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April 19, 2023 04299.00007.001

Ms. Chandra Miehe
TAIT & Associates, Inc.
11280 Trade Center Drive
Rancho Cordova, CA 95742

**Subject:** **Air Quality and Greenhouse Gas Emissions Assessment for the 43 Middle Rincon Road 7-Eleven Project**

Dear Ms. Miehe:

HELIX Environmental Planning, Inc. (HELIX) has assessed the air quality and greenhouse gas (GHG) emissions associated with the construction and operation of the proposed 43 Middle Rincon Road 7-Eleven Project (project). The analysis has been prepared to support environmental review under the California Environmental Quality Act (CEQA).

## PROJECT LOCATION

The project site is located at the corner of Middle Rincon Road and State Route (SR) 12 at 43 Middle Rincon Road in the City of Santa Rosa (City). The 2.2-acre site is composed of Assessor's Parcel Numbers (APNs) 182-540-024 and 182-540-025. Project site access would be provided via driveways on Middle Rincon Road and SR 12. Surrounding land uses include single-family residences to the west, north, and northeast; vacant lots to the northwest; and commercial/retail businesses across Middle Rincon Road to the east and across SR 12 to the south (see Figure 1, *Vicinity Map*, and Figure 2, *Aerial Map*).

## PROJECT DESCRIPTION

The 2.2-acre project site is currently developed and contains an approximately 2,400-square foot (SF) convenience store, a single-family home, an approximately 10,300-SF warehouse, and four additional small outbuildings. The project proposes to develop the southern 1.02 acres of the 2.2-acre site with a 4,19-SF convenience market and retail gasoline dispensing facility (gas station) with electric vehicle charging. Twelve gas pumps through six production dispensers would be provided and a 3,096-SF steel canopy would be constructed above the gas pumps. Additionally, three underground storage tanks for gasoline and diesel would be installed in the north portion of the project site. Approximately 14,300 SF of landscaping would be installed around the project site periphery.

The remaining development area would be impervious asphalt or concrete surfaces totaling 28,700 SF and would include 20 vehicle parking spaces. The remaining 1.18-acre northern portion of the project site would be a separate lot reserved for future development. See Figure 3*, Site Plan*, for details.

The project would include the following design features to meet the requirements of the Bay Area Air Quality Management District's (BAAQMD's) performance-based climate change thresholds and the City's Climate Action Plan (CAP):

- The project would be all electric and would not include natural gas or natural gas plumbing;
- A minimum of 8 of the project's 20 parking spaces would be electric vehicle (EV) capable spaces, and a minimum 3 of those EV capable spaces would include electric vehicle supply equipment (EVSE) in accordance with the 2022 California Green Building Standards Code (CALGreen; Title 24 Part 11) nonresidential Tier 2 measure A5.106.5.3.2;[1] and
- The project would comply with 2022 CALGreen Tier 1 nonresidential measures.

## Project Construction

Per the project applicant, project construction would begin in November 2023 and be completed in June 2024, for a total construction period of approximately eight months. Construction activities would include demolition, site preparation, grading, installation of underground utilities and fuel tanks, construction of structures, paving, and architectural coating (e.g., painting). During site preparation, an export of approximately 400 cubic yards of vegetation/soil is anticipated. During grading and excavation, an export of approximately 950 cubic yards of soil and old concrete/asphalt is anticipated. The City Municipal Code section 20-30.090, *Performance Standards*, requires construction activity to limit dust emissions beyond the site boundary, including the implementation of best management practices (BMPs), also required by BAAQMD. All project construction activities would implement the BAAQMD's Basic Construction Mitigation Measures (BCMMs; BAAQMD 2017a), described below:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

[1] CALGreen Tier 1 and Tier 2 measures are voluntary measures contained in the Tile 24 Part 11 appendices which go beyond the minimum code requirements. Although not required by the State, Tier 1 and Tier 2 measures can be mandated by local agencies (e.g., City, County).

- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of the California Code of Regulations). Clear signage shall be provided for construction workers at all access points.

- All construction equipment shall be maintained and properly tuned in accordance with the manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.

- Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The air district's phone number shall also be visible to ensure compliance with applicable regulations.

In addition, the project would include the following BMPs to minimize construction equipment emissions:

- As early in the project construction as possible, temporary electrical service shall be installed and project construction shall use grid power to supply electric construction equipment in lieu of generators.

- Project construction shall use electric or other alternative fuel-powered off-road equipment wherever feasible.

## AIR QUALITY ANALYSIS

### Environmental Setting

The project site is located in the southern portion of Sonoma County within the San Francisco Bay Area Air Basin (SFBAAB), which comprises all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties, the southern portion of Sonoma County, and the southwestern portion of Solano County. Air Quality within the SFBAAB is under the regulatory authority of the BAAQMD. There are 11 climatological subregions within the SFBAAB. The project site is in the Petaluma and Cotati Valleys climatological subregion of the SFBAAB which stretches from Santa Rosa south to the San Pablo Bay. The subregion is bordered by the Sonoma Mountains to the east and a series of low hills to the west. Wind patterns in the Petaluma and Cotati Valleys are influenced by marine air flowing predominantly from the west. As marine air travels through the Petaluma Gap in the western hills, it splits into northward and southward paths moving into the Cotati and Petaluma valleys. The northward path contributes to Santa Rosa's prevailing winds from the south and southeast (BAAQMD 2017a).

The BAAQMD is responsible for implementing emissions standards and other requirements of federal and state laws in the SFBAAB. Attainment plans for meeting the federal air quality standards are incorporated into the State Implementation Plan (SIP), which is subsequently submitted to the U.S. Environmental Protection Agency (USEPA), the federal agency that administrates the Federal CAA of 1970, as amended in 1990.

## Regulatory Setting

### Criteria Pollutants

Criteria pollutants are defined and regulated by state and federal law as a risk to the health and welfare of the public and are categorized into primary and secondary pollutants. Primary air pollutants are those that are emitted directly from sources including: carbon monoxide (CO); reactive organic gases (ROGs), also known as volatile organic compounds (VOCs); nitrogen oxides ($NO_X$); sulfur dioxide ($SO_2$); coarse particulate matter ($PM_{10}$); fine particulate matter ($PM_{2.5}$); and lead. Of these primary pollutants, CO, $SO_2$, $PM_{10}$, $PM_{2.5}$, and lead are criteria pollutants. ROGs and $NO_X$ are criteria pollutant precursors and go on to form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. The principal secondary criteria pollutants are ozone ($O_3$) and nitrogen dioxide ($NO_2$).

Ambient air quality is described in terms of compliance with state and national standards, and the levels of air pollutant concentrations considered safe, to protect the public health and welfare. These standards are designed to protect people most sensitive to 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. The USEPA has established national ambient air quality standards (NAAQS) for criteria pollutants. As permitted by the Clean Air Act, California has adopted the more stringent California ambient air quality standards (CAAQS) and expanded the number of regulated air pollutant constituents.

The California Air Resources Board (CARB) is required to designate areas of the state as attainment, nonattainment, or unclassified for the ambient air quality standards. An "attainment" designation for an area signifies that pollutant concentrations do not violate the standard for that pollutant in that area. A "nonattainment" designation indicates that a pollutant concentration violated the standard at least once. The air quality attainment status of the SFBAAB is shown in Table 1, *San Francisco Bay Area Air Basin Attainment Status*.

**Table 1**
**SAN FRANCISCO BAY AREA AIR BASIN ATTAINMENT STATUS**

| Pollutant | State of California Attainment Status | Federal Attainment Status |
|---|---|---|
| Ozone | Nonattainment | Nonattainment (Marginal) |
| Coarse Particulate Matter ($PM_{10}$) | Nonattainment | Unclassified |
| Fine Particulate Matter ($PM_{2.5}$) | Nonattainment | Nonattainment (Moderate) |
| Carbon Monoxide | Attainment | Unclassified/Attainment |
| Nitrogen Dioxide | Attainment | Unclassified/Attainment |
| Lead | Attainment | Unclassified/Attainment |
| Sulfur Dioxide | Attainment | Unclassified/Attainment |
| Sulfates | Attainment | No Federal Standard |
| Hydrogen Sulfide | Unclassified | No Federal Standard |
| Visibility Reducing Particles | Unclassified | No Federal Standard |

Source: CARB 2018; CARB 2017; USEPA 2019a.

