO_2e$ (CARB 2014).

As identified in the Update to the Scoping Plan, California is on track to meeting the goals of AB 32. However, the update also addresses the state's longer-term GHG goals within a post-2020 element. The post-2020 element provides a high-level view of a long-term strategy for meeting the 2050 GHG goals, including a recommendation for the state to adopt a midterm target. According to the Update to the Scoping Plan, local government reduction targets should chart a reduction trajectory that is consistent with or exceeds the trajectory created by statewide goals (CARB 2014). CARB identified that reducing emissions to 80 percent below 1990 levels will require a fundamental shift to efficient, clean energy in every sector of the economy. Progressing toward California's 2050 climate targets will require significant acceleration of GHG reduction rates. Emissions from 2020 to 2050 will have to decline several times faster than the rate needed to reach the 2020 emissions limit (CARB 2014).

Executive Order B-30-15

Executive Order B-30-15, signed April 29, 2015, sets a goal of reducing GHG emissions in the state to 40 percent of 1990 levels by year 2030. Executive Order B-30-15 also directs CARB to update the Scoping Plan to quantify the 2030 GHG reduction goal for the state and requires state agencies to implement measures to meet the interim 2030 goal as well as the long-term goal for 2050 in Executive Order S-03-05. It also requires the Natural Resources Agency to conduct triennial updates of the California adaption strategy, Safeguarding California, in order to ensure climate change is accounted for in state planning and investment decisions.

Senate Bill 32 and Assembly Bill 197

In September 2016, Governor Brown signed SB 32 and AB 197 into law, making the Executive Order goal for year 2030 into a statewide mandated legislative target. AB 197 established a joint legislative committee on climate change policies and requires the CARB to prioritize direction emissions reductions rather than the market-based cap-and-trade program for large stationary, mobile, and other sources.

2017 Climate Change Scoping Plan Update

Executive Order B-30-15 and SB 32 required CARB to prepare another update to the Scoping Plan to address the 2030 target for the state. On December 24, 2017, CARB adopted the 2017 Climate Change Scoping Plan Update, which outlines potential regulations and programs, including strategies consistent with AB 197 requirements, to achieve the 2030 target. The 2017 Scoping Plan establishes a new emissions limit of 260 $MMTCO_2e$ for the year 2030, which corresponds to a 40 percent decrease in 1990 levels by 2030 (CARB 2017c).

California's climate strategy will require contributions from all sectors of the economy, including enhanced focus on zero- and near-zero emission (ZE/NZE) vehicle technologies; continued investment in renewables, such as solar roofs, wind, and other types of distributed generation; greater use of low carbon fuels; integrated land conservation and development strategies; coordinated efforts to reduce emissions of short-lived climate pollutants (methane, black carbon, and fluorinated gases); and an increased focus on integrated land use planning, to support livable, transit-connected communities and conservation of agricultural and other lands. Requirements for GHG reductions at stationary sources complement local air pollution control efforts by the local air districts to tighten criteria air pollutants and TACs emissions limits on a broad spectrum of industrial sources. Major elements of the 2017 Scoping Plan framework include:

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing ZEV buses and trucks;
- Low Carbon Fuel Standard (LCFS), with an increased stringency (18 percent by 2030).
- Implementation of SB 350, which expands the Renewables Portfolio Standard (RPS) to 50 percent RPS and doubles energy efficiency savings by 2030.
- California Sustainable Freight Action Plan, which improves freight system efficiency, utilizes near-zero emissions technology, and deployment of ZEV trucks.
- Implementing the Short-Lived Climate Pollutant Strategy (SLPS), which focuses on reducing methane and hydrofluorocarbon emissions by 40 percent and anthropogenic black carbon emissions by 50 percent by year 2030.
- Post-2020 Cap-and-Trade Program that includes declining caps.
- Continued implementation of SB 375.

- Development of a Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

In addition to the statewide strategies listed above, the 2017 Climate Change Scoping Plan also identified local governments as essential partners in achieving the State's long-term GHG reduction goals and identified local actions to reduce GHG emissions. As part of the recommended actions, CARB recommends statewide targets of no more than 6 $MTCO_2e$ or less per capita by 2030 and 2 $MTCO_2e$ or less per capita by 2050. CARB recommends that local governments evaluate and adopt robust and quantitative locally-appropriate goals that align with the statewide per capita targets and the State's sustainable development objectives and develop plans to achieve the local goals. The statewide per capita goals were developed by applying the percent reductions necessary to reach the 2030 and 2050 climate goals (i.e., 40 percent and 80 percent, respectively) to the State's 1990 emissions limit established under AB 32. For CEQA projects, CARB states that lead agencies have discretion to develop evidenced-based numeric thresholds (mass emissions, per capita, or per service population)—consistent with the Scoping Plan and the state's long-term GHG goals. To the degree a project relies on GHG mitigation measures, CARB recommends that lead agencies prioritize on-site design features that reduce emissions, especially from VMT, and direct investments in GHG reductions within the project's region that contribute potential air quality, health, and economic co-benefits. Where further project design or regional investments are infeasible or not proven to be effective, CARB recommends mitigating potential GHG impacts through purchasing and retiring carbon credits.

The Scoping Plan scenario is set against what is called the business-as-usual (BAU) yardstick—that is, what would the GHG emissions look like if the State did nothing at all beyond the existing policies that are required and already in place to achieve the 2020 limit, as shown in Table 9. It includes the existing renewables requirements, advanced clean cars, the "10 percent" Low Carbon Fuel Standard (LCFS), and the SB 375 program for more vibrant communities, among others. However, it does not include a range of new policies or measures that have been developed or put into statute over the past two years. Also shown in the table, the known commitments are expected to result in emissions that are 60 $MMTCO_2e$ above the target in 2030. If the estimated GHG reductions from the known commitments are not realized due to delays in implementation or technology deployment, the post-2020 Cap-and-Trade Program would deliver the additional GHG reductions in the sectors it covers to ensure the 2030 target is achieved.

Table 9 2017 Climate Change Scoping Plan Emissions Reductions Gap

Modeling Scenario	2030 GHG Emissions $MMTCO_2e$
Reference Scenario (Business-as-Usual)	389
With Known Commitments	320
2030 GHG Target	**260**
Gap to 2030 Target	**60**

Source: CARB 2017c.

Table 10 provides estimated GHG emissions by sector, compared to 1990 levels, and the range of GHG emissions for each sector estimated for 2030.

Table 10 2017 Climate Change Scoping Plan Emissions Change by Sector

Scoping Plan Sector	1990 $MMTCO_2e$	2030 Proposed Plan Ranges $MMTCO_2e$	% Change from 1990
Agricultural	26	24-25	-8% to -4%
Residential and Commercial	44	38-40	-14% to -9%
Electric Power	108	30-53	-72% to -51%
High GWP	3	8-11	267% to 367%
Industrial	98	83-90	-15% to -8%
Recycling and Waste	7	8-9	14% to 29%
Transportation (including TCU)	152	103-111	-32% to -27%
Net Sink[1]	-7	TBD	TBD
Sub Total	431	294-339	-32% to -21%
Cap-and-Trade Program	NA	24-79	NA
Total	**431**	**260**	**-40%**

Source: CARB 2017c.
Notes: TCU = Transportation, Communications, and Utilities; TBD: To Be Determined.
[1] Work is underway through 2017 to estimate the range of potential sequestration benefits from the natural and working lands sector.

Senate Bill 1383

On September 19, 2016, the Governor signed SB 1383 to supplement the GHG reduction strategies in the Scoping Plan to consider short-lived climate pollutants, including black carbon and CH_4. Black carbon is the light-absorbing component of fine particulate matter produced during incomplete combustion of fuels. SB 1383 requires the state board, no later than January 1, 2018, to approve and begin implementing that comprehensive strategy to reduce emissions of short-lived climate pollutants to achieve a reduction in methane by 40 percent, hydrofluorocarbon gases by 40 percent, and anthropogenic black carbon by 50 percent below 2013 levels by 2030, as specified. The bill also establishes targets for reducing organic waste in landfill. On March 14, 2017, CARB adopted the "Final Proposed Short-Lived Climate Pollutant Reduction Strategy," which identifies the state's approach to reducing anthropogenic and biogenic sources of short-lived climate pollutants. Anthropogenic sources of black carbon include on- and off-road transportation, residential wood burning, fuel combustion (charbroiling), and industrial processes. According to CARB, ambient levels of black carbon in California are 90 percent lower than in the early 1960s despite the tripling of diesel fuel use (CARB 2017b). In-use on-road rules are expected to reduce black carbon emissions from on-road sources by 80 percent between 2000 and 2020. South Coast AQMD is one of the air districts that requires air pollution control technologies for chain-driven broilers, which reduces particulate emissions from these charbroilers by over 80 percent (CARB 2017b). Additionally, South Coast AQMD Rule 445 limits installation of new fireplaces in the SoCAB.

Senate Bill 375

In 2008, SB 375, the Sustainable Communities and Climate Protection Act, was adopted to connect the GHG emissions reductions targets established in the 2008 Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce VMT and vehicle

trips. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 18 metropolitan planning organizations (MPOs). The Southern California Association of Governments (SCAG) is the MPO for the Southern California region, which includes the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial.

Pursuant to the recommendations of the Regional Transportation Advisory Committee, CARB adopted per capita reduction targets for each of the MPOs rather than a total magnitude reduction target. SCAG's targets are an 8 percent per capita reduction from 2005 GHG emission levels by 2020 and a 13 percent per capita reduction from 2005 GHG emission levels by 2035 (CARB 2010). The 2020 targets are smaller than the 2035 targets because a significant portion of the built environment in 2020 has been defined by decisions that have already been made. In general, the 2020 scenarios reflect that more time is needed for large land use and transportation infrastructure changes. Most of the reductions in the interim are anticipated to come from improving the efficiency of the region's transportation network. The targets would result in 3 $MMTCO_2e$ of reductions by 2020 and 15 $MMTCO_2e$ of reductions by 2035. Based on these reductions, the passenger vehicle target in CARB's Scoping Plan (for AB 32) would be met (CARB 2010).

2017 Update to the SB 375 Targets

CARB is required to update the targets for the MPOs every eight years. In June 2017, CARB released updated targets and technical methodology and recently released another update in February 2018. The updated targets consider the need to further reduce VMT, as identified in the 2017 Scoping Plan Update, while balancing the need for additional and more flexible revenue sources to incentivize positive planning and action toward sustainable communities. Like the 2010 targets, the updated SB 375 targets are in units of percent per capita reduction in GHG emissions from automobiles and light trucks relative to 2005. This excludes reductions anticipated from implementation of state technology and fuels strategies and any potential future state strategies such as statewide road user pricing. The proposed targets call for greater per capita GHG emission reductions from SB 375 than are currently in place, which for 2035, translate into proposed targets that either match or exceed the emission reduction levels in the MPOs' currently adopted SCSs. As proposed, CARB staff's proposed targets would result in an additional reduction of over 8 $MMTCO_2e$ in 2035 compared to the current targets. For the next round of SCS updates, CARB's updated targets for the SCAG region are an 8 percent per capita GHG reduction in 2020 from 2005 levels (unchanged from the 2010 target) and a 19 percent per capita GHG reduction in 2035 from 2005 levels (compared to the 2010 target of 13 percent) (CARB 2018). CARB adopted the updated targets and methodology on March 22, 2018. All SCSs adopted after October 1, 2018 are subject to these new targets.

SCAG's Regional Transportation Plan / Sustainable Communities Strategy

SB 375 requires each MPO to prepare a sustainable communities strategy in its regional transportation plan. For the SCAG region, the draft 2020-2045 RTP/SCS (Connect SoCal) was adopted on May 7, 2020 for the limited purpose of transportation conformity (SCAG 2020). The Connect SoCal Plan was fully adopted in September 2020. In general, the SCS outlines a development pattern for the region that, when integrated with the transportation network and other transportation measures and policies, would reduce vehicle miles traveled from automobiles and light duty trucks and thereby reduce GHG emissions from these sources.

Connect SoCal focuses on the continued efforts of the previous RTP/SCSs to integrate transportation and land use strategies in development of the SCAG region through horizon year 2045 (SCAG 2020). Connect SoCal forecasts that the SCAG region will meet its GHG per capita reduction targets of 8 percent by 2020 and 19 percent by 2035. Additionally, Connect SoCal also forecasts that implementation of the plan will reduce VMT per capita in year 2045 by 4.1 percent compared to baseline conditions for that year. Connect SoCal includes a "Core Vision" that centers on maintaining and better managing the transportation network for moving people and goods while expanding mobility choices by locating housing, jobs, and transit closer together and increasing investments in transit and complete streets.

Assembly Bill 1493

California vehicle GHG emission standards were enacted under AB 1493 (Pavley I). Pavley I is a clean-car standard that reduces GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and was anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016. California implements the Pavley I standards through a waiver granted to California by the EPA. In 2012, the EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model year 2017 through 2025 light-duty vehicles (see also the discussion on the update to the Corporate Average Fuel Economy standards under *Federal Laws*, above). In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of zero-emission vehicles into a single package of standards. Under California's Advanced Clean Car program, by 2025, new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions.

Executive Order S-01-07

On January 18, 2007, the state set a new LCFS for transportation fuels sold in the state. Executive Order S-01-07 sets a declining standard for GHG emissions measured in carbon dioxide equivalent gram per unit of fuel energy sold in California. The LCFS requires a reduction of 2.5 percent in the carbon intensity of California's transportation fuels by 2015 and a reduction of at least 10 percent by 2020. The standard applies to refiners, blenders, producers, and importers of transportation fuels, and would use market-based mechanisms to allow these providers to choose how they reduce emissions during the "fuel cycle" using the most economically feasible methods.

Senate Bills 1078, 107, X1-2, and Executive Order S-14-08

A major component of California's Renewable Energy Program is the RPS established under Senate Bills 1078 (Sher) and 107 (Simitian). Under the RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010. Executive Order S-14-08 was signed in November 2008, which expanded the state's Renewable Energy Standard to 33 percent renewable power by 2020. This standard was adopted by the legislature in 2011 (SB X1-2). Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. The increase in renewable sources for electricity production will decrease indirect GHG emissions from development projects, because electricity production from renewable sources is generally considered carbon neutral.

Senate Bill 350

Senate Bill 350 (de Leon), was signed into law in September 2015. SB 350 establishes tiered increases to the RPS of 40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy efficiency savings in electricity and natural gas through energy efficiency and conservation measures.

Senate Bill 100

On September 10, 2018, Governor Brown signed SB 100, which raises California's RPS requirements to 60 percent by 2030, with interim targets, and 100 percent by 2045. The bill also establishes a state policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045. Under the bill, the state cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

Executive Order B-55-18

Executive Order B-55-18, signed September 10, 2018, sets a goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." Executive Order B-55-18 directs CARB to work with relevant state agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. The goal of carbon neutrality by 2045 is in addition to other statewide goals, meaning not only should emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions be offset by equivalent net removals of CO_2e from the atmosphere, including through sequestration in forests, soils, and other natural landscapes.

Executive Order B-16-2012

On March 23, 2012, the state identified that CARB, the California Energy Commission (CEC), the Public Utilities Commission, and other relevant agencies worked with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to accommodate zero-emissions vehicles in major metropolitan areas, including infrastructure to support them (e.g., electric vehicle charging stations). The executive order also directs the number of zero-emission vehicles in California's state vehicle fleet to increase through the normal course of fleet replacement so that at least 10 percent of fleet purchases of light-duty vehicles are zero-emission by 2015 and at least 25 percent by 2020. The executive order also establishes a target for the transportation sector of reducing GHG emissions from the transportation sector 80 percent below 1990 levels.

Executive Order N-79-20

On September 23, 2020 Governor Newsom signed Executive Order N-79-20 which identifies a goal that 100 percent of in-state sales of new passenger cars and trucks will be zero-emission by 2035. Additionally, this Executive Order identified fleet goals for trucks of 100 percent of drayage trucks be zero emissions by 2035 and 100 percent of medium- and heavy-duty vehicles in the State be zero-emission by 2045, for all operations where feasible. Additionally, the Executive Order identifies a goal for the State to transition to 100 percent zero-emission off-road vehicles and equipment by 2035 where feasible.

California Building Code: Building Energy Efficiency Standards

Energy conservation standards for new residential and non-residential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977 and most recently revised in 2019 (Title 24, Part 6, of the California Code of Regulations [CCR]). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. The 2019 Building Energy Efficiency Standards, which were adopted on May 9, 2018, went into effect on January 1, 2020.

The 2019 standards move towards cutting energy use in new homes by more than 50 percent and will require installation of solar photovoltaic systems for single-family homes and multi-family buildings of 3 stories and less. Four key areas the 2019 standards will focus on include 1) smart residential photovoltaic systems; 2) updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa); 3) residential and nonresidential ventilation requirements; 4) and nonresidential lighting requirements (CEC 2018a). Under the 2019 standards, nonresidential buildings and multifamily residential buildings of four stories or more will be 30 percent more energy efficient compared to the 2016 standards while single-family homes will be 7 percent more energy efficient (CEC 2018b). When accounting for the electricity generated by the solar photovoltaic system, single-family homes would use 53 percent less energy compared to homes built to the 2016 standards (CEC 2018b).

California Building Code: CALGreen

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (24 CCR, Part 11, known as "CALGreen") was adopted as part of the California Building Standards Code. CALGreen established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.[11] The mandatory provisions of CALGreen became effective January 1, 2011. The CEC adopted the voluntary standards of the 2019 CALGreen on October 3, 2018. The 2019 CALGreen standards become effective January 1, 2020.

2006 Appliance Efficiency Regulations

The 2006 Appliance Efficiency Regulations (20 CCR §§ 1601–1608) were adopted by the CEC on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non–federally regulated appliances. Though these regulations are now often viewed as "business as usual," they exceed the standards imposed by all other states, and they reduce GHG emissions by reducing energy demand.

Solid Waste Regulations

California's Integrated Waste Management Act of 1989 (AB 939; Public Resources Code §§ 40050 et seq.) set a requirement for cities and counties throughout the state to divert 50 percent of all solid waste from landfills by January 1, 2000, through source reduction, recycling, and composting. In 2008, the requirements were modified to reflect a per capita requirement rather than tonnage. To help achieve this, the act requires that each

[11] The green building standards became mandatory in the 2010 edition of the code.

city and county prepare and submit a source reduction and recycling element. AB 939 also established the goal for all California counties to provide at least 15 years of ongoing landfill capacity.

AB 341 (Chapter 476, Statutes of 2011) increased the statewide goal for waste diversion to 75 percent by 2020 and requires recycling of waste from commercial and multifamily residential land uses. Section 5.408 of the CALGreen also requires that at least 65 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.

The California Solid Waste Reuse and Recycling Access Act (AB 1327; Public Resources Code §§ 42900 et seq.) requires areas to be set aside for collecting and loading recyclable materials in development projects. The act required the California Integrated Waste Management Board to develop a model ordinance for adoption by any local agency requiring adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model or an ordinance of their own.

Section 5.408 of the 2019 CALGreen also requires that at least 65 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.

In October of 2014, Governor Brown signed AB 1826, requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions across the state implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily residential dwellings that consist of five or more units. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste.

Water Efficiency Regulations

The 20x2020 Water Conservation Plan was issued by the Department of Water Resources (DWR) in 2010 pursuant to Senate Bill 7, which was adopted during the 7th Extraordinary Session of 2009–2010 and therefore dubbed "SBX7-7." SBX7-7 mandated urban water conservation and authorized the DWR to prepare a plan implementing urban water conservation requirements (20x2020 Water Conservation Plan). In addition, it required agricultural water providers to prepare agricultural water management plans, measure water deliveries to customers, and implement other efficiency measures. SBX7-7 requires urban water providers to adopt a water conservation target of 20 percent reduction in urban per capita water use by 2020 compared to 2005 baseline use.

The Water Conservation in Landscaping Act of 2006 (AB 1881) requires local agencies to adopt the updated DWR model ordinance or equivalent. AB 1881 also requires the CEC to consult with the DWR to adopt, by regulation, performance standards and labeling requirements for landscape irrigation equipment, including irrigation controllers, moisture sensors, emission devices, and valves to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water.

Thresholds of Significance

The CEQA Guidelines recommend that a lead agency consider the following when assessing the significance of impacts from GHG emissions on the environment:

1. The extent to which the project may increase (or reduce) GHG emissions as compared to the existing environmental setting;

2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project;

3. The extent to which the project complies with regulations or requirements adopted to implement an adopted statewide, regional, or local plan for the reduction or mitigation of GHG emissions.[12]

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, South Coast AQMD has convened a GHG CEQA Significance Threshold Working Group (Working Group). Based on the last Working Group meeting (Meeting No. 15) held in September 2010, South Coast AQMD is proposing to adopt a tiered approach for evaluating GHG emissions for development projects where South Coast AQMD is not the lead agency (South Coast AQMD 2010):

- **Tier 1.** If a project is exempt from CEQA, project-level and cumulative GHG emissions are less than significant.

- **Tier 2.** If the project complies with a GHG emissions reduction plan or mitigation program that avoids or substantially reduces GHG emissions in the project's geographic area (i.e., city or county), project-level and cumulative GHG emissions are less than significant.

- **Tier 3.** If GHG emissions are less than the screening-level threshold, project-level and cumulative GHG emissions are less than significant.

  For projects that are not exempt or where no qualifying GHG reduction plans are directly applicable, South Coast AQMD requires an assessment of GHG emissions. South Coast AQMD is proposing a screening-level threshold of 3,000 $MTCO_2e$ annually for all land use types or the following land-use-specific thresholds: 1,400 $MTCO_2e$ for commercial projects, 3,500 $MTCO_2e$ for residential projects, or 3,000 $MTCO_2e$ for mixed-use projects. These bright-line thresholds are based on a review of the Governor's Office of Planning and Research database of CEQA projects. Based on their review of 711 CEQA projects, 90 percent of CEQA projects would exceed the bright-line thresholds identified above. Therefore, projects that do not exceed the bright-line threshold would have a nominal, and therefore, less than cumulatively considerable impact on GHG emissions:

[12] The Governor's Office of Planning and Research recommendations include a requirement that such a plan must be adopted through a public review process and include specific requirements that reduce or mitigate the project's incremental contribution of GHG emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable, notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

- **Tier 4.** If emissions exceed the screening threshold, a more detailed review of the project's GHG emissions is warranted.

  The South Coast AQMD Working Group has identified an efficiency target for projects that exceed the screening threshold of 4.8 $MTCO_2e$ per year per service population ($MTCO_2e$/year/SP) for project-level analyses and 6.6 $MTCO_2e$/year/SP for plan level projects (e.g., program-level projects such as general plans) for the year 2020.[13] The per capita efficiency targets are based on the AB 32 GHG reduction target and 2020 GHG emissions inventory prepared for CARB's 2008 Scoping Plan.

For purposes of this analysis, because the proposed project has an anticipated opening year post-2020, the bright-line screening-level criterion of 3,000 $MTCO_2e$/yr is used as the significance threshold for this project. Therefore, if the project operation-phase emissions exceed the 3,000 $MTCO_2e$/yr threshold, GHG emissions would be considered potentially significant in the absence of mitigation measures.

[13] It should be noted that the Working Group also considered efficiency targets for 2035 for the first time in this Working Group meeting.

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Assumptions Worksheet

CalEEMod Inputs - The Mercury Project, Construction

Name:	The Mercury Project
Project Number:	OPL-01
Project Location:	8825 Washington Boulevard
County/Air Basin:	Los Angeles
Climate Zone:	9
Land Use Setting:	Urban
Operational Year:	2023
Utility Company:	Southern California Edison
Air Basin:	South Coast Air Basin
Air District:	SCAQMD
SRA:	5 - Southeast LA County

Proiect Site Acreage	2.85
Disturbed Site Acreage	2.85

Project Components	SQFT	Tons		
Demolition				
Asphalt Demolition	124,146	1,839		
New Construction	***Number of Units***	***SQFT***	***ACRES***	**Number of Floors**
Apartments	255	258,720	0.99	6
Ground-level Lobby/Leasing Space		1,500	0.00	
Rooftop Recreation and Pool Deck		17,010	0.00	
Total Residential Area		**277,230**	**0.99**	
Retail		5,730	0.00	
Total Non-Residential Area		**5,730**	**0.00**	
Parking Structure*		190,000	0.34	
Other Asphalt Surfaces		45,000	1.03	
Total Landscaping:		21,000	0.48	

* assigning remaining area to parking structure

CalEEMod Land Use Inputs

Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage*	Land Use Square Feet
Residential	Apartments (Mid-Rise)	255	DU	0.99	260,220
Recreational	Recreational Swimming Pool	17.010	1000 sqft	0.00	17,010
Retail	Regional Shopping Center	5.730	1000 sqft	0.00	5,730
Parking	Enclosed Parking Structure with Elevator	190.000	1000 sqft	0.34	190,000
Parking	Other Asphalt Surfaces	45.000	1000 sqft	1.03	45,000
Parking	Other Non-asphalt Surfaces	21.000	1000 sqft	0.48	21,000
				2.85	

Demolition

Component	Amount to be Demolished (Tons)	Haul Truck Capacity (Tons)[1]	Haul Distance (miles)[2]	Total Trip Ends	Duration (days)	Trip Ends/Day
Total Asphalt Demo	1,839	20	19	184	5	37
Total	1,839			184		

1 CalEEMod default truck capacity

2 Based on distance to Azusa Transfer Station provided by applicant

Soil Haul[1]

Construction Activities	Volume (CY)	Haul Truck Capacity (cy)[1]	Haul Distance (miles)[2]	Total Trip Ends	Total Days	Trip Ends/Day
Rough Grading (Export)	7,400	14	19	1058	12	88
Fine Grading (Export)	20,000	14	19	2858	20	143

1 CalEEMod default truck capacity

2 Based on distance to Azusa Transfer Station provided by applicant

Architectural Coating

Percentage of Proposed Buildings' Interior Painted: 100%

Percentage of Proposed Buildings' Exterior Painted: 100%

Rule 1113

Interior Paint VOC content: 50 grams per liter

Exterior Paint VOC content: 50 grams per liter

Structures	Land Use Square Feet	CalEEMod Factor[2]	Total Paintable Surface Area	Paintable Interior Area[1]	Paintable Exterior Area[1]
Total Residential Area[3]					
Apartments (Mid-Rise)	277,230	2.7	748,521	561,391	187,130
				561,391	**187,130**
Total Non-Residential					
Retail	5,730	2.0	11,460	8,595	2,865
Parking Structure	190,000	2.0	380,000	285,000	95,000
				293,595	**97,865**
Parking Structure	190,000	6%	11,400		11,400
			11,400		11,400

[1] CalEEMod methodology calculates the paintable interior and exterior areas by multiplying the total paintable surface area by 75 and 25 percent, respectively.

[2] The program assumes the total surface for painting equals 2.7 times the floor square footage for residential and 2 times that for nonresidential square footage defined by the user. Architectural coatings for the parking lot is based on CalEEMod methodology applied to a surface parking lot (i.e., striping), in which 6% of surface area is painted.

[3] Total Residential coating includes the swimming pool area and leasing office

Construction Mitigation

SCAQMD Rule 403

Replace Ground Cover	PM10:	5	% Reduction
Replace Ground Cover	PM2.5:	5	% Reduction
Water Exposed Area	Frequency:	2	per day
	PM10:	55	% Reduction
	PM25:	55	% Reduction
Unpaved Roads	Vehicle Speed:	15	mph
SCAQMD Rule 1186	Clean Paved Road	9	% PM Reduction

Construction Activities and Schedule Assumptions: The Mercury Project

based on durations provided by Applicant

Construction Schedule

Construction Activities	Phase Type	Start Date	End Date	CalEEMod Duration (Workday)
Asphalt Demolition	Demolition	1/1/2022	2/22/2022	37
Asphalt Demolition Debris Haul	Demolition	2/16/2022	2/22/2022	5
Site Preparation	Site Preparation	2/23/2022	3/2/2022	6
Rough Grading	Grading	3/3/2022	4/13/2022	30
Rough Grading Soil Haul	Grading	3/29/2022	4/13/2022	12
Utility Trenching	Trenching	4/14/2022	7/6/2022	60
Fine Grading	Grading	5/12/2022	6/8/2022	20
Fine Grading Soil Haul	Grading	5/12/2022	6/8/2022	20
Building Construction	Building Construction	5/12/2022	12/1/2023	407
Paving	Paving	10/11/2023	11/6/2023	19
Architectural Coating	Architectural Coating	11/7/2023	12/1/2023	19

Overlapping Construction Schedule

Construction Activities	Start Date	End Date	CalEEMod Duration (Workday)
Asphalt Demolition	1/1/2022	2/15/2022	32
Asphalt Demolition and Debris Haul	2/16/2022	2/22/2022	5
Site Preparation	2/23/2022	3/2/2022	6
Rough Grading	3/3/2022	3/28/2022	18
Rough Grading and Soil Haul	3/29/2022	4/13/2022	12
Utilities Trenching	4/14/2022	5/11/2022	20
Utilities Trenching, Fine Grading and Soil Haul, and Building Construction 2022	5/12/2022	6/8/2022	20
Utilities Trenching and Building Construction 2022	6/9/2022	7/6/2022	20
Building Construction 2022	7/7/2022	12/31/2022	127
Building Construction 2023	1/1/2023	10/10/2023	202
Building Construction 2023 and Paving	10/11/2023	11/6/2023	19
Building Construction 2023 and Architectural Coating	11/7/2023	12/1/2023	19

CalEEMod Construction Off-Road Equipment Inputs

**Based on equipment mix provided by the Applicant.*

General Construction Hours: btwn 7:00 AM to 4:00 PM (with 1 hr break), Mon-Fri

Construction Equipment Details						
Equipment	**Model Type**	**# of Equipment**	**hr/day**	**hp**	**load factor***	**total trips/Day**
Asphalt Demolition						
Concrete/Industrial Saws		1	8	81	0.73	
Rubber Tired Dozers		1	8	247	0.4	
Tractors/Loaders/Backhoes		3	8	97	0.37	
Worker Trips						13
Vendor Trips						0
Hauling Trips (TOTAL TRIPS)						0
Water Trucks						2
Asphalt Demolition Debris Haul						
no additional equipment required for Asphalt Demolition Haul						
Worker Trips						0
Vendor Trips						0
Hauling Trips						184
Site Preparation						
Graders		1	8	187	0.41	
Scrapers		1	8	367	0.48	
Tractors/Loaders/Backhoes	CAT 966 Loader	1	7	276	0.37	
Worker Trips						8
Vendor Trips						0
Hauling Trips (TOTAL TRIPS)						0
Water Trucks						2
Rough Grading						
Excavators	Deere 350	1	8	270	0.38	
Graders		1	8	187	0.41	
Rollers		1	8	134	0.38	
Rubber Tired Dozers		1	8	247	0.4	
Scrapers		1	8	367	0.48	
Tractors/Loaders/Backhoes		2	7	97	0.37	
Worker Trips						18
Vendor Trips						0
Hauling Trips (TOTAL TRIPS)						0
Water Trucks						2
Rough Grading Soil Haul						
no additional equipment required for Grading Soil Haul						
Worker Trips						0
Vendor Trips						0
Hauling Trips (TOTAL TRIPS)						1,058

**10 dump trucks provided by applicant accounted for in hauling trips*

Utility Trenching						
Excavators	Hitachi 300 Excavator	1	6	249	0.38	
Plate Compactors		5	8	7	0.43	
Tractors/Loaders/Backhoes	Cat 950 Loader	1	8	225	0.37	
Trenchers		1	8	50	0.5	
Worker Trips						20
Vendor Trips						4
Hauling Trips (TOTAL TRIPS)						0

**2 dump trucks included as vendor trips, assumes 2 vendor trips per dump truck*

Fine Grading						
Tractors/Loaders/Backhoes		1	8	225	0.37	
Hand Compactors		5	8	6.8	0.43	
Worker Trips						15
Vendor Trips						4
Hauling Trips (TOTAL TRIPS)						0
Water Trucks						2

**2 dump trucks included as vendor trips, assumes 2 vendor trips per dump truck*

Fine Grading Soil Haul						
no additional equipment required for Grading Soil Haul						
Worker Trips						0
Vendor Trips						0
Hauling Trips (TOTAL TRIPS)						2,858

**10 dump trucks provided by applicant accounted for in hauling trips*

Building Construction						
Cranes		1	8	231	0.29	
Forklifts		2	7	89	0.2	
Generator Sets		1	8	84	0.74	
Tractors/Loaders/Backhoes		1	6	97	0.37	
Welders		3	8	46	0.45	
Worker Trips						60
Vendor Trips						3
Hauling Trips (TOTAL TRIPS)						0

** 60 worker and 3 vendor trips provided by Applicant*

Paving						
Cement and Mortar Mixers		1	8	9	0.56	
Pavers		1	8	130	0.42	
Paving Equipment		1	8	132	0.36	
Rollers		2	8	80	0.38	
Tractors/Loaders/Backhoes		1	8	97	0.37	
Worker Trips						15
Vendor Trips						0
Hauling Trips (TOTAL TRIPS)						0

Architectural Coating*						
Air Compressors		1	6	78	0.48	
Worker Trips						12
Vendor Trips						0
Hauling Trips (TOTAL TRIPS)						0

** Architectural coating worker trips is assumed to be 20% of building construction worker trips based on CalEEMod Appendix A calculations.*

CalEEMod Inputs - The Mercury Project, Operations

Name:	The Mercury Project, Operations
Project Number:	OPL-01
Project Location:	8825 Washington Boulevard
County/Air Basin:	Los Angeles
Climate Zone:	9
Land Use Setting:	Urban
Operational Year:	2023
Utility Company:	Southern California Edison
Air Basin:	South Coast Air Basin
Air District:	SCAQMD
SRA:	5 - Southeast LA County

Proiect Site Acreage	2.85
Disturbed Site Acreage	2.85

CalEEMod Land Use Inputs

Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage	Land Use Square Feet
Residential	Apartments (Mid-Rise)	255	DU	0.99	260,220
Recreational	Recreational Swimming Pool	17.50	1000 sqft	0.00	17,500
Retail	Regional Shopping Center	2.87	1000 sqft	0.00	2,865
Recreational	High Turn-Over (Sit Down Restaurant)	2.87	1000 sqft	0.00	2,865
Parking	Enclosed Parking Structure with Elevator	190.00	1000 sqft	0.34	190,000
Parking	Other Asphalt Surfaces	45.00	1000 sqft	1.03	45,000
Parking	Other Non-asphalt Surfaces	21.00	1000 sqft	0.48	21,000
				2.85	

Trips

Land Use Type	Average Daily Trips	CalEEMod Trip Rate	Saturday Trips[1]	CalEEMod Trip Rate	Sunday Trips[1]	CalEEMod Trip
Apartments (Mid-Rise)	1,165	**4.57**	1,165	**4.57**	1,165	**4.57**
Regional Shopping Center	113	**39.27**	113	**39.27**	113	**39.27**
Restaurant	317	**110.47**	317	**110.47**	317	**110.47**
Total	**1,594**		**1,594**		**1,594**	

[1] *assumes that Saturday and Sunday trips are the same as weekday trips*

Number of Residents	962
VMT per Capita[1]	12.21
Apartments Daily Weekday VMT	11,746

[1] *includes TDM measures*

Trips	Average Trip Length (mi/trip)	Annual Vehicle Miles Traveled[2]
Apartment	**10.08**	**4,275,551**
Regional Shopping Center[1]	**9.45**	**387,043**
Restaurant[1]	**8.81**	**1,015,195**
Total		**5,677,790**

Source: LLG. 2021, June.

[1] *CalEEMod defaults*

[2] *Annual VMT is calculated based on weekday VMT x 364 days per year.*

	Trip Type Percentages		
	Primary	Diverted	Passby
Apartments (Mid-Rise)	86%	11%	3%
Restaurant	37%	20%	43%
Regional Shopping Center	54%	35%	11%
Adjusted Trip Type Percentages	**100%**	**0%**	**0%**

Water Use (CalEEMod Defaults)

Land Use	Indoor	Outdoor	Total
Apartments Mid Rise	16,614,277	10,474,218	27,088,494
Enclosed Parking with Elevator	0	0	0
High Turnover (Sit Down Restaurant)	834,718	53,280	887,998
Other Asphalt Surfaces	0	0	0
Other Non-Asphalt Surfaces	0	0	0
Recreational Swimming Pool	798,432	489,362	1,287,794
Regional Shopping Center	203,699	124,848	328,547

*Assumes 100% aerobic treatment.

Solid Waste (CalEEMod Defaults)

Land Use	(tons/year)
Apartments Mid Rise	117.30
Enclosed Parking with Elevator	0.00
High Turnover (Sit Down Restaurant)	32.73
Other Asphalt Surfaces	0.00
Other Non-Asphalt Surfaces	0.00
Recreational Swimming Pool	76.95
Regional Shopping Center	2.89

Architectural Coating

Percentage of Proposed Buildings' Interior Painted: 100%

Percentage of Proposed Buildings' Exterior Painted: 100%

Rule 1113

Interior Paint VOC content: 50 grams per liter

Exterior Paint VOC content: 50 grams per liter

Structures	Land Use Square Feet	CalEEMod Factor[2]	Total Paintable Surface Area	Paintable Interior Area[1]	Paintable Exterior Area[1]
Total Residential Area[3]					
Apartments (Mid-Rise)	277,720	2.7	749,844	562,383	187,461
				562,383	**187,461**
Total Non-Residential[4]					
Retail	5,730	2.0	11,460	8,595	2,865
Parking Structure	190,000	2.0	380,000	285,000	95,000
				293,595	**97,865**
Parking Structure	190,000	6%	11,400		11,400
			11,400		11,400

[1]CalEEMod methodology calculates the paintable interior and exterior areas by multiplying the total paintable surface area by 75 and 25 percent, respectively.

[2] The program assumes the total surface for painting equals 2.7 times the floor square footage for residential and 2 times that for nonresidential square footage defined by the user. Architectural coatings for the parking lot is based on CalEEMod methodology applied to a surface parking lot (i.e., striping), in which 6% of surface area is painted.

[3] Total Residential coating includes the swimming pool area and leasing office

[4] Total Non-Residential does not include interior and exterior painting of the parking structure.

Fireplaces

**assuming no woodstoves*

Land Use	# Wood	# Gas	# Propane	# No Fireplace	Hours/Day	Days/Year[1]	BTU/hr/fireplace	KBTU
Grill[2]	0	3	0	252	3	104	60,000.00	56,160.00
Average Use	**0**	**3**	**0**	**252**	**3**	**104**	**60,000**	**56,160**

1 *assumes weekend use only*

2 *assumes grills and firepits will consume 60,000 BTU/hr (CalEEMod default BTU for fireplace)*

Electricity (Buildings)

Based on the Electricity and Natural Gas Energy Intensity default information from CalEEMod, which complies with 2019 Building Energy Efficiency Standards

Pico Rivera Innovative Municipal Energy

CO2:[1]	683.98	pounds per megawatt hour
CH4:[1]	0.033	pound per megawatt hour
N2O:1	0.004	pound per megawatt hour

[1] CalEEMod default values.

Global Warming Potentials (GWP)		
	AR4	**AR5**
CO_2	1	1
CH_4	25	28
N_2O	298	265

Based on Intergovernmental Panel on Climate Change Fourth Assessment Report global warming potentials for CH4 and N2O; Intergovernmental Panel on Climate Change (IPCC).

Changes to the CalEEMod Defaults - Fleet Mix 2023

Weekday Trips 1,577

Default	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	
FleetMix (Model Default)	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374	100%
Trips	859	99	296	201	36	10	17	13	1	1	38	1	5	1,577
Percent	82%			13%	5%									100%
without buses/MH	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0	0	0.024394	0.000698	0.003374	100%
Percent	82%			13%	5%									100%
Adjusted without buses/MH	0.544785	0.062844	0.187478	0.127235	0.023775	0.006264	0.010786	0.008250	0.000000	0.000000	0.025118	0.000719	0.003474	
Percent adjusted	82%			13%	5%									100%
Assumed Mix	97.0%			2.00%	1.00%									100%
adjusted with Assumed	**0.644264**	**0.074319**	**0.221712**	**0.020000**	**0.004463**	**0.001176**	**0.002025**	**0.001549**	**0.000000**	**0.000000**	**0.029705**	**0.000135**	**0.000652**	**100%**
Percent Check:	97%			2%	1%									
Trips	1,016	117	350	32	7	2	3	2	0	0	47	0	1	1,577
	1,530			*32*	*15*									

Fleet mix for the project is modified to reflect a higher proportion of passenger vehicles that the regional VMT. Assumes a mix of approximately 97% passenger vehicles, 2% medium duty trucks, and 1% heavy duty trucks and buses.

Construction Trips Worksheet

Phase Name	Worker Trip Ends Per Day	Vendor Trip Ends Per Day	Haul Truck Trip Ends Per Day	Total Haul Truck Trip Ends	Start Date	End Date	Workdays
Asphalt Demolition	13	2	0	0	1/1/2022	2/22/2022	37
Asphalt Demolition Debris Haul	0	0	37	184	2/16/2022	2/22/2022	5
Site Preparation	8	2	0	0	2/23/2022	3/2/2022	6
Rough Grading	18	2	0	0	3/3/2022	4/13/2022	30
Rough Grading Soil Haul	0	0	89	1,058	3/29/2022	4/13/2022	12
Utility Trenching	20	4	0	0	4/14/2022	7/6/2022	60
Building Construction	60	3	0	0	5/12/2022	12/1/2023	407
Fine Grading	15	6	0	0	10/31/2023	11/6/2023	5
Fine Grading Soil Haul	0	0	2,858	2,858	11/6/2023	11/6/2023	1
Paving	15	0	0	0	10/11/2023	11/6/2023	19
Architectural Coating	12	0	0	0	11/7/2023	12/1/2023	19

Construction Activity (Overlapping)	Worker Trip Ends Per Day	Vendor Trip Ends Per Day	Haul Truck Trip Ends Per Day	Total Trip Ends Per Day	Start Date	End Date	Workdays
Asphalt Demolition	13	2	0	15	1/1/2022	2/15/2022	32
Asphalt Demolition and Debris Haul	13	2	37		2/16/2022	2/22/2022	5
Site Preparation	8	2	0		2/23/2022	3/2/2022	6
Rough Grading	18	2	0		3/3/2022	3/28/2022	18
Rough Grading and Soil Haul	18	2	89		3/29/2022	4/13/2022	12
Utilities Trenching	20	4	0		4/14/2022	5/11/2022	20
Utilities Trenching and Building Construction 2022	80	7	0		5/12/2022	7/6/2022	40
Building Construction 2022	60	3	0		7/7/2022	12/31/2022	127
Building Construction 2023	60	3	0	63	1/1/2023	10/10/2023	202
Building Construction 2023 and Paving	75	3	0	78	10/11/2023	10/30/2023	14
Building Construction 2023, Paving, and Fine Grading	90	9	0	99	10/31/2023	11/5/2023	4
Building Construction 2023, Fine Grading and Soil Haul, and Paving	90	9	2,858	2957	11/6/2023	11/6/2023	1
Building Construction 2023 and Architectural Coating	72	3	0	75	11/7/2023	12/1/2023	19
Maximum Daily Trips	**90**	**9**	**2858**	**2957**			

Demo Haul Trip Calculation

*Conversion factors**

0.046	ton/SF
1.2641662	tons/cy
20	tons
15.82070459	CY
0.791035229	CY/ton

Building	BSF Demo	Tons/SF	Tons	Haul Truck (CY)	Haul Truck (Ton)	Round Trips	Total Trip Ends
Combined Building Demo	0	0.046	0	16	20.00	0	0

*CalEEMod User's Guide Version 2016.3.2, Appendix A

Pavement Volume to Weight Conversion

Component	Total SF of Area[1]	Assumed Thickness (foot)[2]	Debris Volume (cu. ft)	Weight of Crushed Asphalt (lbs/cf)[3]	AC Mass (lbs)	AC Mass (tons)
Asphalt	124,146	0.333	41,382	89	3,678,400	1839.20
Total	124,146					1839.20

[1] Based on information provided by applicant.

[2] Pavements and Surface Materials. Nonpoint Education for Municipal Officials, Technical Paper Number 8. University of Connecticut Cooperative Extension System, 1999.