The SFBAAB is designated as nonattainment for the state and national ozone standards, the state $PM_{10}$ standards, and the state and national $PM_{2.5}$ standards. The current air quality plan applicable to the project, *2017 Clean Air Plan: Spare the Air, Cool the Climate,* was developed by the BAAQMD to

describe how the Air District will continue the progress toward attaining all state and national air quality standards and eliminating health risk disparities from exposure to air pollution among Bay Area communities (BAAQMD 2017b).

Ground-level ozone is not emitted directly into the environment but is generated from complex chemical reactions between the precursor pollutant ROGs (or non-methane hydrocarbons), and $NO_X$ that occur in the presence of sunlight. $PM_{10}$ and $PM_{2.5}$ are generated from a variety of sources, including road dust, diesel exhaust, fuel combustion, tire and brake wear, construction operations, and windblown dust. In addition, $PM_{10}$ and $PM_{2.5}$ can also be formed through chemical and photochemical reactions of precursor pollutants in the atmosphere. Significant anthropogenic ROG, $NO_X$, $PM_{10}$, and $PM_{2.5}$ sources in the SFBAAB include motor vehicles and other transportation sources; off-highway equipment used in construction; ports and airports; industrial activity; petroleum refineries; electrical power generation facilities; and agriculture.

## Toxic Air Contaminants

Toxic air contaminants (TACs) are a diverse group of air pollutants that may cause or contribute to an increase in deaths or in serious illness or that may pose a present or potential hazard to human health. TACs can cause long-term health effects such as cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage, or short-term acute effects such as eye watering, respiratory irritation (a cough), runny nose, throat pain, and headaches. TACs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For carcinogenic TACs, there is no level of exposure that is considered safe and impacts are evaluated in terms of overall relative risk expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

The Health and Safety Code (§39655[a]) defines 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." All substances that are listed as hazardous air pollutants pursuant to subsection (b) of Section 112 of the CAA (42 United States Code Sec. 7412[b]) are designated as TACs. Under State law, the California Environmental Protection Agency (CalEPA), acting through CARB, is authorized to identify a substance as a TAC if it determines the substance is an air pollutant that may cause or contribute to an increase in mortality or an increase in serious illness, or that may pose a present or potential hazard to human health.

## Diesel Particulate Matter

Diesel engines emit a complex mixture of air pollutants, including both gaseous and solid material. The solid material in diesel exhaust is known as diesel particulate matter (DPM). Almost all DPM is 10 microns or less in diameter, and 90 percent of DPM is less than 2.5 microns 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. In 1998, the CARB identified DPM as a TAC based on published evidence of a relationship between diesel exhaust exposure and lung cancer and other adverse health effects. DPM has a significant impact on California's population—it is estimated that about 70 percent of total known cancer risks related to air toxics in California are attributable to DPM (CARB 2022a).

## Asbestos Containing Material

Asbestos is a mineral fiber that naturally occurs in some rock and soil. Long-term exposure to airborne asbestos fibers has been linked to major health effects including lung cancer; mesothelioma, a rare form of cancer that is found in the thin lining of the lung, chest, abdomen, and heart; and asbestosis, a serious progressive, long-term, non-cancer disease of the lungs (USEPA 2019b). Because of its fiber strength and heat resistance, asbestos has been used in a variety of building construction materials for insulation and as a fire retardant, primarily in buildings constructed before 1979. Asbestos fibers may be released into the air by the disturbance of asbestos containing material (ACM) during renovation and demolition activities.

## Gasoline Dispensing Facilities

Activities at gas stations can release TACs into the air, including the organic compounds benzene, toluene, and xylene. Other benzene emission sources include burning coal and oil, and motor vehicle exhaust. Acute (short-term) inhalation exposure of humans to benzene may cause drowsiness, dizziness, headaches, as well as eye, skin, and respiratory tract irritation, and, at high levels, unconsciousness. Chronic (long-term) inhalation exposure of benzene has caused various disorders in the blood, including reduced numbers of red blood cells and aplastic anemia. Increased incidence of leukemia (cancer of the tissues that form white blood cells) has been observed in humans occupationally exposed to benzene. The USEPA has classified benzene as a known human carcinogen (USEPA 2012). Toluene and xylene are not considered carcinogens, but they can contribute to chronic and acute health conditions.

State regulations require all new gas stations to obtain an Authority to Construct (A/C) and a Permit to Operate (P/O) from the local air district. BAAQMD regulates gas stations through Regulation 8, Rule 7 *Gasoline Dispensing Facilities* which requires implementation, maintenance, and testing of the Best Available Control Technology (BACT) to minimize TAC emissions and resulting public health risks from the facility. Gas station BACT designs are regulated and certified by CARB and consist of vapor recovery systems to collect gasoline vapors that would otherwise escape into the atmosphere. Gasoline vapor emissions at gas stations are controlled in two phases. Phase I vapor recovery collects vapors displaced from underground storage tanks when a cargo tank truck delivers gasoline to a gas station. Phase II vapor recovery collects vapors displaced during the transfer of gasoline from a dispensing nozzle to a vehicle, fuel container, or gasoline-powered equipment; and the storage of gasoline at a gas station. CARB regulations establish standards for the level of emissions control vapor recovery systems must achieve during the transfer and storage of gasoline.

Vapor recovery system performance standards for gas stations have become more stringent over the years. Since 2001, CARB has adopted several significant advancements as part of the enhanced vapor recovery (EVR) program. Phase I EVR, in accordance with California Executive Order VR-102, requires more durable and leak-tight components, along with an increased collection efficiency of 98 percent. Phase II EVR, in accordance with California Executive Order VR-204, includes three major advancements: (1) dispensing nozzles with less spillage and required compatibility with onboard refueling vapor recovery (ORVR) vehicles, (2) a processor to control the static pressure of the ullage, or vapor space, in the underground storage tank, and (3) an in-station diagnostic (ISD) system that provides warning alarms to alert a gas station operator of potential vapor recovery system malfunctions. Phase I EVR was fully implemented in 2005. Phase II EVR was fully implemented between 2009 and 2011 (CARB 2013). The project would be required to implement Phase I EVR and Phase II EVR systems (with an ISD system) meeting the latest CARB performance standards.

ORVR systems were phased in beginning with 1998 model year passenger vehicles, and are now installed on all passenger, light-duty, and medium-duty vehicles manufactured since the 2006 model year. When an ORVR vehicle is fueled, almost all the gasoline vapor displaced from the fuel tank is routed to a carbon canister in the vehicle fuel system. At the start of dispensing, a small portion of the vapor in the vehicle fuel tank may escape through the fill-pipe before the onboard system is fully engaged. Uncontrolled fill-pipe emissions from ORVR vehicles are approximately two orders of magnitude lower than the same emissions from vehicles without ORVR and are easily captured by Phase II vapor recovery systems (CARB 2013).

## Methodology

Criteria pollutant and precursor emissions for project construction and operation were calculated using the California Emissions Estimator Model (CalEEMod), version 2020.4.0. CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions associated with both construction and operations from a variety of land use projects. The model was developed for the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the California air districts. CalEEMod allows for the use of default data (e.g., emission factors, trip generation, trip lengths, meteorology, source inventory) provided by the various California air districts to account for local requirements and conditions, and/or user-defined inputs. The calculation methodology and input data used in CalEEMod can be found in the CalEEMod User's Guide Appendices A, D, and E (CAPCOA 2021). The input data and subsequent construction and operation emission estimates for the proposed project are discussed below. The CalEEMod output files for the project are included as Attachment A to this letter report.