[3] https://www.calrecycle.ca.gov/swfacilities/cdi/Tools/Calculations

Emissions Worksheet

Regional Construction Emissions Worksheet:

Asphalt Demolition		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	**2022 Summer**						
	Off-Road	1.69	16.62	13.96	0.02	0.84	0.78
	Total	**1.69**	**16.62**	**13.96**	**0.02**	**0.84**	**0.78**
Offsite							
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Vendor	0.00	0.10	0.03	0.00	0.01	0.00
	Worker	0.05	0.03	0.51	0.00	0.13	0.04
	Total	**0.05**	**0.13**	**0.55**	**0.00**	**0.15**	**0.04**
TOTAL		***1.74***	***16.75***	***14.51***	***0.03***	***0.99***	***0.82***
Onsite	**2022 Winter**						
	Off-Road	1.69	16.62	13.96	0.02	0.84	0.78
	Total	**1.69**	**16.62**	**13.96**	**0.02**	**0.84**	**0.78**
Offsite							
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Vendor	0.00	0.10	0.03	0.00	0.01	0.00
	Worker	0.05	0.04	0.47	0.00	0.13	0.04
	Total	**0.05**	**0.14**	**0.50**	**0.00**	**0.15**	**0.04**
TOTAL		***1.74***	***16.76***	***14.47***	***0.03***	***0.99***	***0.82***
Onsite	**2022**						
	Off-Road	1.69	16.62	13.96	0.02	0.84	0.78
	Total	**1.69**	**16.62**	**13.96**	**0.02**	**0.84**	**0.78**
Offsite							
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Vendor	0.00	0.10	0.03	0.00	0.01	0.00
	Worker	0.05	0.04	0.51	0.00	0.13	0.04
	Total	**0.05**	**0.14**	**0.55**	**0.00**	**0.15**	**0.04**
TOTAL		***1.74***	***16.76***	***14.51***	***0.03***	***0.99***	***0.82***

Asphalt Demolition Debris Haul		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	**2022** Summer						
	Fugitive Dust					3.36	0.51
	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.00**	**0.00**	**0.00**	**0.00**	**3.36**	**0.51**
Offsite							
	Hauling	0.16	5.91	1.39	0.02	0.61	0.20
	Vendor	0.00	0.00	0.00	0.00	0.00	0.00
	Worker	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.16**	**5.91**	**1.39**	**0.02**	**0.61**	**0.20**
TOTAL		***0.16***	***5.91***	***1.39***	***0.02***	***3.98***	***0.71***
Onsite	**2022** Winter						
	Fugitive Dust					3.36	0.51
	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.00**	**0.00**	**0.00**	**0.00**	**3.36**	**0.51**
Offsite							
	Hauling	0.16	6.15	1.42	0.02	0.61	0.20
	Vendor	0.00	0.00	0.00	0.00	0.00	0.00
	Worker	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.16**	**6.15**	**1.42**	**0.02**	**0.61**	**0.20**
TOTAL		***0.16***	***6.15***	***1.42***	***0.02***	***3.98***	***0.71***
Onsite	**2022**						
	Fugitive Dust	0.00	0.00	0.00	0.00	3.36	0.51
	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.00**	**0.00**	**0.00**	**0.00**	**3.36**	**0.51**
Offsite							
	Hauling	0.16	6.15	1.42	0.02	0.61	0.20
	Vendor	0.00	0.00	0.00	0.00	0.00	0.00
	Worker	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.16**	**6.15**	**1.42**	**0.02**	**0.61**	**0.20**
TOTAL		***0.16***	***6.15***	***1.42***	***0.02***	***3.98***	***0.71***

Site Preparation

			ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		**2022** Summer						
	Fugitive Dust						0.68	0.07
	Off-Road		1.49	16.47	10.12	0.03	0.60	0.55
	Total		**1.49**	**16.47**	**10.12**	**0.03**	**1.28**	**0.63**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.00	0.10	0.03	0.00	0.01	0.00
	Worker		0.03	0.02	0.31	0.00	0.08	0.02
	Total		**0.03**	**0.12**	**0.35**	**0.00**	**0.10**	**0.03**
TOTAL			***1.52***	***16.58***	***10.46***	***0.03***	***1.38***	***0.65***
Onsite		**2022** Winter						
	Fugitive Dust						0.68	0.07
	Off-Road		1.49	16.47	10.12	0.03	0.60	0.55
	Total		**1.49**	**16.47**	**10.12**	**0.03**	**1.28**	**0.63**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.00	0.10	0.03	0.00	0.01	0.00
	Worker		0.03	0.02	0.29	0.00	0.08	0.02
	Total		**0.03**	**0.12**	**0.32**	**0.00**	**0.10**	**0.03**
TOTAL			***1.52***	***16.59***	***10.44***	***0.03***	***1.38***	***0.65***
Onsite		**2022**						
	Fugitive Dust		0.00	0.00	0.00	0.00	0.68	0.07
	Off-Road		1.49	16.47	10.12	0.03	0.60	0.55
	Total		**1.49**	**16.47**	**10.12**	**0.03**	**1.28**	**0.63**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.00	0.10	0.03	0.00	0.01	0.00
	Worker		0.03	0.02	0.31	0.00	0.08	0.02
	Total		**0.03**	**0.12**	**0.35**	**0.00**	**0.10**	**0.03**
TOTAL			***1.52***	***16.59***	***10.46***	***0.03***	***1.38***	***0.65***

Rough Grading

			ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		**2022** Summer						
	Fugitive Dust						3.48	1.51
	Off-Road		2.74	29.35	20.13	0.05	1.23	1.13
	Total		**2.74**	**29.35**	**20.13**	**0.05**	**4.71**	**2.64**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.00	0.10	0.03	0.00	0.01	0.00
	Worker		0.06	0.05	0.71	0.00	0.19	0.05
	Total		**0.07**	**0.14**	**0.74**	**0.00**	**0.20**	**0.06**
TOTAL			***2.80***	***29.49***	***20.87***	***0.05***	***4.91***	***2.70***
Onsite		**2022** Winter						
	Fugitive Dust						3.48	1.51
	Off-Road		2.74	29.35	20.13	0.05	1.23	1.13
	Total		**2.74**	**29.35**	**20.13**	**0.05**	**4.71**	**2.64**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.00	0.10	0.03	0.00	0.01	0.00
	Worker		0.07	0.05	0.65	0.00	0.19	0.05
	Total		**0.07**	**0.15**	**0.69**	**0.00**	**0.20**	**0.06**
TOTAL			***2.81***	***29.50***	***20.82***	***0.05***	***4.91***	***2.70***
Onsite		**2022**						
	Fugitive Dust		0.00	0.00	0.00	0.00	3.48	1.51
	Off-Road		2.74	29.35	20.13	0.05	1.23	1.13
	Total		**2.74**	**29.35**	**20.13**	**0.05**	**4.71**	**2.64**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.00	0.10	0.03	0.00	0.01	0.00
	Worker		0.07	0.05	0.71	0.00	0.19	0.05
	Total		**0.07**	**0.15**	**0.74**	**0.00**	**0.20**	**0.06**
TOTAL			***2.81***	***29.50***	***20.87***	***0.05***	***4.91***	***2.70***

Rough Grading Soil Haul

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	**2022** Summer						
	Fugitive Dust					0.03	0.00
	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.03**	**0.00**
Offsite							
	Hauling	0.40	14.15	3.34	0.05	1.47	0.48
	Vendor	0.00	0.00	0.00	0.00	0.00	0.00
	Worker	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.40**	**14.15**	**3.34**	**0.05**	**1.47**	**0.48**
TOTAL		***0.40***	***14.15***	***3.34***	***0.05***	***1.50***	***0.48***
Onsite	**2022** Winter						
	Fugitive Dust					0.03	0.00
	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.03**	**0.00**
Offsite							
	Hauling	0.39	14.73	3.40	0.05	1.47	0.48
	Vendor	0.00	0.00	0.00	0.00	0.00	0.00
	Worker	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.39**	**14.73**	**3.40**	**0.05**	**1.47**	**0.48**
TOTAL		***0.39***	***14.73***	***3.40***	***0.05***	***1.50***	***0.48***
Onsite	**2022**						
	Fugitive Dust	0.00	0.00	0.00	0.00	0.03	0.00
	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.03**	**0.00**
Offsite							
	Hauling	0.40	14.73	3.40	0.05	1.47	0.48
	Vendor	0.00	0.00	0.00	0.00	0.00	0.00
	Worker	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.40**	**14.73**	**3.40**	**0.05**	**1.47**	**0.48**
TOTAL		***0.40***	***14.73***	***3.40***	***0.05***	***1.50***	***0.48***

Utilities Trenching

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	**2022 Summer**						
	Off-Road	0.95	7.57	5.99	0.02	0.32	0.30
	Total	**0.95**	**7.57**	**5.99**	**0.02**	**0.32**	**0.30**
Offsite							
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Vendor	0.01	0.20	0.07	0.00	0.03	0.01
	Worker	0.07	0.05	0.79	0.00	0.21	0.06
	Total	**0.08**	**0.25**	**0.85**	**0.00**	**0.23**	**0.07**
TOTAL		***1.03***	***7.82***	***6.84***	***0.02***	***0.55***	***0.36***
Onsite	**2022 Winter**						
	Off-Road	0.95	7.57	5.99	0.02	0.32	0.30
	Total	**0.95**	**7.57**	**5.99**	**0.02**	**0.32**	**0.30**
Offsite							
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Vendor	0.01	0.20	0.07	0.00	0.03	0.01
	Worker	0.07	0.06	0.72	0.00	0.21	0.06
	Total	**0.08**	**0.26**	**0.79**	**0.00**	**0.23**	**0.07**
TOTAL		***1.04***	***7.83***	***6.78***	***0.02***	***0.55***	***0.36***
Onsite	**2022**						
	Off-Road	0.95	7.57	5.99	0.02	0.32	0.30
	Total	**0.95**	**7.57**	**5.99**	**0.02**	**0.32**	**0.30**
Offsite							
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Vendor	0.01	0.20	0.07	0.00	0.03	0.01
	Worker	0.07	0.06	0.79	0.00	0.21	0.06
	Total	**0.08**	**0.26**	**0.85**	**0.00**	**0.23**	**0.07**
TOTAL		***1.04***	***7.83***	***6.84***	***0.02***	***0.55***	***0.36***

Fine Grading

			ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		**2022** Summer						
	Fugitive Dust						0.00	0.00
	Off-Road		0.45	3.95	2.63	0.01	0.14	0.13
	Total		**0.45**	**3.95**	**2.63**	**0.01**	**0.14**	**0.13**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.01	0.29	0.10	0.00	0.04	0.01
	Worker		0.05	0.04	0.59	0.00	0.16	0.04
	Total		**0.06**	**0.33**	**0.69**	**0.00**	**0.19**	**0.06**
TOTAL			***0.51***	***4.28***	***3.32***	***0.01***	***0.34***	***0.19***
Onsite		**2022** Winter						
	Fugitive Dust						0.00	0.00
	Off-Road		0.45	3.95	2.63	0.01	0.14	0.13
	Total		**0.45**	**3.95**	**2.63**	**0.01**	**0.14**	**0.13**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.01	0.31	0.10	0.00	0.04	0.01
	Worker		0.06	0.04	0.54	0.00	0.16	0.04
	Total		**0.07**	**0.35**	**0.65**	**0.00**	**0.19**	**0.06**
TOTAL			***0.52***	***4.30***	***3.27***	***0.01***	***0.34***	***0.19***
Onsite		**2022**						
	Fugitive Dust		0.00	0.00	0.00	0.00	0.00	0.00
	Off-Road		0.45	3.95	2.63	0.01	0.14	0.13
	Total		**0.45**	**3.95**	**2.63**	**0.01**	**0.14**	**0.13**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.01	0.31	0.10	0.00	0.04	0.01
	Worker		0.06	0.04	0.59	0.00	0.16	0.04
	Total		**0.07**	**0.35**	**0.69**	**0.00**	**0.19**	**0.06**
TOTAL			***0.52***	***4.30***	***3.32***	***0.01***	***0.34***	***0.19***

Fine Grading Soil Haul

			ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		**2022** Summer						
	Fugitive Dust						0.05	0.01
	Off-Road		0.00	0.00	0.00	0.00	0.00	0.00
	Total		**0.00**	**0.00**	**0.00**	**0.00**	**0.05**	**0.01**
Offsite								
	Hauling		0.64	22.94	5.41	0.08	2.38	0.77
	Vendor		0.00	0.00	0.00	0.00	0.00	0.00
	Worker		0.00	0.00	0.00	0.00	0.00	0.00
	Total		**0.64**	**22.94**	**5.41**	**0.08**	**2.38**	**0.77**
TOTAL			***0.64***	***22.94***	***5.41***	***0.08***	***2.43***	***0.78***
Onsite		**2022** Winter						
	Fugitive Dust						0.05	0.01
	Off-Road		0.00	0.00	0.00	0.00	0.00	0.00
	Total		**0.00**	**0.00**	**0.00**	**0.00**	**0.05**	**0.01**
Offsite								
	Hauling		0.62	23.87	5.51	0.08	2.38	0.77
	Vendor		0.00	0.00	0.00	0.00	0.00	0.00
	Worker		0.00	0.00	0.00	0.00	0.00	0.00
	Total		**0.62**	**23.87**	**5.51**	**0.08**	**2.38**	**0.77**
TOTAL			***0.62***	***23.87***	***5.51***	***0.08***	***2.43***	***0.78***
Onsite		**2022**						
	Fugitive Dust		0.00	0.00	0.00	0.00	0.05	0.01
	Off-Road		0.00	0.00	0.00	0.00	0.00	0.00
	Total		**0.00**	**0.00**	**0.00**	**0.00**	**0.05**	**0.01**
Offsite								
	Hauling		0.64	23.87	5.51	0.08	2.38	0.77
	Vendor		0.00	0.00	0.00	0.00	0.00	0.00
	Worker		0.00	0.00	0.00	0.00	0.00	0.00
	Total		**0.64**	**23.87**	**5.51**	**0.08**	**2.38**	**0.77**
TOTAL			***0.64***	***23.87***	***5.51***	***0.08***	***2.43***	***0.78***

Building Construction 2022

			ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		**2022 Summer**						
	Off-Road		1.71	13.62	14.21	0.03	0.61	0.59
	Total		**1.71**	**13.62**	**14.21**	**0.03**	**0.61**	**0.59**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.00	0.12	0.04	0.00	0.02	0.01
	Worker		0.19	0.13	2.17	0.01	0.62	0.17
	Total		**0.20**	**0.25**	**2.21**	**0.01**	**0.64**	**0.17**
TOTAL			***1.91***	***13.87***	***16.43***	***0.03***	***1.25***	***0.76***
Onsite		**2022 Winter**						
	Off-Road		1.86	14.60	14.35	0.03	0.70	0.67
	Total		**1.86**	**14.60**	**14.35**	**0.03**	**0.70**	**0.67**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.01	0.15	0.05	0.00	0.02	0.01
	Worker		0.22	0.17	2.17	0.01	0.62	0.17
	Total		**0.23**	**0.32**	**2.22**	**0.01**	**0.64**	**0.18**
TOTAL			***2.08***	***14.92***	***16.57***	***0.03***	***1.34***	***0.85***
Onsite		**2022**						
	Off-Road		1.86	14.60	14.35	0.03	0.70	0.67
	Total		**1.86**	**14.60**	**14.35**	**0.03**	**0.70**	**0.67**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.01	0.15	0.05	0.00	0.02	0.01
	Worker		0.22	0.17	2.17	0.01	0.62	0.17
	Total		**0.23**	**0.32**	**2.22**	**0.01**	**0.64**	**0.18**
TOTAL			***2.08***	***14.92***	***16.57***	***0.03***	***1.34***	***0.85***

Building Construction 2023

			ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		**2023 Summer**						
	Off-Road		1.71	13.62	14.21	0.03	0.61	0.59
	Total		**1.71**	**13.62**	**14.21**	**0.03**	**0.61**	**0.59**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.00	0.12	0.04	0.00	0.02	0.01
	Worker		0.19	0.13	2.17	0.01	0.62	0.17
	Total		**0.20**	**0.25**	**2.21**	**0.01**	**0.64**	**0.17**
TOTAL			***1.91***	***13.87***	***16.43***	***0.03***	***1.25***	***0.76***
Onsite		**2023 Winter**						
	Off-Road		1.71	13.62	14.21	0.03	0.61	0.59
	Total		**1.71**	**13.62**	**14.21**	**0.03**	**0.61**	**0.59**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.00	0.12	0.05	0.00	0.02	0.01
	Worker		0.21	0.15	1.99	0.01	0.62	0.17
	Total		**0.21**	**0.27**	**2.04**	**0.01**	**0.64**	**0.17**
TOTAL			***1.92***	***13.89***	***16.25***	***0.03***	***1.25***	***0.76***
Onsite		**2023**						
	Off-Road		1.71	13.62	14.21	0.03	0.61	0.59
	Total		**1.71**	**13.62**	**14.21**	**0.03**	**0.61**	**0.59**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.00	0.12	0.05	0.00	0.02	0.01
	Worker		0.21	0.15	2.17	0.01	0.62	0.17
	Total		**0.21**	**0.27**	**2.21**	**0.01**	**0.64**	**0.17**
TOTAL			***1.92***	***13.89***	***16.43***	***0.03***	***1.25***	***0.76***

Paving 2023

			ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		**2023** Summer						
	Off-Road		0.88	8.61	11.68	0.02	0.43	0.40
	Paving		0.14				0.00	0.00
	Total		**1.02**	**8.61**	**11.68**	**0.02**	**0.43**	**0.40**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.00	0.00	0.00	0.00	0.00	0.00
	Worker		0.05	0.03	0.54	0.00	0.16	0.04
	Total		**0.05**	**0.03**	**0.54**	**0.00**	**0.16**	**0.04**
TOTAL			***1.07***	***8.64***	***12.23***	***0.02***	***0.59***	***0.44***
Onsite		**2023** Winter						
	Off-Road		0.88	8.61	11.68	0.02	0.43	0.40
	Paving		0.14				0.00	0.00
	Total		**1.02**	**8.61**	**11.68**	**0.02**	**0.43**	**0.40**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.00	0.00	0.00	0.00	0.00	0.00
	Worker		0.05	0.04	0.50	0.00	0.16	0.04
	Total		**0.05**	**0.04**	**0.50**	**0.00**	**0.16**	**0.04**
TOTAL			***1.07***	***8.65***	***12.18***	***0.02***	***0.59***	***0.44***
Onsite		**2023**						
	Off-Road		0.88	8.61	11.68	0.02	0.43	0.40
	Paving		0.14	0.00	0.00	0.00	0.00	0.00
	Total		**1.02**	**8.61**	**11.68**	**0.02**	**0.43**	**0.40**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.00	0.00	0.00	0.00	0.00	0.00
	Worker		0.05	0.04	0.54	0.00	0.16	0.04
	Total		**0.05**	**0.04**	**0.54**	**0.00**	**0.16**	**0.04**
TOTAL			***1.07***	***8.65***	***12.23***	***0.02***	***0.59***	***0.44***

Architectural Coating

			ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		**2023** Summer						
	Archit. Coating		137.36				0.00	0.00
	Off-Road		0.19	1.30	1.81	0.00	0.07	0.07
	Total		**137.55**	**1.30**	**1.81**	**0.00**	**0.07**	**0.07**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.00	0.00	0.00	0.00	0.00	0.00
	Worker		0.04	0.03	0.43	0.00	0.12	0.03
	Total		**0.04**	**0.03**	**0.43**	**0.00**	**0.12**	**0.03**
TOTAL			***137.59***	***1.33***	***2.24***	***0.00***	***0.20***	***0.10***
Onsite		**2023** Winter						
	Archit. Coating		141.81				0.00	0.00
	Off-Road		0.19	1.30	1.81	0.00	0.07	0.07
	Total		**142.01**	**1.30**	**1.81**	**0.00**	**0.07**	**0.07**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.00	0.00	0.00	0.00	0.00	0.00
	Worker		0.04	0.03	0.40	0.00	0.12	0.03
	Total		**0.04**	**0.03**	**0.40**	**0.00**	**0.12**	**0.03**
TOTAL			***142.05***	***1.33***	***2.21***	***0.00***	***0.20***	***0.10***
Onsite		**2023**						
	Archit. Coating		141.81	0.00	0.00	0.00	0.00	0.00
	Off-Road		0.19	1.30	1.81	0.00	0.07	0.07
	Total		**142.01**	**1.30**	**1.81**	**0.00**	**0.07**	**0.07**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.00	0.00	0.00	0.00	0.00	0.00
	Worker		0.04	0.03	0.43	0.00	0.12	0.03
	Total		**0.04**	**0.03**	**0.43**	**0.00**	**0.12**	**0.03**
TOTAL			***142.05***	***1.33***	***2.24***	***0.00***	***0.20***	***0.10***

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Asphalt Demolition	*2*	*17*	*15*	*0*	*1*	*1*
Asphalt Demolition and Debris Haul	*2*	*23*	*16*	*0*	*5*	*2*
Site Preparation	*2*	*17*	*10*	*0*	*1*	*1*
Rough Grading	*3*	*30*	*21*	*0*	*5*	*3*
Rough Grading and Soil Haul	*3*	*44*	*24*	*0*	*6*	*3*
Utilities Trenching	*1*	*8*	*7*	*0*	*1*	*0*
Utilities Trenching, Fine Grading and Soil Haul, and Building Construction 2022	*4*	*51*	*32*	*0*	*5*	*2*
Utilities Trenching and Building Construction 2022	*3*	*23*	*23*	*0*	*2*	*1*
Building Construction 2022	*2*	*15*	*17*	*0*	*1*	*1*
Building Construction 2023	*2*	*14*	*16*	*0*	*1*	*1*
Building Construction 2023 and Paving	*3*	*23*	*29*	*0*	*2*	*1*
Building Construction 2023 and Architectural Coating	*144*	*15*	*19*	*0*	*1*	*1*
MAX DAILY	**144**	**51**	**32**	**0**	**6**	**3**
Regional Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
Exceeds Thresholds?	**Yes**	No	No	No	No	No

Regional Construction Emissions Worksheet (Mitigated):

Asphalt Demolition		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	**2022 Summer**						
	Off-Road	1.69	16.62	13.96	0.02	0.84	0.78
	Total	**1.69**	**16.62**	**13.96**	**0.02**	**0.84**	**0.78**
Offsite							
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Vendor	0.00	0.10	0.03	0.00	0.01	0.00
	Worker	0.05	0.03	0.51	0.00	0.13	0.04
	Total	**0.05**	**0.13**	**0.55**	**0.00**	**0.15**	**0.04**
TOTAL		***1.74***	***16.75***	***14.51***	***0.03***	***0.99***	***0.82***
Onsite	**2022 Winter**						
	Off-Road	1.69	16.62	13.96	0.02	0.84	0.78
	Total	**1.69**	**16.62**	**13.96**	**0.02**	**0.84**	**0.78**
Offsite							
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Vendor	0.00	0.10	0.03	0.00	0.01	0.00
	Worker	0.05	0.04	0.47	0.00	0.13	0.04
	Total	**0.05**	**0.14**	**0.50**	**0.00**	**0.15**	**0.04**
TOTAL		***1.74***	***16.76***	***14.47***	***0.03***	***0.99***	***0.82***
Onsite	**2022**						
	Off-Road	1.69	16.62	13.96	0.02	0.84	0.78
	Total	**1.69**	**16.62**	**13.96**	**0.02**	**0.84**	**0.78**
Offsite							
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Vendor	0.00	0.10	0.03	0.00	0.01	0.00
	Worker	0.05	0.04	0.51	0.00	0.13	0.04
	Total	**0.05**	**0.14**	**0.55**	**0.00**	**0.15**	**0.04**
TOTAL		***1.74***	***16.76***	***14.51***	***0.03***	***0.99***	***0.82***

Asphalt Demolition Debris Haul		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	**2022** Summer						
	Fugitive Dust					3.36	0.51
	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.00**	**0.00**	**0.00**	**0.00**	**3.36**	**0.51**
Offsite							
	Hauling	0.16	5.91	1.39	0.02	0.61	0.20
	Vendor	0.00	0.00	0.00	0.00	0.00	0.00
	Worker	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.16**	**5.91**	**1.39**	**0.02**	**0.61**	**0.20**
TOTAL		***0.16***	***5.91***	***1.39***	***0.02***	***3.98***	***0.71***
Onsite	**2022** Winter						
	Fugitive Dust					3.36	0.51
	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.00**	**0.00**	**0.00**	**0.00**	**3.36**	**0.51**
Offsite							
	Hauling	0.16	6.15	1.42	0.02	0.61	0.20
	Vendor	0.00	0.00	0.00	0.00	0.00	0.00
	Worker	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.16**	**6.15**	**1.42**	**0.02**	**0.61**	**0.20**
TOTAL		***0.16***	***6.15***	***1.42***	***0.02***	***3.98***	***0.71***
Onsite	**2022**						
	Fugitive Dust	0.00	0.00	0.00	0.00	3.36	0.51
	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.00**	**0.00**	**0.00**	**0.00**	**3.36**	**0.51**
Offsite							
	Hauling	0.16	6.15	1.42	0.02	0.61	0.20
	Vendor	0.00	0.00	0.00	0.00	0.00	0.00
	Worker	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.16**	**6.15**	**1.42**	**0.02**	**0.61**	**0.20**
TOTAL		***0.16***	***6.15***	***1.42***	***0.02***	***3.98***	***0.71***

Site Preparation

			ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		**2022** Summer						
	Fugitive Dust						0.68	0.07
	Off-Road		1.49	16.47	10.12	0.03	0.60	0.55
	Total		**1.49**	**16.47**	**10.12**	**0.03**	**1.28**	**0.63**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.00	0.10	0.03	0.00	0.01	0.00
	Worker		0.03	0.02	0.31	0.00	0.08	0.02
	Total		**0.03**	**0.12**	**0.35**	**0.00**	**0.10**	**0.03**
TOTAL			***1.52***	***16.58***	***10.46***	***0.03***	***1.38***	***0.65***
Onsite		**2022** Winter						
	Fugitive Dust						0.68	0.07
	Off-Road		1.49	16.47	10.12	0.03	0.60	0.55
	Total		**1.49**	**16.47**	**10.12**	**0.03**	**1.28**	**0.63**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.00	0.10	0.03	0.00	0.01	0.00
	Worker		0.03	0.02	0.29	0.00	0.08	0.02
	Total		**0.03**	**0.12**	**0.32**	**0.00**	**0.10**	**0.03**
TOTAL			***1.52***	***16.59***	***10.44***	***0.03***	***1.38***	***0.65***
Onsite		**2022**						
	Fugitive Dust		0.00	0.00	0.00	0.00	0.68	0.07
	Off-Road		1.49	16.47	10.12	0.03	0.60	0.55
	Total		**1.49**	**16.47**	**10.12**	**0.03**	**1.28**	**0.63**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.00	0.10	0.03	0.00	0.01	0.00
	Worker		0.03	0.02	0.31	0.00	0.08	0.02
	Total		**0.03**	**0.12**	**0.35**	**0.00**	**0.10**	**0.03**
TOTAL			***1.52***	***16.59***	***10.46***	***0.03***	***1.38***	***0.65***

Rough Grading

			ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		**2022** Summer						
	Fugitive Dust						3.48	1.51
	Off-Road		2.74	29.35	20.13	0.05	1.23	1.13
	Total		**2.74**	**29.35**	**20.13**	**0.05**	**4.71**	**2.64**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.00	0.10	0.03	0.00	0.01	0.00
	Worker		0.06	0.05	0.71	0.00	0.19	0.05
	Total		**0.07**	**0.14**	**0.74**	**0.00**	**0.20**	**0.06**
TOTAL			***2.80***	***29.49***	***20.87***	***0.05***	***4.91***	***2.70***
Onsite		**2022** Winter						
	Fugitive Dust						3.48	1.51
	Off-Road		2.74	29.35	20.13	0.05	1.23	1.13
	Total		**2.74**	**29.35**	**20.13**	**0.05**	**4.71**	**2.64**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.00	0.10	0.03	0.00	0.01	0.00
	Worker		0.07	0.05	0.65	0.00	0.19	0.05
	Total		**0.07**	**0.15**	**0.69**	**0.00**	**0.20**	**0.06**
TOTAL			***2.81***	***29.50***	***20.82***	***0.05***	***4.91***	***2.70***
Onsite		**2022**						
	Fugitive Dust		0.00	0.00	0.00	0.00	3.48	1.51
	Off-Road		2.74	29.35	20.13	0.05	1.23	1.13
	Total		**2.74**	**29.35**	**20.13**	**0.05**	**4.71**	**2.64**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.00	0.10	0.03	0.00	0.01	0.00
	Worker		0.07	0.05	0.71	0.00	0.19	0.05
	Total		**0.07**	**0.15**	**0.74**	**0.00**	**0.20**	**0.06**
TOTAL			***2.81***	***29.50***	***20.87***	***0.05***	***4.91***	***2.70***

Rough Grading Soil Haul

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	**2022** Summer						
	Fugitive Dust					0.03	0.00
	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.03**	**0.00**
Offsite							
	Hauling	0.40	14.15	3.34	0.05	1.47	0.48
	Vendor	0.00	0.00	0.00	0.00	0.00	0.00
	Worker	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.40**	**14.15**	**3.34**	**0.05**	**1.47**	**0.48**
TOTAL		***0.40***	***14.15***	***3.34***	***0.05***	***1.50***	***0.48***
Onsite	**2022** Winter						
	Fugitive Dust					0.03	0.00
	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.03**	**0.00**
Offsite							
	Hauling	0.39	14.73	3.40	0.05	1.47	0.48
	Vendor	0.00	0.00	0.00	0.00	0.00	0.00
	Worker	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.39**	**14.73**	**3.40**	**0.05**	**1.47**	**0.48**
TOTAL		***0.39***	***14.73***	***3.40***	***0.05***	***1.50***	***0.48***
Onsite	**2022**						
	Fugitive Dust	0.00	0.00	0.00	0.00	0.03	0.00
	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.03**	**0.00**
Offsite							
	Hauling	0.40	14.73	3.40	0.05	1.47	0.48
	Vendor	0.00	0.00	0.00	0.00	0.00	0.00
	Worker	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.40**	**14.73**	**3.40**	**0.05**	**1.47**	**0.48**
TOTAL		***0.40***	***14.73***	***3.40***	***0.05***	***1.50***	***0.48***

Utilities Trenching

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	**2022 Summer**						
	Off-Road	0.95	7.57	5.99	0.02	0.32	0.30
	Total	**0.95**	**7.57**	**5.99**	**0.02**	**0.32**	**0.30**
Offsite							
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Vendor	0.01	0.20	0.07	0.00	0.03	0.01
	Worker	0.07	0.05	0.79	0.00	0.21	0.06
	Total	**0.08**	**0.25**	**0.85**	**0.00**	**0.23**	**0.07**
TOTAL		***1.03***	***7.82***	***6.84***	***0.02***	***0.55***	***0.36***
Onsite	**2022 Winter**						
	Off-Road	0.95	7.57	5.99	0.02	0.32	0.30
	Total	**0.95**	**7.57**	**5.99**	**0.02**	**0.32**	**0.30**
Offsite							
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Vendor	0.01	0.20	0.07	0.00	0.03	0.01
	Worker	0.07	0.06	0.72	0.00	0.21	0.06
	Total	**0.08**	**0.26**	**0.79**	**0.00**	**0.23**	**0.07**
TOTAL		***1.04***	***7.83***	***6.78***	***0.02***	***0.55***	***0.36***
Onsite	**2022**						
	Off-Road	0.95	7.57	5.99	0.02	0.32	0.30
	Total	**0.95**	**7.57**	**5.99**	**0.02**	**0.32**	**0.30**
Offsite							
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Vendor	0.01	0.20	0.07	0.00	0.03	0.01
	Worker	0.07	0.06	0.79	0.00	0.21	0.06
	Total	**0.08**	**0.26**	**0.85**	**0.00**	**0.23**	**0.07**
TOTAL		***1.04***	***7.83***	***6.84***	***0.02***	***0.55***	***0.36***

Fine Grading

			ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		**2022** Summer						
	Fugitive Dust						0.00	0.00
	Off-Road		0.45	3.95	2.63	0.01	0.14	0.13
	Total		**0.45**	**3.95**	**2.63**	**0.01**	**0.14**	**0.13**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.01	0.29	0.10	0.00	0.04	0.01
	Worker		0.05	0.04	0.59	0.00	0.16	0.04
	Total		**0.06**	**0.33**	**0.69**	**0.00**	**0.19**	**0.06**
TOTAL			***0.51***	***4.28***	***3.32***	***0.01***	***0.34***	***0.19***
Onsite		**2022** Winter						
	Fugitive Dust						0.00	0.00
	Off-Road		0.45	3.95	2.63	0.01	0.14	0.13
	Total		**0.45**	**3.95**	**2.63**	**0.01**	**0.14**	**0.13**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.01	0.31	0.10	0.00	0.04	0.01
	Worker		0.06	0.04	0.54	0.00	0.16	0.04
	Total		**0.07**	**0.35**	**0.65**	**0.00**	**0.19**	**0.06**
TOTAL			***0.52***	***4.30***	***3.27***	***0.01***	***0.34***	***0.19***
Onsite		**2022**						
	Fugitive Dust		0.00	0.00	0.00	0.00	0.00	0.00
	Off-Road		0.45	3.95	2.63	0.01	0.14	0.13
	Total		**0.45**	**3.95**	**2.63**	**0.01**	**0.14**	**0.13**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.01	0.31	0.10	0.00	0.04	0.01
	Worker		0.06	0.04	0.59	0.00	0.16	0.04
	Total		**0.07**	**0.35**	**0.69**	**0.00**	**0.19**	**0.06**
TOTAL			***0.52***	***4.30***	***3.32***	***0.01***	***0.34***	***0.19***

Fine Grading Soil Haul

			ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		**2022** Summer						
	Fugitive Dust						0.05	0.01
	Off-Road		0.00	0.00	0.00	0.00	0.00	0.00
	Total		**0.00**	**0.00**	**0.00**	**0.00**	**0.05**	**0.01**
Offsite								
	Hauling		0.64	22.94	5.41	0.08	2.38	0.77
	Vendor		0.00	0.00	0.00	0.00	0.00	0.00
	Worker		0.00	0.00	0.00	0.00	0.00	0.00
	Total		**0.64**	**22.94**	**5.41**	**0.08**	**2.38**	**0.77**
TOTAL			***0.64***	***22.94***	***5.41***	***0.08***	***2.43***	***0.78***
Onsite		**2022** Winter						
	Fugitive Dust						0.05	0.01
	Off-Road		0.00	0.00	0.00	0.00	0.00	0.00
	Total		**0.00**	**0.00**	**0.00**	**0.00**	**0.05**	**0.01**
Offsite								
	Hauling		0.62	23.87	5.51	0.08	2.38	0.77
	Vendor		0.00	0.00	0.00	0.00	0.00	0.00
	Worker		0.00	0.00	0.00	0.00	0.00	0.00
	Total		**0.62**	**23.87**	**5.51**	**0.08**	**2.38**	**0.77**
TOTAL			***0.62***	***23.87***	***5.51***	***0.08***	***2.43***	***0.78***
Onsite		**2022**						
	Fugitive Dust		0.00	0.00	0.00	0.00	0.05	0.01
	Off-Road		0.00	0.00	0.00	0.00	0.00	0.00
	Total		**0.00**	**0.00**	**0.00**	**0.00**	**0.05**	**0.01**
Offsite								
	Hauling		0.64	23.87	5.51	0.08	2.38	0.77
	Vendor		0.00	0.00	0.00	0.00	0.00	0.00
	Worker		0.00	0.00	0.00	0.00	0.00	0.00
	Total		**0.64**	**23.87**	**5.51**	**0.08**	**2.38**	**0.77**
TOTAL			***0.64***	***23.87***	***5.51***	***0.08***	***2.43***	***0.78***

Building Construction 2022

			ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		**2022 Summer**						
	Off-Road		1.86	14.60	14.35	0.03	0.70	0.67
	Total		**1.86**	**14.60**	**14.35**	**0.03**	**0.70**	**0.67**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.01	0.15	0.05	0.00	0.02	0.01
	Worker		0.21	0.15	2.36	0.01	0.62	0.17
	Total		**0.21**	**0.30**	**2.41**	**0.01**	**0.64**	**0.18**
TOTAL			***2.07***	***14.90***	***16.77***	***0.03***	***1.34***	***0.85***
Onsite		**2022 Winter**						
	Off-Road		1.86	14.60	14.35	0.03	0.70	0.67
	Total		**1.86**	**14.60**	**14.35**	**0.03**	**0.70**	**0.67**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.01	0.15	0.05	0.00	0.02	0.01
	Worker		0.22	0.17	2.17	0.01	0.62	0.17
	Total		**0.23**	**0.32**	**2.22**	**0.01**	**0.64**	**0.18**
TOTAL			***2.08***	***14.92***	***16.57***	***0.03***	***1.34***	***0.85***
Onsite		**2022**						
	Off-Road		1.86	14.60	14.35	0.03	0.70	0.67
	Total		**1.86**	**14.60**	**14.35**	**0.03**	**0.70**	**0.67**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.01	0.15	0.05	0.00	0.02	0.01
	Worker		0.22	0.17	2.36	0.01	0.62	0.17
	Total		**0.23**	**0.32**	**2.41**	**0.01**	**0.64**	**0.18**
TOTAL			***2.08***	***14.92***	***16.77***	***0.03***	***1.34***	***0.85***

Building Construction 2023

			ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		**2023 Summer**						
	Off-Road		1.71	13.62	14.21	0.03	0.61	0.59
	Total		**1.71**	**13.62**	**14.21**	**0.03**	**0.61**	**0.59**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.00	0.12	0.04	0.00	0.02	0.01
	Worker		0.19	0.13	2.17	0.01	0.62	0.17
	Total		**0.20**	**0.25**	**2.21**	**0.01**	**0.64**	**0.17**
TOTAL			***1.91***	***13.87***	***16.43***	***0.03***	***1.25***	***0.76***
Onsite		**2023 Winter**						
	Off-Road		1.71	13.62	14.21	0.03	0.61	0.59
	Total		**1.71**	**13.62**	**14.21**	**0.03**	**0.61**	**0.59**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.00	0.12	0.05	0.00	0.02	0.01
	Worker		0.21	0.15	1.99	0.01	0.62	0.17
	Total		**0.21**	**0.27**	**2.04**	**0.01**	**0.64**	**0.17**
TOTAL			***1.92***	***13.89***	***16.25***	***0.03***	***1.25***	***0.76***
Onsite		**2023**						
	Off-Road		1.71	13.62	14.21	0.03	0.61	0.59
	Total		**1.71**	**13.62**	**14.21**	**0.03**	**0.61**	**0.59**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.00	0.12	0.05	0.00	0.02	0.01
	Worker		0.21	0.15	2.17	0.01	0.62	0.17
	Total		**0.21**	**0.27**	**2.21**	**0.01**	**0.64**	**0.17**
TOTAL			***1.92***	***13.89***	***16.43***	***0.03***	***1.25***	***0.76***

Paving 2023

			ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		**2023** Summer						
	Off-Road		0.88	8.61	11.68	0.02	0.43	0.40
	Paving		0.14				0.00	0.00
	Total		**1.02**	**8.61**	**11.68**	**0.02**	**0.43**	**0.40**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.00	0.00	0.00	0.00	0.00	0.00
	Worker		0.05	0.03	0.54	0.00	0.16	0.04
	Total		**0.05**	**0.03**	**0.54**	**0.00**	**0.16**	**0.04**
TOTAL			***1.07***	***8.64***	***12.23***	***0.02***	***0.59***	***0.44***
Onsite		**2023** Winter						
	Off-Road		0.88	8.61	11.68	0.02	0.43	0.40
	Paving		0.14				0.00	0.00
	Total		**1.02**	**8.61**	**11.68**	**0.02**	**0.43**	**0.40**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.00	0.00	0.00	0.00	0.00	0.00
	Worker		0.05	0.04	0.50	0.00	0.16	0.04
	Total		**0.05**	**0.04**	**0.50**	**0.00**	**0.16**	**0.04**
TOTAL			***1.07***	***8.65***	***12.18***	***0.02***	***0.59***	***0.44***
Onsite		**2023**						
	Off-Road		0.88	8.61	11.68	0.02	0.43	0.40
	Paving		0.14	0.00	0.00	0.00	0.00	0.00
	Total		**1.02**	**8.61**	**11.68**	**0.02**	**0.43**	**0.40**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.00	0.00	0.00	0.00	0.00	0.00
	Worker		0.05	0.04	0.54	0.00	0.16	0.04
	Total		**0.05**	**0.04**	**0.54**	**0.00**	**0.16**	**0.04**
TOTAL			***1.07***	***8.65***	***12.23***	***0.02***	***0.59***	***0.44***

Architectural Coating

			ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		**2023** Summer						
	Archit. Coating		36.43				0.00	0.00
	Off-Road		0.19	1.30	1.81	0.00	0.07	0.07
	Total		**36.62**	**1.30**	**1.81**	**0.00**	**0.07**	**0.07**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.00	0.00	0.00	0.00	0.00	0.00
	Worker		0.04	0.03	0.43	0.00	0.12	0.03
	Total		**0.04**	**0.03**	**0.43**	**0.00**	**0.12**	**0.03**
TOTAL			***36.66***	***1.33***	***2.24***	***0.00***	***0.20***	***0.10***
Onsite		**2023** Winter						
	Archit. Coating		37.54				0.00	0.00
	Off-Road		0.19	1.30	1.81	0.00	0.07	0.07
	Total		**37.73**	**1.30**	**1.81**	**0.00**	**0.07**	**0.07**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.00	0.00	0.00	0.00	0.00	0.00
	Worker		0.04	0.03	0.40	0.00	0.12	0.03
	Total		**0.04**	**0.03**	**0.40**	**0.00**	**0.12**	**0.03**
TOTAL			***37.78***	***1.33***	***2.21***	***0.00***	***0.20***	***0.10***
Onsite		**2023**						
	Archit. Coating		37.54	0.00	0.00	0.00	0.00	0.00
	Off-Road		0.19	1.30	1.81	0.00	0.07	0.07
	Total		**37.73**	**1.30**	**1.81**	**0.00**	**0.07**	**0.07**
Offsite								
	Hauling		0.00	0.00	0.00	0.00	0.00	0.00
	Vendor		0.00	0.00	0.00	0.00	0.00	0.00
	Worker		0.04	0.03	0.43	0.00	0.12	0.03
	Total		**0.04**	**0.03**	**0.43**	**0.00**	**0.12**	**0.03**
TOTAL			***37.78***	***1.33***	***2.24***	***0.00***	***0.20***	***0.10***

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Asphalt Demolition	***2***	***17***	***15***	***0***	***1***	***1***
Asphalt Demolition and Debris Haul	***2***	***23***	***16***	***0***	***5***	***2***
Site Preparation	***2***	***17***	***10***	***0***	***1***	***1***
Rough Grading	***3***	***30***	***21***	***0***	***5***	***3***
Rough Grading and Soil Haul	***3***	***44***	***24***	***0***	***6***	***3***
Utilities Trenching	***1***	***8***	***7***	***0***	***1***	***0***
Utilities Trenching, Fine Grading and Soil Haul, and Building Construction 2022	***4***	***51***	***32***	***0***	***5***	***2***
Utilities Trenching and Building Construction 2022	***3***	***23***	***24***	***0***	***2***	***1***
Building Construction 2022	***2***	***15***	***17***	***0***	***1***	***1***
Building Construction 2023	***2***	***14***	***16***	***0***	***1***	***1***
Building Construction 2023 and Paving	***3***	***23***	***29***	***0***	***2***	***1***
Building Construction 2023 and Architectural Coating	***40***	***15***	***19***	***0***	***1***	***1***
MAX DAILY	**40**	**51**	**32**	**0**	**6**	**3**
Regional Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
Exceeds Thresholds?	**No**	No	No	No	No	No

Construction LST Worksheet:

Asphalt Demolition

			NOx	CO	PM10 Total	PM2.5 Total
Onsite		**2022**				
	Off-Road		16.62	13.96	0.84	0.78
	Total		**16.62**	**13.96**	**0.84**	**0.78**
TOTAL			***16.62***	***13.96***	***0.84***	***0.78***
Onsite		**2022**				
	Off-Road		16.62	13.96	0.84	0.78
	Total		**16.62**	**13.96**	**0.84**	**0.78**
TOTAL			***16.62***	***13.96***	***0.84***	***0.78***
Onsite		**2022**				
	Off-Road		16.62	13.96	0.84	0.78
	Total		**16.62**	**13.96**	**0.84**	**0.78**
TOTAL			***16.62***	***13.96***	***0.84***	***0.78***

Asphalt Demolition Debris Haul

			NOx	CO	PM10 Total	PM2.5 Total
Onsite		**2022**				
	Fugitive Dust				3.36	0.51
	Off-Road		0.00	0.00	0.00	0.00
	Total		**0.00**	**0.00**	**3.36**	**0.51**
TOTAL			***0.00***	***0.00***	***3.36***	***0.51***
Onsite		**2022**				
	Fugitive Dust				3.36	0.51
	Off-Road		0.00	0.00	0.00	0.00
	Total		**0.00**	**0.00**	**3.36**	**0.51**
Offsite						
	Hauling		6.15	1.42	0.61	0.20
	Vendor		0.00	0.00	0.00	0.00
	Worker		0.00	0.00	0.00	0.00
	Total		**6.15**	**1.42**	**0.61**	**0.20**
TOTAL			***6.15***	***1.42***	***3.98***	***0.71***
Onsite		**2022**				
	Fugitive Dust		0.00	0.00	3.36	0.51
	Off-Road		0.00	0.00	0.00	0.00
	Total		**0.00**	**0.00**	**3.36**	**0.51**
TOTAL			***6.15***	***1.42***	***3.98***	***0.71***

Site Preparation

			NOx	CO	PM10 Total	PM2.5 Total
Onsite		**2022**				
	Fugitive Dust				0.68	0.07
	Off-Road		16.47	10.12	0.60	0.55
	Total		**16.47**	**10.12**	**1.28**	**0.63**
TOTAL			***16.47***	***10.12***	***1.28***	***0.63***
Onsite		**2022**				
	Fugitive Dust				0.68	0.07
	Off-Road		16.47	10.12	0.60	0.55
	Total		**16.47**	**10.12**	**1.28**	**0.63**
TOTAL			***16.47***	***10.12***	***1.28***	***0.63***
Onsite		**2022**				
	Fugitive Dust		0.00	0.00	0.68	0.07
	Off-Road		16.47	10.12	0.60	0.55
	Total		**16.47**	**10.12**	**1.28**	**0.63**
TOTAL			***16.47***	***10.12***	***1.28***	***0.63***

Rough Grading

			NOx	CO	PM10 Total	PM2.5 Total
Onsite		**2022**				
	Fugitive Dust				3.48	1.51
	Off-Road		29.35	20.13	1.23	1.13
	Total		**29.35**	**20.13**	**4.71**	**2.64**
TOTAL			***29.35***	***20.13***	***4.71***	***2.64***
Onsite		**2022**				
	Fugitive Dust				3.48	1.51
	Off-Road		29.35	20.13	1.23	1.13
	Total		**29.35**	**20.13**	**4.71**	**2.64**
TOTAL			***29.35***	***20.13***	***4.71***	***2.64***
Onsite		**2022**				
	Fugitive Dust		0.00	0.00	3.48	1.51
	Off-Road		29.35	20.13	1.23	1.13
	Total		**29.35**	**20.13**	**4.71**	**2.64**
TOTAL			***29.35***	***20.13***	***4.71***	***2.64***

Rough Grading Soil Haul

			NOx	CO	PM10 Total	PM2.5 Total
Onsite		**2022**				
	Fugitive Dust				0.03	0.00
	Off-Road		0.00	0.00	0.00	0.00
	Total		**0.00**	**0.00**	**0.03**	**0.00**
TOTAL			***0.00***	***0.00***	***0.03***	***0.00***
Onsite		**2022**				
	Fugitive Dust				0.03	0.00
	Off-Road		0.00	0.00	0.00	0.00
	Total		**0.00**	**0.00**	**0.03**	**0.00**
TOTAL			***0.00***	***0.00***	***0.03***	***0.00***
Onsite		**2022**				
	Fugitive Dust		0.00	0.00	0.03	0.00
	Off-Road		0.00	0.00	0.00	0.00
	Total		**0.00**	**0.00**	**0.03**	**0.00**
TOTAL			***0.00***	***0.00***	***0.03***	***0.00***

Utilities Trenching

			NOx	CO	PM10 Total	PM2.5 Total
Onsite		**2022**				
	Off-Road		7.57	5.99	0.32	0.30
	Total		**7.57**	**5.99**	**0.32**	**0.30**
TOTAL			***7.57***	***5.99***	***0.32***	***0.30***
Onsite		**2022**				
	Off-Road		7.57	5.99	0.32	0.30
	Total		**7.57**	**5.99**	**0.32**	**0.30**
TOTAL			***7.57***	***5.99***	***0.32***	***0.30***
Onsite		**2022**				
	Off-Road		7.57	5.99	0.32	0.30
	Total		**7.57**	**5.99**	**0.32**	**0.30**
TOTAL			***7.57***	***5.99***	***0.32***	***0.30***

Fine Grading

			NOx	CO	PM10 Total	PM2.5 Total
Onsite		**2022**				
	Fugitive Dust				0.00	0.00
	Off-Road		3.95	2.63	0.14	0.13
	Total		**3.95**	**2.63**	**0.14**	**0.13**
TOTAL			***3.95***	***2.63***	***0.14***	***0.13***
Onsite		**2022**				
	Fugitive Dust				0.00	0.00
	Off-Road		3.95	2.63	0.14	0.13
	Total		**3.95**	**2.63**	**0.14**	**0.13**
TOTAL			***3.95***	***2.63***	***0.14***	***0.13***
Onsite		**2022**				
	Fugitive Dust		0.00	0.00	0.00	0.00
	Off-Road		3.95	2.63	0.14	0.13
	Total		**3.95**	**2.63**	**0.14**	**0.13**
TOTAL			***3.95***	***2.63***	***0.14***	***0.13***

Fine Grading Soil Haul

			NOx	CO	PM10 Total	PM2.5 Total
Onsite		**2022**				
	Fugitive Dust				0.05	0.01
	Off-Road		0.00	0.00	0.00	0.00
	Total		**0.00**	**0.00**	**0.05**	**0.01**
TOTAL			***0.00***	***0.00***	***0.05***	***0.01***
Onsite		**2022**				
	Fugitive Dust				0.05	0.01
	Off-Road		0.00	0.00	0.00	0.00
	Total		**0.00**	**0.00**	**0.05**	**0.01**
TOTAL			***0.00***	***0.00***	***0.05***	***0.01***
Onsite		**2022**				
	Fugitive Dust		0.00	0.00	0.05	0.01
	Off-Road		0.00	0.00	0.00	0.00
	Total		**0.00**	**0.00**	**0.05**	**0.01**
TOTAL			***0.00***	***0.00***	***0.05***	***0.01***

Building Construction 2022

			NOx	CO	PM10 Total	PM2.5 Total
Onsite		**2022**				
	Off-Road		13.62	14.21	0.61	0.59
	Total		**13.62**	**14.21**	**0.61**	**0.59**
TOTAL			***13.62***	***14.21***	***0.61***	***0.59***
Onsite		**2022**				
	Off-Road		14.60	14.35	0.70	0.67
	Total		**14.60**	**14.35**	**0.70**	**0.67**
TOTAL			***14.60***	***14.35***	***0.70***	***0.67***
Onsite		**2022**				
	Off-Road		14.60	14.35	0.70	0.67
	Total		**14.60**	**14.35**	**0.70**	**0.67**
TOTAL			***14.60***	***14.35***	***0.70***	***0.67***

Building Construction 2023

			NOx	CO	PM10 Total	PM2.5 Total
Onsite		**2023**				
	Off-Road		13.62	14.21	0.61	0.59
	Total		**13.62**	**14.21**	**0.61**	**0.59**
TOTAL			***13.62***	***14.21***	***0.61***	***0.59***
Onsite		**2023**				
	Off-Road		13.62	14.21	0.61	0.59
	Total		**13.62**	**14.21**	**0.61**	**0.59**
TOTAL			***13.62***	***14.21***	***0.61***	***0.59***
Onsite		**2023**				
	Off-Road		13.62	14.21	0.61	0.59
	Total		**13.62**	**14.21**	**0.61**	**0.59**
TOTAL			***13.62***	***14.21***	***0.61***	***0.59***

Paving 2023

			NOx	CO	PM10 Total	PM2.5 Total
Onsite		**2023**				
	Off-Road		8.61	11.68	0.43	0.40
	Paving				0.00	0.00
	Total		**8.61**	**11.68**	**0.43**	**0.40**
TOTAL			***8.61***	***11.68***	***0.43***	***0.40***
Onsite		**2023**				
	Off-Road		8.61	11.68	0.43	0.40
	Paving				0.00	0.00
	Total		**8.61**	**11.68**	**0.43**	**0.40**
TOTAL			***8.61***	***11.68***	***0.43***	***0.40***
Onsite		**2023**				
	Off-Road		8.61	11.68	0.43	0.40
	Paving		0.00	0.00	0.00	0.00
	Total		**8.61**	**11.68**	**0.43**	**0.40**
TOTAL			***8.61***	***11.68***	***0.43***	***0.40***

Architectural Coating					
		NOx	CO	PM10 Total	PM2.5 Total
Onsite	**2023**				
Archit. Coating				0.00	0.00
Off-Road		1.30	1.81	0.07	0.07
Total		**1.30**	**1.81**	**0.07**	**0.07**
TOTAL		***1.30***	***1.81***	***0.07***	***0.07***
Onsite	**2023**				
Archit. Coating				0.00	0.00
Off-Road		1.30	1.81	0.07	0.07
Total		**1.30**	**1.81**	**0.07**	**0.07**
TOTAL		***1.30***	***1.81***	***0.07***	***0.07***
Onsite	**2023**				
Archit. Coating		0.00	0.00	0.00	0.00
Off-Road		1.30	1.81	0.07	0.07
Total		**1.30**	**1.81**	**0.07**	**0.07**
TOTAL		***1.30***	***1.81***	***0.07***	***0.07***

	NOx	**CO**	**PM10 Total**	**PM2.5 Total**
Asphalt Demolition	***17***	***14***	***0.84***	***0.78***
2.00 Acre LST	***114***	***861***	***7.00***	***4.00***
Exceeds LST?	***no***	***no***	***no***	***no***
Asphalt Demolition and Debris Haul	***23***	***15***	***4.82***	***1.49***
2.00 Acre LST	***114***	***861***	***7.00***	***4.00***
Exceeds LST?	***no***	***no***	***no***	***no***
Site Preparation	***16***	***10***	***1.28***	***0.63***
1.94 Acre LST	***112***	***843***	***6.81***	***3.94***
Exceeds LST?	***no***	***no***	***no***	***no***
Rough Grading	***29***	***20***	***4.71***	***2.64***
2.85 Acre LST	***130***	***1,036***	***8.98***	***4.85***
Exceeds LST?	***no***	***no***	***no***	***no***
Rough Grading and Soil Haul	***29***	***20***	***4.74***	***2.64***
2.85 Acre LST	***130***	***1,036***	***8.98***	***4.85***
Exceeds LST?	***no***	***no***	***no***	***no***
Utilities Trenching	***8***	***6***	***0.32***	***0.30***
<1.00 Acre LST	***80***	***571***	***4.00***	***3.00***
Exceeds LST?	***no***	***no***	***no***	***no***
Utilities Trenching, Fine Grading and Soil Haul, and Building Construction 2022	***26***	***23***	***1.21***	***1.11***
1.38 Acre LST	***93***	***680***	***5.12***	***3.37***
Exceeds LST?	***no***	***no***	***no***	***no***

Utilities Trenching and Building Construction 2022	*22*	*20*	*1.02*	*0.97*
<1.00 Acre LST	*80*	*571*	*4.00*	*3.00*
Exceeds LST?	*no*	*no*	*no*	*no*
Building Construction 2022	*15*	*14*	*0.70*	*0.67*
<1.00 Acre LST	*80*	*571*	*4.00*	*3.00*
Exceeds LST?	*no*	*no*	*no*	*no*
Building Construction 2023	*14*	*14*	*0.61*	*0.59*
<1.00 Acre LST	*80*	*571*	*4.00*	*3.00*
Exceeds LST?	*no*	*no*	*no*	*no*
Building Construction 2023 and Paving	*22*	*26*	*1.05*	*0.99*
<1.00 Acre LST	*80*	*571*	*4.00*	*3.00*
Exceeds LST?	*no*	*no*	*no*	*no*
Building Construction 2023 and Architectural Coating	*15*	*16*	*0.68*	*0.66*
<1.00 Acre LST	*80*	*571*	*4.00*	*3.00*
Exceeds LST?	*no*	*no*	*no*	*no*

Regional Operation Emissions Worksheet: Buildout Year 2023[1]

[1] CalEEMod, Version 2020.4

Proposed Project

Summer

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	7.33	0.29	21.09	0.00	0.12	0.12
Energy	0.12	1.02	0.51	0.01	0.08	0.08
Mobile	5.37	4.02	54.38	0.11	11.95	3.22
Total	**12.83**	**5.33**	**75.98**	**0.12**	**12.15**	**3.42**

Winter

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	7.33	0.29	21.09	0.00	0.12	0.12
Energy	0.12	1.02	0.51	0.01	0.08	0.08
Mobile	5.29	4.40	53.10	0.10	11.95	3.22
Total	**12.75**	**5.71**	**74.70**	**0.11**	**12.15**	**3.42**

Max Daily

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	7.33	0.29	21.09	0.00	0.12	0.12
Energy	0.12	1.02	0.51	0.01	0.08	0.08
Mobile	5.37	4.40	54.38	0.11	11.95	3.22
Total	**12.83**	**5.71**	**75.98**	**0.12**	**12.15**	**3.42**

Regional Thresholds (lb/day)	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Thresholds?	No	No	No	No	No	No

GHG Emissions Inventory

Source: CalEEMod, Version 2020.4

$MTCO_2e$=metric tons of carbon dioxide equivalent.