## Existing Conditions

### Existing Ambient Air Quality

The BAAQMD operates a network of ambient air monitoring stations throughout the SFBAAB. The air quality monitoring station closest to the project site is the Sebastopol-103 Morris Street Station, approximately 9.2 miles west of the project site. There are no monitoring stations in the SFBAAB portion of Sonoma County with data for $PM_{10}$, $SO_2$ or Lead concentrations. The ambient pollutant concentrations collected at the stations during the last three available years (2019 through 2021) are shown in Table 2, *Air Quality Monitoring Data*. The data indicates exceedance of the federal $PM_{2.5}$ standard on seven days in 2020. Data for ozone and $NO_2$ showed no exceedances from 2019 through 2021 (BAAQMD 2022).

**Table 2**
**AIR QUALITY MONITORING DATA**

| Pollutant Standard | 2019 | 2020 | 2021 |
|---|---|---|---|
| *Ozone ($O_3$)* | | | |
| Maximum 1-hour concentration (ppm) | 0.070 | 0.068 | 0.071 |
| Days above 1-hour state standard (0.09 ppm) | 0 | 0 | 0 |
| Maximum 8-hour concentration (ppm) | 0.059 | 0.058 | 0.063 |
| Days above 8-hour state standard (0.070 ppm) | 0 | 0 | 0 |
| Days above 8-hour federal standard (0.070 ppm) | 0 | 0 | 0 |
| *Fine Particulate Matter ($PM_{2.5}$)* | | | |
| Maximum 24-hour concentration (µg/m$^3$) | 28.0 | 124.3 | 29.5 |
| Measured days above federal standard (35 µg/m$^3$) | 0 | 7 | 0 |
| *Nitrogen Dioxide ($NO_2$)* | | | |
| Maximum 1-hour concentration (ppb) | 31.9 | 36.3 | 26.3 |
| Days above state 1-hour standard (180 ppb) | 0 | 0 | 0 |

Source: CARB 2022b.
ppb = parts per billion; ppm = parts per million; µg/m$^3$ = micrograms per cubic meter.

The 2.2-acre project site is currently developed and contains an approximately 2,400-SF convenience store, a single-family home, an approximately 10,300 SF warehouse, and four additional small outbuildings.

## Existing Emissions

Current operational emissions from the existing convenience store on the project site were modeled separately to establish the baseline. The modeling used the trip generation calculated for the existing project site use in the Focused Traffic Study (W-Trans 2020) and model defaults for all other settings. The estimated existing land use operational emissions are shown below in Table 3, *Existing Land Use Criteria Pollutant and Precursor Emissions*.

**Table 3**
**EXISTING LAND USE CRITERIA POLLUTANT AND PRECURSOR EMISSIONS (POUNDS PER DAY)**

| Category | ROG[1] | $NO_X$ | CO | $SO_X$ | Fugitive $PM_{10}$ | Exhaust $PM_{10}$ | Fugitive $PM_{2.5}$ | Exhaust $PM_{2.5}$ |
|---|---|---|---|---|---|---|---|---|
| Area | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 |
| Energy | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 |
| Mobile | 3.2 | 4.2 | 28.4 | <0.1 | 5.7 | <0.1 | 1.5 | <0.1 |
| **Total Emissions[2]** | **3.3** | **4.2** | **28.4** | **<0.1** | **5.7** | **<0.1** | **1.5** | **<0.1** |

Source: CalEEMod version 2020.4.0; Thresholds BAAQMD 2017a.
[1] Maximum emissions of ROGs would occur during the summer, all other maximums would occur during the winter.
[2] Totals may not sum due to rounding.
ROG = reactive organic gas; $NO_X$ = nitrogen oxides; CO = carbon monoxide; $SO_X$ = sulfur oxides; $PM_{10}$ = particulate matter 10 microns or less in diameter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter.

### Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved and are referred to as sensitive receptors. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB and the Office of Environmental Health Hazard Assessment (OEHHA) have identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, infants (including in utero in the third trimester of pregnancy), and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis (CARB 2005; OEHHA 2015).

The closest existing sensitive receptors to the proposed gas pumps are a single-family residence approximately 180 feet (0.03 mile) northeast; a single-family residence approximately 320 feet (0.06 mile) northwest; and a single-family residence approximately 200 feet (0.04 mile) west. The closest school to the proposed gas pumps is Douglas Whited Elementary School, approximately 600 feet (0.11 mile) to the east. There are no hospitals or daycare centers within 1,000 feet (0.19 mile) of the project site.

## Significance Criteria

While the final determination of whether or not a project has a significant effect is within the purview of the lead agency pursuant to CEQA Guidelines Section 15064(b), the BAAQMD has developed thresholds of significance for mass emissions of the ozone precursors ROG and $NO_X$, and criteria pollutants $PM_{10}$ and $PM_{2.5}$, which lead agencies within their jurisdiction can use to evaluate the air pollutant emissions impacts of land use projects. These criteria pollutant and precursor thresholds and other assessment recommendations are contained in the BAAQMD's *2017 CEQA Air Quality Guidelines* and are discussed under the checklist questions below.

For a project's construction-related emissions of fugitive dust $PM_{10}$ and $PM_{2.5}$, rather than adopting quantitative mass emissions thresholds, the BAAQMD has adopted a qualitative threshold where a project's fugitive dust emissions would be considered to have a less than significant impact if the project implements the Basic Construction Mitigation Measures, described above (BAAQMD 2017a).

The following potential air quality impacts are based on Appendix G of the State CEQA Guidelines. A significant impact is identified if the project would result in any of the following:

a) *Conflict with or obstruct implementation of the applicable air quality plan?*

b) *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?*

c) *Expose sensitive receptors to substantial pollutant concentrations?*

d) *Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

## Project Analysis

*a) Conflict with or obstruct implementation of the applicable air quality plan?*

The BAAQMD 2017 Clean Air Plan (Clean Air Plan), adopted on April 19, 2017 (still the most current plan), provides a regional strategy to protect public health and protect the climate. The 2017 Clean Air Plan updates the most recent Bay Area ozone plan, the 2010 Clean Air Plan, pursuant to air quality planning requirements defined in the California Health & Safety Code. The BAAQMD prepared the Clean Air Plan as a multipollutant plan to address the air basin's nonattainment status related to the national one-hour ozone standard and the California ambient air quality standards, as well as particulate matter, air toxics, and greenhouse gases. The Clean Air Plan establishes a program of control measures directed at reducing air pollutant emissions and achieving state (California) and national air quality standards. The Clean Air Plan's pollutant control strategies are based on the latest scientific and technical information and planning assumptions, updated emission inventory methodologies for various source categories, and the latest population growth projections and vehicle miles traveled (VMT) projections for the region (BAAQMD 2017b).

Projects which meet the following criteria would be considered consistent with the Clean Air Plan:

1. The project supports the primary goals of the Clean Air Plan.

2. The project conforms to applicable control measures from the Clean Air Plan and does not disrupt or hinder the implementation of any Clean Air Plan control measures.

The primary goals of the Clean Air Plan are progress towards and attainment of the California ambient air quality standards and the national ambient air quality standards. As evaluated in item (b) below, the project's criteria pollutant and precursor emissions would not exceed the construction period or long-term operation thresholds and therefore would not result in any new exceedance, or exacerbate any existing exceedance, of regional air quality standards. Therefore, the project would be consistent with the first criterion.

The Clean Air Plan contains air pollutant reduction strategies and demonstrates that the applicable ambient air quality standards can be achieved within the time frames required under federal law. Growth projections from local general plans adopted by cities in the air district are used to develop regional growth forecasts. The regional growth forecasts are used to develop future air quality forecasts for the Clean Air Plan. Development which is consistent with the growth projections in the applicable General Plan would be considered to have growth consistent with assumption used to develop the Clean Air Plan. The project site has a City of Santa Rosa General Plan land use designation of Retail and Business Services and is zoned General Commercial (CG). The proposed project would be consistent with the land use destination and zoning. Therefore, the small employment growth in the City resulting from implementation of the project would be included in the City's growth assumptions. In addition, because the project would be local serving retail and is in an area that has been determined to have VMT that is 15 percent below regional average, the focused traffic study for the project concluded that the project would not result in an increase of regional VMT (W-Trans 2020). Therefore, the project would not conflict with or obstruct implementation of the BAAQMD 2017 Clean Air Plan. The impact would be **less than significant**.