Construction

	$MTCO_2e$
2022	533
2023	340
Total Construction	**873**
30-Year Amortization[1]	**29**

Operation	$MTCO_2e$	Percent of Emissions
Area	7	0.3%
Energy	927	31%
Mobile	1,774	60%
Solid Waste	116	4%
Water	105	4%
30-Yr Amortized Construction Emissions[1]	29	1%
Total	**2,958**	**100%**
South Coast AQMD Working Group Threshold	3,000	
Exceed Threshold?	**No**	

Notes

1 Total construction emissions are amortized over 30 years per South Coast AQMD Working Group methodology; SCAQMD. 2009, November 19. Greenhouse Gases (GHG) CEQA Significance Thresholds Working Group Meeting 14. http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-14/ghg-meeting-14-main-presentation.pdf?sfvrsn=2.

2 Energy use is adjusted by 4 percent to reflect a slightly larger building square footage to align with the project description

CalEEMod Construction Model

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Washington and Rosemead Mixed-Use Project Construction Run

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	190.00	1000sqft	0.34	190,000.00	0
Other Asphalt Surfaces	45.00	1000sqft	1.03	45,000.00	0
Other Non-Asphalt Surfaces	21.00	1000sqft	0.48	21,000.00	0
Recreational Swimming Pool	17.01	1000sqft	0.00	17,010.00	0
Apartments Mid Rise	255.00	Dwelling Unit	0.99	260,220.00	729
Regional Shopping Center	5.73	1000sqft	0.00	5,730.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Pico Rivera Innovative Municipal Energy				
CO2 Intensity (lb/MWhr)	683.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - based on PRIME power mix

Land Use - based on info from applicant

Construction Phase - based on info confirmed by applicant

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - no additional equipment required for Asphalt Demolition Haul

Off-road Equipment -

Date: 7/5/2022 2:08 PM

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Off-road Equipment - based on info from applicant

Off-road Equipment - no additional equipment required for Grading Soil Haul

Off-road Equipment -

Off-road Equipment - based on info provided by applicant

Off-road Equipment - no additional equipment required for Grading Soil Haul

Off-road Equipment - loader HP based on CAT 966 Loader provided by applicant

Off-road Equipment - based on info from applicant

Trips and VMT - assumes 2 trips/water truck/day. See assumptions file for calculations on dump trucks and hauling trips

Demolition -

Grading -

Architectural Coating - based on info from applicant, residential includes area for pool, nonresidential includes area for int/ext parking structure, parking only includes parking

Vehicle Trips -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use -

Construction Off-road Equipment Mitigation - SCAQMD Rule 403 and 1186

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	11,370.00	97,750.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	34,110.00	293,595.00
tblArchitecturalCoating	ConstArea_Parking	15,360.00	11,400.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	175,649.00	187,130.00
tblArchitecturalCoating	ConstArea_Residential_Interior	526,946.00	561,391.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblAreaCoating	Area_Nonresidential_Exterior	11370	9500
tblAreaCoating	Area_Nonresidential_Interior	34110	28500
tblAreaCoating	Area_Residential_Exterior	175649	168973

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblAreaCoating	Area_Residential_Interior	526946	506918
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	19.00
tblConstructionPhase	NumDays	220.00	407.00
tblConstructionPhase	NumDays	20.00	37.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	6.00	30.00
tblConstructionPhase	NumDays	6.00	12.00
tblConstructionPhase	NumDays	6.00	20.00
tblConstructionPhase	NumDays	6.00	20.00
tblConstructionPhase	NumDays	10.00	19.00
tblConstructionPhase	NumDays	3.00	6.00
tblGrading	MaterialExported	0.00	7,400.00
tblGrading	MaterialExported	0.00	20,000.00
tblLandUse	LandUseSquareFeet	255,000.00	260,220.00
tblLandUse	LotAcreage	4.36	0.34
tblLandUse	LotAcreage	0.39	0.00
tblLandUse	LotAcreage	6.71	0.99
tblLandUse	LotAcreage	0.13	0.00
tblOffRoadEquipment	HorsePower	97.00	225.00
tblOffRoadEquipment	HorsePower	97.00	276.00
tblOffRoadEquipment	HorsePower	158.00	270.00
tblOffRoadEquipment	HorsePower	158.00	249.00
tblOffRoadEquipment	HorsePower	8.00	7.00
tblOffRoadEquipment	HorsePower	8.00	7.00
tblOffRoadEquipment	HorsePower	80.00	134.00
tblOffRoadEquipment	HorsePower	97.00	225.00
tblOffRoadEquipment	HorsePower	78.00	50.00

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblSolidWaste	SolidWasteGenerationRate	96.96	76.95
tblSolidWaste	SolidWasteGenerationRate	6.02	5.78
tblTripsAndVMT	HaulingTripLength	20.00	19.00
tblTripsAndVMT	HaulingTripLength	20.00	19.00
tblTripsAndVMT	HaulingTripLength	20.00	19.00
tblTripsAndVMT	HaulingTripNumber	182.00	184.00
tblTripsAndVMT	HaulingTripNumber	925.00	1,058.00
tblTripsAndVMT	HaulingTripNumber	2,500.00	2,858.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	73.00	3.00
tblTripsAndVMT	WorkerTripNumber	60.00	12.00
tblTripsAndVMT	WorkerTripNumber	300.00	60.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblWater	IndoorWaterUseRate	1,006,024.88	798,432.44
tblWater	IndoorWaterUseRate	424,435.55	407,398.87
tblWater	OutdoorWaterUseRate	616,595.89	489,361.82
tblWater	OutdoorWaterUseRate	260,137.92	249,696.08

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2965	2.6735	2.3152	5.9100e-003	0.2538	0.1084	0.3622	0.0853	0.1024	0.1877	0.0000	524.4940	524.4940	0.0910	0.0221	533.3454
2023	1.5885	1.7623	2.0934	3.9800e-003	0.0840	0.0790	0.1630	0.0224	0.0756	0.0979	0.0000	337.9897	337.9897	0.0539	2.6300e-003	340.1224
Maximum	**1.5885**	**2.6735**	**2.3152**	**5.9100e-003**	**0.2538**	**0.1084**	**0.3622**	**0.0853**	**0.1024**	**0.1877**	**0.0000**	**524.4940**	**524.4940**	**0.0910**	**0.0221**	**533.3454**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2965	2.6735	2.3152	5.9100e-003	0.1611	0.1084	0.2695	0.0508	0.1024	0.1532	0.0000	524.4936	524.4936	0.0910	0.0221	533.3450
2023	1.5885	1.7623	2.0934	3.9800e-003	0.0775	0.0790	0.1565	0.0208	0.0756	0.0963	0.0000	337.9894	337.9894	0.0539	2.6300e-003	340.1221
Maximum	**1.5885**	**2.6735**	**2.3152**	**5.9100e-003**	**0.1611**	**0.1084**	**0.2695**	**0.0508**	**0.1024**	**0.1532**	**0.0000**	**524.4936**	**524.4936**	**0.0910**	**0.0221**	**533.3450**

	ROG	NOx	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**	**29.36**	**0.00**	**18.89**	**33.51**	**0.00**	**12.62**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2022	3-31-2022	1.0444	1.0444
2	4-1-2022	6-30-2022	1.3540	1.3540
3	7-1-2022	9-30-2022	0.5766	0.5766
4	10-1-2022	12-31-2022	0.5588	0.5588
5	1-1-2023	3-31-2023	0.5084	0.5084
6	4-1-2023	6-30-2023	0.5129	0.5129
7	7-1-2023	9-30-2023	0.5186	0.5186
		Highest	1.3540	1.3540

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Asphalt Demolition	Demolition	1/1/2022	2/22/2022	5	37	a
2	Asphalt Demolition Debris Haul	Demolition	2/16/2022	2/22/2022	5	5	b
3	Site Preparation	Site Preparation	2/23/2022	3/2/2022	5	6	c
4	Rough Grading	Grading	3/3/2022	4/13/2022	5	30	d
5	Rough Grading Soil Haul	Grading	3/29/2022	4/13/2022	5	12	e
6	Utility Trenching	Trenching	4/14/2022	7/6/2022	5	60	f
7	Fine Grading	Grading	5/12/2022	6/8/2022	5	20	g
8	Fine Grading Soil Haul	Grading	5/12/2022	6/8/2022	5	20	h
9	Building Construction	Building Construction	5/12/2022	12/1/2023	5	407	i
10	Paving	Paving	10/11/2023	11/6/2023	5	19	j
11	Architectural Coating	Architectural Coating	11/7/2023	12/1/2023	5	19	k

Acres of Grading (Site Preparation Phase): 9

Acres of Grading (Grading Phase): 60

Acres of Paving: 1.85

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Residential Indoor: 561,391; Residential Outdoor: 187,130; Non-Residential Indoor: 293,595; Non-Residential Outdoor: 97,750; Striped Parking Area: 11,40(

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Asphalt Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Asphalt Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Asphalt Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Asphalt Demolition Debris Haul	Concrete/Industrial Saws	0	8.00	81	0.73
Asphalt Demolition Debris Haul	Rubber Tired Dozers	0	8.00	247	0.40
Asphalt Demolition Debris Haul	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	276	0.37
Rough Grading	Excavators	1	8.00	270	0.38
Rough Grading	Graders	1	8.00	187	0.41
Rough Grading	Rollers	1	8.00	134	0.38
Rough Grading	Rubber Tired Dozers	1	8.00	247	0.40
Rough Grading	Scrapers	1	8.00	367	0.48
Rough Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Rough Grading Soil Haul	Graders	0	8.00	187	0.41
Rough Grading Soil Haul	Rubber Tired Dozers	0	8.00	247	0.40
Rough Grading Soil Haul	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Utility Trenching	Excavators	1	6.00	249	0.38
Utility Trenching	Plate Compactors	5	8.00	7	0.43
Utility Trenching	Tractors/Loaders/Backhoes	1	8.00	225	0.37
Utility Trenching	Trenchers	1	8.00	50	0.50
Fine Grading	Graders	0	8.00	187	0.41
Fine Grading	Plate Compactors	5	8.00	7	0.43
Fine Grading	Rubber Tired Dozers	0	8.00	247	0.40
Fine Grading	Tractors/Loaders/Backhoes	1	8.00	225	0.37

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Fine Grading Soil Haul	Graders	0	8.00	187	0.41
Fine Grading Soil Haul	Rubber Tired Dozers	0	8.00	247	0.40
Fine Grading Soil Haul	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Asphalt Demolition	5	13.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Asphalt Demolition Debris Haul	0	0.00	0.00	184.00	14.70	6.90	19.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Rough Grading	7	18.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Rough Grading Soil Haul	0	0.00	0.00	1,058.00	14.70	6.90	19.00	LD_Mix	HDT_Mix	HHDT
Utility Trenching	8	20.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading	6	15.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading Soil Haul	0	0.00	0.00	2,858.00	14.70	6.90	19.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	60.00	3.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	12.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Asphalt Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0313	0.3075	0.2583	4.5000e-004		0.0155	0.0155		0.0145	0.0145	0.0000	38.9937	38.9937	9.9400e-003	0.0000	39.2421
Total	**0.0313**	**0.3075**	**0.2583**	**4.5000e-004**		**0.0155**	**0.0155**		**0.0145**	**0.0145**	**0.0000**	**38.9937**	**38.9937**	**9.9400e-003**	**0.0000**	**39.2421**

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	7.0000e-005	1.9000e-003	6.3000e-004	1.0000e-005	2.3000e-004	2.0000e-005	2.5000e-004	7.0000e-005	2.0000e-005	8.0000e-005	0.0000	0.7065	0.7065	2.0000e-005	1.0000e-004	0.7375
Worker	8.2000e-004	6.9000e-004	8.9200e-003	2.0000e-005	2.6400e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.1675	2.1675	6.0000e-005	6.0000e-005	2.1867
Total	**8.9000e-004**	**2.5900e-003**	**9.5500e-003**	**3.0000e-005**	**2.8700e-003**	**4.0000e-005**	**2.9000e-003**	**7.7000e-004**	**4.0000e-005**	**8.0000e-004**	**0.0000**	**2.8740**	**2.8740**	**8.0000e-005**	**1.6000e-004**	**2.9242**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0313	0.3075	0.2583	4.5000e-004		0.0155	0.0155		0.0145	0.0145	0.0000	38.9937	38.9937	9.9400e-003	0.0000	39.2421
Total	**0.0313**	**0.3075**	**0.2583**	**4.5000e-004**		**0.0155**	**0.0155**		**0.0145**	**0.0145**	**0.0000**	**38.9937**	**38.9937**	**9.9400e-003**	**0.0000**	**39.2421**

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	7.0000e-005	1.9000e-003	6.3000e-004	1.0000e-005	2.2000e-004	2.0000e-005	2.4000e-004	6.0000e-005	2.0000e-005	8.0000e-005	0.0000	0.7065	0.7065	2.0000e-005	1.0000e-004	0.7375
Worker	8.2000e-004	6.9000e-004	8.9200e-003	2.0000e-005	2.4300e-003	2.0000e-005	2.4500e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.1675	2.1675	6.0000e-005	6.0000e-005	2.1867
Total	**8.9000e-004**	**2.5900e-003**	**9.5500e-003**	**3.0000e-005**	**2.6500e-003**	**4.0000e-005**	**2.6900e-003**	**7.1000e-004**	**4.0000e-005**	**7.5000e-004**	**0.0000**	**2.8740**	**2.8740**	**8.0000e-005**	**1.6000e-004**	**2.9242**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Asphalt Demolition Debris Haul - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0197	0.0000	0.0197	2.9800e-003	0.0000	2.9800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0197**	**0.0000**	**0.0197**	**2.9800e-003**	**0.0000**	**2.9800e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	4.1000e-004	0.0156	3.5100e-003	5.0000e-005	1.5000e-003	1.1000e-004	1.6100e-003	4.1000e-004	1.0000e-004	5.2000e-004	0.0000	5.4107	5.4107	2.9000e-004	8.6000e-004	5.6737
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.1000e-004**	**0.0156**	**3.5100e-003**	**5.0000e-005**	**1.5000e-003**	**1.1000e-004**	**1.6100e-003**	**4.1000e-004**	**1.0000e-004**	**5.2000e-004**	**0.0000**	**5.4107**	**5.4107**	**2.9000e-004**	**8.6000e-004**	**5.6737**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.4100e-003	0.0000	8.4100e-003	1.2700e-003	0.0000	1.2700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**8.4100e-003**	**0.0000**	**8.4100e-003**	**1.2700e-003**	**0.0000**	**1.2700e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	4.1000e-004	0.0156	3.5100e-003	5.0000e-005	1.4000e-003	1.1000e-004	1.5100e-003	3.9000e-004	1.0000e-004	4.9000e-004	0.0000	5.4107	5.4107	2.9000e-004	8.6000e-004	5.6737
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.1000e-004**	**0.0156**	**3.5100e-003**	**5.0000e-005**	**1.4000e-003**	**1.1000e-004**	**1.5100e-003**	**3.9000e-004**	**1.0000e-004**	**4.9000e-004**	**0.0000**	**5.4107**	**5.4107**	**2.9000e-004**	**8.6000e-004**	**5.6737**

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3.4 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.7700e-003	0.0000	4.7700e-003	5.2000e-004	0.0000	5.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.4600e-003	0.0494	0.0304	9.0000e-005		1.8000e-003	1.8000e-003		1.6600e-003	1.6600e-003	0.0000	7.7594	7.7594	2.5100e-003	0.0000	7.8222
Total	**4.4600e-003**	**0.0494**	**0.0304**	**9.0000e-005**	**4.7700e-003**	**1.8000e-003**	**6.5700e-003**	**5.2000e-004**	**1.6600e-003**	**2.1800e-003**	**0.0000**	**7.7594**	**7.7594**	**2.5100e-003**	**0.0000**	**7.8222**

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	1.0000e-005	3.1000e-004	1.0000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1146	0.1146	0.0000	2.0000e-005	0.1196
Worker	8.0000e-005	7.0000e-005	8.9000e-004	0.0000	2.6000e-004	0.0000	2.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2163	0.2163	1.0000e-005	1.0000e-005	0.2182
Total	**9.0000e-005**	**3.8000e-004**	**9.9000e-004**	**0.0000**	**3.0000e-004**	**0.0000**	**3.0000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.3309**	**0.3309**	**1.0000e-005**	**3.0000e-005**	**0.3378**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.0400e-003	0.0000	2.0400e-003	2.2000e-004	0.0000	2.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.4600e-003	0.0494	0.0304	9.0000e-005		1.8000e-003	1.8000e-003		1.6600e-003	1.6600e-003	0.0000	7.7594	7.7594	2.5100e-003	0.0000	7.8222
Total	**4.4600e-003**	**0.0494**	**0.0304**	**9.0000e-005**	**2.0400e-003**	**1.8000e-003**	**3.8400e-003**	**2.2000e-004**	**1.6600e-003**	**1.8800e-003**	**0.0000**	**7.7594**	**7.7594**	**2.5100e-003**	**0.0000**	**7.8222**

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	1.0000e-005	3.1000e-004	1.0000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1146	0.1146	0.0000	2.0000e-005	0.1196
Worker	8.0000e-005	7.0000e-005	8.9000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.2163	0.2163	1.0000e-005	1.0000e-005	0.2182
Total	**9.0000e-005**	**3.8000e-004**	**9.9000e-004**	**0.0000**	**2.8000e-004**	**0.0000**	**2.8000e-004**	**7.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.3309**	**0.3309**	**1.0000e-005**	**3.0000e-005**	**0.3378**

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3.5 Rough Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1222	0.0000	0.1222	0.0531	0.0000	0.0531	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0411	0.4402	0.3020	7.3000e-004		0.0184	0.0184		0.0169	0.0169	0.0000	64.4952	64.4952	0.0209	0.0000	65.0167
Total	**0.0411**	**0.4402**	**0.3020**	**7.3000e-004**	**0.1222**	**0.0184**	**0.1405**	**0.0531**	**0.0169**	**0.0700**	**0.0000**	**64.4952**	**64.4952**	**0.0209**	**0.0000**	**65.0167**

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	6.0000e-005	1.5400e-003	5.1000e-004	1.0000e-005	1.9000e-004	1.0000e-005	2.0000e-004	5.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.5729	0.5729	2.0000e-005	8.0000e-005	0.5980
Worker	9.2000e-004	7.7000e-004	0.0100	3.0000e-005	2.9600e-003	2.0000e-005	2.9800e-003	7.9000e-004	2.0000e-005	8.0000e-004	0.0000	2.4334	2.4334	7.0000e-005	7.0000e-005	2.4549
Total	**9.8000e-004**	**2.3100e-003**	**0.0105**	**4.0000e-005**	**3.1500e-003**	**3.0000e-005**	**3.1800e-003**	**8.4000e-004**	**3.0000e-005**	**8.7000e-004**	**0.0000**	**3.0062**	**3.0062**	**9.0000e-005**	**1.5000e-004**	**3.0529**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0522	0.0000	0.0522	0.0227	0.0000	0.0227	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0411	0.4402	0.3020	7.3000e-004		0.0184	0.0184		0.0169	0.0169	0.0000	64.4951	64.4951	0.0209	0.0000	65.0166
Total	**0.0411**	**0.4402**	**0.3020**	**7.3000e-004**	**0.0522**	**0.0184**	**0.0706**	**0.0227**	**0.0169**	**0.0396**	**0.0000**	**64.4951**	**64.4951**	**0.0209**	**0.0000**	**65.0166**

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	6.0000e-005	1.5400e-003	5.1000e-004	1.0000e-005	1.8000e-004	1.0000e-005	1.9000e-004	5.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.5729	0.5729	2.0000e-005	8.0000e-005	0.5980
Worker	9.2000e-004	7.7000e-004	0.0100	3.0000e-005	2.7300e-003	2.0000e-005	2.7500e-003	7.3000e-004	2.0000e-005	7.5000e-004	0.0000	2.4334	2.4334	7.0000e-005	7.0000e-005	2.4549
Total	**9.8000e-004**	**2.3100e-003**	**0.0105**	**4.0000e-005**	**2.9100e-003**	**3.0000e-005**	**2.9400e-003**	**7.8000e-004**	**3.0000e-005**	**8.2000e-004**	**0.0000**	**3.0062**	**3.0062**	**9.0000e-005**	**1.5000e-004**	**3.0529**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Rough Grading Soil Haul - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.2000e-004	0.0000	4.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**4.2000e-004**	**0.0000**	**4.2000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	2.3400e-003	0.0894	0.0202	3.1000e-004	8.6500e-003	6.3000e-004	9.2700e-003	2.3800e-003	6.0000e-004	2.9800e-003	0.0000	31.1114	31.1114	1.6500e-003	4.9400e-003	32.6236
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.3400e-003**	**0.0894**	**0.0202**	**3.1000e-004**	**8.6500e-003**	**6.3000e-004**	**9.2700e-003**	**2.3800e-003**	**6.0000e-004**	**2.9800e-003**	**0.0000**	**31.1114**	**31.1114**	**1.6500e-003**	**4.9400e-003**	**32.6236**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.8000e-004	0.0000	1.8000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	2.3400e-003	0.0894	0.0202	3.1000e-004	8.0600e-003	6.3000e-004	8.6900e-003	2.2300e-003	6.0000e-004	2.8300e-003	0.0000	31.1114	31.1114	1.6500e-003	4.9400e-003	32.6236
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.3400e-003**	**0.0894**	**0.0202**	**3.1000e-004**	**8.0600e-003**	**6.3000e-004**	**8.6900e-003**	**2.2300e-003**	**6.0000e-004**	**2.8300e-003**	**0.0000**	**31.1114**	**31.1114**	**1.6500e-003**	**4.9400e-003**	**32.6236**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Utility Trenching - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0286	0.2271	0.1796	5.3000e-004		9.5100e-003	9.5100e-003		8.8500e-003	8.8500e-003	0.0000	45.2951	45.2951	0.0138	0.0000	45.6388
Total	**0.0286**	**0.2271**	**0.1796**	**5.3000e-004**		**9.5100e-003**	**9.5100e-003**		**8.8500e-003**	**8.8500e-003**	**0.0000**	**45.2951**	**45.2951**	**0.0138**	**0.0000**	**45.6388**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3000e-004	6.1700e-003	2.0500e-003	2.0000e-005	7.6000e-004	6.0000e-005	8.1000e-004	2.2000e-004	5.0000e-005	2.7000e-004	0.0000	2.2915	2.2915	8.0000e-005	3.3000e-004	2.3919
Worker	2.0600e-003	1.7100e-003	0.0222	6.0000e-005	6.5700e-003	4.0000e-005	6.6200e-003	1.7500e-003	4.0000e-005	1.7900e-003	0.0000	5.4075	5.4075	1.6000e-004	1.5000e-004	5.4554
Total	**2.2900e-003**	**7.8800e-003**	**0.0243**	**8.0000e-005**	**7.3300e-003**	**1.0000e-004**	**7.4300e-003**	**1.9700e-003**	**9.0000e-005**	**2.0600e-003**	**0.0000**	**7.6990**	**7.6990**	**2.4000e-004**	**4.8000e-004**	**7.8473**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0286	0.2271	0.1796	5.3000e-004		9.5100e-003	9.5100e-003		8.8500e-003	8.8500e-003	0.0000	45.2950	45.2950	0.0138	0.0000	45.6387
Total	**0.0286**	**0.2271**	**0.1796**	**5.3000e-004**		**9.5100e-003**	**9.5100e-003**		**8.8500e-003**	**8.8500e-003**	**0.0000**	**45.2950**	**45.2950**	**0.0138**	**0.0000**	**45.6387**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3000e-004	6.1700e-003	2.0500e-003	2.0000e-005	7.1000e-004	6.0000e-005	7.6000e-004	2.1000e-004	5.0000e-005	2.6000e-004	0.0000	2.2915	2.2915	8.0000e-005	3.3000e-004	2.3919
Worker	2.0600e-003	1.7100e-003	0.0222	6.0000e-005	6.0600e-003	4.0000e-005	6.1000e-003	1.6200e-003	4.0000e-005	1.6600e-003	0.0000	5.4075	5.4075	1.6000e-004	1.5000e-004	5.4554
Total	**2.2900e-003**	**7.8800e-003**	**0.0243**	**8.0000e-005**	**6.7700e-003**	**1.0000e-004**	**6.8600e-003**	**1.8300e-003**	**9.0000e-005**	**1.9200e-003**	**0.0000**	**7.6990**	**7.6990**	**2.4000e-004**	**4.8000e-004**	**7.8473**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.8 Fine Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5000e-003	0.0395	0.0263	9.0000e-005		1.4100e-003	1.4100e-003		1.3300e-003	1.3300e-003	0.0000	7.6305	7.6305	2.1700e-003	0.0000	7.6847
Total	**4.5000e-003**	**0.0395**	**0.0263**	**9.0000e-005**	**0.0000**	**1.4100e-003**	**1.4100e-003**	**0.0000**	**1.3300e-003**	**1.3300e-003**	**0.0000**	**7.6305**	**7.6305**	**2.1700e-003**	**0.0000**	**7.6847**

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	1.2000e-004	3.0900e-003	1.0200e-003	1.0000e-005	3.8000e-004	3.0000e-005	4.1000e-004	1.1000e-004	3.0000e-005	1.4000e-004	0.0000	1.1458	1.1458	4.0000e-005	1.7000e-004	1.1960
Worker	5.1000e-004	4.3000e-004	5.5600e-003	1.0000e-005	1.6400e-003	1.0000e-005	1.6500e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3519	1.3519	4.0000e-005	4.0000e-005	1.3638
Total	**6.3000e-004**	**3.5200e-003**	**6.5800e-003**	**2.0000e-005**	**2.0200e-003**	**4.0000e-005**	**2.0600e-003**	**5.5000e-004**	**4.0000e-005**	**5.9000e-004**	**0.0000**	**2.4976**	**2.4976**	**8.0000e-005**	**2.1000e-004**	**2.5598**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5000e-003	0.0395	0.0263	9.0000e-005		1.4100e-003	1.4100e-003		1.3300e-003	1.3300e-003	0.0000	7.6305	7.6305	2.1700e-003	0.0000	7.6847
Total	**4.5000e-003**	**0.0395**	**0.0263**	**9.0000e-005**	**0.0000**	**1.4100e-003**	**1.4100e-003**	**0.0000**	**1.3300e-003**	**1.3300e-003**	**0.0000**	**7.6305**	**7.6305**	**2.1700e-003**	**0.0000**	**7.6847**

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	1.2000e-004	3.0900e-003	1.0200e-003	1.0000e-005	3.5000e-004	3.0000e-005	3.8000e-004	1.0000e-004	3.0000e-005	1.3000e-004	0.0000	1.1458	1.1458	4.0000e-005	1.7000e-004	1.1960
Worker	5.1000e-004	4.3000e-004	5.5600e-003	1.0000e-005	1.5200e-003	1.0000e-005	1.5300e-003	4.1000e-004	1.0000e-005	4.1000e-004	0.0000	1.3519	1.3519	4.0000e-005	4.0000e-005	1.3638
Total	**6.3000e-004**	**3.5200e-003**	**6.5800e-003**	**2.0000e-005**	**1.8700e-003**	**4.0000e-005**	**1.9100e-003**	**5.1000e-004**	**4.0000e-005**	**5.4000e-004**	**0.0000**	**2.4976**	**2.4976**	**8.0000e-005**	**2.1000e-004**	**2.5598**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.9 Fine Grading Soil Haul - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.1300e-003	0.0000	1.1300e-003	1.7000e-004	0.0000	1.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.1300e-003**	**0.0000**	**1.1300e-003**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	6.3300e-003	0.2415	0.0545	8.5000e-004	0.0234	1.7000e-003	0.0251	6.4200e-003	1.6200e-003	8.0400e-003	0.0000	84.0418	84.0418	4.4500e-003	0.0133	88.1270
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.3300e-003**	**0.2415**	**0.0545**	**8.5000e-004**	**0.0234**	**1.7000e-003**	**0.0251**	**6.4200e-003**	**1.6200e-003**	**8.0400e-003**	**0.0000**	**84.0418**	**84.0418**	**4.4500e-003**	**0.0133**	**88.1270**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.8000e-004	0.0000	4.8000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**4.8000e-004**	**0.0000**	**4.8000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	6.3300e-003	0.2415	0.0545	8.5000e-004	0.0218	1.7000e-003	0.0235	6.0300e-003	1.6200e-003	7.6500e-003	0.0000	84.0418	84.0418	4.4500e-003	0.0133	88.1270
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.3300e-003**	**0.2415**	**0.0545**	**8.5000e-004**	**0.0218**	**1.7000e-003**	**0.0235**	**6.0300e-003**	**1.6200e-003**	**7.6500e-003**	**0.0000**	**84.0418**	**84.0418**	**4.4500e-003**	**0.0133**	**88.1270**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.10 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1549	1.2194	1.1985	2.0900e-003		0.0586	0.0586		0.0562	0.0562	0.0000	173.4129	173.4129	0.0335	0.0000	174.2493
Total	**0.1549**	**1.2194**	**1.1985**	**2.0900e-003**		**0.0586**	**0.0586**		**0.0562**	**0.0562**	**0.0000**	**173.4129**	**173.4129**	**0.0335**	**0.0000**	**174.2493**

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	4.9000e-004	0.0129	4.2700e-003	5.0000e-005	1.5800e-003	1.2000e-004	1.7000e-003	4.6000e-004	1.1000e-004	5.7000e-004	0.0000	4.7835	4.7835	1.6000e-004	6.9000e-004	4.9931
Worker	0.0172	0.0143	0.1857	4.9000e-004	0.0549	3.6000e-004	0.0553	0.0146	3.3000e-004	0.0149	0.0000	45.1522	45.1522	1.3000e-003	1.2300e-003	45.5523
Total	**0.0177**	**0.0272**	**0.1900**	**5.4000e-004**	**0.0565**	**4.8000e-004**	**0.0570**	**0.0150**	**4.4000e-004**	**0.0155**	**0.0000**	**49.9357**	**49.9357**	**1.4600e-003**	**1.9200e-003**	**50.5454**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1549	1.2194	1.1985	2.0900e-003		0.0586	0.0586		0.0562	0.0562	0.0000	173.4127	173.4127	0.0335	0.0000	174.2491
Total	**0.1549**	**1.2194**	**1.1985**	**2.0900e-003**		**0.0586**	**0.0586**		**0.0562**	**0.0562**	**0.0000**	**173.4127**	**173.4127**	**0.0335**	**0.0000**	**174.2491**

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	4.9000e-004	0.0129	4.2700e-003	5.0000e-005	1.4800e-003	1.2000e-004	1.6000e-003	4.3000e-004	1.1000e-004	5.4000e-004	0.0000	4.7835	4.7835	1.6000e-004	6.9000e-004	4.9931
Worker	0.0172	0.0143	0.1857	4.9000e-004	0.0506	3.6000e-004	0.0510	0.0135	3.3000e-004	0.0139	0.0000	45.1522	45.1522	1.3000e-003	1.2300e-003	45.5523
Total	**0.0177**	**0.0272**	**0.1900**	**5.4000e-004**	**0.0521**	**4.8000e-004**	**0.0526**	**0.0140**	**4.4000e-004**	**0.0144**	**0.0000**	**49.9357**	**49.9357**	**1.4600e-003**	**1.9200e-003**	**50.5454**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.10 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	0.2056	1.6349	1.7057	3.0000e-003		0.0736	0.0736		0.0706	0.0706	0.0000	249.2425	249.2425	0.0471	0.0000	250.4209
Total	**0.2056**	**1.6349**	**1.7057**	**3.0000e-003**		**0.0736**	**0.0736**		**0.0706**	**0.0706**	**0.0000**	**249.2425**	**249.2425**	**0.0471**	**0.0000**	**250.4209**

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	4.1000e-004	0.0145	5.4300e-003	7.0000e-005	2.2700e-003	7.0000e-005	2.3400e-003	6.5000e-004	7.0000e-005	7.2000e-004	0.0000	6.5456	6.5456	2.2000e-004	9.4000e-004	6.8318
Worker	0.0228	0.0181	0.2453	6.8000e-004	0.0789	4.8000e-004	0.0794	0.0210	4.5000e-004	0.0214	0.0000	62.8016	62.8016	1.6700e-003	1.6300e-003	63.3305
Total	**0.0233**	**0.0327**	**0.2507**	**7.5000e-004**	**0.0812**	**5.5000e-004**	**0.0817**	**0.0216**	**5.2000e-004**	**0.0221**	**0.0000**	**69.3472**	**69.3472**	**1.8900e-003**	**2.5700e-003**	**70.1623**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2056	1.6349	1.7057	3.0000e-003		0.0736	0.0736		0.0706	0.0706	0.0000	249.2422	249.2422	0.0471	0.0000	250.4206
Total	**0.2056**	**1.6349**	**1.7057**	**3.0000e-003**		**0.0736**	**0.0736**		**0.0706**	**0.0706**	**0.0000**	**249.2422**	**249.2422**	**0.0471**	**0.0000**	**250.4206**

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	4.1000e-004	0.0145	5.4300e-003	7.0000e-005	2.1200e-003	7.0000e-005	2.1900e-003	6.2000e-004	7.0000e-005	6.9000e-004	0.0000	6.5456	6.5456	2.2000e-004	9.4000e-004	6.8318
Worker	0.0228	0.0181	0.2453	6.8000e-004	0.0727	4.8000e-004	0.0732	0.0194	4.5000e-004	0.0199	0.0000	62.8016	62.8016	1.6700e-003	1.6300e-003	63.3305
Total	**0.0233**	**0.0327**	**0.2507**	**7.5000e-004**	**0.0749**	**5.5000e-004**	**0.0754**	**0.0201**	**5.2000e-004**	**0.0206**	**0.0000**	**69.3472**	**69.3472**	**1.8900e-003**	**2.5700e-003**	**70.1623**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.11 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	8.3600e-003	0.0818	0.1110	1.7000e-004		4.1200e-003	4.1200e-003		3.8000e-003	3.8000e-003	0.0000	14.7372	14.7372	4.6700e-003	0.0000	14.8539
Paving	1.3500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.7100e-003**	**0.0818**	**0.1110**	**1.7000e-004**		**4.1200e-003**	**4.1200e-003**		**3.8000e-003**	**3.8000e-003**	**0.0000**	**14.7372**	**14.7372**	**4.6700e-003**	**0.0000**	**14.8539**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.6000e-004	4.8600e-003	1.0000e-005	1.5600e-003	1.0000e-005	1.5700e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.2430	1.2430	3.0000e-005	3.0000e-005	1.2534
Total	**4.5000e-004**	**3.6000e-004**	**4.8600e-003**	**1.0000e-005**	**1.5600e-003**	**1.0000e-005**	**1.5700e-003**	**4.1000e-004**	**1.0000e-005**	**4.2000e-004**	**0.0000**	**1.2430**	**1.2430**	**3.0000e-005**	**3.0000e-005**	**1.2534**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.3600e-003	0.0818	0.1110	1.7000e-004		4.1200e-003	4.1200e-003		3.8000e-003	3.8000e-003	0.0000	14.7371	14.7371	4.6700e-003	0.0000	14.8539
Paving	1.3500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.7100e-003**	**0.0818**	**0.1110**	**1.7000e-004**		**4.1200e-003**	**4.1200e-003**		**3.8000e-003**	**3.8000e-003**	**0.0000**	**14.7371**	**14.7371**	**4.6700e-003**	**0.0000**	**14.8539**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.6000e-004	4.8600e-003	1.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2430	1.2430	3.0000e-005	3.0000e-005	1.2534
Total	**4.5000e-004**	**3.6000e-004**	**4.8600e-003**	**1.0000e-005**	**1.4400e-003**	**1.0000e-005**	**1.4500e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.2430**	**1.2430**	**3.0000e-005**	**3.0000e-005**	**1.2534**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.12 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3472					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8200e-003	0.0124	0.0172	3.0000e-005		6.7000e-004	6.7000e-004		6.7000e-004	6.7000e-004	0.0000	2.4256	2.4256	1.5000e-004	0.0000	2.4292
Total	**1.3491**	**0.0124**	**0.0172**	**3.0000e-005**		**6.7000e-004**	**6.7000e-004**		**6.7000e-004**	**6.7000e-004**	**0.0000**	**2.4256**	**2.4256**	**1.5000e-004**	**0.0000**	**2.4292**

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	3.6000e-004	2.9000e-004	3.8800e-003	1.0000e-005	1.2500e-003	1.0000e-005	1.2600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	0.9944	0.9944	3.0000e-005	3.0000e-005	1.0027
Total	**3.6000e-004**	**2.9000e-004**	**3.8800e-003**	**1.0000e-005**	**1.2500e-003**	**1.0000e-005**	**1.2600e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**0.9944**	**0.9944**	**3.0000e-005**	**3.0000e-005**	**1.0027**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3472					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8200e-003	0.0124	0.0172	3.0000e-005		6.7000e-004	6.7000e-004		6.7000e-004	6.7000e-004	0.0000	2.4256	2.4256	1.5000e-004	0.0000	2.4292
Total	**1.3491**	**0.0124**	**0.0172**	**3.0000e-005**		**6.7000e-004**	**6.7000e-004**		**6.7000e-004**	**6.7000e-004**	**0.0000**	**2.4256**	**2.4256**	**1.5000e-004**	**0.0000**	**2.4292**

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	3.6000e-004	2.9000e-004	3.8800e-003	1.0000e-005	1.1500e-003	1.0000e-005	1.1600e-003	3.1000e-004	1.0000e-005	3.1000e-004	0.0000	0.9944	0.9944	3.0000e-005	3.0000e-005	1.0027
Total	**3.6000e-004**	**2.9000e-004**	**3.8800e-003**	**1.0000e-005**	**1.1500e-003**	**1.0000e-005**	**1.1600e-003**	**3.1000e-004**	**1.0000e-005**	**3.1000e-004**	**0.0000**	**0.9944**	**0.9944**	**3.0000e-005**	**3.0000e-005**	**1.0027**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Washington and Rosemead Mixed-Use Project Construction Run

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	190.00	1000sqft	0.34	190,000.00	0
Other Asphalt Surfaces	45.00	1000sqft	1.03	45,000.00	0
Other Non-Asphalt Surfaces	21.00	1000sqft	0.48	21,000.00	0
Recreational Swimming Pool	17.01	1000sqft	0.00	17,010.00	0
Apartments Mid Rise	255.00	Dwelling Unit	0.99	260,220.00	729
Regional Shopping Center	5.73	1000sqft	0.00	5,730.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Pico Rivera Innovative Municipal Energy				
CO2 Intensity (lb/MWhr)	683.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - based on PRIME power mix

Land Use - based on info from applicant

Construction Phase - based on info confirmed by applicant

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - no additional equipment required for Asphalt Demolition Haul

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Off-road Equipment -

Off-road Equipment - based on info from applicant

Off-road Equipment - no additional equipment required for Grading Soil Haul

Off-road Equipment -

Off-road Equipment - based on info provided by applicant

Off-road Equipment - no additional equipment required for Grading Soil Haul

Off-road Equipment - loader HP based on CAT 966 Loader provided by applicant

Off-road Equipment - based on info from applicant

Trips and VMT - assumes 2 trips/water truck/day. See assumptions file for calculations on dump trucks and hauling trips

Demolition -

Grading -

Architectural Coating - based on info from applicant, residential includes area for pool, nonresidential includes area for int/ext parking structure, parking only includes

Vehicle Trips -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use -

Construction Off-road Equipment Mitigation - SCAQMD Rule 403 and 1186

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	11,370.00	97,750.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	34,110.00	293,595.00
tblArchitecturalCoating	ConstArea_Parking	15,360.00	11,400.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	175,649.00	187,130.00
tblArchitecturalCoating	ConstArea_Residential_Interior	526,946.00	561,391.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblAreaCoating	Area_Nonresidential_Exterior	11370	9500

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblAreaCoating	Area_Nonresidential_Interior	34110	28500
tblAreaCoating	Area_Residential_Exterior	175649	168973
tblAreaCoating	Area_Residential_Interior	526946	506918
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	19.00
tblConstructionPhase	NumDays	220.00	407.00
tblConstructionPhase	NumDays	20.00	37.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	6.00	30.00
tblConstructionPhase	NumDays	6.00	12.00
tblConstructionPhase	NumDays	6.00	20.00
tblConstructionPhase	NumDays	6.00	20.00
tblConstructionPhase	NumDays	10.00	19.00
tblConstructionPhase	NumDays	3.00	6.00
tblGrading	MaterialExported	0.00	7,400.00
tblGrading	MaterialExported	0.00	20,000.00
tblLandUse	LandUseSquareFeet	255,000.00	260,220.00
tblLandUse	LotAcreage	4.36	0.34
tblLandUse	LotAcreage	0.39	0.00
tblLandUse	LotAcreage	6.71	0.99
tblLandUse	LotAcreage	0.13	0.00
tblOffRoadEquipment	HorsePower	97.00	225.00
tblOffRoadEquipment	HorsePower	97.00	276.00
tblOffRoadEquipment	HorsePower	158.00	270.00
tblOffRoadEquipment	HorsePower	158.00	249.00
tblOffRoadEquipment	HorsePower	8.00	7.00
tblOffRoadEquipment	HorsePower	8.00	7.00

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	HorsePower	80.00	134.00
tblOffRoadEquipment	HorsePower	97.00	225.00
tblOffRoadEquipment	HorsePower	78.00	50.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblSolidWaste	SolidWasteGenerationRate	96.96	76.95
tblSolidWaste	SolidWasteGenerationRate	6.02	5.78
tblTripsAndVMT	HaulingTripLength	20.00	19.00
tblTripsAndVMT	HaulingTripLength	20.00	19.00
tblTripsAndVMT	HaulingTripLength	20.00	19.00
tblTripsAndVMT	HaulingTripNumber	182.00	184.00
tblTripsAndVMT	HaulingTripNumber	925.00	1,058.00
tblTripsAndVMT	HaulingTripNumber	2,500.00	2,858.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	73.00	3.00
tblTripsAndVMT	WorkerTripNumber	60.00	12.00
tblTripsAndVMT	WorkerTripNumber	300.00	60.00
tblWater	IndoorWaterUseRate	1,006,024.88	798,432.44
tblWater	IndoorWaterUseRate	424,435.55	407,398.87
tblWater	OutdoorWaterUseRate	616,595.89	489,361.82
tblWater	OutdoorWaterUseRate	260,137.92	249,696.08

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	4.2542	49.9364	32.3389	0.1489	9.8930	1.3427	11.2251	4.0089	1.2757	5.2382	0.0000	15,312.9108	15,312.9108	1.8426	1.5328	15,812.5270
2023	143.9538	22.5162	28.6536	0.0509	0.8575	1.0531	1.9106	0.2279	0.9935	1.2213	0.0000	4,809.6571	4,809.6571	0.9959	0.0260	4,842.2862
Maximum	**143.9538**	**49.9364**	**32.3389**	**0.1489**	**9.8930**	**1.3427**	**11.2251**	**4.0089**	**1.2757**	**5.2382**	**0.0000**	**15,312.9108**	**15,312.9108**	**1.8426**	**1.5328**	**15,812.5270**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	4.2542	49.9364	32.3389	0.1489	5.0749	1.3427	6.4070	1.9480	1.2757	3.1774	0.0000	15,312.9108	15,312.9108	1.8426	1.5328	15,812.5270
2023	143.9538	22.5162	28.6536	0.0509	0.7907	1.0531	1.8438	0.2115	0.9935	1.2049	0.0000	4,809.6571	4,809.6571	0.9959	0.0260	4,842.2862
Maximum	**143.9538**	**49.9364**	**32.3389**	**0.1489**	**5.0749**	**1.3427**	**6.4070**	**1.9480**	**1.2757**	**3.1774**	**0.0000**	**15,312.9108**	**15,312.9108**	**1.8426**	**1.5328**	**15,812.5270**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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**	**45.44**	**0.00**	**37.19**	**49.03**	**0.00**	**32.16**	**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	Asphalt Demolition	Demolition	1/1/2022	2/22/2022	5	37	a
2	Asphalt Demolition Debris Haul	Demolition	2/16/2022	2/22/2022	5	5	b
3	Site Preparation	Site Preparation	2/23/2022	3/2/2022	5	6	c
4	Rough Grading	Grading	3/3/2022	4/13/2022	5	30	d
5	Rough Grading Soil Haul	Grading	3/29/2022	4/13/2022	5	12	e
6	Utility Trenching	Trenching	4/14/2022	7/6/2022	5	60	f
7	Fine Grading	Grading	5/12/2022	6/8/2022	5	20	g
8	Fine Grading Soil Haul	Grading	5/12/2022	6/8/2022	5	20	h
9	Building Construction	Building Construction	5/12/2022	12/1/2023	5	407	i
10	Paving	Paving	10/11/2023	11/6/2023	5	19	j
11	Architectural Coating	Architectural Coating	11/7/2023	12/1/2023	5	19	k

Acres of Grading (Site Preparation Phase): 9

Acres of Grading (Grading Phase): 60

Acres of Paving: 1.85

Residential Indoor: 561,391; Residential Outdoor: 187,130; Non-Residential Indoor: 293,595; Non-Residential Outdoor: 97,750; Striped Parking Area:

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Asphalt Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Asphalt Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Asphalt Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Asphalt Demolition Debris Haul	Concrete/Industrial Saws	0	8.00	81	0.73
Asphalt Demolition Debris Haul	Rubber Tired Dozers	0	8.00	247	0.40
Asphalt Demolition Debris Haul	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	276	0.37
Rough Grading	Excavators	1	8.00	270	0.38
Rough Grading	Graders	1	8.00	187	0.41
Rough Grading	Rollers	1	8.00	134	0.38
Rough Grading	Rubber Tired Dozers	1	8.00	247	0.40
Rough Grading	Scrapers	1	8.00	367	0.48
Rough Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Rough Grading Soil Haul	Graders	0	8.00	187	0.41
Rough Grading Soil Haul	Rubber Tired Dozers	0	8.00	247	0.40
Rough Grading Soil Haul	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Utility Trenching	Excavators	1	6.00	249	0.38
Utility Trenching	Plate Compactors	5	8.00	7	0.43
Utility Trenching	Tractors/Loaders/Backhoes	1	8.00	225	0.37
Utility Trenching	Trenchers	1	8.00	50	0.50
Fine Grading	Graders	0	8.00	187	0.41
Fine Grading	Plate Compactors	5	8.00	7	0.43
Fine Grading	Rubber Tired Dozers	0	8.00	247	0.40
Fine Grading	Tractors/Loaders/Backhoes	1	8.00	225	0.37

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Fine Grading Soil Haul	Graders	0	8.00	187	0.41
Fine Grading Soil Haul	Rubber Tired Dozers	0	8.00	247	0.40
Fine Grading Soil Haul	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Asphalt Demolition	5	13.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Asphalt Demolition Debris Haul	0	0.00	0.00	184.00	14.70	6.90	19.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Rough Grading	7	18.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Rough Grading Soil Haul	0	0.00	0.00	1,058.00	14.70	6.90	19.00	LD_Mix	HDT_Mix	HHDT
Utility Trenching	8	20.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading	6	15.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading Soil Haul	0	0.00	0.00	2,858.00	14.70	6.90	19.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	60.00	3.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	12.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Asphalt Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829		2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**		**0.8379**	**0.8379**		**0.7829**	**0.7829**		**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

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	3.9400e-003	0.0980	0.0336	3.9000e-004	0.0128	9.3000e-004	0.0137	3.6900e-003	8.9000e-004	4.5800e-003		42.0923	42.0923	1.4100e-003	6.0700e-003	43.9350
Worker	0.0450	0.0328	0.5117	1.3300e-003	0.1453	9.3000e-004	0.1462	0.0385	8.6000e-004	0.0394		134.3475	134.3475	3.6600e-003	3.2500e-003	135.4083
Total	**0.0489**	**0.1308**	**0.5453**	**1.7200e-003**	**0.1581**	**1.8600e-003**	**0.1600**	**0.0422**	**1.7500e-003**	**0.0440**		**176.4398**	**176.4398**	**5.0700e-003**	**9.3200e-003**	**179.3434**

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Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829	0.0000	2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**		**0.8379**	**0.8379**		**0.7829**	**0.7829**	**0.0000**	**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

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	3.9400e-003	0.0980	0.0336	3.9000e-004	0.0120	9.3000e-004	0.0129	3.4900e-003	8.9000e-004	4.3800e-003		42.0923	42.0923	1.4100e-003	6.0700e-003	43.9350
Worker	0.0450	0.0328	0.5117	1.3300e-003	0.1339	9.3000e-004	0.1349	0.0358	8.6000e-004	0.0366		134.3475	134.3475	3.6600e-003	3.2500e-003	135.4083
Total	**0.0489**	**0.1308**	**0.5453**	**1.7200e-003**	**0.1459**	**1.8600e-003**	**0.1478**	**0.0392**	**1.7500e-003**	**0.0410**		**176.4398**	**176.4398**	**5.0700e-003**	**9.3200e-003**	**179.3434**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Asphalt Demolition Debris Haul - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.8706	0.0000	7.8706	1.1917	0.0000	1.1917			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**7.8706**	**0.0000**	**7.8706**	**1.1917**	**0.0000**	**1.1917**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	0.1649	5.9064	1.3944	0.0218	0.6120	0.0437	0.6556	0.1678	0.0418	0.2095		2,385.3896	2,385.3896	0.1266	0.3785	2,501.3374
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	0.0000	0.0000	0.0000	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	**0.1649**	**5.9064**	**1.3944**	**0.0218**	**0.6120**	**0.0437**	**0.6556**	**0.1678**	**0.0418**	**0.2095**		**2,385.3896**	**2,385.3896**	**0.1266**	**0.3785**	**2,501.3374**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3647	0.0000	3.3647	0.5094	0.0000	0.5094			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**3.3647**	**0.0000**	**3.3647**	**0.5094**	**0.0000**	**0.5094**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	0.1649	5.9064	1.3944	0.0218	0.5704	0.0437	0.6140	0.1576	0.0418	0.1993		2,385.3896	2,385.3896	0.1266	0.3785	2,501.3374
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	0.0000	0.0000	0.0000	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	**0.1649**	**5.9064**	**1.3944**	**0.0218**	**0.5704**	**0.0437**	**0.6140**	**0.1576**	**0.0418**	**0.1993**		**2,385.3896**	**2,385.3896**	**0.1266**	**0.3785**	**2,501.3374**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.4869	16.4656	10.1152	0.0295		0.5998	0.5998		0.5518	0.5518		2,851.0984	2,851.0984	0.9221		2,874.1509
Total	**1.4869**	**16.4656**	**10.1152**	**0.0295**	**1.5908**	**0.5998**	**2.1905**	**0.1718**	**0.5518**	**0.7236**		**2,851.0984**	**2,851.0984**	**0.9221**		**2,874.1509**