*b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?*

By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, the potential for a project's individual emissions to contribute to existing cumulatively significant adverse air quality impacts is evaluated.

## Construction Emissions

The project's construction emissions were calculated using CalEEMod version 2020.4.0, as described above. Construction modeling used model defaults, except the demolition phase was extended to 15 days to account for the quantity of structures and old asphalt/concrete to be demolished/removed; the grading/excavation phase was extended to 15 days to account for excavation associated with installation of underground fuel storage tanks; an additional excavator was assumed to be needed for the installation of underground fuel storage tanks; and the use of a water truck was assumed for two hours per day during the demolition, site preparation, and grading/excavation activities. The project's estimated construction emissions are shown below in Table 4 *Construction Criteria Pollutant and Precursor Emissions*. The emissions estimates assume an export of approximately 400 cubic yards of vegetation and soil during grubbing and clearing and an export of approximately 950 cubic yards of soil and/or asphalt and concrete during grading and excavation. The emissions estimate also assumes the implementation of the BAAQMD recommended BCMMs, described above, specifically watering exposed areas a minimum of twice per day.

**Table 4**
**CONSTRUCTION CRITERIA POLLUTANT AND PRECURSOR EMISSIONS (POUNDS PER DAY)**

| Phase | ROG | $NO_X$ | CO | $SO_X$ | Fugitive $PM_{10}$ | Exhaust $PM_{10}$ | Fugitive $PM_{2.5}$ | Exhaust $PM_{2.5}$ |
|---|---|---|---|---|---|---|---|---|
| Demolition | 0.8 | 7.5 | 8.8 | <0.1 | 0.8 | 0.3 | 0.1 | 0.3 |
| Site Preparation | 0.7 | 7.1 | 5.0 | <0.1 | 0.3 | 0.3 | <0.1 | 0.2 |
| Grading/Excavation | 1.1 | 11.1 | 6.7 | <0.1 | 2.5 | 0.5 | 1.2 | 0.4 |
| Building Construction | 0.8 | 7.4 | 7.6 | <0.1 | 0.1 | 0.4 | <0.1 | 0.3 |
| Paving | 1.0 | 5.3 | 7.5 | <0.1 | 0.1 | 0.2 | <0.1 | 0.2 |
| Architectural Coating | 11.3 | 1.2 | 1.9 | <0.1 | <0.1 | 0.1 | <0.1 | 0.1 |
| **Average Daily Emissions** | **11.4** | **11.1** | **8.8** | **<0.1** | **2.5** | **0.5** | **1.2** | **0.4** |
| Threshold | 54 | 54 | None | None | BCMMs | 82 | BCMMs | 54 |
| *Threshold exceeded?* | *No* | *No* | *No* | *No* | *No* | *No* | *No* | *No* |

Source: CalEEMod version 2020.4.0; Thresholds BAAQMD 2017a.
ROG = reactive organic gas; $NO_X$ = nitrogen oxides; CO = carbon monoxide; $SO_X$ = sulfur oxides; $PM_{10}$ = particulate matter 10 microns or less in diameter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

As shown in Table 4, the project's construction emissions related to the criteria pollutants and precursors would not exceed the BAAQMD thresholds. Therefore, the project's construction emissions of criteria pollutants and precursors would be less than cumulatively considerable.

## Operational Emissions

Long-term operation of the project would result in emissions of criteria pollutants and precursors from mobile sources related to the use of vehicles for worker commute trips, customer trips and vendor trips; energy sources related to the use of natural gas or propane for heating and hot water; and area sources such as the use of landscape maintenance equipment, cleaning products, and the re-application of architectural coatings for maintenance (e.g., painting).

The project's operational emissions were calculated using CalEEMod version 2020.4.0, as described above. Operational modeling used model defaults, except for the trip generation which used the results calculated for the project in the Focused Traffic Study (W-Trans 2020). The Focused Traffic Study calculations included pass-by trip reductions; therefore, all trips were considered primary trips in the modeling (e.g., no additional pass-by or diverted trips). The project's estimated net change in operational emissions (project emissions minus existing use emissions) are shown below in Table 5, *Operation Criteria Pollutant and Precursor Emissions*.