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	3.9400e-003	0.0980	0.0336	3.9000e-004	0.0128	9.3000e-004	0.0137	3.6900e-003	8.9000e-004	4.5800e-003		42.0923	42.0923	1.4100e-003	6.0700e-003	43.9350
Worker	0.0277	0.0202	0.3149	8.2000e-004	0.0894	5.7000e-004	0.0900	0.0237	5.3000e-004	0.0242		82.6754	82.6754	2.2500e-003	2.0000e-003	83.3282
Total	**0.0316**	**0.1182**	**0.3485**	**1.2100e-003**	**0.1022**	**1.5000e-003**	**0.1037**	**0.0274**	**1.4200e-003**	**0.0288**		**124.7677**	**124.7677**	**3.6600e-003**	**8.0700e-003**	**127.2632**

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Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6801	0.0000	0.6801	0.0734	0.0000	0.0734			0.0000			0.0000
Off-Road	1.4869	16.4656	10.1152	0.0295		0.5998	0.5998		0.5518	0.5518	0.0000	2,851.0984	2,851.0984	0.9221		2,874.1509
Total	**1.4869**	**16.4656**	**10.1152**	**0.0295**	**0.6801**	**0.5998**	**1.2798**	**0.0734**	**0.5518**	**0.6252**	**0.0000**	**2,851.0984**	**2,851.0984**	**0.9221**		**2,874.1509**

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	3.9400e-003	0.0980	0.0336	3.9000e-004	0.0120	9.3000e-004	0.0129	3.4900e-003	8.9000e-004	4.3800e-003		42.0923	42.0923	1.4100e-003	6.0700e-003	43.9350
Worker	0.0277	0.0202	0.3149	8.2000e-004	0.0824	5.7000e-004	0.0830	0.0220	5.3000e-004	0.0225		82.6754	82.6754	2.2500e-003	2.0000e-003	83.3282
Total	**0.0316**	**0.1182**	**0.3485**	**1.2100e-003**	**0.0944**	**1.5000e-003**	**0.0959**	**0.0255**	**1.4200e-003**	**0.0269**		**124.7677**	**124.7677**	**3.6600e-003**	**8.0700e-003**	**127.2632**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Rough Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1431	0.0000	8.1431	3.5393	0.0000	3.5393			0.0000			0.0000
Off-Road	2.7387	29.3482	20.1327	0.0490		1.2253	1.2253		1.1272	1.1272		4,739.5873	4,739.5873	1.5329		4,777.9092
Total	**2.7387**	**29.3482**	**20.1327**	**0.0490**	**8.1431**	**1.2253**	**9.3684**	**3.5393**	**1.1272**	**4.6665**		**4,739.5873**	**4,739.5873**	**1.5329**		**4,777.9092**

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	3.9400e-003	0.0980	0.0336	3.9000e-004	0.0128	9.3000e-004	0.0137	3.6900e-003	8.9000e-004	4.5800e-003		42.0923	42.0923	1.4100e-003	6.0700e-003	43.9350
Worker	0.0623	0.0455	0.7085	1.8400e-003	0.2012	1.2900e-003	0.2025	0.0534	1.1900e-003	0.0545		186.0196	186.0196	5.0700e-003	4.5000e-003	187.4885
Total	**0.0662**	**0.1434**	**0.7420**	**2.2300e-003**	**0.2140**	**2.2200e-003**	**0.2162**	**0.0571**	**2.0800e-003**	**0.0591**		**228.1119**	**228.1119**	**6.4800e-003**	**0.0106**	**231.4235**

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Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4812	0.0000	3.4812	1.5130	0.0000	1.5130			0.0000			0.0000
Off-Road	2.7387	29.3482	20.1327	0.0490		1.2253	1.2253		1.1272	1.1272	0.0000	4,739.5873	4,739.5873	1.5329		4,777.9092
Total	**2.7387**	**29.3482**	**20.1327**	**0.0490**	**3.4812**	**1.2253**	**4.7064**	**1.5130**	**1.1272**	**2.6403**	**0.0000**	**4,739.5873**	**4,739.5873**	**1.5329**		**4,777.9092**

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	3.9400e-003	0.0980	0.0336	3.9000e-004	0.0120	9.3000e-004	0.0129	3.4900e-003	8.9000e-004	4.3800e-003		42.0923	42.0923	1.4100e-003	6.0700e-003	43.9350
Worker	0.0623	0.0455	0.7085	1.8400e-003	0.1855	1.2900e-003	0.1867	0.0495	1.1900e-003	0.0507		186.0196	186.0196	5.0700e-003	4.5000e-003	187.4885
Total	**0.0662**	**0.1434**	**0.7420**	**2.2300e-003**	**0.1975**	**2.2200e-003**	**0.1997**	**0.0530**	**2.0800e-003**	**0.0551**		**228.1119**	**228.1119**	**6.4800e-003**	**0.0106**	**231.4235**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Rough Grading Soil Haul - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0697	0.0000	0.0697	0.0106	0.0000	0.0106			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0697**	**0.0000**	**0.0697**	**0.0106**	**0.0000**	**0.0106**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	0.3950	14.1507	3.3407	0.0522	1.4662	0.1046	1.5707	0.4020	0.1001	0.5020		5,714.9959	5,714.9959	0.3032	0.9068	5,992.7874
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	0.0000	0.0000	0.0000	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	**0.3950**	**14.1507**	**3.3407**	**0.0522**	**1.4662**	**0.1046**	**1.5707**	**0.4020**	**0.1001**	**0.5020**		**5,714.9959**	**5,714.9959**	**0.3032**	**0.9068**	**5,992.7874**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0298	0.0000	0.0298	4.5100e-003	0.0000	4.5100e-003			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0298**	**0.0000**	**0.0298**	**4.5100e-003**	**0.0000**	**4.5100e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	0.3950	14.1507	3.3407	0.0522	1.3665	0.1046	1.4711	0.3775	0.1001	0.4776		5,714.9959	5,714.9959	0.3032	0.9068	5,992.7874
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	0.0000	0.0000	0.0000	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	**0.3950**	**14.1507**	**3.3407**	**0.0522**	**1.3665**	**0.1046**	**1.4711**	**0.3775**	**0.1001**	**0.4776**		**5,714.9959**	**5,714.9959**	**0.3032**	**0.9068**	**5,992.7874**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Utility Trenching - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9542	7.5687	5.9861	0.0178		0.3170	0.3170		0.2951	0.2951		1,664.3091	1,664.3091	0.5051		1,676.9377
Total	**0.9542**	**7.5687**	**5.9861**	**0.0178**		**0.3170**	**0.3170**		**0.2951**	**0.2951**		**1,664.3091**	**1,664.3091**	**0.5051**		**1,676.9377**

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	7.8700e-003	0.1959	0.0672	7.8000e-004	0.0256	1.8700e-003	0.0275	7.3800e-003	1.7900e-003	9.1600e-003		84.1846	84.1846	2.8100e-003	0.0121	87.8701
Worker	0.0692	0.0505	0.7872	2.0400e-003	0.2236	1.4300e-003	0.2250	0.0593	1.3200e-003	0.0606		206.6884	206.6884	5.6300e-003	5.0000e-003	208.3205
Total	**0.0771**	**0.2465**	**0.8543**	**2.8200e-003**	**0.2492**	**3.3000e-003**	**0.2525**	**0.0667**	**3.1100e-003**	**0.0698**		**290.8730**	**290.8730**	**8.4400e-003**	**0.0171**	**296.1906**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9542	7.5687	5.9861	0.0178		0.3170	0.3170		0.2951	0.2951	0.0000	1,664.3091	1,664.3091	0.5051		1,676.9377
Total	**0.9542**	**7.5687**	**5.9861**	**0.0178**		**0.3170**	**0.3170**		**0.2951**	**0.2951**	**0.0000**	**1,664.3091**	**1,664.3091**	**0.5051**		**1,676.9377**

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	7.8700e-003	0.1959	0.0672	7.8000e-004	0.0240	1.8700e-003	0.0259	6.9700e-003	1.7900e-003	8.7600e-003		84.1846	84.1846	2.8100e-003	0.0121	87.8701
Worker	0.0692	0.0505	0.7872	2.0400e-003	0.2061	1.4300e-003	0.2075	0.0550	1.3200e-003	0.0563		206.6884	206.6884	5.6300e-003	5.0000e-003	208.3205
Total	**0.0771**	**0.2465**	**0.8543**	**2.8200e-003**	**0.2300**	**3.3000e-003**	**0.2333**	**0.0620**	**3.1100e-003**	**0.0651**		**290.8730**	**290.8730**	**8.4400e-003**	**0.0171**	**296.1906**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.8 Fine Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.4500	3.9516	2.6276	9.2600e-003		0.1412	0.1412		0.1333	0.1333		841.1197	841.1197	0.2389		847.0925
Total	**0.4500**	**3.9516**	**2.6276**	**9.2600e-003**	**0.0000**	**0.1412**	**0.1412**	**0.0000**	**0.1333**	**0.1333**		**841.1197**	**841.1197**	**0.2389**		**847.0925**

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	0.2939	0.1008	1.1800e-003	0.0384	2.8000e-003	0.0412	0.0111	2.6800e-003	0.0137		126.2770	126.2770	4.2200e-003	0.0182	131.8051
Worker	0.0519	0.0379	0.5904	1.5300e-003	0.1677	1.0700e-003	0.1687	0.0445	9.9000e-004	0.0455		155.0163	155.0163	4.2200e-003	3.7500e-003	156.2404
Total	**0.0637**	**0.3318**	**0.6911**	**2.7100e-003**	**0.2061**	**3.8700e-003**	**0.2100**	**0.0555**	**3.6700e-003**	**0.0592**		**281.2933**	**281.2933**	**8.4400e-003**	**0.0220**	**288.0455**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.4500	3.9516	2.6276	9.2600e-003		0.1412	0.1412		0.1333	0.1333	0.0000	841.1197	841.1197	0.2389		847.0925
Total	**0.4500**	**3.9516**	**2.6276**	**9.2600e-003**	**0.0000**	**0.1412**	**0.1412**	**0.0000**	**0.1333**	**0.1333**	**0.0000**	**841.1197**	**841.1197**	**0.2389**		**847.0925**

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	0.2939	0.1008	1.1800e-003	0.0360	2.8000e-003	0.0388	0.0105	2.6800e-003	0.0131		126.2770	126.2770	4.2200e-003	0.0182	131.8051
Worker	0.0519	0.0379	0.5904	1.5300e-003	0.1546	1.0700e-003	0.1556	0.0413	9.9000e-004	0.0422		155.0163	155.0163	4.2200e-003	3.7500e-003	156.2404
Total	**0.0637**	**0.3318**	**0.6911**	**2.7100e-003**	**0.1905**	**3.8700e-003**	**0.1944**	**0.0517**	**3.6700e-003**	**0.0554**		**281.2933**	**281.2933**	**8.4400e-003**	**0.0220**	**288.0455**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.9 Fine Grading Soil Haul - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1131	0.0000	0.1131	0.0171	0.0000	0.0171			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.1131**	**0.0000**	**0.1131**	**0.0171**	**0.0000**	**0.0171**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	0.6402	22.9353	5.4145	0.0846	2.3764	0.1695	2.5459	0.6515	0.1622	0.8137		9,262.8308	9,262.8308	0.4914	1.4697	9,713.0736
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	0.0000	0.0000	0.0000	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	**0.6402**	**22.9353**	**5.4145**	**0.0846**	**2.3764**	**0.1695**	**2.5459**	**0.6515**	**0.1622**	**0.8137**		**9,262.8308**	**9,262.8308**	**0.4914**	**1.4697**	**9,713.0736**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0484	0.0000	0.0484	7.3200e-003	0.0000	7.3200e-003			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0484**	**0.0000**	**0.0484**	**7.3200e-003**	**0.0000**	**7.3200e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	0.6402	22.9353	5.4145	0.0846	2.2148	0.1695	2.3843	0.6119	0.1622	0.7741		9,262.8308	9,262.8308	0.4914	1.4697	9,713.0736
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	0.0000	0.0000	0.0000	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	**0.6402**	**22.9353**	**5.4145**	**0.0846**	**2.2148**	**0.1695**	**2.3843**	**0.6119**	**0.1622**	**0.7741**		**9,262.8308**	**9,262.8308**	**0.4914**	**1.4697**	**9,713.0736**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.10 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**		**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

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	5.9000e-003	0.1470	0.0504	5.9000e-004	0.0192	1.4000e-003	0.0206	5.5300e-003	1.3400e-003	6.8700e-003		63.1385	63.1385	2.1100e-003	9.1000e-003	65.9025
Worker	0.2076	0.1516	2.3615	6.1300e-003	0.6707	4.2900e-003	0.6750	0.1779	3.9500e-003	0.1818		620.0652	620.0652	0.0169	0.0150	624.9616
Total	**0.2135**	**0.2985**	**2.4119**	**6.7200e-003**	**0.6899**	**5.6900e-003**	**0.6956**	**0.1834**	**5.2900e-003**	**0.1887**		**683.2036**	**683.2036**	**0.0190**	**0.0241**	**690.8641**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**	**0.0000**	**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

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	5.9000e-003	0.1470	0.0504	5.9000e-004	0.0180	1.4000e-003	0.0194	5.2300e-003	1.3400e-003	6.5700e-003		63.1385	63.1385	2.1100e-003	9.1000e-003	65.9025
Worker	0.2076	0.1516	2.3615	6.1300e-003	0.6182	4.2900e-003	0.6225	0.1650	3.9500e-003	0.1689		620.0652	620.0652	0.0169	0.0150	624.9616
Total	**0.2135**	**0.2985**	**2.4119**	**6.7200e-003**	**0.6362**	**5.6900e-003**	**0.6419**	**0.1702**	**5.2900e-003**	**0.1755**		**683.2036**	**683.2036**	**0.0190**	**0.0241**	**690.8641**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.10 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	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880		2,289.5233	2,289.5233	0.4330		2,300.3479
Total	**1.7136**	**13.6239**	**14.2145**	**0.0250**		**0.6136**	**0.6136**		**0.5880**	**0.5880**		**2,289.5233**	**2,289.5233**	**0.4330**		**2,300.3479**

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	3.4500e-003	0.1152	0.0446	5.6000e-004	0.0192	5.8000e-004	0.0198	5.5300e-003	5.5000e-004	6.0900e-003		60.0847	60.0847	2.0100e-003	8.6400e-003	62.7093
Worker	0.1920	0.1339	2.1684	5.9400e-003	0.6707	4.0300e-003	0.6747	0.1779	3.7100e-003	0.1816		600.0452	600.0452	0.0151	0.0139	604.5501
Total	**0.1955**	**0.2490**	**2.2130**	**6.5000e-003**	**0.6899**	**4.6100e-003**	**0.6945**	**0.1834**	**4.2600e-003**	**0.1877**		**660.1300**	**660.1300**	**0.0171**	**0.0225**	**667.2594**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880	0.0000	2,289.5233	2,289.5233	0.4330		2,300.3479
Total	**1.7136**	**13.6239**	**14.2145**	**0.0250**		**0.6136**	**0.6136**		**0.5880**	**0.5880**	**0.0000**	**2,289.5233**	**2,289.5233**	**0.4330**		**2,300.3479**

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	3.4500e-003	0.1152	0.0446	5.6000e-004	0.0180	5.8000e-004	0.0186	5.2300e-003	5.5000e-004	5.7800e-003		60.0847	60.0847	2.0100e-003	8.6400e-003	62.7093
Worker	0.1920	0.1339	2.1684	5.9400e-003	0.6182	4.0300e-003	0.6222	0.1650	3.7100e-003	0.1687		600.0452	600.0452	0.0151	0.0139	604.5501
Total	**0.1955**	**0.2490**	**2.2130**	**6.5000e-003**	**0.6362**	**4.6100e-003**	**0.6408**	**0.1702**	**4.2600e-003**	**0.1745**		**660.1300**	**660.1300**	**0.0171**	**0.0225**	**667.2594**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.11 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	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003		1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.1420					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0222**	**8.6098**	**11.6840**	**0.0179**		**0.4338**	**0.4338**		**0.4003**	**0.4003**		**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

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	0.0480	0.0335	0.5421	1.4800e-003	0.1677	1.0100e-003	0.1687	0.0445	9.3000e-004	0.0454		150.0113	150.0113	3.7800e-003	3.4600e-003	151.1375
Total	**0.0480**	**0.0335**	**0.5421**	**1.4800e-003**	**0.1677**	**1.0100e-003**	**0.1687**	**0.0445**	**9.3000e-004**	**0.0454**		**150.0113**	**150.0113**	**3.7800e-003**	**3.4600e-003**	**151.1375**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003	0.0000	1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.1420					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0222**	**8.6098**	**11.6840**	**0.0179**		**0.4338**	**0.4338**		**0.4003**	**0.4003**	**0.0000**	**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

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	0.0480	0.0335	0.5421	1.4800e-003	0.1546	1.0100e-003	0.1556	0.0413	9.3000e-004	0.0422		150.0113	150.0113	3.7800e-003	3.4600e-003	151.1375
Total	**0.0480**	**0.0335**	**0.5421**	**1.4800e-003**	**0.1546**	**1.0100e-003**	**0.1556**	**0.0413**	**9.3000e-004**	**0.0422**		**150.0113**	**150.0113**	**3.7800e-003**	**3.4600e-003**	**151.1375**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.12 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	141.8147					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**142.0063**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0384	0.0268	0.4337	1.1900e-003	0.1341	8.1000e-004	0.1349	0.0356	7.4000e-004	0.0363		120.0090	120.0090	3.0300e-003	2.7700e-003	120.9100
Total	**0.0384**	**0.0268**	**0.4337**	**1.1900e-003**	**0.1341**	**8.1000e-004**	**0.1349**	**0.0356**	**7.4000e-004**	**0.0363**		**120.0090**	**120.0090**	**3.0300e-003**	**2.7700e-003**	**120.9100**

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Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	141.8147					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**142.0063**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0384	0.0268	0.4337	1.1900e-003	0.1236	8.1000e-004	0.1244	0.0330	7.4000e-004	0.0337		120.0090	120.0090	3.0300e-003	2.7700e-003	120.9100
Total	**0.0384**	**0.0268**	**0.4337**	**1.1900e-003**	**0.1236**	**8.1000e-004**	**0.1244**	**0.0330**	**7.4000e-004**	**0.0337**		**120.0090**	**120.0090**	**3.0300e-003**	**2.7700e-003**	**120.9100**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Washington and Rosemead Mixed-Use Project Construction Run

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	190.00	1000sqft	0.34	190,000.00	0
Other Asphalt Surfaces	45.00	1000sqft	1.03	45,000.00	0
Other Non-Asphalt Surfaces	21.00	1000sqft	0.48	21,000.00	0
Recreational Swimming Pool	17.01	1000sqft	0.00	17,010.00	0
Apartments Mid Rise	255.00	Dwelling Unit	0.99	260,220.00	729
Regional Shopping Center	5.73	1000sqft	0.00	5,730.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Pico Rivera Innovative Municipal Energy				
CO2 Intensity (lb/MWhr)	683.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - based on PRIME power mix

Land Use - based on info from applicant

Construction Phase - based on info confirmed by applicant

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - no additional equipment required for Asphalt Demolition Haul

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Off-road Equipment -

Off-road Equipment - based on info from applicant

Off-road Equipment - no additional equipment required for Grading Soil Haul

Off-road Equipment -

Off-road Equipment - based on info provided by applicant

Off-road Equipment - no additional equipment required for Grading Soil Haul

Off-road Equipment - loader HP based on CAT 966 Loader provided by applicant

Off-road Equipment - based on info from applicant

Trips and VMT - assumes 2 trips/water truck/day. See assumptions file for calculations on dump trucks and hauling trips

Demolition -

Grading -

Architectural Coating - based on info from applicant, residential includes area for pool, nonresidential includes area for int/ext parking structure, parking only includes

Vehicle Trips -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use -

Construction Off-road Equipment Mitigation - SCAQMD Rule 403 and 1186

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	11,370.00	97,750.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	34,110.00	293,595.00
tblArchitecturalCoating	ConstArea_Parking	15,360.00	11,400.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	175,649.00	187,130.00
tblArchitecturalCoating	ConstArea_Residential_Interior	526,946.00	561,391.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblAreaCoating	Area_Nonresidential_Exterior	11370	9500

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblAreaCoating	Area_Nonresidential_Interior	34110	28500
tblAreaCoating	Area_Residential_Exterior	175649	168973
tblAreaCoating	Area_Residential_Interior	526946	506918
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	19.00
tblConstructionPhase	NumDays	220.00	407.00
tblConstructionPhase	NumDays	20.00	37.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	6.00	30.00
tblConstructionPhase	NumDays	6.00	12.00
tblConstructionPhase	NumDays	6.00	20.00
tblConstructionPhase	NumDays	6.00	20.00
tblConstructionPhase	NumDays	10.00	19.00
tblConstructionPhase	NumDays	3.00	6.00
tblGrading	MaterialExported	0.00	7,400.00
tblGrading	MaterialExported	0.00	20,000.00
tblLandUse	LandUseSquareFeet	255,000.00	260,220.00
tblLandUse	LotAcreage	4.36	0.34
tblLandUse	LotAcreage	0.39	0.00
tblLandUse	LotAcreage	6.71	0.99
tblLandUse	LotAcreage	0.13	0.00
tblOffRoadEquipment	HorsePower	97.00	225.00
tblOffRoadEquipment	HorsePower	97.00	276.00
tblOffRoadEquipment	HorsePower	158.00	270.00
tblOffRoadEquipment	HorsePower	158.00	249.00
tblOffRoadEquipment	HorsePower	8.00	7.00
tblOffRoadEquipment	HorsePower	8.00	7.00

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	HorsePower	80.00	134.00
tblOffRoadEquipment	HorsePower	97.00	225.00
tblOffRoadEquipment	HorsePower	78.00	50.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblSolidWaste	SolidWasteGenerationRate	96.96	76.95
tblSolidWaste	SolidWasteGenerationRate	6.02	5.78
tblTripsAndVMT	HaulingTripLength	20.00	19.00
tblTripsAndVMT	HaulingTripLength	20.00	19.00
tblTripsAndVMT	HaulingTripLength	20.00	19.00
tblTripsAndVMT	HaulingTripNumber	182.00	184.00
tblTripsAndVMT	HaulingTripNumber	925.00	1,058.00
tblTripsAndVMT	HaulingTripNumber	2,500.00	2,858.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	73.00	3.00
tblTripsAndVMT	WorkerTripNumber	60.00	12.00
tblTripsAndVMT	WorkerTripNumber	300.00	60.00
tblWater	IndoorWaterUseRate	1,006,024.88	798,432.44
tblWater	IndoorWaterUseRate	424,435.55	407,398.87
tblWater	OutdoorWaterUseRate	616,595.89	489,361.82
tblWater	OutdoorWaterUseRate	260,137.92	249,696.08

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	4.2611	50.9204	32.1392	0.1484	9.8930	1.3431	11.2253	4.0089	1.2761	5.2384	0.0000	15,263.9590	15,263.9590	1.8421	1.5350	15,764.2110
2023	143.9709	22.5391	28.4359	0.0505	0.8575	1.0531	1.9106	0.2279	0.9935	1.2213	0.0000	4,770.2172	4,770.2172	0.9961	0.0272	4,803.2109
Maximum	**143.9709**	**50.9204**	**32.1392**	**0.1484**	**9.8930**	**1.3431**	**11.2253**	**4.0089**	**1.2761**	**5.2384**	**0.0000**	**15,263.9590**	**15,263.9590**	**1.8421**	**1.5350**	**15,764.2110**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	4.2611	50.9204	32.1392	0.1484	5.0749	1.3431	6.4072	1.9480	1.2761	3.1776	0.0000	15,263.9590	15,263.9590	1.8421	1.5350	15,764.2110
2023	143.9709	22.5391	28.4359	0.0505	0.7907	1.0531	1.8438	0.2115	0.9935	1.2049	0.0000	4,770.2172	4,770.2172	0.9961	0.0272	4,803.2109
Maximum	**143.9709**	**50.9204**	**32.1392**	**0.1484**	**5.0749**	**1.3431**	**6.4072**	**1.9480**	**1.2761**	**3.1776**	**0.0000**	**15,263.9590**	**15,263.9590**	**1.8421**	**1.5350**	**15,764.2110**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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**	**45.44**	**0.00**	**37.19**	**49.03**	**0.00**	**32.16**	**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	Asphalt Demolition	Demolition	1/1/2022	2/22/2022	5	37	a
2	Asphalt Demolition Debris Haul	Demolition	2/16/2022	2/22/2022	5	5	b
3	Site Preparation	Site Preparation	2/23/2022	3/2/2022	5	6	c
4	Rough Grading	Grading	3/3/2022	4/13/2022	5	30	d
5	Rough Grading Soil Haul	Grading	3/29/2022	4/13/2022	5	12	e
6	Utility Trenching	Trenching	4/14/2022	7/6/2022	5	60	f
7	Fine Grading	Grading	5/12/2022	6/8/2022	5	20	g
8	Fine Grading Soil Haul	Grading	5/12/2022	6/8/2022	5	20	h
9	Building Construction	Building Construction	5/12/2022	12/1/2023	5	407	i
10	Paving	Paving	10/11/2023	11/6/2023	5	19	j
11	Architectural Coating	Architectural Coating	11/7/2023	12/1/2023	5	19	k

Acres of Grading (Site Preparation Phase): 9

Acres of Grading (Grading Phase): 60

Acres of Paving: 1.85

Residential Indoor: 561,391; Residential Outdoor: 187,130; Non-Residential Indoor: 293,595; Non-Residential Outdoor: 97,750; Striped Parking Area:

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Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Asphalt Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Asphalt Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Asphalt Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Asphalt Demolition Debris Haul	Concrete/Industrial Saws	0	8.00	81	0.73
Asphalt Demolition Debris Haul	Rubber Tired Dozers	0	8.00	247	0.40
Asphalt Demolition Debris Haul	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	276	0.37
Rough Grading	Excavators	1	8.00	270	0.38
Rough Grading	Graders	1	8.00	187	0.41
Rough Grading	Rollers	1	8.00	134	0.38
Rough Grading	Rubber Tired Dozers	1	8.00	247	0.40
Rough Grading	Scrapers	1	8.00	367	0.48
Rough Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Rough Grading Soil Haul	Graders	0	8.00	187	0.41
Rough Grading Soil Haul	Rubber Tired Dozers	0	8.00	247	0.40
Rough Grading Soil Haul	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Utility Trenching	Excavators	1	6.00	249	0.38
Utility Trenching	Plate Compactors	5	8.00	7	0.43
Utility Trenching	Tractors/Loaders/Backhoes	1	8.00	225	0.37
Utility Trenching	Trenchers	1	8.00	50	0.50
Fine Grading	Graders	0	8.00	187	0.41
Fine Grading	Plate Compactors	5	8.00	7	0.43
Fine Grading	Rubber Tired Dozers	0	8.00	247	0.40
Fine Grading	Tractors/Loaders/Backhoes	1	8.00	225	0.37

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Fine Grading Soil Haul	Graders	0	8.00	187	0.41
Fine Grading Soil Haul	Rubber Tired Dozers	0	8.00	247	0.40
Fine Grading Soil Haul	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Asphalt Demolition	5	13.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Asphalt Demolition Debris Haul	0	0.00	0.00	184.00	14.70	6.90	19.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Rough Grading	7	18.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Rough Grading Soil Haul	0	0.00	0.00	1,058.00	14.70	6.90	19.00	LD_Mix	HDT_Mix	HHDT
Utility Trenching	8	20.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading	6	15.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading Soil Haul	0	0.00	0.00	2,858.00	14.70	6.90	19.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	60.00	3.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	12.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Asphalt Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829		2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**		**0.8379**	**0.8379**		**0.7829**	**0.7829**		**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

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	3.8900e-003	0.1020	0.0348	3.9000e-004	0.0128	9.4000e-004	0.0138	3.6900e-003	9.0000e-004	4.5800e-003		42.1081	42.1081	1.4000e-003	6.0700e-003	43.9531
Worker	0.0482	0.0363	0.4698	1.2600e-003	0.1453	9.3000e-004	0.1462	0.0385	8.6000e-004	0.0394		127.2444	127.2444	3.7000e-003	3.4800e-003	128.3729
Total	**0.0520**	**0.1383**	**0.5045**	**1.6500e-003**	**0.1581**	**1.8700e-003**	**0.1600**	**0.0422**	**1.7600e-003**	**0.0440**		**169.3525**	**169.3525**	**5.1000e-003**	**9.5500e-003**	**172.3259**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829	0.0000	2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**		**0.8379**	**0.8379**		**0.7829**	**0.7829**	**0.0000**	**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

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	3.8900e-003	0.1020	0.0348	3.9000e-004	0.0120	9.4000e-004	0.0129	3.4900e-003	9.0000e-004	4.3800e-003		42.1081	42.1081	1.4000e-003	6.0700e-003	43.9531
Worker	0.0482	0.0363	0.4698	1.2600e-003	0.1339	9.3000e-004	0.1349	0.0358	8.6000e-004	0.0366		127.2444	127.2444	3.7000e-003	3.4800e-003	128.3729
Total	**0.0520**	**0.1383**	**0.5045**	**1.6500e-003**	**0.1459**	**1.8700e-003**	**0.1478**	**0.0392**	**1.7600e-003**	**0.0410**		**169.3525**	**169.3525**	**5.1000e-003**	**9.5500e-003**	**172.3259**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Asphalt Demolition Debris Haul - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.8706	0.0000	7.8706	1.1917	0.0000	1.1917			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**7.8706**	**0.0000**	**7.8706**	**1.1917**	**0.0000**	**1.1917**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	0.1608	6.1465	1.4198	0.0218	0.6120	0.0437	0.6557	0.1678	0.0419	0.2096		2,386.1241	2,386.1241	0.1263	0.3786	2,502.1048
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	0.0000	0.0000	0.0000	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	**0.1608**	**6.1465**	**1.4198**	**0.0218**	**0.6120**	**0.0437**	**0.6557**	**0.1678**	**0.0419**	**0.2096**		**2,386.1241**	**2,386.1241**	**0.1263**	**0.3786**	**2,502.1048**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3647	0.0000	3.3647	0.5094	0.0000	0.5094			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**3.3647**	**0.0000**	**3.3647**	**0.5094**	**0.0000**	**0.5094**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	0.1608	6.1465	1.4198	0.0218	0.5704	0.0437	0.6141	0.1576	0.0419	0.1994		2,386.1241	2,386.1241	0.1263	0.3786	2,502.1048
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	0.0000	0.0000	0.0000	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	**0.1608**	**6.1465**	**1.4198**	**0.0218**	**0.5704**	**0.0437**	**0.6141**	**0.1576**	**0.0419**	**0.1994**		**2,386.1241**	**2,386.1241**	**0.1263**	**0.3786**	**2,502.1048**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.4869	16.4656	10.1152	0.0295		0.5998	0.5998		0.5518	0.5518		2,851.0984	2,851.0984	0.9221		2,874.1509
Total	**1.4869**	**16.4656**	**10.1152**	**0.0295**	**1.5908**	**0.5998**	**2.1905**	**0.1718**	**0.5518**	**0.7236**		**2,851.0984**	**2,851.0984**	**0.9221**		**2,874.1509**

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	3.8900e-003	0.1020	0.0348	3.9000e-004	0.0128	9.4000e-004	0.0138	3.6900e-003	9.0000e-004	4.5800e-003		42.1081	42.1081	1.4000e-003	6.0700e-003	43.9531
Worker	0.0296	0.0223	0.2891	7.7000e-004	0.0894	5.7000e-004	0.0900	0.0237	5.3000e-004	0.0242		78.3043	78.3043	2.2800e-003	2.1400e-003	78.9987
Total	**0.0335**	**0.1243**	**0.3238**	**1.1600e-003**	**0.1022**	**1.5100e-003**	**0.1037**	**0.0274**	**1.4300e-003**	**0.0288**		**120.4124**	**120.4124**	**3.6800e-003**	**8.2100e-003**	**122.9517**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6801	0.0000	0.6801	0.0734	0.0000	0.0734			0.0000			0.0000
Off-Road	1.4869	16.4656	10.1152	0.0295		0.5998	0.5998		0.5518	0.5518	0.0000	2,851.0984	2,851.0984	0.9221		2,874.1509
Total	**1.4869**	**16.4656**	**10.1152**	**0.0295**	**0.6801**	**0.5998**	**1.2798**	**0.0734**	**0.5518**	**0.6252**	**0.0000**	**2,851.0984**	**2,851.0984**	**0.9221**		**2,874.1509**

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	3.8900e-003	0.1020	0.0348	3.9000e-004	0.0120	9.4000e-004	0.0129	3.4900e-003	9.0000e-004	4.3800e-003		42.1081	42.1081	1.4000e-003	6.0700e-003	43.9531
Worker	0.0296	0.0223	0.2891	7.7000e-004	0.0824	5.7000e-004	0.0830	0.0220	5.3000e-004	0.0225		78.3043	78.3043	2.2800e-003	2.1400e-003	78.9987
Total	**0.0335**	**0.1243**	**0.3238**	**1.1600e-003**	**0.0944**	**1.5100e-003**	**0.0959**	**0.0255**	**1.4300e-003**	**0.0269**		**120.4124**	**120.4124**	**3.6800e-003**	**8.2100e-003**	**122.9517**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Rough Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1431	0.0000	8.1431	3.5393	0.0000	3.5393			0.0000			0.0000
Off-Road	2.7387	29.3482	20.1327	0.0490		1.2253	1.2253		1.1272	1.1272		4,739.5873	4,739.5873	1.5329		4,777.9092
Total	**2.7387**	**29.3482**	**20.1327**	**0.0490**	**8.1431**	**1.2253**	**9.3684**	**3.5393**	**1.1272**	**4.6665**		**4,739.5873**	**4,739.5873**	**1.5329**		**4,777.9092**

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	3.8900e-003	0.1020	0.0348	3.9000e-004	0.0128	9.4000e-004	0.0138	3.6900e-003	9.0000e-004	4.5800e-003		42.1081	42.1081	1.4000e-003	6.0700e-003	43.9531
Worker	0.0667	0.0502	0.6505	1.7400e-003	0.2012	1.2900e-003	0.2025	0.0534	1.1900e-003	0.0545		176.1846	176.1846	5.1300e-003	4.8100e-003	177.7470
Total	**0.0706**	**0.1523**	**0.6852**	**2.1300e-003**	**0.2140**	**2.2300e-003**	**0.2162**	**0.0571**	**2.0900e-003**	**0.0591**		**218.2927**	**218.2927**	**6.5300e-003**	**0.0109**	**221.7001**

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Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4812	0.0000	3.4812	1.5130	0.0000	1.5130			0.0000			0.0000
Off-Road	2.7387	29.3482	20.1327	0.0490		1.2253	1.2253		1.1272	1.1272	0.0000	4,739.5873	4,739.5873	1.5329		4,777.9092
Total	**2.7387**	**29.3482**	**20.1327**	**0.0490**	**3.4812**	**1.2253**	**4.7064**	**1.5130**	**1.1272**	**2.6403**	**0.0000**	**4,739.5873**	**4,739.5873**	**1.5329**		**4,777.9092**

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	3.8900e-003	0.1020	0.0348	3.9000e-004	0.0120	9.4000e-004	0.0129	3.4900e-003	9.0000e-004	4.3800e-003		42.1081	42.1081	1.4000e-003	6.0700e-003	43.9531
Worker	0.0667	0.0502	0.6505	1.7400e-003	0.1855	1.2900e-003	0.1867	0.0495	1.1900e-003	0.0507		176.1846	176.1846	5.1300e-003	4.8100e-003	177.7470
Total	**0.0706**	**0.1523**	**0.6852**	**2.1300e-003**	**0.1975**	**2.2300e-003**	**0.1997**	**0.0530**	**2.0900e-003**	**0.0551**		**218.2927**	**218.2927**	**6.5300e-003**	**0.0109**	**221.7001**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Rough Grading Soil Haul - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0697	0.0000	0.0697	0.0106	0.0000	0.0106			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0697**	**0.0000**	**0.0697**	**0.0106**	**0.0000**	**0.0106**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	0.3851	14.7260	3.4016	0.0522	1.4662	0.1048	1.5710	0.4020	0.1003	0.5023		5,716.7557	5,716.7557	0.3027	0.9071	5,994.6261
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	0.0000	0.0000	0.0000	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	**0.3851**	**14.7260**	**3.4016**	**0.0522**	**1.4662**	**0.1048**	**1.5710**	**0.4020**	**0.1003**	**0.5023**		**5,716.7557**	**5,716.7557**	**0.3027**	**0.9071**	**5,994.6261**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0298	0.0000	0.0298	4.5100e-003	0.0000	4.5100e-003			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0298**	**0.0000**	**0.0298**	**4.5100e-003**	**0.0000**	**4.5100e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	0.3851	14.7260	3.4016	0.0522	1.3665	0.1048	1.4713	0.3775	0.1003	0.4778		5,716.7557	5,716.7557	0.3027	0.9071	5,994.6261
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	0.0000	0.0000	0.0000	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	**0.3851**	**14.7260**	**3.4016**	**0.0522**	**1.3665**	**0.1048**	**1.4713**	**0.3775**	**0.1003**	**0.4778**		**5,716.7557**	**5,716.7557**	**0.3027**	**0.9071**	**5,994.6261**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Utility Trenching - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9542	7.5687	5.9861	0.0178		0.3170	0.3170		0.2951	0.2951		1,664.3091	1,664.3091	0.5051		1,676.9377
Total	**0.9542**	**7.5687**	**5.9861**	**0.0178**		**0.3170**	**0.3170**		**0.2951**	**0.2951**		**1,664.3091**	**1,664.3091**	**0.5051**		**1,676.9377**

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	7.7800e-003	0.2040	0.0695	7.8000e-004	0.0256	1.8700e-003	0.0275	7.3800e-003	1.7900e-003	9.1700e-003		84.2163	84.2163	2.8000e-003	0.0122	87.9061
Worker	0.0741	0.0558	0.7227	1.9400e-003	0.2236	1.4300e-003	0.2250	0.0593	1.3200e-003	0.0606		195.7606	195.7606	5.7000e-003	5.3500e-003	197.4967
Total	**0.0819**	**0.2598**	**0.7922**	**2.7200e-003**	**0.2492**	**3.3000e-003**	**0.2525**	**0.0667**	**3.1100e-003**	**0.0698**		**279.9769**	**279.9769**	**8.5000e-003**	**0.0175**	**285.4028**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9542	7.5687	5.9861	0.0178		0.3170	0.3170		0.2951	0.2951	0.0000	1,664.3091	1,664.3091	0.5051		1,676.9377
Total	**0.9542**	**7.5687**	**5.9861**	**0.0178**		**0.3170**	**0.3170**		**0.2951**	**0.2951**	**0.0000**	**1,664.3091**	**1,664.3091**	**0.5051**		**1,676.9377**

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	7.7800e-003	0.2040	0.0695	7.8000e-004	0.0240	1.8700e-003	0.0259	6.9700e-003	1.7900e-003	8.7700e-003		84.2163	84.2163	2.8000e-003	0.0122	87.9061
Worker	0.0741	0.0558	0.7227	1.9400e-003	0.2061	1.4300e-003	0.2075	0.0550	1.3200e-003	0.0563		195.7606	195.7606	5.7000e-003	5.3500e-003	197.4967
Total	**0.0819**	**0.2598**	**0.7922**	**2.7200e-003**	**0.2300**	**3.3000e-003**	**0.2333**	**0.0620**	**3.1100e-003**	**0.0651**		**279.9769**	**279.9769**	**8.5000e-003**	**0.0175**	**285.4028**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.8 Fine Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.4500	3.9516	2.6276	9.2600e-003		0.1412	0.1412		0.1333	0.1333		841.1197	841.1197	0.2389		847.0925
Total	**0.4500**	**3.9516**	**2.6276**	**9.2600e-003**	**0.0000**	**0.1412**	**0.1412**	**0.0000**	**0.1333**	**0.1333**		**841.1197**	**841.1197**	**0.2389**		**847.0925**

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	0.0117	0.3060	0.1043	1.1800e-003	0.0384	2.8100e-003	0.0412	0.0111	2.6900e-003	0.0138		126.3244	126.3244	4.2100e-003	0.0182	131.8592
Worker	0.0556	0.0419	0.5421	1.4500e-003	0.1677	1.0700e-003	0.1687	0.0445	9.9000e-004	0.0455		146.8205	146.8205	4.2700e-003	4.0100e-003	148.1225
Total	**0.0672**	**0.3479**	**0.6463**	**2.6300e-003**	**0.2061**	**3.8800e-003**	**0.2100**	**0.0555**	**3.6800e-003**	**0.0592**		**273.1449**	**273.1449**	**8.4800e-003**	**0.0222**	**279.9817**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.4500	3.9516	2.6276	9.2600e-003		0.1412	0.1412		0.1333	0.1333	0.0000	841.1197	841.1197	0.2389		847.0925
Total	**0.4500**	**3.9516**	**2.6276**	**9.2600e-003**	**0.0000**	**0.1412**	**0.1412**	**0.0000**	**0.1333**	**0.1333**	**0.0000**	**841.1197**	**841.1197**	**0.2389**		**847.0925**

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	0.0117	0.3060	0.1043	1.1800e-003	0.0360	2.8100e-003	0.0388	0.0105	2.6900e-003	0.0132		126.3244	126.3244	4.2100e-003	0.0182	131.8592
Worker	0.0556	0.0419	0.5421	1.4500e-003	0.1546	1.0700e-003	0.1556	0.0413	9.9000e-004	0.0422		146.8205	146.8205	4.2700e-003	4.0100e-003	148.1225
Total	**0.0672**	**0.3479**	**0.6463**	**2.6300e-003**	**0.1905**	**3.8800e-003**	**0.1944**	**0.0517**	**3.6800e-003**	**0.0554**		**273.1449**	**273.1449**	**8.4800e-003**	**0.0222**	**279.9817**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.9 Fine Grading Soil Haul - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1131	0.0000	0.1131	0.0171	0.0000	0.0171			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.1131**	**0.0000**	**0.1131**	**0.0171**	**0.0000**	**0.0171**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	0.6242	23.8679	5.5133	0.0846	2.3764	0.1699	2.5462	0.6515	0.1625	0.8141		9,265.6831	9,265.6831	0.4906	1.4702	9,716.0537
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	0.0000	0.0000	0.0000	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	**0.6242**	**23.8679**	**5.5133**	**0.0846**	**2.3764**	**0.1699**	**2.5462**	**0.6515**	**0.1625**	**0.8141**		**9,265.6831**	**9,265.6831**	**0.4906**	**1.4702**	**9,716.0537**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0484	0.0000	0.0484	7.3200e-003	0.0000	7.3200e-003			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0484**	**0.0000**	**0.0484**	**7.3200e-003**	**0.0000**	**7.3200e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	0.6242	23.8679	5.5133	0.0846	2.2148	0.1699	2.3847	0.6119	0.1625	0.7744		9,265.6831	9,265.6831	0.4906	1.4702	9,716.0537
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	0.0000	0.0000	0.0000	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	**0.6242**	**23.8679**	**5.5133**	**0.0846**	**2.2148**	**0.1699**	**2.3847**	**0.6119**	**0.1625**	**0.7744**		**9,265.6831**	**9,265.6831**	**0.4906**	**1.4702**	**9,716.0537**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.10 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**		**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

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	5.8300e-003	0.1530	0.0521	5.9000e-004	0.0192	1.4000e-003	0.0206	5.5300e-003	1.3400e-003	6.8800e-003		63.1622	63.1622	2.1000e-003	9.1100e-003	65.9296
Worker	0.2222	0.1675	2.1682	5.8100e-003	0.6707	4.2900e-003	0.6750	0.1779	3.9500e-003	0.1818		587.2819	587.2819	0.0171	0.0160	592.4901
Total	**0.2281**	**0.3205**	**2.2203**	**6.4000e-003**	**0.6899**	**5.6900e-003**	**0.6956**	**0.1834**	**5.2900e-003**	**0.1887**		**650.4441**	**650.4441**	**0.0192**	**0.0252**	**658.4197**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**	**0.0000**	**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

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	5.8300e-003	0.1530	0.0521	5.9000e-004	0.0180	1.4000e-003	0.0194	5.2300e-003	1.3400e-003	6.5700e-003		63.1622	63.1622	2.1000e-003	9.1100e-003	65.9296
Worker	0.2222	0.1675	2.1682	5.8100e-003	0.6182	4.2900e-003	0.6225	0.1650	3.9500e-003	0.1689		587.2819	587.2819	0.0171	0.0160	592.4901
Total	**0.2281**	**0.3205**	**2.2203**	**6.4000e-003**	**0.6362**	**5.6900e-003**	**0.6419**	**0.1702**	**5.2900e-003**	**0.1755**		**650.4441**	**650.4441**	**0.0192**	**0.0252**	**658.4197**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.10 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	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880		2,289.5233	2,289.5233	0.4330		2,300.3479
Total	**1.7136**	**13.6239**	**14.2145**	**0.0250**		**0.6136**	**0.6136**		**0.5880**	**0.5880**		**2,289.5233**	**2,289.5233**	**0.4330**		**2,300.3479**

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	3.3400e-003	0.1206	0.0460	5.6000e-004	0.0192	5.8000e-004	0.0198	5.5300e-003	5.6000e-004	6.0900e-003		60.1861	60.1861	2.0000e-003	8.6600e-003	62.8173
Worker	0.2063	0.1479	1.9931	5.6200e-003	0.6707	4.0300e-003	0.6747	0.1779	3.7100e-003	0.1816		568.4122	568.4122	0.0153	0.0148	573.2034
Total	**0.2096**	**0.2684**	**2.0391**	**6.1800e-003**	**0.6899**	**4.6100e-003**	**0.6945**	**0.1834**	**4.2700e-003**	**0.1877**		**628.5983**	**628.5983**	**0.0173**	**0.0235**	**636.0208**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880	0.0000	2,289.5233	2,289.5233	0.4330		2,300.3479
Total	**1.7136**	**13.6239**	**14.2145**	**0.0250**		**0.6136**	**0.6136**		**0.5880**	**0.5880**	**0.0000**	**2,289.5233**	**2,289.5233**	**0.4330**		**2,300.3479**

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	3.3400e-003	0.1206	0.0460	5.6000e-004	0.0180	5.8000e-004	0.0186	5.2300e-003	5.6000e-004	5.7900e-003		60.1861	60.1861	2.0000e-003	8.6600e-003	62.8173
Worker	0.2063	0.1479	1.9931	5.6200e-003	0.6182	4.0300e-003	0.6222	0.1650	3.7100e-003	0.1687		568.4122	568.4122	0.0153	0.0148	573.2034
Total	**0.2096**	**0.2684**	**2.0391**	**6.1800e-003**	**0.6362**	**4.6100e-003**	**0.6408**	**0.1702**	**4.2700e-003**	**0.1745**		**628.5983**	**628.5983**	**0.0173**	**0.0235**	**636.0208**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.11 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	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003		1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.1420					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0222**	**8.6098**	**11.6840**	**0.0179**		**0.4338**	**0.4338**		**0.4003**	**0.4003**		**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

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	0.0516	0.0370	0.4983	1.4100e-003	0.1677	1.0100e-003	0.1687	0.0445	9.3000e-004	0.0454		142.1030	142.1030	3.8300e-003	3.7000e-003	143.3009
Total	**0.0516**	**0.0370**	**0.4983**	**1.4100e-003**	**0.1677**	**1.0100e-003**	**0.1687**	**0.0445**	**9.3000e-004**	**0.0454**		**142.1030**	**142.1030**	**3.8300e-003**	**3.7000e-003**	**143.3009**

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Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003	0.0000	1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.1420					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0222**	**8.6098**	**11.6840**	**0.0179**		**0.4338**	**0.4338**		**0.4003**	**0.4003**	**0.0000**	**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

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	0.0516	0.0370	0.4983	1.4100e-003	0.1546	1.0100e-003	0.1556	0.0413	9.3000e-004	0.0422		142.1030	142.1030	3.8300e-003	3.7000e-003	143.3009
Total	**0.0516**	**0.0370**	**0.4983**	**1.4100e-003**	**0.1546**	**1.0100e-003**	**0.1556**	**0.0413**	**9.3000e-004**	**0.0422**		**142.1030**	**142.1030**	**3.8300e-003**	**3.7000e-003**	**143.3009**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.12 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	141.8147					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**142.0063**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0413	0.0296	0.3986	1.1200e-003	0.1341	8.1000e-004	0.1349	0.0356	7.4000e-004	0.0363		113.6824	113.6824	3.0700e-003	2.9600e-003	114.6407
Total	**0.0413**	**0.0296**	**0.3986**	**1.1200e-003**	**0.1341**	**8.1000e-004**	**0.1349**	**0.0356**	**7.4000e-004**	**0.0363**		**113.6824**	**113.6824**	**3.0700e-003**	**2.9600e-003**	**114.6407**

Washington and Rosemead Mixed-Use Project Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	141.8147					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**142.0063**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0413	0.0296	0.3986	1.1200e-003	0.1236	8.1000e-004	0.1244	0.0330	7.4000e-004	0.0337		113.6824	113.6824	3.0700e-003	2.9600e-003	114.6407
Total	**0.0413**	**0.0296**	**0.3986**	**1.1200e-003**	**0.1236**	**8.1000e-004**	**0.1244**	**0.0330**	**7.4000e-004**	**0.0337**		**113.6824**	**113.6824**	**3.0700e-003**	**2.9600e-003**	**114.6407**

CalEEMod Mitigated Construction Model

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Washington and Rosemead Mixed-Use Project Mitigated Construction Run

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	190.00	1000sqft	0.34	190,000.00	0
Other Asphalt Surfaces	45.00	1000sqft	1.03	45,000.00	0
Other Non-Asphalt Surfaces	21.00	1000sqft	0.48	21,000.00	0
Recreational Swimming Pool	17.01	1000sqft	0.00	17,010.00	0
Apartments Mid Rise	255.00	Dwelling Unit	0.99	260,220.00	729
Regional Shopping Center	5.73	1000sqft	0.00	5,730.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Pico Rivera Innovative Municipal Energy				
CO2 Intensity (lb/MWhr)	683.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - based on PRIME power mix

Land Use - based on info from applicant

Construction Phase - based on info confirmed by applicant

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - no additional equipment required for Asphalt Demolition Haul

Off-road Equipment -

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Off-road Equipment - based on info from applicant

Off-road Equipment - no additional equipment required for Grading Soil Haul

Off-road Equipment -

Off-road Equipment - based on info provided by applicant

Off-road Equipment - no additional equipment required for Grading Soil Haul

Off-road Equipment - loader HP based on CAT 966 Loader provided by applicant

Off-road Equipment - based on info from applicant

Trips and VMT - assumes 2 trips/water truck/day. See assumptions file for calculations on dump trucks and hauling trips

Demolition -

Grading -

Architectural Coating - based on info from applicant, residential includes area for pool, nonresidential includes area for int/ext parking structure, parking only includes parking

Vehicle Trips -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use -

Construction Off-road Equipment Mitigation - SCAQMD Rule 403 and 1186

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	11,370.00	97,865.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	34,110.00	293,595.00
tblArchitecturalCoating	ConstArea_Parking	15,360.00	11,400.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	175,649.00	187,130.00
tblArchitecturalCoating	ConstArea_Residential_Interior	526,946.00	561,391.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00
tblArchitecturalCoating	EF_Residential_Interior	50.00	0.00
tblAreaCoating	Area_Nonresidential_Exterior	11370	9500
tblAreaCoating	Area_Nonresidential_Interior	34110	28500

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblAreaCoating	Area_Residential_Exterior	175649	168973
tblAreaCoating	Area_Residential_Interior	526946	506918
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	19.00
tblConstructionPhase	NumDays	220.00	407.00
tblConstructionPhase	NumDays	20.00	37.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	6.00	30.00
tblConstructionPhase	NumDays	6.00	12.00
tblConstructionPhase	NumDays	6.00	20.00
tblConstructionPhase	NumDays	6.00	20.00
tblConstructionPhase	NumDays	10.00	19.00
tblConstructionPhase	NumDays	3.00	6.00
tblGrading	MaterialExported	0.00	7,400.00
tblGrading	MaterialExported	0.00	20,000.00
tblLandUse	LandUseSquareFeet	255,000.00	260,220.00
tblLandUse	LotAcreage	4.36	0.34
tblLandUse	LotAcreage	1.03	1.03
tblLandUse	LotAcreage	0.48	0.48
tblLandUse	LotAcreage	0.39	0.00
tblLandUse	LotAcreage	6.71	0.99
tblLandUse	LotAcreage	0.13	0.00
tblOffRoadEquipment	HorsePower	97.00	276.00
tblOffRoadEquipment	HorsePower	158.00	270.00
tblOffRoadEquipment	HorsePower	80.00	134.00
tblOffRoadEquipment	HorsePower	158.00	249.00
tblOffRoadEquipment	HorsePower	8.00	7.00
tblOffRoadEquipment	HorsePower	97.00	225.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	HorsePower	78.00	50.00
tblOffRoadEquipment	HorsePower	8.00	7.00
tblOffRoadEquipment	HorsePower	97.00	225.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblSolidWaste	SolidWasteGenerationRate	96.96	76.95
tblSolidWaste	SolidWasteGenerationRate	6.02	5.78
tblTripsAndVMT	HaulingTripLength	20.00	19.00
tblTripsAndVMT	HaulingTripLength	20.00	19.00
tblTripsAndVMT	HaulingTripLength	20.00	19.00
tblTripsAndVMT	HaulingTripNumber	182.00	184.00
tblTripsAndVMT	HaulingTripNumber	925.00	1,058.00
tblTripsAndVMT	HaulingTripNumber	2,500.00	2,858.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00

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tblTripsAndVMT	VendorTripNumber	73.00	3.00
tblTripsAndVMT	WorkerTripNumber	60.00	12.00
tblTripsAndVMT	WorkerTripNumber	300.00	60.00
tblWater	IndoorWaterUseRate	1,006,024.88	798,432.44
tblWater	IndoorWaterUseRate	424,435.55	407,398.87
tblWater	OutdoorWaterUseRate	616,595.89	489,361.82
tblWater	OutdoorWaterUseRate	260,137.92	249,696.08

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2965	2.6735	2.3152	5.9100e-003	0.2538	0.1084	0.3622	0.0853	0.1024	0.1877	0.0000	524.4940	524.4940	0.0910	0.0221	533.3454
2023	0.5979	1.7623	2.0934	3.9800e-003	0.0840	0.0790	0.1630	0.0224	0.0756	0.0979	0.0000	337.9897	337.9897	0.0539	2.6300e-003	340.1224
Maximum	**0.5979**	**2.6735**	**2.3152**	**5.9100e-003**	**0.2538**	**0.1084**	**0.3622**	**0.0853**	**0.1024**	**0.1877**	**0.0000**	**524.4940**	**524.4940**	**0.0910**	**0.0221**	**533.3454**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2965	2.6735	2.3152	5.9100e-003	0.1611	0.1084	0.2695	0.0508	0.1024	0.1532	0.0000	524.4936	524.4936	0.0910	0.0221	533.3450
2023	0.5979	1.7623	2.0934	3.9800e-003	0.0775	0.0790	0.1565	0.0208	0.0756	0.0963	0.0000	337.9894	337.9894	0.0539	2.6300e-003	340.1221
Maximum	**0.5979**	**2.6735**	**2.3152**	**5.9100e-003**	**0.1611**	**0.1084**	**0.2695**	**0.0508**	**0.1024**	**0.1532**	**0.0000**	**524.4936**	**524.4936**	**0.0910**	**0.0221**	**533.3450**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	29.36	0.00	18.89	33.51	0.00	12.62	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2022	3-31-2022	1.0444	1.0444
2	4-1-2022	6-30-2022	1.3540	1.3540
3	7-1-2022	9-30-2022	0.5766	0.5766
4	10-1-2022	12-31-2022	0.5588	0.5588
5	1-1-2023	3-31-2023	0.5084	0.5084
6	4-1-2023	6-30-2023	0.5129	0.5129
7	7-1-2023	9-30-2023	0.5186	0.5186
		Highest	1.3540	1.3540

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Asphalt Demolition	Demolition	1/1/2022	2/22/2022	5	37	a
2	Asphalt Demolition Debris Haul	Demolition	2/16/2022	2/22/2022	5	5	b
3	Site Preparation	Site Preparation	2/23/2022	3/2/2022	5	6	c
4	Rough Grading	Grading	3/3/2022	4/13/2022	5	30	d
5	Rough Grading Soil Haul	Grading	3/29/2022	4/13/2022	5	12	e
6	Utility Trenching	Trenching	4/14/2022	7/6/2022	5	60	f
7	Fine Grading	Grading	5/12/2022	6/8/2022	5	20	g
8	Fine Grading Soil Haul	Grading	5/12/2022	6/8/2022	5	20	h
9	Building Construction	Building Construction	5/12/2022	12/1/2023	5	407	i
10	Paving	Paving	10/11/2023	11/6/2023	5	19	j
11	Architectural Coating	Architectural Coating	11/7/2023	12/1/2023	5	19	k

Acres of Grading (Site Preparation Phase): 9

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Acres of Grading (Grading Phase): 60

Acres of Paving: 1.86010101010101

Residential Indoor: 561,391; Residential Outdoor: 187,130; Non-Residential Indoor: 293,595; Non-Residential Outdoor: 97,865; Striped Parking Area: 11,40(

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Asphalt Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Asphalt Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Asphalt Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Asphalt Demolition Debris Haul	Concrete/Industrial Saws	0	8.00	81	0.73
Asphalt Demolition Debris Haul	Rubber Tired Dozers	0	8.00	247	0.40
Asphalt Demolition Debris Haul	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	276	0.37
Rough Grading	Excavators	1	8.00	270	0.38
Rough Grading	Graders	1	8.00	187	0.41
Rough Grading	Rollers	1	8.00	134	0.38
Rough Grading	Rubber Tired Dozers	1	8.00	247	0.40
Rough Grading	Scrapers	1	8.00	367	0.48
Rough Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Rough Grading Soil Haul	Graders	0	8.00	187	0.41
Rough Grading Soil Haul	Rubber Tired Dozers	0	8.00	247	0.40
Rough Grading Soil Haul	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Utility Trenching	Excavators	1	6.00	249	0.38
Utility Trenching	Plate Compactors	5	8.00	7	0.43
Utility Trenching	Tractors/Loaders/Backhoes	1	8.00	225	0.37
Utility Trenching	Trenchers	1	8.00	50	0.50
Fine Grading	Graders	0	8.00	187	0.41

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Fine Grading	Plate Compactors	5	8.00	7	0.43
Fine Grading	Rubber Tired Dozers	0	8.00	247	0.40
Fine Grading	Tractors/Loaders/Backhoes	1	8.00	225	0.37
Fine Grading Soil Haul	Graders	0	8.00	187	0.41
Fine Grading Soil Haul	Rubber Tired Dozers	0	8.00	247	0.40
Fine Grading Soil Haul	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Asphalt Demolition	5	13.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Asphalt Demolition Debris Haul	0	0.00	0.00	184.00	14.70	6.90	19.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Rough Grading	7	18.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Rough Grading Soil Haul	0	0.00	0.00	1,058.00	14.70	6.90	19.00	LD_Mix	HDT_Mix	HHDT
Utility Trenching	8	20.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading	6	15.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading Soil Haul	0	0.00	0.00	2,858.00	14.70	6.90	19.00	LD_Mix	HDT_Mix	HHDT

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Building Construction	8	60.00	3.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	12.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Asphalt Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0313	0.3075	0.2583	4.5000e-004		0.0155	0.0155		0.0145	0.0145	0.0000	38.9937	38.9937	9.9400e-003	0.0000	39.2421
Total	**0.0313**	**0.3075**	**0.2583**	**4.5000e-004**		**0.0155**	**0.0155**		**0.0145**	**0.0145**	**0.0000**	**38.9937**	**38.9937**	**9.9400e-003**	**0.0000**	**39.2421**

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	7.0000e-005	1.9000e-003	6.3000e-004	1.0000e-005	2.3000e-004	2.0000e-005	2.5000e-004	7.0000e-005	2.0000e-005	8.0000e-005	0.0000	0.7065	0.7065	2.0000e-005	1.0000e-004	0.7375
Worker	8.2000e-004	6.9000e-004	8.9200e-003	2.0000e-005	2.6400e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.1675	2.1675	6.0000e-005	6.0000e-005	2.1867
Total	**8.9000e-004**	**2.5900e-003**	**9.5500e-003**	**3.0000e-005**	**2.8700e-003**	**4.0000e-005**	**2.9000e-003**	**7.7000e-004**	**4.0000e-005**	**8.0000e-004**	**0.0000**	**2.8740**	**2.8740**	**8.0000e-005**	**1.6000e-004**	**2.9242**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0313	0.3075	0.2583	4.5000e-004		0.0155	0.0155		0.0145	0.0145	0.0000	38.9937	38.9937	9.9400e-003	0.0000	39.2421
Total	**0.0313**	**0.3075**	**0.2583**	**4.5000e-004**		**0.0155**	**0.0155**		**0.0145**	**0.0145**	**0.0000**	**38.9937**	**38.9937**	**9.9400e-003**	**0.0000**	**39.2421**

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	7.0000e-005	1.9000e-003	6.3000e-004	1.0000e-005	2.2000e-004	2.0000e-005	2.4000e-004	6.0000e-005	2.0000e-005	8.0000e-005	0.0000	0.7065	0.7065	2.0000e-005	1.0000e-004	0.7375
Worker	8.2000e-004	6.9000e-004	8.9200e-003	2.0000e-005	2.4300e-003	2.0000e-005	2.4500e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.1675	2.1675	6.0000e-005	6.0000e-005	2.1867
Total	**8.9000e-004**	**2.5900e-003**	**9.5500e-003**	**3.0000e-005**	**2.6500e-003**	**4.0000e-005**	**2.6900e-003**	**7.1000e-004**	**4.0000e-005**	**7.5000e-004**	**0.0000**	**2.8740**	**2.8740**	**8.0000e-005**	**1.6000e-004**	**2.9242**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Asphalt Demolition Debris Haul - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0197	0.0000	0.0197	2.9800e-003	0.0000	2.9800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0197**	**0.0000**	**0.0197**	**2.9800e-003**	**0.0000**	**2.9800e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	4.1000e-004	0.0156	3.5100e-003	5.0000e-005	1.5000e-003	1.1000e-004	1.6100e-003	4.1000e-004	1.0000e-004	5.2000e-004	0.0000	5.4107	5.4107	2.9000e-004	8.6000e-004	5.6737
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.1000e-004**	**0.0156**	**3.5100e-003**	**5.0000e-005**	**1.5000e-003**	**1.1000e-004**	**1.6100e-003**	**4.1000e-004**	**1.0000e-004**	**5.2000e-004**	**0.0000**	**5.4107**	**5.4107**	**2.9000e-004**	**8.6000e-004**	**5.6737**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.4100e-003	0.0000	8.4100e-003	1.2700e-003	0.0000	1.2700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**8.4100e-003**	**0.0000**	**8.4100e-003**	**1.2700e-003**	**0.0000**	**1.2700e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	4.1000e-004	0.0156	3.5100e-003	5.0000e-005	1.4000e-003	1.1000e-004	1.5100e-003	3.9000e-004	1.0000e-004	4.9000e-004	0.0000	5.4107	5.4107	2.9000e-004	8.6000e-004	5.6737
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.1000e-004**	**0.0156**	**3.5100e-003**	**5.0000e-005**	**1.4000e-003**	**1.1000e-004**	**1.5100e-003**	**3.9000e-004**	**1.0000e-004**	**4.9000e-004**	**0.0000**	**5.4107**	**5.4107**	**2.9000e-004**	**8.6000e-004**	**5.6737**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.7700e-003	0.0000	4.7700e-003	5.2000e-004	0.0000	5.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.4600e-003	0.0494	0.0304	9.0000e-005		1.8000e-003	1.8000e-003		1.6600e-003	1.6600e-003	0.0000	7.7594	7.7594	2.5100e-003	0.0000	7.8222
Total	**4.4600e-003**	**0.0494**	**0.0304**	**9.0000e-005**	**4.7700e-003**	**1.8000e-003**	**6.5700e-003**	**5.2000e-004**	**1.6600e-003**	**2.1800e-003**	**0.0000**	**7.7594**	**7.7594**	**2.5100e-003**	**0.0000**	**7.8222**

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	1.0000e-005	3.1000e-004	1.0000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1146	0.1146	0.0000	2.0000e-005	0.1196
Worker	8.0000e-005	7.0000e-005	8.9000e-004	0.0000	2.6000e-004	0.0000	2.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2163	0.2163	1.0000e-005	1.0000e-005	0.2182
Total	**9.0000e-005**	**3.8000e-004**	**9.9000e-004**	**0.0000**	**3.0000e-004**	**0.0000**	**3.0000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.3309**	**0.3309**	**1.0000e-005**	**3.0000e-005**	**0.3378**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.0400e-003	0.0000	2.0400e-003	2.2000e-004	0.0000	2.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.4600e-003	0.0494	0.0304	9.0000e-005		1.8000e-003	1.8000e-003		1.6600e-003	1.6600e-003	0.0000	7.7594	7.7594	2.5100e-003	0.0000	7.8222
Total	**4.4600e-003**	**0.0494**	**0.0304**	**9.0000e-005**	**2.0400e-003**	**1.8000e-003**	**3.8400e-003**	**2.2000e-004**	**1.6600e-003**	**1.8800e-003**	**0.0000**	**7.7594**	**7.7594**	**2.5100e-003**	**0.0000**	**7.8222**

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	1.0000e-005	3.1000e-004	1.0000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1146	0.1146	0.0000	2.0000e-005	0.1196
Worker	8.0000e-005	7.0000e-005	8.9000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.2163	0.2163	1.0000e-005	1.0000e-005	0.2182
Total	**9.0000e-005**	**3.8000e-004**	**9.9000e-004**	**0.0000**	**2.8000e-004**	**0.0000**	**2.8000e-004**	**7.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.3309**	**0.3309**	**1.0000e-005**	**3.0000e-005**	**0.3378**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Rough Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1222	0.0000	0.1222	0.0531	0.0000	0.0531	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0411	0.4402	0.3020	7.3000e-004		0.0184	0.0184		0.0169	0.0169	0.0000	64.4952	64.4952	0.0209	0.0000	65.0167
Total	**0.0411**	**0.4402**	**0.3020**	**7.3000e-004**	**0.1222**	**0.0184**	**0.1405**	**0.0531**	**0.0169**	**0.0700**	**0.0000**	**64.4952**	**64.4952**	**0.0209**	**0.0000**	**65.0167**

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	6.0000e-005	1.5400e-003	5.1000e-004	1.0000e-005	1.9000e-004	1.0000e-005	2.0000e-004	5.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.5729	0.5729	2.0000e-005	8.0000e-005	0.5980
Worker	9.2000e-004	7.7000e-004	0.0100	3.0000e-005	2.9600e-003	2.0000e-005	2.9800e-003	7.9000e-004	2.0000e-005	8.0000e-004	0.0000	2.4334	2.4334	7.0000e-005	7.0000e-005	2.4549
Total	**9.8000e-004**	**2.3100e-003**	**0.0105**	**4.0000e-005**	**3.1500e-003**	**3.0000e-005**	**3.1800e-003**	**8.4000e-004**	**3.0000e-005**	**8.7000e-004**	**0.0000**	**3.0062**	**3.0062**	**9.0000e-005**	**1.5000e-004**	**3.0529**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0522	0.0000	0.0522	0.0227	0.0000	0.0227	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0411	0.4402	0.3020	7.3000e-004		0.0184	0.0184		0.0169	0.0169	0.0000	64.4951	64.4951	0.0209	0.0000	65.0166
Total	**0.0411**	**0.4402**	**0.3020**	**7.3000e-004**	**0.0522**	**0.0184**	**0.0706**	**0.0227**	**0.0169**	**0.0396**	**0.0000**	**64.4951**	**64.4951**	**0.0209**	**0.0000**	**65.0166**

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	6.0000e-005	1.5400e-003	5.1000e-004	1.0000e-005	1.8000e-004	1.0000e-005	1.9000e-004	5.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.5729	0.5729	2.0000e-005	8.0000e-005	0.5980
Worker	9.2000e-004	7.7000e-004	0.0100	3.0000e-005	2.7300e-003	2.0000e-005	2.7500e-003	7.3000e-004	2.0000e-005	7.5000e-004	0.0000	2.4334	2.4334	7.0000e-005	7.0000e-005	2.4549
Total	**9.8000e-004**	**2.3100e-003**	**0.0105**	**4.0000e-005**	**2.9100e-003**	**3.0000e-005**	**2.9400e-003**	**7.8000e-004**	**3.0000e-005**	**8.2000e-004**	**0.0000**	**3.0062**	**3.0062**	**9.0000e-005**	**1.5000e-004**	**3.0529**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Rough Grading Soil Haul - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.2000e-004	0.0000	4.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**4.2000e-004**	**0.0000**	**4.2000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	2.3400e-003	0.0894	0.0202	3.1000e-004	8.6500e-003	6.3000e-004	9.2700e-003	2.3800e-003	6.0000e-004	2.9800e-003	0.0000	31.1114	31.1114	1.6500e-003	4.9400e-003	32.6236
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.3400e-003**	**0.0894**	**0.0202**	**3.1000e-004**	**8.6500e-003**	**6.3000e-004**	**9.2700e-003**	**2.3800e-003**	**6.0000e-004**	**2.9800e-003**	**0.0000**	**31.1114**	**31.1114**	**1.6500e-003**	**4.9400e-003**	**32.6236**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.8000e-004	0.0000	1.8000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	2.3400e-003	0.0894	0.0202	3.1000e-004	8.0600e-003	6.3000e-004	8.6900e-003	2.2300e-003	6.0000e-004	2.8300e-003	0.0000	31.1114	31.1114	1.6500e-003	4.9400e-003	32.6236
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.3400e-003**	**0.0894**	**0.0202**	**3.1000e-004**	**8.0600e-003**	**6.3000e-004**	**8.6900e-003**	**2.2300e-003**	**6.0000e-004**	**2.8300e-003**	**0.0000**	**31.1114**	**31.1114**	**1.6500e-003**	**4.9400e-003**	**32.6236**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Utility Trenching - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0286	0.2271	0.1796	5.3000e-004		9.5100e-003	9.5100e-003		8.8500e-003	8.8500e-003	0.0000	45.2951	45.2951	0.0138	0.0000	45.6388
Total	**0.0286**	**0.2271**	**0.1796**	**5.3000e-004**		**9.5100e-003**	**9.5100e-003**		**8.8500e-003**	**8.8500e-003**	**0.0000**	**45.2951**	**45.2951**	**0.0138**	**0.0000**	**45.6388**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3000e-004	6.1700e-003	2.0500e-003	2.0000e-005	7.6000e-004	6.0000e-005	8.1000e-004	2.2000e-004	5.0000e-005	2.7000e-004	0.0000	2.2915	2.2915	8.0000e-005	3.3000e-004	2.3919
Worker	2.0600e-003	1.7100e-003	0.0222	6.0000e-005	6.5700e-003	4.0000e-005	6.6200e-003	1.7500e-003	4.0000e-005	1.7900e-003	0.0000	5.4075	5.4075	1.6000e-004	1.5000e-004	5.4554
Total	**2.2900e-003**	**7.8800e-003**	**0.0243**	**8.0000e-005**	**7.3300e-003**	**1.0000e-004**	**7.4300e-003**	**1.9700e-003**	**9.0000e-005**	**2.0600e-003**	**0.0000**	**7.6990**	**7.6990**	**2.4000e-004**	**4.8000e-004**	**7.8473**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0286	0.2271	0.1796	5.3000e-004		9.5100e-003	9.5100e-003		8.8500e-003	8.8500e-003	0.0000	45.2950	45.2950	0.0138	0.0000	45.6387
Total	**0.0286**	**0.2271**	**0.1796**	**5.3000e-004**		**9.5100e-003**	**9.5100e-003**		**8.8500e-003**	**8.8500e-003**	**0.0000**	**45.2950**	**45.2950**	**0.0138**	**0.0000**	**45.6387**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3000e-004	6.1700e-003	2.0500e-003	2.0000e-005	7.1000e-004	6.0000e-005	7.6000e-004	2.1000e-004	5.0000e-005	2.6000e-004	0.0000	2.2915	2.2915	8.0000e-005	3.3000e-004	2.3919
Worker	2.0600e-003	1.7100e-003	0.0222	6.0000e-005	6.0600e-003	4.0000e-005	6.1000e-003	1.6200e-003	4.0000e-005	1.6600e-003	0.0000	5.4075	5.4075	1.6000e-004	1.5000e-004	5.4554
Total	**2.2900e-003**	**7.8800e-003**	**0.0243**	**8.0000e-005**	**6.7700e-003**	**1.0000e-004**	**6.8600e-003**	**1.8300e-003**	**9.0000e-005**	**1.9200e-003**	**0.0000**	**7.6990**	**7.6990**	**2.4000e-004**	**4.8000e-004**	**7.8473**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.8 Fine Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5000e-003	0.0395	0.0263	9.0000e-005		1.4100e-003	1.4100e-003		1.3300e-003	1.3300e-003	0.0000	7.6305	7.6305	2.1700e-003	0.0000	7.6847
Total	**4.5000e-003**	**0.0395**	**0.0263**	**9.0000e-005**	**0.0000**	**1.4100e-003**	**1.4100e-003**	**0.0000**	**1.3300e-003**	**1.3300e-003**	**0.0000**	**7.6305**	**7.6305**	**2.1700e-003**	**0.0000**	**7.6847**

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	1.2000e-004	3.0900e-003	1.0200e-003	1.0000e-005	3.8000e-004	3.0000e-005	4.1000e-004	1.1000e-004	3.0000e-005	1.4000e-004	0.0000	1.1458	1.1458	4.0000e-005	1.7000e-004	1.1960
Worker	5.1000e-004	4.3000e-004	5.5600e-003	1.0000e-005	1.6400e-003	1.0000e-005	1.6500e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3519	1.3519	4.0000e-005	4.0000e-005	1.3638
Total	**6.3000e-004**	**3.5200e-003**	**6.5800e-003**	**2.0000e-005**	**2.0200e-003**	**4.0000e-005**	**2.0600e-003**	**5.5000e-004**	**4.0000e-005**	**5.9000e-004**	**0.0000**	**2.4976**	**2.4976**	**8.0000e-005**	**2.1000e-004**	**2.5598**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5000e-003	0.0395	0.0263	9.0000e-005		1.4100e-003	1.4100e-003		1.3300e-003	1.3300e-003	0.0000	7.6305	7.6305	2.1700e-003	0.0000	7.6847
Total	**4.5000e-003**	**0.0395**	**0.0263**	**9.0000e-005**	**0.0000**	**1.4100e-003**	**1.4100e-003**	**0.0000**	**1.3300e-003**	**1.3300e-003**	**0.0000**	**7.6305**	**7.6305**	**2.1700e-003**	**0.0000**	**7.6847**

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	1.2000e-004	3.0900e-003	1.0200e-003	1.0000e-005	3.5000e-004	3.0000e-005	3.8000e-004	1.0000e-004	3.0000e-005	1.3000e-004	0.0000	1.1458	1.1458	4.0000e-005	1.7000e-004	1.1960
Worker	5.1000e-004	4.3000e-004	5.5600e-003	1.0000e-005	1.5200e-003	1.0000e-005	1.5300e-003	4.1000e-004	1.0000e-005	4.1000e-004	0.0000	1.3519	1.3519	4.0000e-005	4.0000e-005	1.3638
Total	**6.3000e-004**	**3.5200e-003**	**6.5800e-003**	**2.0000e-005**	**1.8700e-003**	**4.0000e-005**	**1.9100e-003**	**5.1000e-004**	**4.0000e-005**	**5.4000e-004**	**0.0000**	**2.4976**	**2.4976**	**8.0000e-005**	**2.1000e-004**	**2.5598**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.9 Fine Grading Soil Haul - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.1300e-003	0.0000	1.1300e-003	1.7000e-004	0.0000	1.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.1300e-003**	**0.0000**	**1.1300e-003**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	6.3300e-003	0.2415	0.0545	8.5000e-004	0.0234	1.7000e-003	0.0251	6.4200e-003	1.6200e-003	8.0400e-003	0.0000	84.0418	84.0418	4.4500e-003	0.0133	88.1270
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.3300e-003**	**0.2415**	**0.0545**	**8.5000e-004**	**0.0234**	**1.7000e-003**	**0.0251**	**6.4200e-003**	**1.6200e-003**	**8.0400e-003**	**0.0000**	**84.0418**	**84.0418**	**4.4500e-003**	**0.0133**	**88.1270**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.8000e-004	0.0000	4.8000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**4.8000e-004**	**0.0000**	**4.8000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	6.3300e-003	0.2415	0.0545	8.5000e-004	0.0218	1.7000e-003	0.0235	6.0300e-003	1.6200e-003	7.6500e-003	0.0000	84.0418	84.0418	4.4500e-003	0.0133	88.1270
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.3300e-003**	**0.2415**	**0.0545**	**8.5000e-004**	**0.0218**	**1.7000e-003**	**0.0235**	**6.0300e-003**	**1.6200e-003**	**7.6500e-003**	**0.0000**	**84.0418**	**84.0418**	**4.4500e-003**	**0.0133**	**88.1270**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.10 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1549	1.2194	1.1985	2.0900e-003		0.0586	0.0586		0.0562	0.0562	0.0000	173.4129	173.4129	0.0335	0.0000	174.2493
Total	**0.1549**	**1.2194**	**1.1985**	**2.0900e-003**		**0.0586**	**0.0586**		**0.0562**	**0.0562**	**0.0000**	**173.4129**	**173.4129**	**0.0335**	**0.0000**	**174.2493**

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	4.9000e-004	0.0129	4.2700e-003	5.0000e-005	1.5800e-003	1.2000e-004	1.7000e-003	4.6000e-004	1.1000e-004	5.7000e-004	0.0000	4.7835	4.7835	1.6000e-004	6.9000e-004	4.9931
Worker	0.0172	0.0143	0.1857	4.9000e-004	0.0549	3.6000e-004	0.0553	0.0146	3.3000e-004	0.0149	0.0000	45.1522	45.1522	1.3000e-003	1.2300e-003	45.5523
Total	**0.0177**	**0.0272**	**0.1900**	**5.4000e-004**	**0.0565**	**4.8000e-004**	**0.0570**	**0.0150**	**4.4000e-004**	**0.0155**	**0.0000**	**49.9357**	**49.9357**	**1.4600e-003**	**1.9200e-003**	**50.5454**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1549	1.2194	1.1985	2.0900e-003		0.0586	0.0586		0.0562	0.0562	0.0000	173.4127	173.4127	0.0335	0.0000	174.2491
Total	**0.1549**	**1.2194**	**1.1985**	**2.0900e-003**		**0.0586**	**0.0586**		**0.0562**	**0.0562**	**0.0000**	**173.4127**	**173.4127**	**0.0335**	**0.0000**	**174.2491**

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	4.9000e-004	0.0129	4.2700e-003	5.0000e-005	1.4800e-003	1.2000e-004	1.6000e-003	4.3000e-004	1.1000e-004	5.4000e-004	0.0000	4.7835	4.7835	1.6000e-004	6.9000e-004	4.9931
Worker	0.0172	0.0143	0.1857	4.9000e-004	0.0506	3.6000e-004	0.0510	0.0135	3.3000e-004	0.0139	0.0000	45.1522	45.1522	1.3000e-003	1.2300e-003	45.5523
Total	**0.0177**	**0.0272**	**0.1900**	**5.4000e-004**	**0.0521**	**4.8000e-004**	**0.0526**	**0.0140**	**4.4000e-004**	**0.0144**	**0.0000**	**49.9357**	**49.9357**	**1.4600e-003**	**1.9200e-003**	**50.5454**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.10 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	0.2056	1.6349	1.7057	3.0000e-003		0.0736	0.0736		0.0706	0.0706	0.0000	249.2425	249.2425	0.0471	0.0000	250.4209
Total	**0.2056**	**1.6349**	**1.7057**	**3.0000e-003**		**0.0736**	**0.0736**		**0.0706**	**0.0706**	**0.0000**	**249.2425**	**249.2425**	**0.0471**	**0.0000**	**250.4209**

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	4.1000e-004	0.0145	5.4300e-003	7.0000e-005	2.2700e-003	7.0000e-005	2.3400e-003	6.5000e-004	7.0000e-005	7.2000e-004	0.0000	6.5456	6.5456	2.2000e-004	9.4000e-004	6.8318
Worker	0.0228	0.0181	0.2453	6.8000e-004	0.0789	4.8000e-004	0.0794	0.0210	4.5000e-004	0.0214	0.0000	62.8016	62.8016	1.6700e-003	1.6300e-003	63.3305
Total	**0.0233**	**0.0327**	**0.2507**	**7.5000e-004**	**0.0812**	**5.5000e-004**	**0.0817**	**0.0216**	**5.2000e-004**	**0.0221**	**0.0000**	**69.3472**	**69.3472**	**1.8900e-003**	**2.5700e-003**	**70.1623**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2056	1.6349	1.7057	3.0000e-003		0.0736	0.0736		0.0706	0.0706	0.0000	249.2422	249.2422	0.0471	0.0000	250.4206
Total	**0.2056**	**1.6349**	**1.7057**	**3.0000e-003**		**0.0736**	**0.0736**		**0.0706**	**0.0706**	**0.0000**	**249.2422**	**249.2422**	**0.0471**	**0.0000**	**250.4206**

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	4.1000e-004	0.0145	5.4300e-003	7.0000e-005	2.1200e-003	7.0000e-005	2.1900e-003	6.2000e-004	7.0000e-005	6.9000e-004	0.0000	6.5456	6.5456	2.2000e-004	9.4000e-004	6.8318
Worker	0.0228	0.0181	0.2453	6.8000e-004	0.0727	4.8000e-004	0.0732	0.0194	4.5000e-004	0.0199	0.0000	62.8016	62.8016	1.6700e-003	1.6300e-003	63.3305
Total	**0.0233**	**0.0327**	**0.2507**	**7.5000e-004**	**0.0749**	**5.5000e-004**	**0.0754**	**0.0201**	**5.2000e-004**	**0.0206**	**0.0000**	**69.3472**	**69.3472**	**1.8900e-003**	**2.5700e-003**	**70.1623**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.11 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	8.3600e-003	0.0818	0.1110	1.7000e-004		4.1200e-003	4.1200e-003		3.8000e-003	3.8000e-003	0.0000	14.7372	14.7372	4.6700e-003	0.0000	14.8539
Paving	1.3500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.7100e-003**	**0.0818**	**0.1110**	**1.7000e-004**		**4.1200e-003**	**4.1200e-003**		**3.8000e-003**	**3.8000e-003**	**0.0000**	**14.7372**	**14.7372**	**4.6700e-003**	**0.0000**	**14.8539**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.6000e-004	4.8600e-003	1.0000e-005	1.5600e-003	1.0000e-005	1.5700e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.2430	1.2430	3.0000e-005	3.0000e-005	1.2534
Total	**4.5000e-004**	**3.6000e-004**	**4.8600e-003**	**1.0000e-005**	**1.5600e-003**	**1.0000e-005**	**1.5700e-003**	**4.1000e-004**	**1.0000e-005**	**4.2000e-004**	**0.0000**	**1.2430**	**1.2430**	**3.0000e-005**	**3.0000e-005**	**1.2534**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.3600e-003	0.0818	0.1110	1.7000e-004		4.1200e-003	4.1200e-003		3.8000e-003	3.8000e-003	0.0000	14.7371	14.7371	4.6700e-003	0.0000	14.8539
Paving	1.3500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.7100e-003**	**0.0818**	**0.1110**	**1.7000e-004**		**4.1200e-003**	**4.1200e-003**		**3.8000e-003**	**3.8000e-003**	**0.0000**	**14.7371**	**14.7371**	**4.6700e-003**	**0.0000**	**14.8539**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.6000e-004	4.8600e-003	1.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2430	1.2430	3.0000e-005	3.0000e-005	1.2534
Total	**4.5000e-004**	**3.6000e-004**	**4.8600e-003**	**1.0000e-005**	**1.4400e-003**	**1.0000e-005**	**1.4500e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.2430**	**1.2430**	**3.0000e-005**	**3.0000e-005**	**1.2534**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.12 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3567					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8200e-003	0.0124	0.0172	3.0000e-005		6.7000e-004	6.7000e-004		6.7000e-004	6.7000e-004	0.0000	2.4256	2.4256	1.5000e-004	0.0000	2.4292
Total	**0.3585**	**0.0124**	**0.0172**	**3.0000e-005**		**6.7000e-004**	**6.7000e-004**		**6.7000e-004**	**6.7000e-004**	**0.0000**	**2.4256**	**2.4256**	**1.5000e-004**	**0.0000**	**2.4292**

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	3.6000e-004	2.9000e-004	3.8800e-003	1.0000e-005	1.2500e-003	1.0000e-005	1.2600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	0.9944	0.9944	3.0000e-005	3.0000e-005	1.0027
Total	**3.6000e-004**	**2.9000e-004**	**3.8800e-003**	**1.0000e-005**	**1.2500e-003**	**1.0000e-005**	**1.2600e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**0.9944**	**0.9944**	**3.0000e-005**	**3.0000e-005**	**1.0027**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3567					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8200e-003	0.0124	0.0172	3.0000e-005		6.7000e-004	6.7000e-004		6.7000e-004	6.7000e-004	0.0000	2.4256	2.4256	1.5000e-004	0.0000	2.4292
Total	**0.3585**	**0.0124**	**0.0172**	**3.0000e-005**		**6.7000e-004**	**6.7000e-004**		**6.7000e-004**	**6.7000e-004**	**0.0000**	**2.4256**	**2.4256**	**1.5000e-004**	**0.0000**	**2.4292**

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	3.6000e-004	2.9000e-004	3.8800e-003	1.0000e-005	1.1500e-003	1.0000e-005	1.1600e-003	3.1000e-004	1.0000e-005	3.1000e-004	0.0000	0.9944	0.9944	3.0000e-005	3.0000e-005	1.0027
Total	**3.6000e-004**	**2.9000e-004**	**3.8800e-003**	**1.0000e-005**	**1.1500e-003**	**1.0000e-005**	**1.1600e-003**	**3.1000e-004**	**1.0000e-005**	**3.1000e-004**	**0.0000**	**0.9944**	**0.9944**	**3.0000e-005**	**3.0000e-005**	**1.0027**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Washington and Rosemead Mixed-Use Project Mitigated Construction Run

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	190.00	1000sqft	0.34	190,000.00	0
Other Asphalt Surfaces	45.00	1000sqft	1.03	45,000.00	0
Other Non-Asphalt Surfaces	21.00	1000sqft	0.48	21,000.00	0
Recreational Swimming Pool	17.01	1000sqft	0.00	17,010.00	0
Apartments Mid Rise	255.00	Dwelling Unit	0.99	260,220.00	729
Regional Shopping Center	5.73	1000sqft	0.00	5,730.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Pico Rivera Innovative Municipal Energy				
CO2 Intensity (lb/MWhr)	683.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - based on PRIME power mix

Land Use - based on info from applicant

Construction Phase - based on info confirmed by applicant

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - no additional equipment required for Asphalt Demolition Haul

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Off-road Equipment -

Off-road Equipment - based on info from applicant

Off-road Equipment - no additional equipment required for Grading Soil Haul

Off-road Equipment -

Off-road Equipment - based on info provided by applicant

Off-road Equipment - no additional equipment required for Grading Soil Haul

Off-road Equipment - loader HP based on CAT 966 Loader provided by applicant

Off-road Equipment - based on info from applicant

Trips and VMT - assumes 2 trips/water truck/day. See assumptions file for calculations on dump trucks and hauling trips

Demolition -

Grading -

Architectural Coating - based on info from applicant, residential includes area for pool, nonresidential includes area for int/ext parking structure, parking only includes

Vehicle Trips -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use -

Construction Off-road Equipment Mitigation - SCAQMD Rule 403 and 1186

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	11,370.00	97,865.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	34,110.00	293,595.00
tblArchitecturalCoating	ConstArea_Parking	15,360.00	11,400.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	175,649.00	187,130.00
tblArchitecturalCoating	ConstArea_Residential_Interior	526,946.00	561,391.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00
tblArchitecturalCoating	EF_Residential_Interior	50.00	0.00

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblAreaCoating	Area_Nonresidential_Exterior	11370	9500
tblAreaCoating	Area_Nonresidential_Interior	34110	28500
tblAreaCoating	Area_Residential_Exterior	175649	168973
tblAreaCoating	Area_Residential_Interior	526946	506918
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	19.00
tblConstructionPhase	NumDays	220.00	407.00
tblConstructionPhase	NumDays	20.00	37.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	6.00	30.00
tblConstructionPhase	NumDays	6.00	12.00
tblConstructionPhase	NumDays	6.00	20.00
tblConstructionPhase	NumDays	6.00	20.00
tblConstructionPhase	NumDays	10.00	19.00
tblConstructionPhase	NumDays	3.00	6.00
tblGrading	MaterialExported	0.00	7,400.00
tblGrading	MaterialExported	0.00	20,000.00
tblLandUse	LandUseSquareFeet	255,000.00	260,220.00
tblLandUse	LotAcreage	4.36	0.34
tblLandUse	LotAcreage	1.03	1.03
tblLandUse	LotAcreage	0.48	0.48
tblLandUse	LotAcreage	0.39	0.00
tblLandUse	LotAcreage	6.71	0.99
tblLandUse	LotAcreage	0.13	0.00
tblOffRoadEquipment	HorsePower	97.00	276.00
tblOffRoadEquipment	HorsePower	158.00	270.00
tblOffRoadEquipment	HorsePower	80.00	134.00

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	HorsePower	158.00	249.00
tblOffRoadEquipment	HorsePower	8.00	7.00
tblOffRoadEquipment	HorsePower	97.00	225.00
tblOffRoadEquipment	HorsePower	78.00	50.00
tblOffRoadEquipment	HorsePower	8.00	7.00
tblOffRoadEquipment	HorsePower	97.00	225.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblSolidWaste	SolidWasteGenerationRate	96.96	76.95
tblSolidWaste	SolidWasteGenerationRate	6.02	5.78
tblTripsAndVMT	HaulingTripLength	20.00	19.00
tblTripsAndVMT	HaulingTripLength	20.00	19.00
tblTripsAndVMT	HaulingTripLength	20.00	19.00
tblTripsAndVMT	HaulingTripNumber	182.00	184.00
tblTripsAndVMT	HaulingTripNumber	925.00	1,058.00
tblTripsAndVMT	HaulingTripNumber	2,500.00	2,858.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	73.00	3.00
tblTripsAndVMT	WorkerTripNumber	60.00	12.00
tblTripsAndVMT	WorkerTripNumber	300.00	60.00
tblWater	IndoorWaterUseRate	1,006,024.88	798,432.44
tblWater	IndoorWaterUseRate	424,435.55	407,398.87
tblWater	OutdoorWaterUseRate	616,595.89	489,361.82
tblWater	OutdoorWaterUseRate	260,137.92	249,696.08

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	4.2542	49.9364	32.3389	0.1489	9.8930	1.3427	11.2251	4.0089	1.2757	5.2382	0.0000	15,312.9108	15,312.9108	1.8426	1.5328	15,812.5270
2023	39.6821	22.5162	28.6536	0.0509	0.8575	1.0531	1.9106	0.2279	0.9935	1.2213	0.0000	4,809.6571	4,809.6571	0.9959	0.0260	4,842.2862
Maximum	**39.6821**	**49.9364**	**32.3389**	**0.1489**	**9.8930**	**1.3427**	**11.2251**	**4.0089**	**1.2757**	**5.2382**	**0.0000**	**15,312.9108**	**15,312.9108**	**1.8426**	**1.5328**	**15,812.5270**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	4.2542	49.9364	32.3389	0.1489	5.0749	1.3427	6.4070	1.9480	1.2757	3.1774	0.0000	15,312.9108	15,312.9108	1.8426	1.5328	15,812.5270
2023	39.6821	22.5162	28.6536	0.0509	0.7907	1.0531	1.8438	0.2115	0.9935	1.2049	0.0000	4,809.6571	4,809.6571	0.9959	0.0260	4,842.2862
Maximum	**39.6821**	**49.9364**	**32.3389**	**0.1489**	**5.0749**	**1.3427**	**6.4070**	**1.9480**	**1.2757**	**3.1774**	**0.0000**	**15,312.9108**	**15,312.9108**	**1.8426**	**1.5328**	**15,812.5270**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	45.44	0.00	37.19	49.03	0.00	32.16	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	Asphalt Demolition	Demolition	1/1/2022	2/22/2022	5	37	a
2	Asphalt Demolition Debris Haul	Demolition	2/16/2022	2/22/2022	5	5	b
3	Site Preparation	Site Preparation	2/23/2022	3/2/2022	5	6	c
4	Rough Grading	Grading	3/3/2022	4/13/2022	5	30	d
5	Rough Grading Soil Haul	Grading	3/29/2022	4/13/2022	5	12	e
6	Utility Trenching	Trenching	4/14/2022	7/6/2022	5	60	f
7	Fine Grading	Grading	5/12/2022	6/8/2022	5	20	g
8	Fine Grading Soil Haul	Grading	5/12/2022	6/8/2022	5	20	h
9	Building Construction	Building Construction	5/12/2022	12/1/2023	5	407	i
10	Paving	Paving	10/11/2023	11/6/2023	5	19	j
11	Architectural Coating	Architectural Coating	11/7/2023	12/1/2023	5	19	k

Acres of Grading (Site Preparation Phase): 9

Acres of Grading (Grading Phase): 60

Acres of Paving: 1.86010101010101

Residential Indoor: 561,391; Residential Outdoor: 187,130; Non-Residential Indoor: 293,595; Non-Residential Outdoor: 97,865; Striped Parking Area:

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Asphalt Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Asphalt Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Asphalt Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Asphalt Demolition Debris Haul	Concrete/Industrial Saws	0	8.00	81	0.73
Asphalt Demolition Debris Haul	Rubber Tired Dozers	0	8.00	247	0.40
Asphalt Demolition Debris Haul	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	276	0.37
Rough Grading	Excavators	1	8.00	270	0.38
Rough Grading	Graders	1	8.00	187	0.41
Rough Grading	Rollers	1	8.00	134	0.38
Rough Grading	Rubber Tired Dozers	1	8.00	247	0.40
Rough Grading	Scrapers	1	8.00	367	0.48
Rough Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Rough Grading Soil Haul	Graders	0	8.00	187	0.41
Rough Grading Soil Haul	Rubber Tired Dozers	0	8.00	247	0.40
Rough Grading Soil Haul	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Utility Trenching	Excavators	1	6.00	249	0.38
Utility Trenching	Plate Compactors	5	8.00	7	0.43
Utility Trenching	Tractors/Loaders/Backhoes	1	8.00	225	0.37
Utility Trenching	Trenchers	1	8.00	50	0.50
Fine Grading	Graders	0	8.00	187	0.41
Fine Grading	Plate Compactors	5	8.00	7	0.43
Fine Grading	Rubber Tired Dozers	0	8.00	247	0.40
Fine Grading	Tractors/Loaders/Backhoes	1	8.00	225	0.37

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Fine Grading Soil Haul	Graders	0	8.00	187	0.41
Fine Grading Soil Haul	Rubber Tired Dozers	0	8.00	247	0.40
Fine Grading Soil Haul	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Asphalt Demolition	5	13.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Asphalt Demolition Debris Haul	0	0.00	0.00	184.00	14.70	6.90	19.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Rough Grading	7	18.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Rough Grading Soil Haul	0	0.00	0.00	1,058.00	14.70	6.90	19.00	LD_Mix	HDT_Mix	HHDT
Utility Trenching	8	20.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading	6	15.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading Soil Haul	0	0.00	0.00	2,858.00	14.70	6.90	19.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	60.00	3.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	12.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Asphalt Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829		2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**		**0.8379**	**0.8379**		**0.7829**	**0.7829**		**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

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	3.9400e-003	0.0980	0.0336	3.9000e-004	0.0128	9.3000e-004	0.0137	3.6900e-003	8.9000e-004	4.5800e-003		42.0923	42.0923	1.4100e-003	6.0700e-003	43.9350
Worker	0.0450	0.0328	0.5117	1.3300e-003	0.1453	9.3000e-004	0.1462	0.0385	8.6000e-004	0.0394		134.3475	134.3475	3.6600e-003	3.2500e-003	135.4083
Total	**0.0489**	**0.1308**	**0.5453**	**1.7200e-003**	**0.1581**	**1.8600e-003**	**0.1600**	**0.0422**	**1.7500e-003**	**0.0440**		**176.4398**	**176.4398**	**5.0700e-003**	**9.3200e-003**	**179.3434**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829	0.0000	2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**		**0.8379**	**0.8379**		**0.7829**	**0.7829**	**0.0000**	**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

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	3.9400e-003	0.0980	0.0336	3.9000e-004	0.0120	9.3000e-004	0.0129	3.4900e-003	8.9000e-004	4.3800e-003		42.0923	42.0923	1.4100e-003	6.0700e-003	43.9350
Worker	0.0450	0.0328	0.5117	1.3300e-003	0.1339	9.3000e-004	0.1349	0.0358	8.6000e-004	0.0366		134.3475	134.3475	3.6600e-003	3.2500e-003	135.4083
Total	**0.0489**	**0.1308**	**0.5453**	**1.7200e-003**	**0.1459**	**1.8600e-003**	**0.1478**	**0.0392**	**1.7500e-003**	**0.0410**		**176.4398**	**176.4398**	**5.0700e-003**	**9.3200e-003**	**179.3434**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Asphalt Demolition Debris Haul - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.8706	0.0000	7.8706	1.1917	0.0000	1.1917			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**7.8706**	**0.0000**	**7.8706**	**1.1917**	**0.0000**	**1.1917**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	0.1649	5.9064	1.3944	0.0218	0.6120	0.0437	0.6556	0.1678	0.0418	0.2095		2,385.3896	2,385.3896	0.1266	0.3785	2,501.3374
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	0.0000	0.0000	0.0000	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	**0.1649**	**5.9064**	**1.3944**	**0.0218**	**0.6120**	**0.0437**	**0.6556**	**0.1678**	**0.0418**	**0.2095**		**2,385.3896**	**2,385.3896**	**0.1266**	**0.3785**	**2,501.3374**

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Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3647	0.0000	3.3647	0.5094	0.0000	0.5094			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**3.3647**	**0.0000**	**3.3647**	**0.5094**	**0.0000**	**0.5094**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	0.1649	5.9064	1.3944	0.0218	0.5704	0.0437	0.6140	0.1576	0.0418	0.1993		2,385.3896	2,385.3896	0.1266	0.3785	2,501.3374
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	0.0000	0.0000	0.0000	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	**0.1649**	**5.9064**	**1.3944**	**0.0218**	**0.5704**	**0.0437**	**0.6140**	**0.1576**	**0.0418**	**0.1993**		**2,385.3896**	**2,385.3896**	**0.1266**	**0.3785**	**2,501.3374**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.4869	16.4656	10.1152	0.0295		0.5998	0.5998		0.5518	0.5518		2,851.0984	2,851.0984	0.9221		2,874.1509
Total	**1.4869**	**16.4656**	**10.1152**	**0.0295**	**1.5908**	**0.5998**	**2.1905**	**0.1718**	**0.5518**	**0.7236**		**2,851.0984**	**2,851.0984**	**0.9221**		**2,874.1509**

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	3.9400e-003	0.0980	0.0336	3.9000e-004	0.0128	9.3000e-004	0.0137	3.6900e-003	8.9000e-004	4.5800e-003		42.0923	42.0923	1.4100e-003	6.0700e-003	43.9350
Worker	0.0277	0.0202	0.3149	8.2000e-004	0.0894	5.7000e-004	0.0900	0.0237	5.3000e-004	0.0242		82.6754	82.6754	2.2500e-003	2.0000e-003	83.3282
Total	**0.0316**	**0.1182**	**0.3485**	**1.2100e-003**	**0.1022**	**1.5000e-003**	**0.1037**	**0.0274**	**1.4200e-003**	**0.0288**		**124.7677**	**124.7677**	**3.6600e-003**	**8.0700e-003**	**127.2632**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6801	0.0000	0.6801	0.0734	0.0000	0.0734			0.0000			0.0000
Off-Road	1.4869	16.4656	10.1152	0.0295		0.5998	0.5998		0.5518	0.5518	0.0000	2,851.0984	2,851.0984	0.9221		2,874.1509
Total	**1.4869**	**16.4656**	**10.1152**	**0.0295**	**0.6801**	**0.5998**	**1.2798**	**0.0734**	**0.5518**	**0.6252**	**0.0000**	**2,851.0984**	**2,851.0984**	**0.9221**		**2,874.1509**

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	3.9400e-003	0.0980	0.0336	3.9000e-004	0.0120	9.3000e-004	0.0129	3.4900e-003	8.9000e-004	4.3800e-003		42.0923	42.0923	1.4100e-003	6.0700e-003	43.9350
Worker	0.0277	0.0202	0.3149	8.2000e-004	0.0824	5.7000e-004	0.0830	0.0220	5.3000e-004	0.0225		82.6754	82.6754	2.2500e-003	2.0000e-003	83.3282
Total	**0.0316**	**0.1182**	**0.3485**	**1.2100e-003**	**0.0944**	**1.5000e-003**	**0.0959**	**0.0255**	**1.4200e-003**	**0.0269**		**124.7677**	**124.7677**	**3.6600e-003**	**8.0700e-003**	**127.2632**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Rough Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1431	0.0000	8.1431	3.5393	0.0000	3.5393			0.0000			0.0000
Off-Road	2.7387	29.3482	20.1327	0.0490		1.2253	1.2253		1.1272	1.1272		4,739.5873	4,739.5873	1.5329		4,777.9092
Total	**2.7387**	**29.3482**	**20.1327**	**0.0490**	**8.1431**	**1.2253**	**9.3684**	**3.5393**	**1.1272**	**4.6665**		**4,739.5873**	**4,739.5873**	**1.5329**		**4,777.9092**

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	3.9400e-003	0.0980	0.0336	3.9000e-004	0.0128	9.3000e-004	0.0137	3.6900e-003	8.9000e-004	4.5800e-003		42.0923	42.0923	1.4100e-003	6.0700e-003	43.9350
Worker	0.0623	0.0455	0.7085	1.8400e-003	0.2012	1.2900e-003	0.2025	0.0534	1.1900e-003	0.0545		186.0196	186.0196	5.0700e-003	4.5000e-003	187.4885
Total	**0.0662**	**0.1434**	**0.7420**	**2.2300e-003**	**0.2140**	**2.2200e-003**	**0.2162**	**0.0571**	**2.0800e-003**	**0.0591**		**228.1119**	**228.1119**	**6.4800e-003**	**0.0106**	**231.4235**

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Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4812	0.0000	3.4812	1.5130	0.0000	1.5130			0.0000			0.0000
Off-Road	2.7387	29.3482	20.1327	0.0490		1.2253	1.2253		1.1272	1.1272	0.0000	4,739.5873	4,739.5873	1.5329		4,777.9092
Total	**2.7387**	**29.3482**	**20.1327**	**0.0490**	**3.4812**	**1.2253**	**4.7064**	**1.5130**	**1.1272**	**2.6403**	**0.0000**	**4,739.5873**	**4,739.5873**	**1.5329**		**4,777.9092**

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	3.9400e-003	0.0980	0.0336	3.9000e-004	0.0120	9.3000e-004	0.0129	3.4900e-003	8.9000e-004	4.3800e-003		42.0923	42.0923	1.4100e-003	6.0700e-003	43.9350
Worker	0.0623	0.0455	0.7085	1.8400e-003	0.1855	1.2900e-003	0.1867	0.0495	1.1900e-003	0.0507		186.0196	186.0196	5.0700e-003	4.5000e-003	187.4885
Total	**0.0662**	**0.1434**	**0.7420**	**2.2300e-003**	**0.1975**	**2.2200e-003**	**0.1997**	**0.0530**	**2.0800e-003**	**0.0551**		**228.1119**	**228.1119**	**6.4800e-003**	**0.0106**	**231.4235**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Rough Grading Soil Haul - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0697	0.0000	0.0697	0.0106	0.0000	0.0106			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0697**	**0.0000**	**0.0697**	**0.0106**	**0.0000**	**0.0106**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	0.3950	14.1507	3.3407	0.0522	1.4662	0.1046	1.5707	0.4020	0.1001	0.5020		5,714.9959	5,714.9959	0.3032	0.9068	5,992.7874
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	0.0000	0.0000	0.0000	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	**0.3950**	**14.1507**	**3.3407**	**0.0522**	**1.4662**	**0.1046**	**1.5707**	**0.4020**	**0.1001**	**0.5020**		**5,714.9959**	**5,714.9959**	**0.3032**	**0.9068**	**5,992.7874**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0298	0.0000	0.0298	4.5100e-003	0.0000	4.5100e-003			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0298**	**0.0000**	**0.0298**	**4.5100e-003**	**0.0000**	**4.5100e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	0.3950	14.1507	3.3407	0.0522	1.3665	0.1046	1.4711	0.3775	0.1001	0.4776		5,714.9959	5,714.9959	0.3032	0.9068	5,992.7874
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	0.0000	0.0000	0.0000	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	**0.3950**	**14.1507**	**3.3407**	**0.0522**	**1.3665**	**0.1046**	**1.4711**	**0.3775**	**0.1001**	**0.4776**		**5,714.9959**	**5,714.9959**	**0.3032**	**0.9068**	**5,992.7874**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Utility Trenching - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9542	7.5687	5.9861	0.0178		0.3170	0.3170		0.2951	0.2951		1,664.3091	1,664.3091	0.5051		1,676.9377
Total	**0.9542**	**7.5687**	**5.9861**	**0.0178**		**0.3170**	**0.3170**		**0.2951**	**0.2951**		**1,664.3091**	**1,664.3091**	**0.5051**		**1,676.9377**

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	7.8700e-003	0.1959	0.0672	7.8000e-004	0.0256	1.8700e-003	0.0275	7.3800e-003	1.7900e-003	9.1600e-003		84.1846	84.1846	2.8100e-003	0.0121	87.8701
Worker	0.0692	0.0505	0.7872	2.0400e-003	0.2236	1.4300e-003	0.2250	0.0593	1.3200e-003	0.0606		206.6884	206.6884	5.6300e-003	5.0000e-003	208.3205
Total	**0.0771**	**0.2465**	**0.8543**	**2.8200e-003**	**0.2492**	**3.3000e-003**	**0.2525**	**0.0667**	**3.1100e-003**	**0.0698**		**290.8730**	**290.8730**	**8.4400e-003**	**0.0171**	**296.1906**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9542	7.5687	5.9861	0.0178		0.3170	0.3170		0.2951	0.2951	0.0000	1,664.3091	1,664.3091	0.5051		1,676.9377
Total	**0.9542**	**7.5687**	**5.9861**	**0.0178**		**0.3170**	**0.3170**		**0.2951**	**0.2951**	**0.0000**	**1,664.3091**	**1,664.3091**	**0.5051**		**1,676.9377**

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	7.8700e-003	0.1959	0.0672	7.8000e-004	0.0240	1.8700e-003	0.0259	6.9700e-003	1.7900e-003	8.7600e-003		84.1846	84.1846	2.8100e-003	0.0121	87.8701
Worker	0.0692	0.0505	0.7872	2.0400e-003	0.2061	1.4300e-003	0.2075	0.0550	1.3200e-003	0.0563		206.6884	206.6884	5.6300e-003	5.0000e-003	208.3205
Total	**0.0771**	**0.2465**	**0.8543**	**2.8200e-003**	**0.2300**	**3.3000e-003**	**0.2333**	**0.0620**	**3.1100e-003**	**0.0651**		**290.8730**	**290.8730**	**8.4400e-003**	**0.0171**	**296.1906**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.8 Fine Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.4500	3.9516	2.6276	9.2600e-003		0.1412	0.1412		0.1333	0.1333		841.1197	841.1197	0.2389		847.0925
Total	**0.4500**	**3.9516**	**2.6276**	**9.2600e-003**	**0.0000**	**0.1412**	**0.1412**	**0.0000**	**0.1333**	**0.1333**		**841.1197**	**841.1197**	**0.2389**		**847.0925**

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	0.2939	0.1008	1.1800e-003	0.0384	2.8000e-003	0.0412	0.0111	2.6800e-003	0.0137		126.2770	126.2770	4.2200e-003	0.0182	131.8051
Worker	0.0519	0.0379	0.5904	1.5300e-003	0.1677	1.0700e-003	0.1687	0.0445	9.9000e-004	0.0455		155.0163	155.0163	4.2200e-003	3.7500e-003	156.2404
Total	**0.0637**	**0.3318**	**0.6911**	**2.7100e-003**	**0.2061**	**3.8700e-003**	**0.2100**	**0.0555**	**3.6700e-003**	**0.0592**		**281.2933**	**281.2933**	**8.4400e-003**	**0.0220**	**288.0455**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.4500	3.9516	2.6276	9.2600e-003		0.1412	0.1412		0.1333	0.1333	0.0000	841.1197	841.1197	0.2389		847.0925
Total	**0.4500**	**3.9516**	**2.6276**	**9.2600e-003**	**0.0000**	**0.1412**	**0.1412**	**0.0000**	**0.1333**	**0.1333**	**0.0000**	**841.1197**	**841.1197**	**0.2389**		**847.0925**

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	0.2939	0.1008	1.1800e-003	0.0360	2.8000e-003	0.0388	0.0105	2.6800e-003	0.0131		126.2770	126.2770	4.2200e-003	0.0182	131.8051
Worker	0.0519	0.0379	0.5904	1.5300e-003	0.1546	1.0700e-003	0.1556	0.0413	9.9000e-004	0.0422		155.0163	155.0163	4.2200e-003	3.7500e-003	156.2404
Total	**0.0637**	**0.3318**	**0.6911**	**2.7100e-003**	**0.1905**	**3.8700e-003**	**0.1944**	**0.0517**	**3.6700e-003**	**0.0554**		**281.2933**	**281.2933**	**8.4400e-003**	**0.0220**	**288.0455**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.9 Fine Grading Soil Haul - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1131	0.0000	0.1131	0.0171	0.0000	0.0171			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.1131**	**0.0000**	**0.1131**	**0.0171**	**0.0000**	**0.0171**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	0.6402	22.9353	5.4145	0.0846	2.3764	0.1695	2.5459	0.6515	0.1622	0.8137		9,262.8308	9,262.8308	0.4914	1.4697	9,713.0736
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	0.0000	0.0000	0.0000	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	**0.6402**	**22.9353**	**5.4145**	**0.0846**	**2.3764**	**0.1695**	**2.5459**	**0.6515**	**0.1622**	**0.8137**		**9,262.8308**	**9,262.8308**	**0.4914**	**1.4697**	**9,713.0736**

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Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0484	0.0000	0.0484	7.3200e-003	0.0000	7.3200e-003			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0484**	**0.0000**	**0.0484**	**7.3200e-003**	**0.0000**	**7.3200e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	0.6402	22.9353	5.4145	0.0846	2.2148	0.1695	2.3843	0.6119	0.1622	0.7741		9,262.8308	9,262.8308	0.4914	1.4697	9,713.0736
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	0.0000	0.0000	0.0000	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	**0.6402**	**22.9353**	**5.4145**	**0.0846**	**2.2148**	**0.1695**	**2.3843**	**0.6119**	**0.1622**	**0.7741**		**9,262.8308**	**9,262.8308**	**0.4914**	**1.4697**	**9,713.0736**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.10 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**		**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

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	5.9000e-003	0.1470	0.0504	5.9000e-004	0.0192	1.4000e-003	0.0206	5.5300e-003	1.3400e-003	6.8700e-003		63.1385	63.1385	2.1100e-003	9.1000e-003	65.9025
Worker	0.2076	0.1516	2.3615	6.1300e-003	0.6707	4.2900e-003	0.6750	0.1779	3.9500e-003	0.1818		620.0652	620.0652	0.0169	0.0150	624.9616
Total	**0.2135**	**0.2985**	**2.4119**	**6.7200e-003**	**0.6899**	**5.6900e-003**	**0.6956**	**0.1834**	**5.2900e-003**	**0.1887**		**683.2036**	**683.2036**	**0.0190**	**0.0241**	**690.8641**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**	**0.0000**	**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

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	5.9000e-003	0.1470	0.0504	5.9000e-004	0.0180	1.4000e-003	0.0194	5.2300e-003	1.3400e-003	6.5700e-003		63.1385	63.1385	2.1100e-003	9.1000e-003	65.9025
Worker	0.2076	0.1516	2.3615	6.1300e-003	0.6182	4.2900e-003	0.6225	0.1650	3.9500e-003	0.1689		620.0652	620.0652	0.0169	0.0150	624.9616
Total	**0.2135**	**0.2985**	**2.4119**	**6.7200e-003**	**0.6362**	**5.6900e-003**	**0.6419**	**0.1702**	**5.2900e-003**	**0.1755**		**683.2036**	**683.2036**	**0.0190**	**0.0241**	**690.8641**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.10 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	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880		2,289.5233	2,289.5233	0.4330		2,300.3479
Total	**1.7136**	**13.6239**	**14.2145**	**0.0250**		**0.6136**	**0.6136**		**0.5880**	**0.5880**		**2,289.5233**	**2,289.5233**	**0.4330**		**2,300.3479**

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	3.4500e-003	0.1152	0.0446	5.6000e-004	0.0192	5.8000e-004	0.0198	5.5300e-003	5.5000e-004	6.0900e-003		60.0847	60.0847	2.0100e-003	8.6400e-003	62.7093
Worker	0.1920	0.1339	2.1684	5.9400e-003	0.6707	4.0300e-003	0.6747	0.1779	3.7100e-003	0.1816		600.0452	600.0452	0.0151	0.0139	604.5501
Total	**0.1955**	**0.2490**	**2.2130**	**6.5000e-003**	**0.6899**	**4.6100e-003**	**0.6945**	**0.1834**	**4.2600e-003**	**0.1877**		**660.1300**	**660.1300**	**0.0171**	**0.0225**	**667.2594**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880	0.0000	2,289.5233	2,289.5233	0.4330		2,300.3479
Total	**1.7136**	**13.6239**	**14.2145**	**0.0250**		**0.6136**	**0.6136**		**0.5880**	**0.5880**	**0.0000**	**2,289.5233**	**2,289.5233**	**0.4330**		**2,300.3479**

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	3.4500e-003	0.1152	0.0446	5.6000e-004	0.0180	5.8000e-004	0.0186	5.2300e-003	5.5000e-004	5.7800e-003		60.0847	60.0847	2.0100e-003	8.6400e-003	62.7093
Worker	0.1920	0.1339	2.1684	5.9400e-003	0.6182	4.0300e-003	0.6222	0.1650	3.7100e-003	0.1687		600.0452	600.0452	0.0151	0.0139	604.5501
Total	**0.1955**	**0.2490**	**2.2130**	**6.5000e-003**	**0.6362**	**4.6100e-003**	**0.6408**	**0.1702**	**4.2600e-003**	**0.1745**		**660.1300**	**660.1300**	**0.0171**	**0.0225**	**667.2594**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.11 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	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003		1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.1425					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0227**	**8.6098**	**11.6840**	**0.0179**		**0.4338**	**0.4338**		**0.4003**	**0.4003**		**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

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	0.0480	0.0335	0.5421	1.4800e-003	0.1677	1.0100e-003	0.1687	0.0445	9.3000e-004	0.0454		150.0113	150.0113	3.7800e-003	3.4600e-003	151.1375
Total	**0.0480**	**0.0335**	**0.5421**	**1.4800e-003**	**0.1677**	**1.0100e-003**	**0.1687**	**0.0445**	**9.3000e-004**	**0.0454**		**150.0113**	**150.0113**	**3.7800e-003**	**3.4600e-003**	**151.1375**

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Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003	0.0000	1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.1425					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0227**	**8.6098**	**11.6840**	**0.0179**		**0.4338**	**0.4338**		**0.4003**	**0.4003**	**0.0000**	**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

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	0.0480	0.0335	0.5421	1.4800e-003	0.1546	1.0100e-003	0.1556	0.0413	9.3000e-004	0.0422		150.0113	150.0113	3.7800e-003	3.4600e-003	151.1375
Total	**0.0480**	**0.0335**	**0.5421**	**1.4800e-003**	**0.1546**	**1.0100e-003**	**0.1556**	**0.0413**	**9.3000e-004**	**0.0422**		**150.0113**	**150.0113**	**3.7800e-003**	**3.4600e-003**	**151.1375**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.12 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	37.5429					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**37.7346**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0384	0.0268	0.4337	1.1900e-003	0.1341	8.1000e-004	0.1349	0.0356	7.4000e-004	0.0363		120.0090	120.0090	3.0300e-003	2.7700e-003	120.9100
Total	**0.0384**	**0.0268**	**0.4337**	**1.1900e-003**	**0.1341**	**8.1000e-004**	**0.1349**	**0.0356**	**7.4000e-004**	**0.0363**		**120.0090**	**120.0090**	**3.0300e-003**	**2.7700e-003**	**120.9100**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	37.5429					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**37.7346**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0384	0.0268	0.4337	1.1900e-003	0.1236	8.1000e-004	0.1244	0.0330	7.4000e-004	0.0337		120.0090	120.0090	3.0300e-003	2.7700e-003	120.9100
Total	**0.0384**	**0.0268**	**0.4337**	**1.1900e-003**	**0.1236**	**8.1000e-004**	**0.1244**	**0.0330**	**7.4000e-004**	**0.0337**		**120.0090**	**120.0090**	**3.0300e-003**	**2.7700e-003**	**120.9100**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Washington and Rosemead Mixed-Use Project Mitigated Construction Run

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	190.00	1000sqft	0.34	190,000.00	0
Other Asphalt Surfaces	45.00	1000sqft	1.03	45,000.00	0
Other Non-Asphalt Surfaces	21.00	1000sqft	0.48	21,000.00	0
Recreational Swimming Pool	17.01	1000sqft	0.00	17,010.00	0
Apartments Mid Rise	255.00	Dwelling Unit	0.99	260,220.00	729
Regional Shopping Center	5.73	1000sqft	0.00	5,730.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Pico Rivera Innovative Municipal Energy				
CO2 Intensity (lb/MWhr)	683.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - based on PRIME power mix

Land Use - based on info from applicant

Construction Phase - based on info confirmed by applicant

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - no additional equipment required for Asphalt Demolition Haul

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Off-road Equipment -

Off-road Equipment - based on info from applicant

Off-road Equipment - no additional equipment required for Grading Soil Haul

Off-road Equipment -

Off-road Equipment - based on info provided by applicant

Off-road Equipment - no additional equipment required for Grading Soil Haul

Off-road Equipment - loader HP based on CAT 966 Loader provided by applicant

Off-road Equipment - based on info from applicant

Trips and VMT - assumes 2 trips/water truck/day. See assumptions file for calculations on dump trucks and hauling trips

Demolition -

Grading -

Architectural Coating - based on info from applicant, residential includes area for pool, nonresidential includes area for int/ext parking structure, parking only includes

Vehicle Trips -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use -

Construction Off-road Equipment Mitigation - SCAQMD Rule 403 and 1186

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	11,370.00	97,865.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	34,110.00	293,595.00
tblArchitecturalCoating	ConstArea_Parking	15,360.00	11,400.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	175,649.00	187,130.00
tblArchitecturalCoating	ConstArea_Residential_Interior	526,946.00	561,391.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00
tblArchitecturalCoating	EF_Residential_Interior	50.00	0.00

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblAreaCoating	Area_Nonresidential_Exterior	11370	9500
tblAreaCoating	Area_Nonresidential_Interior	34110	28500
tblAreaCoating	Area_Residential_Exterior	175649	168973
tblAreaCoating	Area_Residential_Interior	526946	506918
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	19.00
tblConstructionPhase	NumDays	220.00	407.00
tblConstructionPhase	NumDays	20.00	37.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	6.00	30.00
tblConstructionPhase	NumDays	6.00	12.00
tblConstructionPhase	NumDays	6.00	20.00
tblConstructionPhase	NumDays	6.00	20.00
tblConstructionPhase	NumDays	10.00	19.00
tblConstructionPhase	NumDays	3.00	6.00
tblGrading	MaterialExported	0.00	7,400.00
tblGrading	MaterialExported	0.00	20,000.00
tblLandUse	LandUseSquareFeet	255,000.00	260,220.00
tblLandUse	LotAcreage	4.36	0.34
tblLandUse	LotAcreage	1.03	1.03
tblLandUse	LotAcreage	0.48	0.48
tblLandUse	LotAcreage	0.39	0.00
tblLandUse	LotAcreage	6.71	0.99
tblLandUse	LotAcreage	0.13	0.00
tblOffRoadEquipment	HorsePower	97.00	276.00
tblOffRoadEquipment	HorsePower	158.00	270.00
tblOffRoadEquipment	HorsePower	80.00	134.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	HorsePower	158.00	249.00
tblOffRoadEquipment	HorsePower	8.00	7.00
tblOffRoadEquipment	HorsePower	97.00	225.00
tblOffRoadEquipment	HorsePower	78.00	50.00
tblOffRoadEquipment	HorsePower	8.00	7.00
tblOffRoadEquipment	HorsePower	97.00	225.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblSolidWaste	SolidWasteGenerationRate	96.96	76.95
tblSolidWaste	SolidWasteGenerationRate	6.02	5.78
tblTripsAndVMT	HaulingTripLength	20.00	19.00
tblTripsAndVMT	HaulingTripLength	20.00	19.00
tblTripsAndVMT	HaulingTripLength	20.00	19.00
tblTripsAndVMT	HaulingTripNumber	182.00	184.00
tblTripsAndVMT	HaulingTripNumber	925.00	1,058.00
tblTripsAndVMT	HaulingTripNumber	2,500.00	2,858.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	73.00	3.00
tblTripsAndVMT	WorkerTripNumber	60.00	12.00
tblTripsAndVMT	WorkerTripNumber	300.00	60.00
tblWater	IndoorWaterUseRate	1,006,024.88	798,432.44
tblWater	IndoorWaterUseRate	424,435.55	407,398.87
tblWater	OutdoorWaterUseRate	616,595.89	489,361.82
tblWater	OutdoorWaterUseRate	260,137.92	249,696.08

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	4.2611	50.9204	32.1392	0.1484	9.8930	1.3431	11.2253	4.0089	1.2761	5.2384	0.0000	15,263.9590	15,263.9590	1.8421	1.5350	15,764.2110
2023	39.6991	22.5391	28.4359	0.0505	0.8575	1.0531	1.9106	0.2279	0.9935	1.2213	0.0000	4,770.2172	4,770.2172	0.9961	0.0272	4,803.2109
Maximum	**39.6991**	**50.9204**	**32.1392**	**0.1484**	**9.8930**	**1.3431**	**11.2253**	**4.0089**	**1.2761**	**5.2384**	**0.0000**	**15,263.9590**	**15,263.9590**	**1.8421**	**1.5350**	**15,764.2110**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	4.2611	50.9204	32.1392	0.1484	5.0749	1.3431	6.4072	1.9480	1.2761	3.1776	0.0000	15,263.9590	15,263.9590	1.8421	1.5350	15,764.2110
2023	39.6991	22.5391	28.4359	0.0505	0.7907	1.0531	1.8438	0.2115	0.9935	1.2049	0.0000	4,770.2172	4,770.2172	0.9961	0.0272	4,803.2109
Maximum	**39.6991**	**50.9204**	**32.1392**	**0.1484**	**5.0749**	**1.3431**	**6.4072**	**1.9480**	**1.2761**	**3.1776**	**0.0000**	**15,263.9590**	**15,263.9590**	**1.8421**	**1.5350**	**15,764.2110**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	45.44	0.00	37.19	49.03	0.00	32.16	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	Asphalt Demolition	Demolition	1/1/2022	2/22/2022	5	37	a
2	Asphalt Demolition Debris Haul	Demolition	2/16/2022	2/22/2022	5	5	b
3	Site Preparation	Site Preparation	2/23/2022	3/2/2022	5	6	c
4	Rough Grading	Grading	3/3/2022	4/13/2022	5	30	d
5	Rough Grading Soil Haul	Grading	3/29/2022	4/13/2022	5	12	e
6	Utility Trenching	Trenching	4/14/2022	7/6/2022	5	60	f
7	Fine Grading	Grading	5/12/2022	6/8/2022	5	20	g
8	Fine Grading Soil Haul	Grading	5/12/2022	6/8/2022	5	20	h
9	Building Construction	Building Construction	5/12/2022	12/1/2023	5	407	i
10	Paving	Paving	10/11/2023	11/6/2023	5	19	j
11	Architectural Coating	Architectural Coating	11/7/2023	12/1/2023	5	19	k

Acres of Grading (Site Preparation Phase): 9

Acres of Grading (Grading Phase): 60

Acres of Paving: 1.86010101010101

Residential Indoor: 561,391; Residential Outdoor: 187,130; Non-Residential Indoor: 293,595; Non-Residential Outdoor: 97,865; Striped Parking Area:

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Asphalt Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Asphalt Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Asphalt Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Asphalt Demolition Debris Haul	Concrete/Industrial Saws	0	8.00	81	0.73
Asphalt Demolition Debris Haul	Rubber Tired Dozers	0	8.00	247	0.40
Asphalt Demolition Debris Haul	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	276	0.37
Rough Grading	Excavators	1	8.00	270	0.38
Rough Grading	Graders	1	8.00	187	0.41
Rough Grading	Rollers	1	8.00	134	0.38
Rough Grading	Rubber Tired Dozers	1	8.00	247	0.40
Rough Grading	Scrapers	1	8.00	367	0.48
Rough Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Rough Grading Soil Haul	Graders	0	8.00	187	0.41
Rough Grading Soil Haul	Rubber Tired Dozers	0	8.00	247	0.40
Rough Grading Soil Haul	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Utility Trenching	Excavators	1	6.00	249	0.38
Utility Trenching	Plate Compactors	5	8.00	7	0.43
Utility Trenching	Tractors/Loaders/Backhoes	1	8.00	225	0.37
Utility Trenching	Trenchers	1	8.00	50	0.50
Fine Grading	Graders	0	8.00	187	0.41
Fine Grading	Plate Compactors	5	8.00	7	0.43
Fine Grading	Rubber Tired Dozers	0	8.00	247	0.40
Fine Grading	Tractors/Loaders/Backhoes	1	8.00	225	0.37

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Fine Grading Soil Haul	Graders	0	8.00	187	0.41
Fine Grading Soil Haul	Rubber Tired Dozers	0	8.00	247	0.40
Fine Grading Soil Haul	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Asphalt Demolition	5	13.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Asphalt Demolition Debris Haul	0	0.00	0.00	184.00	14.70	6.90	19.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Rough Grading	7	18.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Rough Grading Soil Haul	0	0.00	0.00	1,058.00	14.70	6.90	19.00	LD_Mix	HDT_Mix	HHDT
Utility Trenching	8	20.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading	6	15.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading Soil Haul	0	0.00	0.00	2,858.00	14.70	6.90	19.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	60.00	3.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	12.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Asphalt Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829		2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**		**0.8379**	**0.8379**		**0.7829**	**0.7829**		**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

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	3.8900e-003	0.1020	0.0348	3.9000e-004	0.0128	9.4000e-004	0.0138	3.6900e-003	9.0000e-004	4.5800e-003		42.1081	42.1081	1.4000e-003	6.0700e-003	43.9531
Worker	0.0482	0.0363	0.4698	1.2600e-003	0.1453	9.3000e-004	0.1462	0.0385	8.6000e-004	0.0394		127.2444	127.2444	3.7000e-003	3.4800e-003	128.3729
Total	**0.0520**	**0.1383**	**0.5045**	**1.6500e-003**	**0.1581**	**1.8700e-003**	**0.1600**	**0.0422**	**1.7600e-003**	**0.0440**		**169.3525**	**169.3525**	**5.1000e-003**	**9.5500e-003**	**172.3259**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829	0.0000	2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**		**0.8379**	**0.8379**		**0.7829**	**0.7829**	**0.0000**	**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

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	3.8900e-003	0.1020	0.0348	3.9000e-004	0.0120	9.4000e-004	0.0129	3.4900e-003	9.0000e-004	4.3800e-003		42.1081	42.1081	1.4000e-003	6.0700e-003	43.9531
Worker	0.0482	0.0363	0.4698	1.2600e-003	0.1339	9.3000e-004	0.1349	0.0358	8.6000e-004	0.0366		127.2444	127.2444	3.7000e-003	3.4800e-003	128.3729
Total	**0.0520**	**0.1383**	**0.5045**	**1.6500e-003**	**0.1459**	**1.8700e-003**	**0.1478**	**0.0392**	**1.7600e-003**	**0.0410**		**169.3525**	**169.3525**	**5.1000e-003**	**9.5500e-003**	**172.3259**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Asphalt Demolition Debris Haul - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.8706	0.0000	7.8706	1.1917	0.0000	1.1917			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**7.8706**	**0.0000**	**7.8706**	**1.1917**	**0.0000**	**1.1917**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	0.1608	6.1465	1.4198	0.0218	0.6120	0.0437	0.6557	0.1678	0.0419	0.2096		2,386.1241	2,386.1241	0.1263	0.3786	2,502.1048
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	0.0000	0.0000	0.0000	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	**0.1608**	**6.1465**	**1.4198**	**0.0218**	**0.6120**	**0.0437**	**0.6557**	**0.1678**	**0.0419**	**0.2096**		**2,386.1241**	**2,386.1241**	**0.1263**	**0.3786**	**2,502.1048**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3647	0.0000	3.3647	0.5094	0.0000	0.5094			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**3.3647**	**0.0000**	**3.3647**	**0.5094**	**0.0000**	**0.5094**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	0.1608	6.1465	1.4198	0.0218	0.5704	0.0437	0.6141	0.1576	0.0419	0.1994		2,386.1241	2,386.1241	0.1263	0.3786	2,502.1048
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	0.0000	0.0000	0.0000	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	**0.1608**	**6.1465**	**1.4198**	**0.0218**	**0.5704**	**0.0437**	**0.6141**	**0.1576**	**0.0419**	**0.1994**		**2,386.1241**	**2,386.1241**	**0.1263**	**0.3786**	**2,502.1048**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.4869	16.4656	10.1152	0.0295		0.5998	0.5998		0.5518	0.5518		2,851.0984	2,851.0984	0.9221		2,874.1509
Total	**1.4869**	**16.4656**	**10.1152**	**0.0295**	**1.5908**	**0.5998**	**2.1905**	**0.1718**	**0.5518**	**0.7236**		**2,851.0984**	**2,851.0984**	**0.9221**		**2,874.1509**

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	3.8900e-003	0.1020	0.0348	3.9000e-004	0.0128	9.4000e-004	0.0138	3.6900e-003	9.0000e-004	4.5800e-003		42.1081	42.1081	1.4000e-003	6.0700e-003	43.9531
Worker	0.0296	0.0223	0.2891	7.7000e-004	0.0894	5.7000e-004	0.0900	0.0237	5.3000e-004	0.0242		78.3043	78.3043	2.2800e-003	2.1400e-003	78.9987
Total	**0.0335**	**0.1243**	**0.3238**	**1.1600e-003**	**0.1022**	**1.5100e-003**	**0.1037**	**0.0274**	**1.4300e-003**	**0.0288**		**120.4124**	**120.4124**	**3.6800e-003**	**8.2100e-003**	**122.9517**

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Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6801	0.0000	0.6801	0.0734	0.0000	0.0734			0.0000			0.0000
Off-Road	1.4869	16.4656	10.1152	0.0295		0.5998	0.5998		0.5518	0.5518	0.0000	2,851.0984	2,851.0984	0.9221		2,874.1509
Total	**1.4869**	**16.4656**	**10.1152**	**0.0295**	**0.6801**	**0.5998**	**1.2798**	**0.0734**	**0.5518**	**0.6252**	**0.0000**	**2,851.0984**	**2,851.0984**	**0.9221**		**2,874.1509**

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	3.8900e-003	0.1020	0.0348	3.9000e-004	0.0120	9.4000e-004	0.0129	3.4900e-003	9.0000e-004	4.3800e-003		42.1081	42.1081	1.4000e-003	6.0700e-003	43.9531
Worker	0.0296	0.0223	0.2891	7.7000e-004	0.0824	5.7000e-004	0.0830	0.0220	5.3000e-004	0.0225		78.3043	78.3043	2.2800e-003	2.1400e-003	78.9987
Total	**0.0335**	**0.1243**	**0.3238**	**1.1600e-003**	**0.0944**	**1.5100e-003**	**0.0959**	**0.0255**	**1.4300e-003**	**0.0269**		**120.4124**	**120.4124**	**3.6800e-003**	**8.2100e-003**	**122.9517**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Rough Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1431	0.0000	8.1431	3.5393	0.0000	3.5393			0.0000			0.0000
Off-Road	2.7387	29.3482	20.1327	0.0490		1.2253	1.2253		1.1272	1.1272		4,739.5873	4,739.5873	1.5329		4,777.9092
Total	**2.7387**	**29.3482**	**20.1327**	**0.0490**	**8.1431**	**1.2253**	**9.3684**	**3.5393**	**1.1272**	**4.6665**		**4,739.5873**	**4,739.5873**	**1.5329**		**4,777.9092**

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	3.8900e-003	0.1020	0.0348	3.9000e-004	0.0128	9.4000e-004	0.0138	3.6900e-003	9.0000e-004	4.5800e-003		42.1081	42.1081	1.4000e-003	6.0700e-003	43.9531
Worker	0.0667	0.0502	0.6505	1.7400e-003	0.2012	1.2900e-003	0.2025	0.0534	1.1900e-003	0.0545		176.1846	176.1846	5.1300e-003	4.8100e-003	177.7470
Total	**0.0706**	**0.1523**	**0.6852**	**2.1300e-003**	**0.2140**	**2.2300e-003**	**0.2162**	**0.0571**	**2.0900e-003**	**0.0591**		**218.2927**	**218.2927**	**6.5300e-003**	**0.0109**	**221.7001**

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Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4812	0.0000	3.4812	1.5130	0.0000	1.5130			0.0000			0.0000
Off-Road	2.7387	29.3482	20.1327	0.0490		1.2253	1.2253		1.1272	1.1272	0.0000	4,739.5873	4,739.5873	1.5329		4,777.9092
Total	**2.7387**	**29.3482**	**20.1327**	**0.0490**	**3.4812**	**1.2253**	**4.7064**	**1.5130**	**1.1272**	**2.6403**	**0.0000**	**4,739.5873**	**4,739.5873**	**1.5329**		**4,777.9092**

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	3.8900e-003	0.1020	0.0348	3.9000e-004	0.0120	9.4000e-004	0.0129	3.4900e-003	9.0000e-004	4.3800e-003		42.1081	42.1081	1.4000e-003	6.0700e-003	43.9531
Worker	0.0667	0.0502	0.6505	1.7400e-003	0.1855	1.2900e-003	0.1867	0.0495	1.1900e-003	0.0507		176.1846	176.1846	5.1300e-003	4.8100e-003	177.7470
Total	**0.0706**	**0.1523**	**0.6852**	**2.1300e-003**	**0.1975**	**2.2300e-003**	**0.1997**	**0.0530**	**2.0900e-003**	**0.0551**		**218.2927**	**218.2927**	**6.5300e-003**	**0.0109**	**221.7001**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Rough Grading Soil Haul - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0697	0.0000	0.0697	0.0106	0.0000	0.0106			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0697**	**0.0000**	**0.0697**	**0.0106**	**0.0000**	**0.0106**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	0.3851	14.7260	3.4016	0.0522	1.4662	0.1048	1.5710	0.4020	0.1003	0.5023		5,716.7557	5,716.7557	0.3027	0.9071	5,994.6261
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	0.0000	0.0000	0.0000	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	**0.3851**	**14.7260**	**3.4016**	**0.0522**	**1.4662**	**0.1048**	**1.5710**	**0.4020**	**0.1003**	**0.5023**		**5,716.7557**	**5,716.7557**	**0.3027**	**0.9071**	**5,994.6261**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0298	0.0000	0.0298	4.5100e-003	0.0000	4.5100e-003			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0298**	**0.0000**	**0.0298**	**4.5100e-003**	**0.0000**	**4.5100e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	0.3851	14.7260	3.4016	0.0522	1.3665	0.1048	1.4713	0.3775	0.1003	0.4778		5,716.7557	5,716.7557	0.3027	0.9071	5,994.6261
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	0.0000	0.0000	0.0000	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	**0.3851**	**14.7260**	**3.4016**	**0.0522**	**1.3665**	**0.1048**	**1.4713**	**0.3775**	**0.1003**	**0.4778**		**5,716.7557**	**5,716.7557**	**0.3027**	**0.9071**	**5,994.6261**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Utility Trenching - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9542	7.5687	5.9861	0.0178		0.3170	0.3170		0.2951	0.2951		1,664.3091	1,664.3091	0.5051		1,676.9377
Total	**0.9542**	**7.5687**	**5.9861**	**0.0178**		**0.3170**	**0.3170**		**0.2951**	**0.2951**		**1,664.3091**	**1,664.3091**	**0.5051**		**1,676.9377**

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	7.7800e-003	0.2040	0.0695	7.8000e-004	0.0256	1.8700e-003	0.0275	7.3800e-003	1.7900e-003	9.1700e-003		84.2163	84.2163	2.8000e-003	0.0122	87.9061
Worker	0.0741	0.0558	0.7227	1.9400e-003	0.2236	1.4300e-003	0.2250	0.0593	1.3200e-003	0.0606		195.7606	195.7606	5.7000e-003	5.3500e-003	197.4967
Total	**0.0819**	**0.2598**	**0.7922**	**2.7200e-003**	**0.2492**	**3.3000e-003**	**0.2525**	**0.0667**	**3.1100e-003**	**0.0698**		**279.9769**	**279.9769**	**8.5000e-003**	**0.0175**	**285.4028**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9542	7.5687	5.9861	0.0178		0.3170	0.3170		0.2951	0.2951	0.0000	1,664.3091	1,664.3091	0.5051		1,676.9377
Total	**0.9542**	**7.5687**	**5.9861**	**0.0178**		**0.3170**	**0.3170**		**0.2951**	**0.2951**	**0.0000**	**1,664.3091**	**1,664.3091**	**0.5051**		**1,676.9377**

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	7.7800e-003	0.2040	0.0695	7.8000e-004	0.0240	1.8700e-003	0.0259	6.9700e-003	1.7900e-003	8.7700e-003		84.2163	84.2163	2.8000e-003	0.0122	87.9061
Worker	0.0741	0.0558	0.7227	1.9400e-003	0.2061	1.4300e-003	0.2075	0.0550	1.3200e-003	0.0563		195.7606	195.7606	5.7000e-003	5.3500e-003	197.4967
Total	**0.0819**	**0.2598**	**0.7922**	**2.7200e-003**	**0.2300**	**3.3000e-003**	**0.2333**	**0.0620**	**3.1100e-003**	**0.0651**		**279.9769**	**279.9769**	**8.5000e-003**	**0.0175**	**285.4028**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.8 Fine Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.4500	3.9516	2.6276	9.2600e-003		0.1412	0.1412		0.1333	0.1333		841.1197	841.1197	0.2389		847.0925
Total	**0.4500**	**3.9516**	**2.6276**	**9.2600e-003**	**0.0000**	**0.1412**	**0.1412**	**0.0000**	**0.1333**	**0.1333**		**841.1197**	**841.1197**	**0.2389**		**847.0925**

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	0.0117	0.3060	0.1043	1.1800e-003	0.0384	2.8100e-003	0.0412	0.0111	2.6900e-003	0.0138		126.3244	126.3244	4.2100e-003	0.0182	131.8592
Worker	0.0556	0.0419	0.5421	1.4500e-003	0.1677	1.0700e-003	0.1687	0.0445	9.9000e-004	0.0455		146.8205	146.8205	4.2700e-003	4.0100e-003	148.1225
Total	**0.0672**	**0.3479**	**0.6463**	**2.6300e-003**	**0.2061**	**3.8800e-003**	**0.2100**	**0.0555**	**3.6800e-003**	**0.0592**		**273.1449**	**273.1449**	**8.4800e-003**	**0.0222**	**279.9817**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.4500	3.9516	2.6276	9.2600e-003		0.1412	0.1412		0.1333	0.1333	0.0000	841.1197	841.1197	0.2389		847.0925
Total	**0.4500**	**3.9516**	**2.6276**	**9.2600e-003**	**0.0000**	**0.1412**	**0.1412**	**0.0000**	**0.1333**	**0.1333**	**0.0000**	**841.1197**	**841.1197**	**0.2389**		**847.0925**

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	0.0117	0.3060	0.1043	1.1800e-003	0.0360	2.8100e-003	0.0388	0.0105	2.6900e-003	0.0132		126.3244	126.3244	4.2100e-003	0.0182	131.8592
Worker	0.0556	0.0419	0.5421	1.4500e-003	0.1546	1.0700e-003	0.1556	0.0413	9.9000e-004	0.0422		146.8205	146.8205	4.2700e-003	4.0100e-003	148.1225
Total	**0.0672**	**0.3479**	**0.6463**	**2.6300e-003**	**0.1905**	**3.8800e-003**	**0.1944**	**0.0517**	**3.6800e-003**	**0.0554**		**273.1449**	**273.1449**	**8.4800e-003**	**0.0222**	**279.9817**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.9 Fine Grading Soil Haul - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1131	0.0000	0.1131	0.0171	0.0000	0.0171			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.1131**	**0.0000**	**0.1131**	**0.0171**	**0.0000**	**0.0171**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	0.6242	23.8679	5.5133	0.0846	2.3764	0.1699	2.5462	0.6515	0.1625	0.8141		9,265.6831	9,265.6831	0.4906	1.4702	9,716.0537
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	0.0000	0.0000	0.0000	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	**0.6242**	**23.8679**	**5.5133**	**0.0846**	**2.3764**	**0.1699**	**2.5462**	**0.6515**	**0.1625**	**0.8141**		**9,265.6831**	**9,265.6831**	**0.4906**	**1.4702**	**9,716.0537**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0484	0.0000	0.0484	7.3200e-003	0.0000	7.3200e-003			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0484**	**0.0000**	**0.0484**	**7.3200e-003**	**0.0000**	**7.3200e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	0.6242	23.8679	5.5133	0.0846	2.2148	0.1699	2.3847	0.6119	0.1625	0.7744		9,265.6831	9,265.6831	0.4906	1.4702	9,716.0537
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	0.0000	0.0000	0.0000	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	**0.6242**	**23.8679**	**5.5133**	**0.0846**	**2.2148**	**0.1699**	**2.3847**	**0.6119**	**0.1625**	**0.7744**		**9,265.6831**	**9,265.6831**	**0.4906**	**1.4702**	**9,716.0537**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.10 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**		**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

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	5.8300e-003	0.1530	0.0521	5.9000e-004	0.0192	1.4000e-003	0.0206	5.5300e-003	1.3400e-003	6.8800e-003		63.1622	63.1622	2.1000e-003	9.1100e-003	65.9296
Worker	0.2222	0.1675	2.1682	5.8100e-003	0.6707	4.2900e-003	0.6750	0.1779	3.9500e-003	0.1818		587.2819	587.2819	0.0171	0.0160	592.4901
Total	**0.2281**	**0.3205**	**2.2203**	**6.4000e-003**	**0.6899**	**5.6900e-003**	**0.6956**	**0.1834**	**5.2900e-003**	**0.1887**		**650.4441**	**650.4441**	**0.0192**	**0.0252**	**658.4197**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**	**0.0000**	**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

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	5.8300e-003	0.1530	0.0521	5.9000e-004	0.0180	1.4000e-003	0.0194	5.2300e-003	1.3400e-003	6.5700e-003		63.1622	63.1622	2.1000e-003	9.1100e-003	65.9296
Worker	0.2222	0.1675	2.1682	5.8100e-003	0.6182	4.2900e-003	0.6225	0.1650	3.9500e-003	0.1689		587.2819	587.2819	0.0171	0.0160	592.4901
Total	**0.2281**	**0.3205**	**2.2203**	**6.4000e-003**	**0.6362**	**5.6900e-003**	**0.6419**	**0.1702**	**5.2900e-003**	**0.1755**		**650.4441**	**650.4441**	**0.0192**	**0.0252**	**658.4197**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.10 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	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880		2,289.5233	2,289.5233	0.4330		2,300.3479
Total	**1.7136**	**13.6239**	**14.2145**	**0.0250**		**0.6136**	**0.6136**		**0.5880**	**0.5880**		**2,289.5233**	**2,289.5233**	**0.4330**		**2,300.3479**

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	3.3400e-003	0.1206	0.0460	5.6000e-004	0.0192	5.8000e-004	0.0198	5.5300e-003	5.6000e-004	6.0900e-003		60.1861	60.1861	2.0000e-003	8.6600e-003	62.8173
Worker	0.2063	0.1479	1.9931	5.6200e-003	0.6707	4.0300e-003	0.6747	0.1779	3.7100e-003	0.1816		568.4122	568.4122	0.0153	0.0148	573.2034
Total	**0.2096**	**0.2684**	**2.0391**	**6.1800e-003**	**0.6899**	**4.6100e-003**	**0.6945**	**0.1834**	**4.2700e-003**	**0.1877**		**628.5983**	**628.5983**	**0.0173**	**0.0235**	**636.0208**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880	0.0000	2,289.5233	2,289.5233	0.4330		2,300.3479
Total	**1.7136**	**13.6239**	**14.2145**	**0.0250**		**0.6136**	**0.6136**		**0.5880**	**0.5880**	**0.0000**	**2,289.5233**	**2,289.5233**	**0.4330**		**2,300.3479**

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	3.3400e-003	0.1206	0.0460	5.6000e-004	0.0180	5.8000e-004	0.0186	5.2300e-003	5.6000e-004	5.7900e-003		60.1861	60.1861	2.0000e-003	8.6600e-003	62.8173
Worker	0.2063	0.1479	1.9931	5.6200e-003	0.6182	4.0300e-003	0.6222	0.1650	3.7100e-003	0.1687		568.4122	568.4122	0.0153	0.0148	573.2034
Total	**0.2096**	**0.2684**	**2.0391**	**6.1800e-003**	**0.6362**	**4.6100e-003**	**0.6408**	**0.1702**	**4.2700e-003**	**0.1745**		**628.5983**	**628.5983**	**0.0173**	**0.0235**	**636.0208**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.11 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	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003		1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.1425					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0227**	**8.6098**	**11.6840**	**0.0179**		**0.4338**	**0.4338**		**0.4003**	**0.4003**		**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

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	0.0516	0.0370	0.4983	1.4100e-003	0.1677	1.0100e-003	0.1687	0.0445	9.3000e-004	0.0454		142.1030	142.1030	3.8300e-003	3.7000e-003	143.3009
Total	**0.0516**	**0.0370**	**0.4983**	**1.4100e-003**	**0.1677**	**1.0100e-003**	**0.1687**	**0.0445**	**9.3000e-004**	**0.0454**		**142.1030**	**142.1030**	**3.8300e-003**	**3.7000e-003**	**143.3009**

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Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003	0.0000	1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.1425					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0227**	**8.6098**	**11.6840**	**0.0179**		**0.4338**	**0.4338**		**0.4003**	**0.4003**	**0.0000**	**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

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	0.0516	0.0370	0.4983	1.4100e-003	0.1546	1.0100e-003	0.1556	0.0413	9.3000e-004	0.0422		142.1030	142.1030	3.8300e-003	3.7000e-003	143.3009
Total	**0.0516**	**0.0370**	**0.4983**	**1.4100e-003**	**0.1546**	**1.0100e-003**	**0.1556**	**0.0413**	**9.3000e-004**	**0.0422**		**142.1030**	**142.1030**	**3.8300e-003**	**3.7000e-003**	**143.3009**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.12 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	37.5429					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**37.7346**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0413	0.0296	0.3986	1.1200e-003	0.1341	8.1000e-004	0.1349	0.0356	7.4000e-004	0.0363		113.6824	113.6824	3.0700e-003	2.9600e-003	114.6407
Total	**0.0413**	**0.0296**	**0.3986**	**1.1200e-003**	**0.1341**	**8.1000e-004**	**0.1349**	**0.0356**	**7.4000e-004**	**0.0363**		**113.6824**	**113.6824**	**3.0700e-003**	**2.9600e-003**	**114.6407**

Washington and Rosemead Mixed-Use Project Mitigated Construction Run - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	37.5429					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**37.7346**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0413	0.0296	0.3986	1.1200e-003	0.1236	8.1000e-004	0.1244	0.0330	7.4000e-004	0.0337		113.6824	113.6824	3.0700e-003	2.9600e-003	114.6407
Total	**0.0413**	**0.0296**	**0.3986**	**1.1200e-003**	**0.1236**	**8.1000e-004**	**0.1244**	**0.0330**	**7.4000e-004**	**0.0337**		**113.6824**	**113.6824**	**3.0700e-003**	**2.9600e-003**	**114.6407**

CalEEMod Operations Model

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Annual

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

Washington and Rosemead Mixed Use Project Operations Run

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	190.00	1000sqft	0.34	190,000.00	0
Other Asphalt Surfaces	45.00	1000sqft	1.03	45,000.00	0
Other Non-Asphalt Surfaces	21.00	1000sqft	0.48	21,000.00	0
High Turnover (Sit Down Restaurant)	2.87	1000sqft	0.00	2,865.00	0
Recreational Swimming Pool	17.50	1000sqft	0.00	17,500.00	0
Apartments Mid Rise	255.00	Dwelling Unit	0.99	260,220.00	729
Regional Shopping Center	2.87	1000sqft	0.00	2,865.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Pico Rivera Innovative Municipal Energy				
CO2 Intensity (lb/MWhr)	683.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - based on data provided by the applicant

Construction Phase -

Vehicle Trips - residential VMT provided by LLG, no trips associated with the swimming pool, assuming sat/sun trips are the same as weekday trips

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Annual

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

Woodstoves - assumes 3 barbecue grills operating for 3 hours each on weekends

Area Coating - residential area includes swimming pool, non-residential includes coating of the parking structure

Energy Use -

Water And Wastewater - Assumes 100% aerobic treatment.

Water Mitigation -

Fleet Mix - see fleet mix adjustment for apartments in assumptions file

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	11615	97865
tblAreaCoating	Area_Nonresidential_Interior	34845	293595
tblAreaCoating	Area_Parking	15360	11400
tblAreaCoating	Area_Residential_Exterior	175649	187461
tblAreaCoating	Area_Residential_Interior	526946	562383
tblFireplaces	FireplaceDayYear	25.00	104.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	216.75	3.00
tblFireplaces	NumberNoFireplace	25.50	252.00
tblFireplaces	NumberWood	12.75	0.00
tblFleetMix	HHD	8.0120e-003	1.5490e-003
tblFleetMix	LDA	0.54	0.64
tblFleetMix	LDT1	0.06	0.07
tblFleetMix	LDT2	0.19	0.22
tblFleetMix	LHD1	0.02	4.4630e-003
tblFleetMix	LHD2	6.0830e-003	1.1760e-003
tblFleetMix	MCY	0.02	0.03
tblFleetMix	MDV	0.13	0.02
tblFleetMix	MH	3.3740e-003	6.5200e-004
tblFleetMix	MHD	0.01	2.0250e-003
tblFleetMix	OBUS	9.2500e-004	0.00
tblFleetMix	SBUS	6.9800e-004	1.3500e-004

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Annual

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

tblFleetMix	UBUS	6.1100e-004	0.00
tblLandUse	LandUseSquareFeet	2,870.00	2,865.00
tblLandUse	LandUseSquareFeet	255,000.00	260,220.00
tblLandUse	LandUseSquareFeet	2,870.00	2,865.00
tblLandUse	LotAcreage	4.36	0.34
tblLandUse	LotAcreage	0.07	0.00
tblLandUse	LotAcreage	0.40	0.00
tblLandUse	LotAcreage	6.71	0.99
tblLandUse	LotAcreage	0.07	0.00
tblSolidWaste	SolidWasteGenerationRate	34.15	32.73
tblSolidWaste	SolidWasteGenerationRate	99.75	76.95
tblSolidWaste	SolidWasteGenerationRate	3.01	2.89
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	HO_TL	8.70	10.08
tblVehicleTrips	HS_TL	5.90	10.08
tblVehicleTrips	HW_TL	14.70	10.08
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00
tblVehicleTrips	ST_TR	4.91	4.57
tblVehicleTrips	ST_TR	122.40	110.47
tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	ST_TR	46.12	39.27
tblVehicleTrips	SU_TR	4.09	4.57

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tblVehicleTrips	SU_TR	142.64	110.47
tblVehicleTrips	SU_TR	13.60	0.00
tblVehicleTrips	SU_TR	21.10	39.27
tblVehicleTrips	WD_TR	5.44	4.57
tblVehicleTrips	WD_TR	112.18	110.47
tblVehicleTrips	WD_TR	28.82	0.00
tblVehicleTrips	WD_TR	37.75	39.27
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	871,141.75	834,717.71
tblWater	IndoorWaterUseRate	1,035,005.02	798,432.44
tblWater	IndoorWaterUseRate	212,588.14	203,699.43
tblWater	OutdoorWaterUseRate	55,604.79	53,279.85
tblWater	OutdoorWaterUseRate	634,357.92	489,361.82
tblWater	OutdoorWaterUseRate	130,295.95	124,848.04
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	12.75	0.00
tblWoodstoves	NumberNoncatalytic	12.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

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2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.3009	0.0329	2.6350	1.6000e-004		0.0148	0.0148		0.0148	0.0148	0.0000	7.2995	7.2995	4.2100e-003	5.0000e-005	7.4210
Energy	0.0216	0.1861	0.0927	1.1800e-003		0.0149	0.0149		0.0149	0.0149	0.0000	888.5564	888.5564	0.0367	7.8600e-003	891.8152
Mobile	0.9478	0.8135	9.7565	0.0188	2.1191	0.0136	2.1327	0.5632	0.0126	0.5758	0.0000	1,751.0031	1,751.0031	0.1199	0.0658	1,773.5962
Waste						0.0000	0.0000		0.0000	0.0000	46.6615	0.0000	46.6615	2.7576	0.0000	115.6020
Water						0.0000	0.0000		0.0000	0.0000	6.5280	112.9416	119.4697	0.0279	0.0149	124.5950
Total	**2.2703**	**1.0325**	**12.4841**	**0.0202**	**2.1191**	**0.0433**	**2.1624**	**0.5632**	**0.0422**	**0.6054**	**53.1896**	**2,759.8006**	**2,812.9902**	**2.9464**	**0.0885**	**2,913.0293**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.3009	0.0329	2.6350	1.6000e-004		0.0148	0.0148		0.0148	0.0148	0.0000	7.2995	7.2995	4.2100e-003	5.0000e-005	7.4210
Energy	0.0216	0.1861	0.0927	1.1800e-003		0.0149	0.0149		0.0149	0.0149	0.0000	888.5564	888.5564	0.0367	7.8600e-003	891.8152
Mobile	0.9478	0.8135	9.7565	0.0188	2.1191	0.0136	2.1327	0.5632	0.0126	0.5758	0.0000	1,751.0031	1,751.0031	0.1199	0.0658	1,773.5962
Waste						0.0000	0.0000		0.0000	0.0000	46.6615	0.0000	46.6615	2.7576	0.0000	115.6020
Water						0.0000	0.0000		0.0000	0.0000	5.2224	95.6914	100.9139	0.0226	0.0119	105.0298
Total	**2.2703**	**1.0325**	**12.4841**	**0.0202**	**2.1191**	**0.0433**	**2.1624**	**0.5632**	**0.0422**	**0.6054**	**51.8840**	**2,742.5504**	**2,794.4344**	**2.9410**	**0.0856**	**2,893.4642**

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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**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.45**	**0.63**	**0.66**	**0.18**	**3.32**	**0.67**

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	0.9478	0.8135	9.7565	0.0188	2.1191	0.0136	2.1327	0.5632	0.0126	0.5758	0.0000	1,751.0031	1,751.0031	0.1199	0.0658	1,773.5962
Unmitigated	0.9478	0.8135	9.7565	0.0188	2.1191	0.0136	2.1327	0.5632	0.0126	0.5758	0.0000	1,751.0031	1,751.0031	0.1199	0.0658	1,773.5962

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,165.35	1,165.35	1165.35	4,275,809	4,275,809
Enclosed Parking with Elevator	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	317.05	317.05	317.05	1,016,956	1,016,956
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Recreational Swimming Pool	0.00	0.00	0.00		
Regional Shopping Center	112.70	112.70	112.70	387,748	387,748
Total	1,595.10	1,595.10	1,595.10	5,680,513	5,680,513

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4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.08	10.08	10.08	40.20	19.20	40.60	100	0	0
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
High Turnover (Sit Down Restaurant)	16.60	8.40	6.90	8.50	72.50	19.00	100	0	0
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Recreational Swimming Pool	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.644264	0.074319	0.221712	0.020000	0.004463	0.001176	0.002025	0.001549	0.000000	0.000000	0.029705	0.000135	0.000652
Enclosed Parking with Elevator	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
High Turnover (Sit Down Restaurant)	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Other Asphalt Surfaces	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Other Non-Asphalt Surfaces	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Recreational Swimming Pool	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Regional Shopping Center	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

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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	675.2855	675.2855	0.0326	3.9500e-003	677.2769
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	675.2855	675.2855	0.0326	3.9500e-003	677.2769
NaturalGas Mitigated	0.0216	0.1861	0.0927	1.1800e-003		0.0149	0.0149		0.0149	0.0149	0.0000	213.2709	213.2709	4.0900e-003	3.9100e-003	214.5383
NaturalGas Unmitigated	0.0216	0.1861	0.0927	1.1800e-003		0.0149	0.0149		0.0149	0.0149	0.0000	213.2709	213.2709	4.0900e-003	3.9100e-003	214.5383

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	3.33198e+006	0.0180	0.1535	0.0653	9.8000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	177.8072	177.8072	3.4100e-003	3.2600e-003	178.8638
Enclosed Parking with Elevator	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
High Turnover (Sit Down Restaurant)	659895	3.5600e-003	0.0324	0.0272	1.9000e-004		2.4600e-003	2.4600e-003		2.4600e-003	2.4600e-003	0.0000	35.2145	35.2145	6.7000e-004	6.5000e-004	35.4238
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	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
Regional Shopping Center	4669.95	3.0000e-005	2.3000e-004	1.9000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2492	0.2492	0.0000	0.0000	0.2507
Total		**0.0216**	**0.1861**	**0.0927**	**1.1700e-003**		**0.0149**	**0.0149**		**0.0149**	**0.0149**	**0.0000**	**213.2709**	**213.2709**	**4.0800e-003**	**3.9100e-003**	**214.5383**

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Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	3.33198e+006	0.0180	0.1535	0.0653	9.8000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	177.8072	177.8072	3.4100e-003	3.2600e-003	178.8638
Enclosed Parking with Elevator	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
High Turnover (Sit Down Restaurant)	659895	3.5600e-003	0.0324	0.0272	1.9000e-004		2.4600e-003	2.4600e-003		2.4600e-003	2.4600e-003	0.0000	35.2145	35.2145	6.7000e-004	6.5000e-004	35.4238
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	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
Regional Shopping Center	4669.95	3.0000e-005	2.3000e-004	1.9000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2492	0.2492	0.0000	0.0000	0.2507
Total		**0.0216**	**0.1861**	**0.0927**	**1.1700e-003**		**0.0149**	**0.0149**		**0.0149**	**0.0149**	**0.0000**	**213.2709**	**213.2709**	**4.0800e-003**	**3.9100e-003**	**214.5383**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	981584	304.5347	0.0147	1.7800e-003	305.4327
Enclosed Parking with Elevator	1.0336e+006	320.6725	0.0155	1.8800e-003	321.6181
High Turnover (Sit Down Restaurant)	123969	38.4610	1.8600e-003	2.2000e-004	38.5744
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	37445.6	11.6174	5.6000e-004	7.0000e-005	11.6517
Total		**675.2855**	**0.0326**	**3.9500e-003**	**677.2769**

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Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	981584	304.5347	0.0147	1.7800e-003	305.4327
Enclosed Parking with Elevator	1.0336e+006	320.6725	0.0155	1.8800e-003	321.6181
High Turnover (Sit Down Restaurant)	123969	38.4610	1.8600e-003	2.2000e-004	38.5744
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	37445.6	11.6174	5.6000e-004	7.0000e-005	11.6517
Total		**675.2855**	**0.0326**	**3.9500e-003**	**677.2769**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.3009	0.0329	2.6350	1.6000e-004		0.0148	0.0148		0.0148	0.0148	0.0000	7.2995	7.2995	4.2100e-003	5.0000e-005	7.4210
Unmitigated	1.3009	0.0329	2.6350	1.6000e-004		0.0148	0.0148		0.0148	0.0148	0.0000	7.2995	7.2995	4.2100e-003	5.0000e-005	7.4210

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6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1803					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0408					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.0000e-004	2.5900e-003	1.1000e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	2.9969	2.9969	6.0000e-005	5.0000e-005	3.0147
Landscaping	0.0796	0.0304	2.6339	1.4000e-004		0.0146	0.0146		0.0146	0.0146	0.0000	4.3025	4.3025	4.1500e-003	0.0000	4.4063
Total	**1.3009**	**0.0329**	**2.6350**	**1.6000e-004**		**0.0148**	**0.0148**		**0.0148**	**0.0148**	**0.0000**	**7.2995**	**7.2995**	**4.2100e-003**	**5.0000e-005**	**7.4210**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1803					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0408					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.0000e-004	2.5900e-003	1.1000e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	2.9969	2.9969	6.0000e-005	5.0000e-005	3.0147
Landscaping	0.0796	0.0304	2.6339	1.4000e-004		0.0146	0.0146		0.0146	0.0146	0.0000	4.3025	4.3025	4.1500e-003	0.0000	4.4063
Total	**1.3009**	**0.0329**	**2.6350**	**1.6000e-004**		**0.0148**	**0.0148**		**0.0148**	**0.0148**	**0.0000**	**7.2995**	**7.2995**	**4.2100e-003**	**5.0000e-005**	**7.4210**

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7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	100.9139	0.0226	0.0119	105.0298
Unmitigated	119.4697	0.0279	0.0149	124.5950

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	16.6143 / 10.4742	109.0987	0.0252	0.0134	113.7182
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	0.834718 / 0.0532798	3.8510	1.1900e-003	6.6000e-004	4.0783
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0.798432 / 0.489362	5.1947	1.2100e-003	6.4000e-004	5.4166
Regional Shopping Center	0.203699 / 0.124848	1.3253	3.1000e-004	1.6000e-004	1.3819
Total		**119.4697**	**0.0279**	**0.0149**	**124.5950**

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

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	13.2914 / 9.83529	92.2973	0.0204	0.0107	96.0077
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	0.667774 / 0.0500298	3.1063	9.5000e-004	5.3000e-004	3.2882
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0.638746 / 0.459511	4.3902	9.8000e-004	5.2000e-004	4.5684
Regional Shopping Center	0.16296 / 0.117232	1.1201	2.5000e-004	1.3000e-004	1.1655
Total		**100.9139**	**0.0226**	**0.0119**	**105.0298**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	46.6615	2.7576	0.0000	115.6020
Unmitigated	46.6615	2.7576	0.0000	115.6020

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Annual

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	117.3	23.8108	1.4072	0.0000	58.9904
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	32.73	6.6439	0.3926	0.0000	16.4600
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	76.95	15.6202	0.9231	0.0000	38.6983
Regional Shopping Center	2.89	0.5866	0.0347	0.0000	1.4534
Total		**46.6615**	**2.7576**	**0.0000**	**115.6020**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	117.3	23.8108	1.4072	0.0000	58.9904
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	32.73	6.6439	0.3926	0.0000	16.4600
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	76.95	15.6202	0.9231	0.0000	38.6983
Regional Shopping Center	2.89	0.5866	0.0347	0.0000	1.4534
Total		**46.6615**	**2.7576**	**0.0000**	**115.6020**

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Annual

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

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Summer

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

Washington and Rosemead Mixed Use Project Operations Run

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	190.00	1000sqft	0.34	190,000.00	0
Other Asphalt Surfaces	45.00	1000sqft	1.03	45,000.00	0
Other Non-Asphalt Surfaces	21.00	1000sqft	0.48	21,000.00	0
High Turnover (Sit Down Restaurant)	2.87	1000sqft	0.00	2,865.00	0
Recreational Swimming Pool	17.50	1000sqft	0.00	17,500.00	0
Apartments Mid Rise	255.00	Dwelling Unit	0.99	260,220.00	729
Regional Shopping Center	2.87	1000sqft	0.00	2,865.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Pico Rivera Innovative Municipal Energy				
CO2 Intensity (lb/MWhr)	683.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - based on data provided by the applicant

Construction Phase -

Vehicle Trips - residential VMT provided by LLG, no trips associated with the swimming pool, assuming sat/sun trips are the same as weekday trips

Vehicle Emission Factors -

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Summer

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

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - assumes 3 barbecue grills operating for 3 hours each on weekends

Area Coating - residential area includes swimming pool, non-residential includes coating of the parking structure

Energy Use -

Water And Wastewater - Assumes 100% aerobic treatment.

Water Mitigation -

Fleet Mix - see fleet mix adjustment for apartments in assumptions file

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	11615	97865
tblAreaCoating	Area_Nonresidential_Interior	34845	293595
tblAreaCoating	Area_Parking	15360	11400
tblAreaCoating	Area_Residential_Exterior	175649	187461
tblAreaCoating	Area_Residential_Interior	526946	562383
tblFireplaces	FireplaceDayYear	25.00	104.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	216.75	3.00
tblFireplaces	NumberNoFireplace	25.50	252.00
tblFireplaces	NumberWood	12.75	0.00
tblFleetMix	HHD	8.0120e-003	1.5490e-003
tblFleetMix	LDA	0.54	0.64
tblFleetMix	LDT1	0.06	0.07
tblFleetMix	LDT2	0.19	0.22
tblFleetMix	LHD1	0.02	4.4630e-003
tblFleetMix	LHD2	6.0830e-003	1.1760e-003
tblFleetMix	MCY	0.02	0.03
tblFleetMix	MDV	0.13	0.02
tblFleetMix	MH	3.3740e-003	6.5200e-004

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Summer

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

tblFleetMix	MHD	0.01	2.0250e-003
tblFleetMix	OBUS	9.2500e-004	0.00
tblFleetMix	SBUS	6.9800e-004	1.3500e-004
tblFleetMix	UBUS	6.1100e-004	0.00
tblLandUse	LandUseSquareFeet	2,870.00	2,865.00
tblLandUse	LandUseSquareFeet	255,000.00	260,220.00
tblLandUse	LandUseSquareFeet	2,870.00	2,865.00
tblLandUse	LotAcreage	4.36	0.34
tblLandUse	LotAcreage	0.07	0.00
tblLandUse	LotAcreage	0.40	0.00
tblLandUse	LotAcreage	6.71	0.99
tblLandUse	LotAcreage	0.07	0.00
tblSolidWaste	SolidWasteGenerationRate	34.15	32.73
tblSolidWaste	SolidWasteGenerationRate	99.75	76.95
tblSolidWaste	SolidWasteGenerationRate	3.01	2.89
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	HO_TL	8.70	10.08
tblVehicleTrips	HS_TL	5.90	10.08
tblVehicleTrips	HW_TL	14.70	10.08
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00
tblVehicleTrips	ST_TR	4.91	4.57

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Summer

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

tblVehicleTrips	ST_TR	122.40	110.47
tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	ST_TR	46.12	39.27
tblVehicleTrips	SU_TR	4.09	4.57
tblVehicleTrips	SU_TR	142.64	110.47
tblVehicleTrips	SU_TR	13.60	0.00
tblVehicleTrips	SU_TR	21.10	39.27
tblVehicleTrips	WD_TR	5.44	4.57
tblVehicleTrips	WD_TR	112.18	110.47
tblVehicleTrips	WD_TR	28.82	0.00
tblVehicleTrips	WD_TR	37.75	39.27
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	871,141.75	834,717.71
tblWater	IndoorWaterUseRate	1,035,005.02	798,432.44
tblWater	IndoorWaterUseRate	212,588.14	203,699.43
tblWater	OutdoorWaterUseRate	55,604.79	53,279.85
tblWater	OutdoorWaterUseRate	634,357.92	489,361.82
tblWater	OutdoorWaterUseRate	130,295.95	124,848.04
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Summer

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

tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	12.75	0.00
tblWoodstoves	NumberNoncatalytic	12.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.3331	0.2926	21.0922	1.4300e-003		0.1206	0.1206		0.1206	0.1206	0.0000	101.4714	101.4714	0.0378	1.1600e-003	102.7636
Energy	0.1181	1.0198	0.5079	6.4400e-003		0.0816	0.0816		0.0816	0.0816		1,288.1695	1,288.1695	0.0247	0.0236	1,295.8244
Mobile	5.3744	4.0206	54.3814	0.1073	11.8768	0.0748	11.9515	3.1517	0.0691	3.2208		11,007.4857	11,007.4857	0.7081	0.3733	11,136.4293
Total	**12.8256**	**5.3330**	**75.9815**	**0.1152**	**11.8768**	**0.2769**	**12.1537**	**3.1517**	**0.2713**	**3.4229**	**0.0000**	**12,397.1265**	**12,397.1265**	**0.7706**	**0.3981**	**12,535.0173**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.3331	0.2926	21.0922	1.4300e-003		0.1206	0.1206		0.1206	0.1206	0.0000	101.4714	101.4714	0.0378	1.1600e-003	102.7636
Energy	0.1181	1.0198	0.5079	6.4400e-003		0.0816	0.0816		0.0816	0.0816		1,288.1695	1,288.1695	0.0247	0.0236	1,295.8244
Mobile	5.3744	4.0206	54.3814	0.1073	11.8768	0.0748	11.9515	3.1517	0.0691	3.2208		11,007.4857	11,007.4857	0.7081	0.3733	11,136.4293
Total	**12.8256**	**5.3330**	**75.9815**	**0.1152**	**11.8768**	**0.2769**	**12.1537**	**3.1517**	**0.2713**	**3.4229**	**0.0000**	**12,397.1265**	**12,397.1265**	**0.7706**	**0.3981**	**12,535.0173**

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.3744	4.0206	54.3814	0.1073	11.8768	0.0748	11.9515	3.1517	0.0691	3.2208		11,007.485	11,007.485	0.7081	0.3733	11,136.429
Unmitigated	5.3744	4.0206	54.3814	0.1073	11.8768	0.0748	11.9515	3.1517	0.0691	3.2208		11,007.485	11,007.485	0.7081	0.3733	11,136.429

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,165.35	1,165.35	1165.35	4,275,809	4,275,809
Enclosed Parking with Elevator	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	317.05	317.05	317.05	1,016,956	1,016,956
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Recreational Swimming Pool	0.00	0.00	0.00		
Regional Shopping Center	112.70	112.70	112.70	387,748	387,748
Total	1,595.10	1,595.10	1,595.10	5,680,513	5,680,513

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.08	10.08	10.08	40.20	19.20	40.60	100	0	0
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	100	0	0
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Recreational Swimming Pool	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	100	0	0

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Summer

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

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.644264	0.074319	0.221712	0.020000	0.004463	0.001176	0.002025	0.001549	0.000000	0.000000	0.029705	0.000135	0.000652
Enclosed Parking with Elevator	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
High Turnover (Sit Down Restaurant)	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Other Asphalt Surfaces	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Other Non-Asphalt Surfaces	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Recreational Swimming Pool	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Regional Shopping Center	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

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	0.1181	1.0198	0.5079	6.4400e-003		0.0816	0.0816		0.0816	0.0816		1,288.1695	1,288.1695	0.0247	0.0236	1,295.8244
NaturalGas Unmitigated	0.1181	1.0198	0.5079	6.4400e-003		0.0816	0.0816		0.0816	0.0816		1,288.1695	1,288.1695	0.0247	0.0236	1,295.8244

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Summer

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	9128.71	0.0985	0.8413	0.3580	5.3700e-003		0.0680	0.0680		0.0680	0.0680		1,073.9663	1,073.9663	0.0206	0.0197	1,080.3484
Enclosed Parking with Elevator	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
High Turnover (Sit Down Restaurant)	1807.93	0.0195	0.1773	0.1489	1.0600e-003		0.0135	0.0135		0.0135	0.0135		212.6980	212.6980	4.0800e-003	3.9000e-003	213.9619
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	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
Regional Shopping Center	12.7944	1.4000e-004	1.2500e-003	1.0500e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		1.5052	1.5052	3.0000e-005	3.0000e-005	1.5142
Total		**0.1181**	**1.0198**	**0.5079**	**6.4400e-003**		**0.0816**	**0.0816**		**0.0816**	**0.0816**		**1,288.1695**	**1,288.1695**	**0.0247**	**0.0236**	**1,295.8245**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	9.12871	0.0985	0.8413	0.3580	5.3700e-003		0.0680	0.0680		0.0680	0.0680		1,073.9663	1,073.9663	0.0206	0.0197	1,080.3484
Enclosed Parking with Elevator	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
High Turnover (Sit Down Restaurant)	1.80793	0.0195	0.1773	0.1489	1.0600e-003		0.0135	0.0135		0.0135	0.0135		212.6980	212.6980	4.0800e-003	3.9000e-003	213.9619
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	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
Regional Shopping Center	0.0127944	1.4000e-004	1.2500e-003	1.0500e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		1.5052	1.5052	3.0000e-005	3.0000e-005	1.5142
Total		**0.1181**	**1.0198**	**0.5079**	**6.4400e-003**		**0.0816**	**0.0816**		**0.0816**	**0.0816**		**1,288.1695**	**1,288.1695**	**0.0247**	**0.0236**	**1,295.8245**

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Summer

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

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.3331	0.2926	21.0922	1.4300e-003		0.1206	0.1206		0.1206	0.1206	0.0000	101.4714	101.4714	0.0378	1.1600e-003	102.7636
Unmitigated	7.3331	0.2926	21.0922	1.4300e-003		0.1206	0.1206		0.1206	0.1206	0.0000	101.4714	101.4714	0.0378	1.1600e-003	102.7636

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	0.9877					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.7030					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	5.8200e-003	0.0498	0.0212	3.2000e-004		4.0200e-003	4.0200e-003		4.0200e-003	4.0200e-003	0.0000	63.5294	63.5294	1.2200e-003	1.1600e-003	63.9069
Landscaping	0.6366	0.2428	21.0710	1.1100e-003		0.1166	0.1166		0.1166	0.1166		37.9420	37.9420	0.0366		38.8566
Total	**7.3331**	**0.2926**	**21.0922**	**1.4300e-003**		**0.1206**	**0.1206**		**0.1206**	**0.1206**	**0.0000**	**101.4714**	**101.4714**	**0.0378**	**1.1600e-003**	**102.7636**

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Summer

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

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	0.9877					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.7030					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	5.8200e-003	0.0498	0.0212	3.2000e-004		4.0200e-003	4.0200e-003		4.0200e-003	4.0200e-003	0.0000	63.5294	63.5294	1.2200e-003	1.1600e-003	63.9069
Landscaping	0.6366	0.2428	21.0710	1.1100e-003		0.1166	0.1166		0.1166	0.1166		37.9420	37.9420	0.0366		38.8566
Total	**7.3331**	**0.2926**	**21.0922**	**1.4300e-003**		**0.1206**	**0.1206**		**0.1206**	**0.1206**	**0.0000**	**101.4714**	**101.4714**	**0.0378**	**1.1600e-003**	**102.7636**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

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

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Winter

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

Washington and Rosemead Mixed Use Project Operations Run

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	190.00	1000sqft	0.34	190,000.00	0
Other Asphalt Surfaces	45.00	1000sqft	1.03	45,000.00	0
Other Non-Asphalt Surfaces	21.00	1000sqft	0.48	21,000.00	0
High Turnover (Sit Down Restaurant)	2.87	1000sqft	0.00	2,865.00	0
Recreational Swimming Pool	17.50	1000sqft	0.00	17,500.00	0
Apartments Mid Rise	255.00	Dwelling Unit	0.99	260,220.00	729
Regional Shopping Center	2.87	1000sqft	0.00	2,865.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Pico Rivera Innovative Municipal Energy				
CO2 Intensity (lb/MWhr)	683.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - based on data provided by the applicant

Construction Phase -

Vehicle Trips - residential VMT provided by LLG, no trips associated with the swimming pool, assuming sat/sun trips are the same as weekday trips

Vehicle Emission Factors -

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Winter

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

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - assumes 3 barbecue grills operating for 3 hours each on weekends

Area Coating - residential area includes swimming pool, non-residential includes coating of the parking structure

Energy Use -

Water And Wastewater - Assumes 100% aerobic treatment.

Water Mitigation -

Fleet Mix - see fleet mix adjustment for apartments in assumptions file

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	11615	97865
tblAreaCoating	Area_Nonresidential_Interior	34845	293595
tblAreaCoating	Area_Parking	15360	11400
tblAreaCoating	Area_Residential_Exterior	175649	187461
tblAreaCoating	Area_Residential_Interior	526946	562383
tblFireplaces	FireplaceDayYear	25.00	104.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	216.75	3.00
tblFireplaces	NumberNoFireplace	25.50	252.00
tblFireplaces	NumberWood	12.75	0.00
tblFleetMix	HHD	8.0120e-003	1.5490e-003
tblFleetMix	LDA	0.54	0.64
tblFleetMix	LDT1	0.06	0.07
tblFleetMix	LDT2	0.19	0.22
tblFleetMix	LHD1	0.02	4.4630e-003
tblFleetMix	LHD2	6.0830e-003	1.1760e-003
tblFleetMix	MCY	0.02	0.03
tblFleetMix	MDV	0.13	0.02
tblFleetMix	MH	3.3740e-003	6.5200e-004

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Winter

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

tblFleetMix	MHD	0.01	2.0250e-003
tblFleetMix	OBUS	9.2500e-004	0.00
tblFleetMix	SBUS	6.9800e-004	1.3500e-004
tblFleetMix	UBUS	6.1100e-004	0.00
tblLandUse	LandUseSquareFeet	2,870.00	2,865.00
tblLandUse	LandUseSquareFeet	255,000.00	260,220.00
tblLandUse	LandUseSquareFeet	2,870.00	2,865.00
tblLandUse	LotAcreage	4.36	0.34
tblLandUse	LotAcreage	0.07	0.00
tblLandUse	LotAcreage	0.40	0.00
tblLandUse	LotAcreage	6.71	0.99
tblLandUse	LotAcreage	0.07	0.00
tblSolidWaste	SolidWasteGenerationRate	34.15	32.73
tblSolidWaste	SolidWasteGenerationRate	99.75	76.95
tblSolidWaste	SolidWasteGenerationRate	3.01	2.89
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	HO_TL	8.70	10.08
tblVehicleTrips	HS_TL	5.90	10.08
tblVehicleTrips	HW_TL	14.70	10.08
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00
tblVehicleTrips	ST_TR	4.91	4.57

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Winter

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

tblVehicleTrips	ST_TR	122.40	110.47
tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	ST_TR	46.12	39.27
tblVehicleTrips	SU_TR	4.09	4.57
tblVehicleTrips	SU_TR	142.64	110.47
tblVehicleTrips	SU_TR	13.60	0.00
tblVehicleTrips	SU_TR	21.10	39.27
tblVehicleTrips	WD_TR	5.44	4.57
tblVehicleTrips	WD_TR	112.18	110.47
tblVehicleTrips	WD_TR	28.82	0.00
tblVehicleTrips	WD_TR	37.75	39.27
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	871,141.75	834,717.71
tblWater	IndoorWaterUseRate	1,035,005.02	798,432.44
tblWater	IndoorWaterUseRate	212,588.14	203,699.43
tblWater	OutdoorWaterUseRate	55,604.79	53,279.85
tblWater	OutdoorWaterUseRate	634,357.92	489,361.82
tblWater	OutdoorWaterUseRate	130,295.95	124,848.04
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Winter

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

tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	12.75	0.00
tblWoodstoves	NumberNoncatalytic	12.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.3331	0.2926	21.0922	1.4300e-003		0.1206	0.1206		0.1206	0.1206	0.0000	101.4714	101.4714	0.0378	1.1600e-003	102.7636
Energy	0.1181	1.0198	0.5079	6.4400e-003		0.0816	0.0816		0.0816	0.0816		1,288.1695	1,288.1695	0.0247	0.0236	1,295.8244
Mobile	5.2945	4.3965	53.0972	0.1021	11.8768	0.0748	11.9516	3.1517	0.0691	3.2208		10,475.0016	10,475.0016	0.7304	0.3948	10,610.8969
Total	**12.7457**	**5.7088**	**74.6973**	**0.1100**	**11.8768**	**0.2770**	**12.1537**	**3.1517**	**0.2713**	**3.4230**	**0.0000**	**11,864.6425**	**11,864.6425**	**0.7928**	**0.4195**	**12,009.4849**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.3331	0.2926	21.0922	1.4300e-003		0.1206	0.1206		0.1206	0.1206	0.0000	101.4714	101.4714	0.0378	1.1600e-003	102.7636
Energy	0.1181	1.0198	0.5079	6.4400e-003		0.0816	0.0816		0.0816	0.0816		1,288.1695	1,288.1695	0.0247	0.0236	1,295.8244
Mobile	5.2945	4.3965	53.0972	0.1021	11.8768	0.0748	11.9516	3.1517	0.0691	3.2208		10,475.0016	10,475.0016	0.7304	0.3948	10,610.8969
Total	**12.7457**	**5.7088**	**74.6973**	**0.1100**	**11.8768**	**0.2770**	**12.1537**	**3.1517**	**0.2713**	**3.4230**	**0.0000**	**11,864.6425**	**11,864.6425**	**0.7928**	**0.4195**	**12,009.4849**

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-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**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.2945	4.3965	53.0972	0.1021	11.8768	0.0748	11.9516	3.1517	0.0691	3.2208		10,475.001	10,475.001	0.7304	0.3948	10,610.896
Unmitigated	5.2945	4.3965	53.0972	0.1021	11.8768	0.0748	11.9516	3.1517	0.0691	3.2208		10,475.001	10,475.001	0.7304	0.3948	10,610.896

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,165.35	1,165.35	1165.35	4,275,809	4,275,809
Enclosed Parking with Elevator	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	317.05	317.05	317.05	1,016,956	1,016,956
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Recreational Swimming Pool	0.00	0.00	0.00		
Regional Shopping Center	112.70	112.70	112.70	387,748	387,748
Total	1,595.10	1,595.10	1,595.10	5,680,513	5,680,513

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.08	10.08	10.08	40.20	19.20	40.60	100	0	0
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	100	0	0
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Recreational Swimming Pool	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	100	0	0

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Winter

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

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.644264	0.074319	0.221712	0.020000	0.004463	0.001176	0.002025	0.001549	0.000000	0.000000	0.029705	0.000135	0.000652
Enclosed Parking with Elevator	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
High Turnover (Sit Down Restaurant)	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Other Asphalt Surfaces	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Other Non-Asphalt Surfaces	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Recreational Swimming Pool	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Regional Shopping Center	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

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	0.1181	1.0198	0.5079	6.4400e-003		0.0816	0.0816		0.0816	0.0816		1,288.1695	1,288.1695	0.0247	0.0236	1,295.8244
NaturalGas Unmitigated	0.1181	1.0198	0.5079	6.4400e-003		0.0816	0.0816		0.0816	0.0816		1,288.1695	1,288.1695	0.0247	0.0236	1,295.8244

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-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					
Apartments Mid Rise	9128.71	0.0985	0.8413	0.3580	5.3700e-003		0.0680	0.0680		0.0680	0.0680		1,073.9663	1,073.9663	0.0206	0.0197	1,080.3484
Enclosed Parking with Elevator	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
High Turnover (Sit Down Restaurant)	1807.93	0.0195	0.1773	0.1489	1.0600e-003		0.0135	0.0135		0.0135	0.0135		212.6980	212.6980	4.0800e-003	3.9000e-003	213.9619
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	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
Regional Shopping Center	12.7944	1.4000e-004	1.2500e-003	1.0500e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		1.5052	1.5052	3.0000e-005	3.0000e-005	1.5142
Total		**0.1181**	**1.0198**	**0.5079**	**6.4400e-003**		**0.0816**	**0.0816**		**0.0816**	**0.0816**		**1,288.1695**	**1,288.1695**	**0.0247**	**0.0236**	**1,295.8245**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	9.12871	0.0985	0.8413	0.3580	5.3700e-003		0.0680	0.0680		0.0680	0.0680		1,073.9663	1,073.9663	0.0206	0.0197	1,080.3484
Enclosed Parking with Elevator	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
High Turnover (Sit Down Restaurant)	1.80793	0.0195	0.1773	0.1489	1.0600e-003		0.0135	0.0135		0.0135	0.0135		212.6980	212.6980	4.0800e-003	3.9000e-003	213.9619
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	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
Regional Shopping Center	0.0127944	1.4000e-004	1.2500e-003	1.0500e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		1.5052	1.5052	3.0000e-005	3.0000e-005	1.5142
Total		**0.1181**	**1.0198**	**0.5079**	**6.4400e-003**		**0.0816**	**0.0816**		**0.0816**	**0.0816**		**1,288.1695**	**1,288.1695**	**0.0247**	**0.0236**	**1,295.8245**

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Winter

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

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.3331	0.2926	21.0922	1.4300e-003		0.1206	0.1206		0.1206	0.1206	0.0000	101.4714	101.4714	0.0378	1.1600e-003	102.7636
Unmitigated	7.3331	0.2926	21.0922	1.4300e-003		0.1206	0.1206		0.1206	0.1206	0.0000	101.4714	101.4714	0.0378	1.1600e-003	102.7636

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	0.9877					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.7030					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	5.8200e-003	0.0498	0.0212	3.2000e-004		4.0200e-003	4.0200e-003		4.0200e-003	4.0200e-003	0.0000	63.5294	63.5294	1.2200e-003	1.1600e-003	63.9069
Landscaping	0.6366	0.2428	21.0710	1.1100e-003		0.1166	0.1166		0.1166	0.1166		37.9420	37.9420	0.0366		38.8566
Total	**7.3331**	**0.2926**	**21.0922**	**1.4300e-003**		**0.1206**	**0.1206**		**0.1206**	**0.1206**	**0.0000**	**101.4714**	**101.4714**	**0.0378**	**1.1600e-003**	**102.7636**

Washington and Rosemead Mixed Use Project Operations Run - Los Angeles-South Coast County, Winter

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

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	0.9877					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.7030					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	5.8200e-003	0.0498	0.0212	3.2000e-004		4.0200e-003	4.0200e-003		4.0200e-003	4.0200e-003	0.0000	63.5294	63.5294	1.2200e-003	1.1600e-003	63.9069
Landscaping	0.6366	0.2428	21.0710	1.1100e-003		0.1166	0.1166		0.1166	0.1166		37.9420	37.9420	0.0366		38.8566
Total	**7.3331**	**0.2926**	**21.0922**	**1.4300e-003**		**0.1206**	**0.1206**		**0.1206**	**0.1206**	**0.0000**	**101.4714**	**101.4714**	**0.0378**	**1.1600e-003**	**102.7636**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

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

LST Worksheets

Construction Localized Significance Thresholds - Asphalt Demolition

SRA No.	Acres	Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Project site Acreage Disturbed
5	2.00	25	82	2.85

Source Receptor	Southeast LA County	Equipment	Acres/8-hr Day		Daily hours	Equipment Used	Acres
Distance (meters)	25	Tractors	0.5	0.0625	8	3	1.5
NOx	**114**	Graders	0.5	0.0625			0
CO	**861**	Dozers	0.5	0.0625	8	1	0.5
PM10	**7.00**	Scrapers	1	0.125			0
PM2.5	**4.00**					**Acres**	2.00

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	2	114	111	121	145	205
	2	114	111	121	145	205
		114	111	121	145	205
CO	2	861	1082	1496	2625	7500
	2	861	1082	1496	2625	7500
		861	1082	1496	2625	7500
PM10	2	7	21	39	74	182
	2	7	21	39	74	182
		7	21	39	74	182
PM2.5	2	4	6	10	22	92
	2	4	6	10	22	92
		4	6	10	22	92

Southeast LA County

2.00 Acres

	25	**50**	**100**	**200**	**500**
NOx	114	111	121	145	205
CO	861	1082	1496	2625	7500
PM10	7	21	39	74	182
PM2.5	4	6	10	22	92

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
5	2	5	2
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds - Asphalt Demolition and Debris Haul

SRA No.	Acres	Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Project site Acreage Disturbed
5	2.00	25	82	2.85

Source Receptor	Southeast LA County	Equipment	Acres/8-hr Day		Daily hours	Equipment Used	Acres
Distance (meters)	25	Tractors	0.5	0.0625	8	3	1.5
NOx	**114**	Graders	0.5	0.0625			0
CO	**861**	Dozers	0.5	0.0625	8	1	0.5
PM10	**7.00**	Scrapers	1	0.125			0
PM2.5	**4.00**					**Acres**	2.00

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	2	114	111	121	145	205
	2	114	111	121	145	205
		114	111	121	145	205
CO	2	861	1082	1496	2625	7500
	2	861	1082	1496	2625	7500
		861	1082	1496	2625	7500
PM10	2	7	21	39	74	182
	2	7	21	39	74	182
		7	21	39	74	182
PM2.5	2	4	6	10	22	92
	2	4	6	10	22	92
		4	6	10	22	92

Southeast LA County

2.00 Acres

	25	**50**	**100**	**200**	**500**
NOx	114	111	121	145	205
CO	861	1082	1496	2625	7500
PM10	7	21	39	74	182
PM2.5	4	6	10	22	92

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
5	2	5	2
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds - Site Preparation

SRA No.	Acres	Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Project site Acreage Disturbed
5	1.94	25	82	2.85

Source Receptor	Southeast LA County	Equipment	Acres/8-hr Day		Daily hours	Equipment Used	Acres
Distance (meters)	25	Tractors	0.5	0.0625	7	1	0.4375
NOx	**112**	Graders	0.5	0.0625	8	1	0.5
CO	**843**	Dozers	0.5	0.0625			0
PM10	**6.81**	Scrapers	1	0.125	8	1	1
PM2.5	**3.94**					**Acres**	1.94

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	1	80	81	94	123	192
	2	114	111	121	145	205
		112	109	119	144	204
CO	1	571	735	1088	2104	6854
	2	861	1082	1496	2625	7500
		843	1060	1471	2592	7460
PM10	1	4	13	30	66	173
	2	7	21	39	74	182
		7	21	38	74	181
PM2.5	1	3	4	8	19	86
	2	4	6	10	22	92
		4	6	10	22	92

Southeast LA County

1.94 Acres

	25	**50**	**100**	**200**	**500**
NOx	112	109	119	144	204
CO	843	1060	1471	2592	7460
PM10	7	21	38	74	181
PM2.5	4	6	10	22	92

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
5	1	5	2
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds - Rough Grading

SRA No.	Acres	Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Project site Acreage Disturbed
5	2.85	25	82	2.85

Source Receptor	**Southeast LA County**	**Equipment**	**Acres/8-hr Day**		**Daily hours**	**Equipment Used**	**Acres**
Distance (meters)	25	Tractors	0.5	0.0625	7	2	0.875
NOx	**130**	Graders	0.5	0.0625	8	1	0.5
CO	**1,036**	Dozers	0.5	0.0625	8	1	0.5
PM10	**8.98**	Scrapers	1	0.125	8	1	1
PM2.5	**4.85**					**Acres**	2.88

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	2	114	111	121	145	205
	3	133	129	139	161	218
		130	126	137	159	216
CO	2	861	1082	1496	2625	7500
	3	1067	1340	1810	3039	8104
		1036	1301	1763	2977	8013
PM10	2	7	21	39	74	182
	3	9	28	46	81	189
		9	27	45	80	188
PM2.5	2	4	6	10	22	92
	3	5	7	12	25	96
		5	7	11	24	95

Southeast LA County

2.85 Acres

	25	**50**	**100**	**200**	**500**
NOx	130	126	137	159	216
CO	1036	1301	1763	2977	8013
PM10	9	27	45	80	188
PM2.5	5	7	11	24	95

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
5	2	5	3
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds - Rough Grading and Soil Haul

SRA No.	Acres	Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Project site Acreage Disturbed
5	2.85	25	82	2.85

Source Receptor	**Southeast LA County**	**Equipment**	**Acres/8-hr Day**		**Daily hours**	**Equipment Used**	**Acres**
Distance (meters)	25	Tractors	0.5	0.0625	7	2	0.875
NOx	**130**	Graders	0.5	0.0625	8	1	0.5
CO	**1,036**	Dozers	0.5	0.0625	8	1	0.5
PM10	**8.98**	Scrapers	1	0.125	8	1	1
PM2.5	**4.85**					**Acres**	2.88

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	2	114	111	121	145	205
	3	133	129	139	161	218
		130	126	137	159	216
CO	2	861	1082	1496	2625	7500
	3	1067	1340	1810	3039	8104
		1036	1301	1763	2977	8013
PM10	2	7	21	39	74	182
	3	9	28	46	81	189
		9	27	45	80	188
PM2.5	2	4	6	10	22	92
	3	5	7	12	25	96
		5	7	11	24	95

Southeast LA County

2.85 Acres

	25	**50**	**100**	**200**	**500**
NOx	130	126	137	159	216
CO	1036	1301	1763	2977	8013
PM10	9	27	45	80	188
PM2.5	5	7	11	24	95

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
5	2	5	3
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds - Utilities Trenching

SRA No.	Acres	Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Project site Acreage Disturbed
5	0.50	25	82	2.85

Source Receptor	**Southeast LA County**	**Equipment**	**Acres/8-hr Day**		**Daily hours**	**Equipment Used**	**Acres**
Distance (meters)	25	Tractors	0.5	0.0625	8	1	0.5
NOx	**80**	Graders	0.5	0.0625			0
CO	**571**	Dozers	0.5	0.0625			0
PM10	**4.00**	Scrapers	1	0.125			0
PM2.5	**3.00**					**Acres**	0.50

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	1	80	81	94	123	192
	1	80	81	94	123	192
		80	81	94	123	192
CO	1	571	735	1088	2104	6854
	1	571	735	1088	2104	6854
		571	735	1088	2104	6854
PM10	1	4	13	30	66	173
	1	4	13	30	66	173
		4	13	30	66	173
PM2.5	1	3	4	8	19	86
	1	3	4	8	19	86
		3	4	8	19	86

Southeast LA County

0.50 Acres

	25	**50**	**100**	**200**	**500**
NOx	80	81	94	123	192
CO	571	735	1088	2104	6854
PM10	4	13	30	66	173
PM2.5	3	4	8	19	86

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
5	1	5	1
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds - Utilities Trenching, Fine Grading and Soil Haul, and Building Construction

SRA No.	Acres	Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Project site Acreage Disturbed
5	1.38	25	82	2.85

Source Receptor	**Southeast LA County**	**Equipment**	**Acres/8-hr Day**		**Daily hours**	**Equipment Used**	**Acres**
Distance (meters)	25	Tractors	0.5	0.0625	8	2	1
NOx	**93**	Tractors	0.5	0.0625	6	1	0.375
CO	**680**	Graders	0.5	0.0625			0
PM10	**5.12**	Dozers	0.5	0.0625			0
PM2.5	**3.37**	Scrapers	1	0.125			0
						Acres	1.38

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	1	80	81	94	123	192
	2	114	111	121	145	205
		93	92	104	131	197
CO	1	571	735	1088	2104	6854
	2	861	1082	1496	2625	7500
		680	865	1241	2299	7096
PM10	1	4	13	30	66	173
	2	7	21	39	74	182
		5	16	33	69	176
PM2.5	1	3	4	8	19	86
	2	4	6	10	22	92
		3	5	9	20	88

Southeast LA County

1.38 Acres

	25	**50**	**100**	**200**	**500**
NOx	93	92	104	131	197
CO	680	865	1241	2299	7096
PM10	5	16	33	69	176
PM2.5	3	5	9	20	88

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
5	1	5	2
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds - Utilities Trenching and Building Construction

SRA No.	Acres	Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Project site Acreage Disturbed
5	0.88	25	82	2.85

Source Receptor	**Southeast LA County**	**Equipment**	**Acres/8-hr Day**		**Daily hours**	**Equipment Used**	**Acres**
Distance (meters)	25	Tractors	0.5	0.0625	8	1	0.5
NOx	**80**	Tractors	0.5	0.0625	6	1	0.375
CO	**571**	Graders	0.5	0.0625			0
PM10	**4.00**	Dozers	0.5	0.0625			0
PM2.5	**3.00**	Scrapers	1	0.125			0
						Acres	0.88

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	1	80	81	94	123	192
	1	80	81	94	123	192
		80	81	94	123	192
CO	1	571	735	1088	2104	6854
	1	571	735	1088	2104	6854
		571	735	1088	2104	6854
PM10	1	4	13	30	66	173
	1	4	13	30	66	173
		4	13	30	66	173
PM2.5	1	3	4	8	19	86
	1	3	4	8	19	86
		3	4	8	19	86

Southeast LA County

0.88 Acres

	25	**50**	**100**	**200**	**500**
NOx	80	81	94	123	192
CO	571	735	1088	2104	6854
PM10	4	13	30	66	173
PM2.5	3	4	8	19	86

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
5	1	5	1
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds - Building Construction

SRA No.	Acres	Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Project site Acreage Disturbed
5	0.38	25	82	2.85

Source Receptor	Southeast LA County
Distance (meters)	25
NOx	**80**
CO	**571**
PM10	**4.00**
PM2.5	**3.00**

Equipment	Acres/8-hr Day		Daily hours	Equipment Used	Acres
Tractors	0.5	0.0625	6	1	0.375
Graders	0.5	0.0625			0
Dozers	0.5	0.0625			0
Scrapers	1	0.125			0
				Acres	0.38

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	1	80	81	94	123	192
	1	80	81	94	123	192
		80	81	94	123	192
CO	1	571	735	1088	2104	6854
	1	571	735	1088	2104	6854
		571	735	1088	2104	6854
PM10	1	4	13	30	66	173
	1	4	13	30	66	173
		4	13	30	66	173
PM2.5	1	3	4	8	19	86
	1	3	4	8	19	86
		3	4	8	19	86

Southeast LA County

0.38 Acres

	25	**50**	**100**	**200**	**500**
NOx	80	81	94	123	192
CO	571	735	1088	2104	6854
PM10	4	13	30	66	173
PM2.5	3	4	8	19	86

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
5	1	5	1
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds - Building Construction and Paving

SRA No.	Acres	Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Project site Acreage Disturbed
5	0.88	25	82	2.85

Source Receptor	**Southeast LA County**	**Equipment**	**Acres/8-hr Day**		**Daily hours**	**Equipment Used**	**Acres**
Distance (meters)	25	Tractors	0.5	0.0625	6	1	0.375
NOx	**80**	Tractors	0.5	0.0625	8	1	0.5
CO	**571**	Graders	0.5	0.0625			0
PM10	**4.00**	Dozers	0.5	0.0625			0
PM2.5	**3.00**	Scrapers	1	0.125			0
						Acres	0.88

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	1	80	81	94	123	192
	1	80	81	94	123	192
		80	81	94	123	192
CO	1	571	735	1088	2104	6854
	1	571	735	1088	2104	6854
		571	735	1088	2104	6854
PM10	1	4	13	30	66	173
	1	4	13	30	66	173
		4	13	30	66	173
PM2.5	1	3	4	8	19	86
	1	3	4	8	19	86
		3	4	8	19	86

Southeast LA County

0.88 Acres

	25	**50**	**100**	**200**	**500**
NOx	80	81	94	123	192
CO	571	735	1088	2104	6854
PM10	4	13	30	66	173
PM2.5	3	4	8	19	86

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
5	1	5	1
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds - Building Construction and Architectural Coating

SRA No.	Acres	Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Project site Acreage Disturbed
5	0.38	25	82	2.85

Source Receptor	**Southeast LA County**	**Equipment**	**Acres/8-hr Day**		**Daily hours**	**Equipment Used**	**Acres**
Distance (meters)	25	Tractors	0.5	0.0625	6	1	0.375
NOx	**80**	Graders	0.5	0.0625			0
CO	**571**	Dozers	0.5	0.0625			0
PM10	**4.00**	Scrapers	1	0.125			0
PM2.5	**3.00**					**Acres**	0.38

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	1	80	81	94	123	192
	1	80	81	94	123	192
		80	81	94	123	192
CO	1	571	735	1088	2104	6854
	1	571	735	1088	2104	6854
		571	735	1088	2104	6854
PM10	1	4	13	30	66	173
	1	4	13	30	66	173
		4	13	30	66	173
PM2.5	1	3	4	8	19	86
	1	3	4	8	19	86
		3	4	8	19	86

Southeast LA County

0.38 Acres

	25	**50**	**100**	**200**	**500**
NOx	80	81	94	123	192
CO	571	735	1088	2104	6854
PM10	4	13	30	66	173
PM2.5	3	4	8	19	86

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
5	1	5	1
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Energy Calculations

Construction-Related Fuel/Energy Usage

CONSTRUCTION WORKER COMMUTE

Year	Gas		Diesel		Electricity	
	VMT	Gallons	VMT	Gallons	VMT	kWh
2022	1,130,150	39,860	8,282	188	17,515	5,760
2023	1,049,511	37,092	7,100	164	16,251	5,301
Total	**2,179,660**	**76,952**	**15,382**	**351**	**33,766**	**11,060**

CONSTRUCTION VENDOR TRIPS

Year	Gas		Diesel	
	VMT	Gallons	VMT	Gallons
2022	6,985	1,386	78,144	9,799
2023	9,473	1,854	107,849	12,795
Total	**16,457**	**3,240**	**185,993**	**22,594**

CONSTRUCTION TRUCK HAUL TRIPS

Year	Gas		Diesel	
	VMT	Gallons	VMT	Gallons
2022	66	16	76,619	11,622
Total	**66**	**16**	**76,619**	**11,622**

CONSTRUCTION OFF-ROAD EQUIPMENT

Year	Gasoline gallons	Diesel gallons
2022	8,346	29,074
2023	10,411	20,464
Total	**18,757**	**49,537**

CONSTRUCTION TOTAL

Year	Gas		Diesel		Electricity	
	VMT	Gallons	VMT	Gallons	VMT	kWh
2022	1,137,200	49,609	163,046	50,682	17,515	5,760
2023	1,058,983	49,357	114,949	33,423	16,251	5,301
Total	**2,196,183**	**98,966**	**277,995**	**84,105**	**33,766**	**11,060**

Construction Worker Trips Fuel Usage Worksheet

Note: Per CalEEMod methodology, worker vehicles are "LD_Mix", which is 50% LDA, 25% LDT1, and 25% LDT2

Activity[1]	Daily trips[1,2]	Trip miles[2]	Trip days[1]	Annual VMT
2022				
Asphalt Demolition	13	14.7	37	7,071
Asphalt Demolition Debris Haul	0	14.7	5	0
Site Preparation	8	14.7	6	706
Rough Grading	18	14.7	30	7,938
Rough Grading Soil Haul	0	14.7	12	0
Utility Trenching	20	14.7	60	17,640
Fine Grading	15	14.7	20	4,410
Fine Grading Soil Haul	0	14.7	20	0
Building Construction 2022	299	14.7	167	734,015
				0
				0
2023				
Building Construction 2023	299	14.7	240	1,054,872
Paving	15	14.7	19	4,190
Architectural Coating	60	14.7	19	16,758
				0

[1] *Based on information provided.*

[2] *Based on CalEEMod defaults.*

Year	LDA VMT	LDT1 VMT	LDT2 VMT	Gasoline[1]						Diesel[1]						Electricity[1]			
				LDA mpg	LDA gallons	LDT1 mpg	LDT1 gallons	LDT2 mpg	LDT2 gallons	LDA mpg	LDA gallons	LDT1 mpg	LDT1 gallons	LDT2 mpg	LDT2 gallons	LDA m/kWh	LDA kWh	LDT1 m/kWh	LDT1 kWh
2022	771,779	192,945	192,945	30.28	24,734	26.12	7,322	24.33	7,804	47.29	144	21.78	3	34.76	40	3.04	5,225	3.04	534
2023	537,910	268,955	268,955	31.12	16,699	26.80	9,919	25.20	10,473	48.57	102	22.08	4	35.74	57	3.07	4,319	3.07	982

Gasoline		Diesel		Electricity	
VMT	Gallons	VMT	Gallons	VMT	kWh
1,130,150	39,860	8,282	188	17,515	5,760
1,049,511	37,092	7,100	164	16,251	5,301
2,179,660	**76,952**	**15,382**	**351**	**33,766**	**11,060**

[1] *EMFAC2017 v1.0.3.*

Year	VMT from gasoline			VMT from diesel			VMT from electricity	
	LDA	LDT1	LDT2	LDA	LDT1	LDT2	LDA	LDT1
2022	97.06%	99.12%	98.39%	0.88%	0.04%	0.72%	2.06%	0.84%
2023	96.62%	98.85%	98.14%	0.92%	0.03%	0.76%	2.46%	1.12%

Appendix C: Evidence Used to Define the Average Number of KWH Required to Displace a Gallong of Gasoline

Table A 3: Evidence from U.S. Department of Energy and U.S. Environmental Protection Agency's fuel economy website[32]

Vehicle	Model year	Electric consumption	Gasoline fuel economy	Number of kWh that are equivalent to 1 gallon
Ford Fusion Energi & Ford C-Max Energi	2013	0.34 kWh per mile	43 mpg	14.6
Chevrolet Volt	2013	0.35 kWh per mile	37 mpg	12.9
Chevrolet Volt	2012	0.36 kWh per mile	37 mpg	13.3
Fisker Karma	2012	0.62 kWh per mile	20 mpg	12.4
Toyota Prius	2013	0.29 kWh per mile & 0.2 gal	50 mpg	13.1
Average for five models	-	-	-	13.3 +/- 0.8

Table A 5: Average power consumption per mile traveled over time for different PEV categories

Year range	2012- 2020	2020-2030	2030-2040	2040-2050	2050
Efficiency improvement per year	0.3%	0.8%	0.9%	0.9%	
Year	2012	2020	2030	2040	2050
Relative energy efficiency	1.000	0.976	0.901	0.823	0.752

https://www.fhwa.dot.gov/environment/climate_change/mitigation/publications_and_tools/ev_deployment/page08.cfm

0.34	14.6
0.35	12.9
0.36	13.3
0.34	13.3

Year	Estimated Electric Consumption
2013	0.34
2014	0.34
2015	0.34
2016	0.34
2017	0.34
2018	0.34
2019	0.34
2020	0.33
2021	0.33
2022	0.33
2023	0.33
2024	0.32
2025	0.32
2026	0.32
2027	0.32
2028	0.31
2029	0.31
2030	0.31
2031	0.31
2032	0.30
2033	0.30
2034	0.30
2035	0.29

Vendor Trips Fuel Usage Worksheet

Note: Based on CalEEMod methodology, vendor vehicles HHDT (T7).

Activity[1]	Daily trips[1,2]	Trip miles[2]	Trip days[1]	Annual VMT
2022				
Asphalt Demolition	2	6.9	37	511
Asphalt Demolition Debris Haul	0	6.9	5	0
Site Preparation	2	6.9	6	83
Rough Grading	2	6.9	30	414
Rough Grading Soil Haul	0	6.9	12	0
Utility Trenching	4	6.9	60	1,656
Fine Grading	6	6.9	20	828
Fine Grading Soil Haul	0	6.9	20	0
Building Construction 2022	72	6.9	167	82,966
2023				
Building Construction 2023	72	6.9	240	119,232
Paving	0	6.9	19	0
Architectural Coating	0	6.9	19	0
				0

[1] *Based on information provided.*

[2] *Based on CalEEMod defaults.*

Year	HHDT (T7) VMT	MHDT (T6) VMT	Gasoline[1]				Diesel[1]			
			HHDT (T7) mpg	HHDT (T7) gallons	MHDT (T6) mpg	MHDT (T6) gallons	HHDT (T7) mpg	HHDT (T7) gallons	MHDT (T6) mpg	MHDT (T6) gallons
2022	43,229	43,229	4.10	9	5.04	1,378	6.59	6,350	10.52	3,448
2023	59,616	59,616	4.20	12	5.12	1,842	7.00	8,232	11.00	4,563

[1] *EMFAC2017 v1.0.3.*

Year	VMT from gasoline		VMT from diesel	
	HHDT (T7)	MHDT (T6)	HHDT (T7)	MHDT (T6)
2022	0.08%	16.07%	96.85%	83.93%
2023	0.08%	15.81%	96.71%	84.19%

VENDOR

Gasoline		Diesel	
VMT	Gallons	VMT	Gallons
6,984.79	1,386.40	78,144	9,799
9,472.67	1,853.96	107,849	12,795
16,457.46	**3,240.36**	**185,993**	**22,594**

Truck Haul Trips Fuel Usage Worksheet

Note: Hauling vehicles are HHDT (T7)

Activity	Total Trips[1]	Mi/Trip[1]	Annual VMT
2022			
Asphalt Demolition Debris Haul	184	19	3,496
Rough Grading Soil Haul	1,058	19	20,102
Fine Grading Soil Haul	2,858	19	54,302
			0

[1] *Based on information provided by the District.*

Year	VMT	Gasoline[1]		Diesel[1]	
		HHDT (T7) mpg	HHDT (T7) gallons	HHDT (T7) mpg	HHDT (T7) gallons
2022	77,900	4.10	16	6.59	11,622

[1] *EMFAC2017 v1.0.3.*

Gasoline		Diesel	
VMT	Gallons	VMT	Gallons
66	16	76,619	11,622
66	**16**	**76,619**	**11,622**

Year	VMT from gasoline	VMT from diesel
2022	0.08%	98.36%

Off-Road Construction Equipment Fuel Usage Worksheet

Year	Total Gasoline	Total Diesel Gallons	Total Natural Gas
2022	8,346	29,074	0
2023	10,411	20,464	0
Total	**18,757**	**49,537**	**0**

Equipment Type[1]	Number of Equipment[1]	Horsepower	OFFROAD2017 Horsepower Category	Fuel Type	Working days[1]	Hours Per Day	Total Hours of Operation	Gasoline Gal/Hr[2]	Total Gasoline gallons	Diesel Gal/Hr[2]	Total Diesel gallons	Natural Gas Gal/Hr[2]	Total Natural Gas gallons
2022													
Asphalt Demolition													
Concrete/Industrial Saws	1	81	*100*	*Gasoline*	37	8	296	4.71	1,396	0.00	0	0.00	0
Rubber Tired Dozers	1	247	*300*	*Diesel*	37	8	296	0.00	0	4.54	1,343	0.00	0
Tractors/Loaders/Backhoes	3	97	*100*	*Diesel*	37	8	888	0.00	0	1.59	1,413	0.00	0
Site Preparation													
Graders	1	187	*300*	*Diesel*	6	8	48	0.00	0	4.58	220	0.00	0
Scrapers	1	367	*600*	*Diesel*	6	8	48	0.00	0	10.55	507	0.00	0
Tractors/Loaders/Backhoes	1	276	*300*	*Diesel*	6	7	42	0.00	0	3.98	167	0.00	0
Rough Grading													
Excavators	1	270	*300*	*Diesel*	30	8	240	0.00	0	4.32	1,037	0.00	0
Graders	1	187	*300*	*Diesel*	30	8	240	0.00	0	4.58	1,099	0.00	0
Rollers	1	134	*175*	*Diesel*	30	8	240	0.00	0	2.79	669	0.00	0
Rubber Tired Dozers	1	247	*300*	*Diesel*	30	8	240	0.00	0	4.54	1,089	0.00	0
Scrapers	1	367	*600*	*Diesel*	30	8	240	0.00	0	10.55	2,533	0.00	0
Tractors/Loaders/Backhoes	2	97	*100*	*Diesel*	30	7	420	0.00	0	1.59	668	0.00	0
Utility Trenching													
Excavators	1	249	*300*	*Diesel*	60	6	360	0.00	0	4.32	1,556	0.00	0
Tractors/Loaders/Backhoes	1	225	*300*	*Diesel*	60	8	480	0.00	0	3.98	1,908	0.00	0
Trenchers	1	50	*50*	*Diesel*	60	8	480	0.00	0	1.15	554	0.00	0
Plate Compactors	5	7	*25*	*Diesel*	60	8	2,400	0.00	0	0.20	472	0.00	0
Fine Grading													
Tractors/Loaders/Backhoes	1	225	*300*	*Diesel*	20	8	160	0.00	0	3.98	636	0.00	0
Plate Compactors	5	7	*25*	*Diesel*	20	8	800	0.00	0	0.20	157	0.00	0
Building Construction													
Cranes	1	231	*300*	*Diesel*	167	8	1,336	0.00	0	3.28	4,387	0.00	0
Generator Sets	1	84	*100*	*Gasoline*	167	8	1,336	5.20	6,951	0.00	0	0.00	0
Tractors/Loaders/Backhoes	1	97	*100*	*Diesel*	167	6	1,002	0.00	0	1.59	1,594	0.00	0
Forklifts	2	89	*100*	*Diesel*	167	7	2,338	0.00	0	0.98	2,296	0.00	0
Welders	3	46	*50*	*Diesel*	167	8	4,008	0.00	0	1.19	4,769	0.00	0
							TOTAL		**8,346**		**29,074**		**0**
2023													
Building Construction													
Cranes	1	231	*300*	*Diesel*	240	8	1,920	0.00	0	3.28	6,293	0.00	0
Generator Sets	1	84	*100*	*Gasoline*	240	8	1,920	5.20	9,982	0.00	0	0.00	0
Tractors/Loaders/Backhoes	1	97	*100*	*Diesel*	240	6	1,440	0.00	0	1.59	2,293	0.00	0
Forklifts	2	89	*100*	*Diesel*	240	7	3,360	0.00	0	0.98	3,299	0.00	0
Welders	3	46	*50*	*Diesel*	240	8	5,760	0.00	0	1.19	6,849	0.00	0
Paving													
Cement and Mortar Mixers	1	9	*25*	*Diesel*	19	8	152	0.00	0	0.33	50	0.00	0
Pavers	1	130	*175*	*Diesel*	19	8	152	0.00	0	3.40	517	0.00	0
Paving Equipment	1	132	*175*	*Diesel*	19	8	152	0.00	0	2.67	405	0.00	0
Tractors/Loaders/Backhoes	1	97	*100*	*Diesel*	19	8	152	0.00	0	1.59	242	0.00	0
Rollers	2	80	*100*	*Diesel*	19	8	304	0.00	0	1.69	515	0.00	0
Architectural Coating													
Air Compressors	1	78	*100*	*Gasoline*	19	6	114	3.77	429	0.00	0	0.00	0
							TOTAL		**10,411**		**20,464**		**0**

[1] Based on information provided.

[2] OFFROAD2017 v.1.0.1

EMFAC Fuel Usage: Year 2022

Vehicle type	GAS			DSL			NG			ELEC
	VMT/day	Gallons/day	Miles/gallon	VMT/day	Gallons/day	Miles/gallon	VMT/day	Gallons/day	Miles/gallon	VMT/day
All other buses	0	0	0.00	144,213	14,122	10.21	0	0	0.00	0
LDA	149,966,457	4,951,891	30.28	1,365,564	28,876	47.29	0	0	0.00	3,181,478
LDT1	17,043,180	652,540	26.12	6,627	304	21.78	0	0	0.00	144,752
LDT2	51,802,173	2,129,498	24.33	378,461	10,888	34.76	0	0	0.00	469,870
LHD1	3,836,225	367,280	10.44	2,744,971	126,149	21.76	0	0	0.00	0
LHD2	625,803	68,770	9.10	1,067,421	54,454	19.60	0	0	0.00	0
MCY	1,237,635	34,667	35.70	0	0	0.00	0	0	0.00	0
MDV	32,233,548	1,629,223	19.78	771,652	28,703	26.88	0	0	0.00	250,682
MH	190,935	37,177	5.14	61,785	5,859	10.54	0	0	0.00	0
Motor coach	0	0	0.00	91,142	13,998	6.51	0	0	0.00	0
OBUS	163,041	32,643	4.99	0	0	0.00	0	0	0.00	0
PTO	0	0	0.00	76,505	15,508	4.93	0	0	0.00	0
SBUS	55,608	6,053	9.19	109,536	14,360	7.63	0	0	0.00	0
T6	793,122	157,239	5.04	4,140,797	393,561	10.52	0	0	0.00	0
T7	5,769	1,407	4.10	6,735,541	1,021,710	6.59	106,828	47,783	2.24	0
UBUS	32,989	7,783	4.24	1,181	209	5.66	437,121	111,088	3.93	1,070
Total	**257,986,485**	**10,076,171**	**25.60**	**17,695,397**	**1,728,701**	**10.24**	**543,949**	**158,871**	**3.42**	**4,047,852**

Source: EMFAC2017 (v1.0.3) Emissions Inventory
Region Type: Sub-Area
Region: Los Angeles (SC)
Calendar Year: 2022
Season: Annual
Vehicle Classification: EMFAC2011 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	VMT	Trips	Fuel Consumption
Los Angeles (SC)	2022	All Other Buses	Aggregate	Aggregate	DSL	2387.615771	144212.5891	20055.97247	14.12157342
Los Angeles (SC)	2022	LDA	Aggregate	Aggregate	GAS	3949334.32	149966456.8	18636854.28	4951.890616
Los Angeles (SC)	2022	LDA	Aggregate	Aggregate	DSL	34750.74201	1365564.321	164528.3052	28.87579459
Los Angeles (SC)	2022	LDA	Aggregate	Aggregate	ELEC	78084.60157	3181477.948	389918.6908	0
Los Angeles (SC)	2022	LDT1	Aggregate	Aggregate	GAS	458115.2498	17043179.81	2118381.376	652.5401757
Los Angeles (SC)	2022	LDT1	Aggregate	Aggregate	DSL	270.6503295	6627.200698	961.4710483	0.304298206
Los Angeles (SC)	2022	LDT1	Aggregate	Aggregate	ELEC	3508.68045	144752.0157	17546.16027	0
Los Angeles (SC)	2022	LDT2	Aggregate	Aggregate	GAS	1372144.276	51802172.9	6443902.5	2129.497975
Los Angeles (SC)	2022	LDT2	Aggregate	Aggregate	DSL	8920.377392	378460.5711	44003.20424	10.88805719
Los Angeles (SC)	2022	LDT2	Aggregate	Aggregate	ELEC	14383.25646	469869.8144	72773.64326	0
Los Angeles (SC)	2022	LHD1	Aggregate	Aggregate	GAS	105423.6869	3836224.58	1570655.854	367.2799521
Los Angeles (SC)	2022	LHD1	Aggregate	Aggregate	DSL	64097.22758	2744971.33	806262.4886	126.1492688
Los Angeles (SC)	2022	LHD2	Aggregate	Aggregate	GAS	17796.61867	625803.0177	265143.1013	68.76969502
Los Angeles (SC)	2022	LHD2	Aggregate	Aggregate	DSL	25927.3097	1067421.343	326132.9395	54.45422002
Los Angeles (SC)	2022	MCY	Aggregate	Aggregate	GAS	177319.3254	1237635.154	354638.6508	34.66720507
Los Angeles (SC)	2022	MDV	Aggregate	Aggregate	GAS	921693.6708	32233548.24	4274374.135	1629.222502
Los Angeles (SC)	2022	MDV	Aggregate	Aggregate	DSL	19516.67089	771652.3864	96044.41776	28.70279505
Los Angeles (SC)	2022	MDV	Aggregate	Aggregate	ELEC	7423.218148	250681.8433	37959.59904	0
Los Angeles (SC)	2022	MH	Aggregate	Aggregate	GAS	18777.11371	190934.9774	1878.462455	37.17660803
Los Angeles (SC)	2022	MH	Aggregate	Aggregate	DSL	5865.304828	61785.30748	586.5304828	5.859423982
Los Angeles (SC)	2022	Motor Coach	Aggregate	Aggregate	DSL	676.2916755	91141.88557	9873.858462	13.99760817
Los Angeles (SC)	2022	OBUS	Aggregate	Aggregate	GAS	3972.712037	163041.1007	79486.02243	32.64328018
Los Angeles (SC)	2022	PTO	Aggregate	Aggregate	DSL	0	76505.4461	0	15.50775389
Los Angeles (SC)	2022	SBUS	Aggregate	Aggregate	GAS	1378.869452	55608.41612	5515.47781	6.053496228
Los Angeles (SC)	2022	SBUS	Aggregate	Aggregate	DSL	3460.157096	109535.682	39929.73315	14.35975618
Los Angeles (SC)	2022	T6 Ag	Aggregate	Aggregate	DSL	12.10479957	101.9666453	53.26111809	0.012181572
Los Angeles (SC)	2022	T6 CAIRP heavy	Aggregate	Aggregate	DSL	272.1638062	53846.97659	3973.591571	4.680155196
Los Angeles (SC)	2022	T6 CAIRP small	Aggregate	Aggregate	DSL	144.6349106	7530.75419	2111.669694	0.699944378
Los Angeles (SC)	2022	T6 instate construction heavy	Aggregate	Aggregate	DSL	2518.967495	168570.4564	11388.15411	16.56194729
Los Angeles (SC)	2022	T6 instate construction small	Aggregate	Aggregate	DSL	8157.753968	433957.0754	36880.88852	42.40587222
Los Angeles (SC)	2022	T6 instate heavy	Aggregate	Aggregate	DSL	10296.35106	1423092.141	118818.4637	128.9338909
Los Angeles (SC)	2022	T6 instate small	Aggregate	Aggregate	DSL	37908.6179	1932060.83	437460.1947	186.9232192
Los Angeles (SC)	2022	T6 OOS heavy	Aggregate	Aggregate	DSL	156.4590604	31080.56962	2284.302283	2.699014263
Los Angeles (SC)	2022	T6 OOS small	Aggregate	Aggregate	DSL	83.58460294	4317.240411	1220.335203	0.401773955
Los Angeles (SC)	2022	T6 Public	Aggregate	Aggregate	DSL	4445.935083	69430.49194	13486.00307	8.507368053
Los Angeles (SC)	2022	T6 utility	Aggregate	Aggregate	DSL	996.7203316	16808.24099	11462.28381	1.735997959
Los Angeles (SC)	2022	T6TS	Aggregate	Aggregate	GAS	14505.49561	793122.3284	290225.9562	157.2392835
Los Angeles (SC)	2022	T7 Ag	Aggregate	Aggregate	DSL	5.193051548	102.8930892	22.84942681	0.01852168
Los Angeles (SC)	2022	T7 CAIRP	Aggregate	Aggregate	DSL	6003.500987	1067306.387	87651.11441	155.0696328
Los Angeles (SC)	2022	T7 CAIRP construction	Aggregate	Aggregate	DSL	671.4917023	121085.6232	3035.787878	16.55458348
Los Angeles (SC)	2022	T7 NNOOS	Aggregate	Aggregate	DSL	6498.761345	1301079.701	94881.91563	179.099333
Los Angeles (SC)	2022	T7 NOOS	Aggregate	Aggregate	DSL	2371.048773	419354.6563	34617.31208	62.47642547
Los Angeles (SC)	2022	T7 POLA	Aggregate	Aggregate	DSL	8258.014728	1072153.038	62760.91194	188.7409496
Los Angeles (SC)	2022	T7 Public	Aggregate	Aggregate	DSL	5475.906144	110937.1004	16610.24862	19.0808356
Los Angeles (SC)	2022	T7 Single	Aggregate	Aggregate	DSL	5794.937297	385296.7187	66872.77297	58.88961274
Los Angeles (SC)	2022	T7 single construction	Aggregate	Aggregate	DSL	4300.116371	300391.1598	19440.65893	44.46501106
Los Angeles (SC)	2022	T7 SWCV	Aggregate	Aggregate	DSL	1379.990695	56384.18389	5381.963711	27.81339016
Los Angeles (SC)	2022	T7 SWCV	Aggregate	Aggregate	NG	2623.533087	106827.7218	10231.77904	47.782843
Los Angeles (SC)	2022	T7 tractor	Aggregate	Aggregate	DSL	12166.67647	1645420.533	154516.7912	230.7310322
Los Angeles (SC)	2022	T7 tractor construction	Aggregate	Aggregate	DSL	3592.159925	247796.2601	16240.01536	37.46414496
Los Angeles (SC)	2022	T7 utility	Aggregate	Aggregate	DSL	405.4684121	8232.431424	4662.886739	1.306947156
Los Angeles (SC)	2022	T7IS	Aggregate	Aggregate	GAS	55.2683338	5768.621752	1105.808823	1.407168754
Los Angeles (SC)	2022	UBUS	Aggregate	Aggregate	GAS	460.6006493	32989.32038	1842.402597	7.783285084
Los Angeles (SC)	2022	UBUS	Aggregate	Aggregate	DSL	10.1389	1181.230112	40.5556	0.208547568
Los Angeles (SC)	2022	UBUS	Aggregate	Aggregate	ELEC	12	1070.403311	48	0
Los Angeles (SC)	2022	UBUS	Aggregate	Aggregate	NG	4129.345993	437121.0718	16517.38397	111.0876976

EMFAC Fuel Usage: Year 2023

Vehicle type	GAS			DSL			NG			ELEC
	VMT/day	Gallons/day	Miles/gallon	VMT/day	Gallons/day	Miles/gallon	VMT/day	Gallons/day	Miles/gallon	VMT/day
All other buses	0	0	0.00	148,348	14,082	10.53	0	0	0.00	0
LDA	149,418,106	4,801,115	31.12	1,426,245	29,363	48.57	0	0	0.00	3,806,342
LDT1	17,372,475	648,191	26.80	6,133	278	22.08	0	0	0.00	196,782
LDT2	52,162,943	2,069,800	25.20	404,272	11,313	35.74	0	0	0.00	584,569
LHD1	3,800,052	359,383	10.57	2,893,383	130,924	22.10	0	0	0.00	0
LHD2	625,879	67,954	9.21	1,126,544	56,597	19.90	0	0	0.00	0
MCY	1,265,085	35,455	35.68	0	0	0.00	0	0	0.00	0
MDV	32,264,362	1,576,940	20.46	823,486	29,770	27.66	0	0	0.00	342,100
MH	191,392	36,760	5.21	64,319	6,026	10.67	0	0	0.00	0
Motor coach	0	0	0.00	92,744	13,826	6.71	0	0	0.00	0
OBUS	159,343	31,499	5.06	0	0	0.00	0	0	0.00	0
PTO	0	0	0.00	77,199	14,935	5.17	0	0	0.00	0
SBUS	58,916	6,358	9.27	110,638	14,360	7.70	0	0	0.00	0
T6	797,300	155,868	5.12	4,246,866	386,115	11.00	0	0	0.00	0
T7	5,905	1,406	4.20	6,872,058	981,183	7.00	113,852	50,168	2.27	0
UBUS	33,184	7,630	4.35	1,181	209	5.66	439,713	111,745	3.93	1,070
Total	**258,154,940**	**9,798,359**	**26.35**	**18,293,417**	**1,688,982**	**10.83**	**553,565**	**161,913**	**3.42**	**4,930,863**

3,400,030,661

0.34%

81875000 11690001.06

Source: EMFAC2017 (v1.0.3) Emissions Inventory
Region Type: Sub-Area
Region: Los Angeles (SC)
Calendar Year: 2023
Season: Annual
Vehicle Classification: EMFAC2011 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	VMT	Trips	Fuel Consumption
Los Angeles (SC)	2023	All Other Buses	Aggregate	Aggregate	DSL	2413.362241	148347.7525	20272.24282	14.0818541
Los Angeles (SC)	2023	LDA	Aggregate	Aggregate	GAS	3986929.129	149418105.6	18815397.63	4801.114553
Los Angeles (SC)	2023	LDA	Aggregate	Aggregate	DSL	36740.62878	1426244.815	174171.2985	29.36298643
Los Angeles (SC)	2023	LDA	Aggregate	Aggregate	ELEC	91678.53845	3806341.937	457107.9273	0
Los Angeles (SC)	2023	LDT1	Aggregate	Aggregate	GAS	472375.6724	17372474.6	2187811.198	648.1906909
Los Angeles (SC)	2023	LDT1	Aggregate	Aggregate	DSL	252.4118747	6132.921962	894.9059766	0.277775308
Los Angeles (SC)	2023	LDT1	Aggregate	Aggregate	ELEC	4635.248736	196781.6242	23233.68477	0
Los Angeles (SC)	2023	LDT2	Aggregate	Aggregate	GAS	1397479.324	52162943.36	6567821.268	2069.799895
Los Angeles (SC)	2023	LDT2	Aggregate	Aggregate	DSL	9765.230182	404272.1374	48008.05802	11.31280557
Los Angeles (SC)	2023	LDT2	Aggregate	Aggregate	ELEC	18283.62829	584568.8418	92279.45183	0
Los Angeles (SC)	2023	LHD1	Aggregate	Aggregate	GAS	105195.9307	3800052.408	1567262.626	359.3833271
Los Angeles (SC)	2023	LHD1	Aggregate	Aggregate	DSL	68776.35703	2893383.107	865120.0508	130.9243641
Los Angeles (SC)	2023	LHD2	Aggregate	Aggregate	GAS	17937.98852	625878.5235	267249.3013	67.95438628
Los Angeles (SC)	2023	LHD2	Aggregate	Aggregate	DSL	27873.77545	1126544.027	350617.0299	56.59739854
Los Angeles (SC)	2023	MCY	Aggregate	Aggregate	GAS	183955.3723	1265084.637	367910.7446	35.45479504
Los Angeles (SC)	2023	MDV	Aggregate	Aggregate	GAS	931795.9713	32264362.15	4326648.043	1576.940395
Los Angeles (SC)	2023	MDV	Aggregate	Aggregate	DSL	21297.50738	823486.0536	104465.3428	29.77006577
Los Angeles (SC)	2023	MDV	Aggregate	Aggregate	ELEC	10378.92649	342100.1259	52903.33041	0
Los Angeles (SC)	2023	MH	Aggregate	Aggregate	GAS	18786.35518	191391.548	1879.386973	36.76042896
Los Angeles (SC)	2023	MH	Aggregate	Aggregate	DSL	6166.797629	64319.47927	616.6797629	6.026053915
Los Angeles (SC)	2023	Motor Coach	Aggregate	Aggregate	DSL	658.0910352	92743.98303	9608.129114	13.82589661
Los Angeles (SC)	2023	OBUS	Aggregate	Aggregate	GAS	3965.955178	159342.8081	79350.83121	31.49929974
Los Angeles (SC)	2023	PTO	Aggregate	Aggregate	DSL	0	77198.6472	0	14.93547066
Los Angeles (SC)	2023	SBUS	Aggregate	Aggregate	GAS	1481.565044	58916.21473	5926.260176	6.358131428
Los Angeles (SC)	2023	SBUS	Aggregate	Aggregate	DSL	3497.078427	110638.3688	40355.80019	14.36000383
Los Angeles (SC)	2023	T6 Ag	Aggregate	Aggregate	DSL	11.67476155	97.073849	51.36895084	0.011080203
Los Angeles (SC)	2023	T6 CAIRP heavy	Aggregate	Aggregate	DSL	280.5602581	54871.42749	4096.179768	4.630891473
Los Angeles (SC)	2023	T6 CAIRP small	Aggregate	Aggregate	DSL	147.0353228	7680.714425	2146.715713	0.690922567
Los Angeles (SC)	2023	T6 instate construction heavy	Aggregate	Aggregate	DSL	2593.685207	170789.0459	11725.94998	16.01357351
Los Angeles (SC)	2023	T6 instate construction small	Aggregate	Aggregate	DSL	7838.439815	439668.4712	35437.28165	40.85987457
Los Angeles (SC)	2023	T6 instate heavy	Aggregate	Aggregate	DSL	10535.34865	1466280.47	121576.4628	127.6396288
Los Angeles (SC)	2023	T6 instate small	Aggregate	Aggregate	DSL	37375.9816	1984183.072	431313.6457	183.0271301
Los Angeles (SC)	2023	T6 OOS heavy	Aggregate	Aggregate	DSL	161.7713139	31697.11686	2361.861183	2.673821474
Los Angeles (SC)	2023	T6 OOS small	Aggregate	Aggregate	DSL	84.77351604	4403.138169	1237.693334	0.39634697
Los Angeles (SC)	2023	T6 Public	Aggregate	Aggregate	DSL	4479.460204	70241.70163	13587.69594	8.450363812
Los Angeles (SC)	2023	T6 utility	Aggregate	Aggregate	DSL	1011.45952	16954.26417	11631.78448	1.721713991
Los Angeles (SC)	2023	T6TS	Aggregate	Aggregate	GAS	14623.10816	797300.0842	292579.148	155.8676623
Los Angeles (SC)	2023	T7 Ag	Aggregate	Aggregate	DSL	5.450542727	89.56607012	23.982388	0.015745035
Los Angeles (SC)	2023	T7 CAIRP	Aggregate	Aggregate	DSL	5967.126018	1085857.383	87120.03986	152.0768811
Los Angeles (SC)	2023	T7 CAIRP construction	Aggregate	Aggregate	DSL	672.7726984	122679.2552	3041.579212	16.23989484
Los Angeles (SC)	2023	T7 NNOOS	Aggregate	Aggregate	DSL	6698.602472	1323677.931	97799.59609	176.2912352
Los Angeles (SC)	2023	T7 NOOS	Aggregate	Aggregate	DSL	2364.918201	426649.092	34527.80573	61.26348855
Los Angeles (SC)	2023	T7 POLA	Aggregate	Aggregate	DSL	8486.558826	1131828.731	64497.84707	175.4952223
Los Angeles (SC)	2023	T7 Public	Aggregate	Aggregate	DSL	5541.588258	112265.4557	16809.48436	19.02171313
Los Angeles (SC)	2023	T7 Single	Aggregate	Aggregate	DSL	5934.360332	388787.818	68481.69547	56.1742218
Los Angeles (SC)	2023	T7 single construction	Aggregate	Aggregate	DSL	4385.71399	304344.6678	19827.64243	42.88123171
Los Angeles (SC)	2023	T7 SWCV	Aggregate	Aggregate	DSL	1255.519365	51298.487	4896.525523	25.30419893
Los Angeles (SC)	2023	T7 SWCV	Aggregate	Aggregate	NG	2795.817267	113851.643	10903.68734	50.16782394
Los Angeles (SC)	2023	T7 tractor	Aggregate	Aggregate	DSL	12205.73158	1665217.666	155012.7911	219.5996373
Los Angeles (SC)	2023	T7 tractor construction	Aggregate	Aggregate	DSL	3685.502446	251057.5562	16662.01327	35.5101791
Los Angeles (SC)	2023	T7 utility	Aggregate	Aggregate	DSL	409.1727144	8303.947199	4705.486215	1.309375599
Los Angeles (SC)	2023	T7IS	Aggregate	Aggregate	GAS	52.86814563	5904.510911	1057.785858	1.405502268
Los Angeles (SC)	2023	UBUS	Aggregate	Aggregate	GAS	463.3229945	33183.96593	1853.291978	7.630187276
Los Angeles (SC)	2023	UBUS	Aggregate	Aggregate	DSL	10.1389	1181.230112	40.5556	0.208547568
Los Angeles (SC)	2023	UBUS	Aggregate	Aggregate	ELEC	12	1070.403311	48	0
Los Angeles (SC)	2023	UBUS	Aggregate	Aggregate	NG	4153.840831	439713.4848	16615.36332	111.7447779

EMFAC Fuel Usage: Year 2024

Vehicle type	GAS			DSL			NG			ELEC
	VMT/day	Gallons/day	Miles/gallon	VMT/day	Gallons/day	Miles/gallon	VMT/day	Gallons/day	Miles/gallon	VMT/day
All other buses	0	0	0.00	10,617	951	11.16	0	0	0.00	0
LDA	24,478,837	721,471	33.93	263,556	4,810	54.80	0	0	0.00	585,973
LDT1	2,347,037	81,177	28.91	534	20	26.67	0	0	0.00	27,901
LDT2	7,375,146	266,553	27.67	56,317	1,356	41.53	0	0	0.00	82,985
LHD1	481,214	43,424	11.08	516,977	24,028	21.52	0	0	0.00	0
LHD2	72,284	7,458	9.69	201,738	10,267	19.65	0	0	0.00	0
MCY	177,526	4,688	37.87	0	0	0.00	0	0	0.00	0
MDV	5,478,215	250,698	21.85	149,588	4,923	30.38	0	0	0.00	53,455
MH	34,330	6,493	5.29	14,833	1,344	11.04	0	0	0.00	0
Motor coach	0	0	0.00	5,801	817	7.10	0	0	0.00	0
OBUS	14,690	2,754	5.33	0	0	0.00	0	0	0.00	0
PTO	0	0	0.00	44,321	8,231	5.38	0	0	0.00	0
SBUS	15,095	1,692	8.92	28,336	3,643	7.78	0	0	0.00	0
T6	56,942	10,447	5.45	757,769	63,999	11.84	0	0	0.00	0
T7	477	107	4.47	1,990,376	257,897	7.72	13,507	5,508	2.45	0
UBUS	23,428	3,649	6.42	12	1	9.31	27,220	6,438	4.23	1
Total	**40,555,220**	**1,400,612**	**28.96**	**4,040,774**	**382,287**	**10.57**	**40,728**	**11,947**	**3.41**	**750,315**

486,012,369

2.18%

81875000 10608708.92

Source: EMFAC2017 (v1.0.3) Emissions Inventory
Region Type: Sub-Area
Region: Riverside (SC)
Calendar Year: 2024
Season: Annual
Vehicle Classification: EMFAC2011 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	VMT	Trips	Fuel Consumption
Riverside (SC)	2024	All Other Buses	Aggregate	Aggregate	DSL	186.6469617	10617.02237	1567.834478	0.951083116
Riverside (SC)	2024	LDA	Aggregate	Aggregate	GAS	617514.3579	24478836.56	2921789.652	721.470804
Riverside (SC)	2024	LDA	Aggregate	Aggregate	DSL	6395.726935	263555.9906	30567.96518	4.809813607
Riverside (SC)	2024	LDA	Aggregate	Aggregate	ELEC	14425.0696	585972.9711	72164.24752	0
Riverside (SC)	2024	LDT1	Aggregate	Aggregate	GAS	63219.76211	2347037.162	289438.0097	81.17710169
Riverside (SC)	2024	LDT1	Aggregate	Aggregate	DSL	24.10721025	533.616122	80.30352254	0.020009633
Riverside (SC)	2024	LDT1	Aggregate	Aggregate	ELEC	661.8262843	27901.35626	3349.231994	0
Riverside (SC)	2024	LDT2	Aggregate	Aggregate	GAS	191595.1165	7375145.522	898075.5151	266.5528329
Riverside (SC)	2024	LDT2	Aggregate	Aggregate	DSL	1293.932614	56317.20384	6361.076033	1.356033097
Riverside (SC)	2024	LDT2	Aggregate	Aggregate	ELEC	2788.874311	82984.78588	14057.46342	0
Riverside (SC)	2024	LHD1	Aggregate	Aggregate	GAS	15013.79924	481213.6981	223683.2382	43.42353163
Riverside (SC)	2024	LHD1	Aggregate	Aggregate	DSL	15906.59016	516976.9352	200084.8937	24.02819078
Riverside (SC)	2024	LHD2	Aggregate	Aggregate	GAS	2255.583712	72284.45286	33604.83649	7.458415808
Riverside (SC)	2024	LHD2	Aggregate	Aggregate	DSL	6233.384608	201737.9091	78408.13677	10.26708544
Riverside (SC)	2024	MCY	Aggregate	Aggregate	GAS	28768.15998	177525.5663	57536.31996	4.688277597
Riverside (SC)	2024	MDV	Aggregate	Aggregate	GAS	154289.1501	5478215.24	706842.2487	250.6982454
Riverside (SC)	2024	MDV	Aggregate	Aggregate	DSL	3716.540326	149587.74	17947.53147	4.923362916
Riverside (SC)	2024	MDV	Aggregate	Aggregate	ELEC	1759.655155	53454.88255	8929.865345	0
Riverside (SC)	2024	MH	Aggregate	Aggregate	GAS	4447.773714	34330.11049	444.9552824	6.493354428
Riverside (SC)	2024	MH	Aggregate	Aggregate	DSL	1971.591273	14832.52594	197.1591273	1.343822937
Riverside (SC)	2024	Motor Coach	Aggregate	Aggregate	DSL	41.66717465	5801.444675	608.3407499	0.816676557
Riverside (SC)	2024	OBUS	Aggregate	Aggregate	GAS	436.1488407	14690.22853	8726.466005	2.754009451
Riverside (SC)	2024	PTO	Aggregate	Aggregate	DSL	0	44320.51384	0	8.231074899
Riverside (SC)	2024	SBUS	Aggregate	Aggregate	GAS	439.6915571	15094.65462	1758.766228	1.692046723
Riverside (SC)	2024	SBUS	Aggregate	Aggregate	DSL	894.0425814	28336.36505	10317.12744	3.642655698
Riverside (SC)	2024	T6 Ag	Aggregate	Aggregate	DSL	3.9383837	51.75334321	17.32888828	0.005409636
Riverside (SC)	2024	T6 CAIRP heavy	Aggregate	Aggregate	DSL	49.73399344	9550.295224	726.1163042	0.731860052
Riverside (SC)	2024	T6 CAIRP small	Aggregate	Aggregate	DSL	24.96534236	1268.079315	364.4939984	0.104950477
Riverside (SC)	2024	T6 instate construction heavy	Aggregate	Aggregate	DSL	718.0278456	46818.84183	3246.175973	4.060184428
Riverside (SC)	2024	T6 instate construction small	Aggregate	Aggregate	DSL	1329.827221	73074.30684	6012.097161	6.278103945
Riverside (SC)	2024	T6 instate heavy	Aggregate	Aggregate	DSL	1955.847622	252286.4697	22570.2104	20.3587064
Riverside (SC)	2024	T6 instate small	Aggregate	Aggregate	DSL	7155.65398	357211.5975	82575.25483	30.70294593
Riverside (SC)	2024	T6 OOS heavy	Aggregate	Aggregate	DSL	27.82709184	5323.550954	406.2755409	0.408378013
Riverside (SC)	2024	T6 OOS small	Aggregate	Aggregate	DSL	14.50505463	733.2068189	211.7737976	0.060718604
Riverside (SC)	2024	T6 Public	Aggregate	Aggregate	DSL	572.8870163	8644.463881	1737.757281	1.025146392
Riverside (SC)	2024	T6 utility	Aggregate	Aggregate	DSL	168.0721872	2806.151619	1932.830153	0.262543169
Riverside (SC)	2024	T6TS	Aggregate	Aggregate	GAS	1398.543137	56941.89869	27982.05108	10.44742239
Riverside (SC)	2024	T7 Ag	Aggregate	Aggregate	DSL	11.02709983	81.84916247	48.51923924	0.014933858
Riverside (SC)	2024	T7 CAIRP	Aggregate	Aggregate	DSL	1645.805361	299560.044	24028.75827	39.14777377
Riverside (SC)	2024	T7 CAIRP construction	Aggregate	Aggregate	DSL	184.0292624	33630.38079	831.9891402	4.15338895
Riverside (SC)	2024	T7 NNOOS	Aggregate	Aggregate	DSL	1884.35287	365176.1496	27511.5519	45.14141174
Riverside (SC)	2024	T7 NOOS	Aggregate	Aggregate	DSL	654.0349978	117689.7529	9548.910967	15.80270964
Riverside (SC)	2024	T7 POLA	Aggregate	Aggregate	DSL	2361.768314	322447.2538	17949.43919	43.89630122
Riverside (SC)	2024	T7 Public	Aggregate	Aggregate	DSL	772.9859549	15672.22522	2344.724061	2.577420553
Riverside (SC)	2024	T7 Single	Aggregate	Aggregate	DSL	3081.23414	223206.9666	35557.01478	29.31439017
Riverside (SC)	2024	T7 single construction	Aggregate	Aggregate	DSL	1193.602479	83430.7891	5396.2304	11.02968579
Riverside (SC)	2024	T7 SWCV	Aggregate	Aggregate	DSL	58.81650987	2403.147296	229.3843885	1.186225468
Riverside (SC)	2024	T7 SWCV	Aggregate	Aggregate	NG	332.158218	13507.35785	1295.41705	5.508111343
Riverside (SC)	2024	T7 tractor	Aggregate	Aggregate	DSL	3482.41357	455986.8217	44226.65233	56.14184556
Riverside (SC)	2024	T7 tractor construction	Aggregate	Aggregate	DSL	1010.739777	68823.05569	4569.515232	9.153884138
Riverside (SC)	2024	T7 utility	Aggregate	Aggregate	DSL	111.7721205	2267.75523	1285.379386	0.337087411
Riverside (SC)	2024	T7IS	Aggregate	Aggregate	GAS	6.027894532	477.2704955	120.6061138	0.106770859
Riverside (SC)	2024	UBUS	Aggregate	Aggregate	GAS	166.3958246	23427.66786	665.5832982	3.649202734
Riverside (SC)	2024	UBUS	Aggregate	Aggregate	DSL	0.141961099	11.67769301	0.567844395	0.001254697
Riverside (SC)	2024	UBUS	Aggregate	Aggregate	ELEC	0.058469431	1.251702935	0.233877724	0
Riverside (SC)	2024	UBUS	Aggregate	Aggregate	NG	207.5051617	27220.24364	830.0206468	6.438402902

Operation-Related Vehicle Fuel/Energy Usage

Proposed Project -- Passenger Vehicles

MODIFIED PROJECT COMMUTE

Vehicle Type	Gas		Diesel		CNG		Electricity	
	VMT	Gallons	VMT	Gallons	VMT	Gallons	VMT	kWh
All	5,451,955	193,685	120,266	7,308	1,085	330	107,211	34,971
Total	**5,451,955**	**193,685**	**120,266**	**7,308**	**1,085**	**330**	**107,211**	**34,971**

Proposed Project

PROPOSED CONDITIONS

Vehicle type	Fleet percent			VMT			
	Apartments Mid-Rise	Regional Shopping Center	High Turnover (Sit Down Restaurant)	Apartments Mid-Rise	Regional Shopping Center	High Turnover (Sit Down Restaurant)	Total
LDA	64.43%	54.48%	54.48%	2,754,750	554,022	211,239	3,520,011
LDT1	7.43%	6.28%	6.28%	317,774	63,910	24,368	406,051
LDT2	22.17%	18.75%	18.75%	947,998	190,657	72,694	1,211,349
MDV	2.00%	12.72%	12.72%	85,516	129,392	49,335	264,244
LHD1	0.45%	2.31%	2.31%	19,083	23,480	8,953	51,516
LHD2	0.12%	0.61%	0.61%	5,028	6,186	2,359	13,573
MHD	0.20%	1.05%	1.05%	8,659	10,653	4,062	23,373
HHD	0.15%	0.80%	0.80%	6,623	8,148	3,107	17,878
OBUS	0.00%	0.09%	0.09%	0	941	359	1,299
UBUS	0.00%	0.06%	0.06%	0	621	237	858
MCY	2.97%	2.44%	2.44%	127,013	24,808	9,459	161,279
SBUS	0.01%	0.07%	0.07%	577	710	271	1,558
MH	0.07%	0.34%	0.34%	2,788	3,431	1,308	7,527
	100.00%	100.00%	100.00%	4,275,809	1,016,956	387,748	5,680,513

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,165.35	1,165.35	1165.35	4,275,809	4,275,809
Enclosed Parking with Elevator	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	317.05	317.05	317.05	1,016,956	1,016,956
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Recreational Swimming Pool	0.00	0.00	0.00		
Regional Shopping Center	112.70	112.70	112.70	387,748	387,748
Total	1,595.10	1,595.10	1,595.10	5,680,513	5,680,513

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.644264	0.074319	0.221712	0.020000	0.004463	0.001176	0.002025	0.001549	0.000000	0.000000	0.029705	0.000135	0.000652
Enclosed Parking with Elevator	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
High Turnover (Sit Down Restaurant)	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Other Asphalt Surfaces	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Other Non-Asphalt Surfaces	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Recreational Swimming Pool	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Regional Shopping Center	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

PROPOSED CONDITIONS

Vehicle type	Gas percent	Diesel percent	CNG percent	Electricity percent	
LDA	96.62%	0.92%	0.00%	2.46%	
LDT1	98.85%	0.03%	0.00%	1.12%	
LDT2	98.14%	0.76%	0.00%	1.10%	
MDV	96.51%	2.46%	0.00%	1.02%	
LHD1	56.77%	43.23%	0.00%	0.00%	
LHD2	35.72%	64.28%	0.00%	0.00%	
MHD	15.81%	84.19%	0.00%	0.00%	<< Equal to T6 (https://www.arb.ca.gov/msei/downloads/emfac2014/emfac2014-vol3-technical-documentation-052015.pdf)
HHD	0.08%	98.29%	1.63%	0.00%	<< Equal to T7 (https://www.arb.ca.gov/msei/downloads/emfac2014/emfac2014-vol3-technical-documentation-052015.pdf)
OBUS	39.79%	60.21%	0.00%	0.00%	<< Motor coach, all other buses, and OBUS (https://www.arb.ca.gov/msei/downloads/emfac2014/emfac2014-vol3-technical-documentation-052015.pdf)
UBUS	6.98%	0.25%	92.54%	0.23%	
MCY	100.00%	0.00%	0.00%	0.00%	
SBUS	34.75%	65.25%	0.00%	0.00%	
MH	74.85%	25.15%	0.00%	0.00%	

PROPOSED CONDITIONS

Vehicle type	Gasoline			Diesel			CNG			Electricity		
	VMT	mpg	Gallons	VMT	mpg	Gallons	VMT	mpg	Gallons	VMT	m/kWh	kWh
LDA	3,400,912	31.12	109,278	32,463	48.57	668	0	0.00	0	86,636	3.07	28,260
LDT1	401,363	26.80	14,975	142	22.08	6	0	0.00	0	4,546	3.07	1,483
LDT2	1,188,813	25.20	47,172	9,214	35.74	258	0	0.00	0	13,323	3.07	4,346
MDV	255,030	20.46	12,465	6,509	27.66	235	0	0.00	0	2,704	3.07	882
LHD1	29,247	10.57	2,766	22,269	22.10	1,008	0	0.00	0	0	3.07	0
LHD2	4,848	9.21	526	8,726	19.90	438	0	0.00	0	0	3.07	0
MHD	3,694	5.12	722	19,678	11.00	1,789	0	0.00	0	0	3.07	0
HHD	15	4.20	4	17,572	7.00	2,509	291	2.27	128	0	3.07	0
OBUS	517	5.06	102	782	9.06	86	0	0.00	0	0	3.07	0
UBUS	60	4.35	14	2	5.66	0	794	3.93	202	2	3.07	0
MCY	161,279	35.68	4,520	0	0.00	0	0	0.00	0	0	3.07	0
SBUS	541	9.27	58	1,016	7.70	132	0	0.00	0	0	3.07	0
MH	5,634	5.21	1,082	1,893	10.67	177	0	0.00	0	0	3.07	0
	5,451,955		**193,685**	**120,266**		**7,308**	**1,085**		**330**	**107,211**		**34,971**