**Table 5**
**OPERATION CRITERIA POLLUTANT AND PRECURSOR EMISSIONS (POUNDS PER DAY)**

| Category | ROG[1] | $NO_X$ | CO | $SO_X$ | Fugitive $PM_{10}$ | Exhaust $PM_{10}$ | Fugitive $PM_{2.5}$ | Exhaust $PM_{2.5}$ |
|---|---|---|---|---|---|---|---|---|
| Area | 0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 |
| Energy | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 |
| Mobile | 5.6 | 7.3 | 49.8 | <0.1 | 9.9 | <0.1 | 2.6 | <0.1 |
| Total Project Emissions[2] | 5.7 | 7.3 | 49.8 | <0.1 | 9.9 | <0.1 | 2.6 | <0.1 |
| Existing Use Emissions | 3.3 | 4.2 | 28.4 | <0.1 | 5.7 | <0.1 | 1.5 | <0.1 |
| **Net Project Emissions[2]** | **2.4** | **3.1** | **21.4** | **<0.1** | **4.2** | **<0.1** | **1.1** | **<0.1** |
| Threshold | 54 | 54 | None | None | None | 82 | None | 54 |
| *Threshold exceeded?* | *No* | *No* | *No* | *No* | *No* | *No* | *No* | *No* |

Source: CalEEMod version 2020.4.0; Thresholds BAAQMD 2017a.
[1] Maximum emissions of ROG would occur during the summer, all other maximums would occur during the winter.
[2] totals may not sum due to rounding.
ROG = reactive organic gas; $NO_X$ = nitrogen oxides; CO = carbon monoxide; $SO_X$ = sulfur oxides; $PM_{10}$ = particulate matter 10 microns or less in diameter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter.

As shown in Table 5, the project's net operational emissions would not exceed the BAAQMD thresholds. Therefore, the project's long-term operational emissions of criteria pollutants and precursors would be less than cumulatively considerable.

## Impact Summary

The project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard during either construction or operation. The impact would be **less than significant**.

*c) Expose sensitive receptors to substantial pollutant concentrations?*

## Diesel Particulate Matter

Construction of the project would result in emissions of DPM from the use of construction equipment. The amount to which the receptors could be exposed, which is a function of concentration and duration of exposure, is the primary factor used to determine health risk. Current models and methodologies for conducting cancer health risk assessments are associated with longer-term exposure periods (typically 30 years for individual residents) and are best suited for evaluation of long duration TAC emissions with predictable schedules and locations. These assessment models and methodologies do not correlate well with the temporary and highly variable nature of construction activities.

The generation of DPM during construction would be variable and sporadic due to the nature of construction activity. Current models and methodologies for conducting health risk assessments are associated with longer-term exposure periods of 9, 30, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities. Additionally, project-construction activities would occur in an area of less than 2 acres. Construction projects contained in a site of such size typically represent less than significant health risk impacts due to limitations on the size and numbers of off-road diesel equipment able to operate and thus a reduced amount of generated DPM, the reduced amount of dust-generating ground disturbance possible compared to larger construction sites, and the reduced duration of construction activities compared to the development of larger sites.

Due to the short duration and sporadic nature of construction activities requiring the use of heavy diesel-powered equipment, and because the use of heavy construction equipment would not be concentrated near the residential property lines, and because DPM emissions disperse rapidly over relatively short distances, project construction related DPM emissions during construction would not expose sensitive receptors to substantial pollutant concentrations and the impact would be less than significant.

## Asbestos Containing Material and Lead Based Paint

Asbestos dust and lead may be found in buildings constructed prior to 1979 when lead was used in paint and asbestos was used as a component of building materials such as walls, ceilings, insulation, or fireproofing. Demolition or renovation of existing structures erected prior to 1979 could result in the disturbance of ACMs and lead-based paint (LBP).

Airborne asbestos is regulated in accordance with the National Emission Standards for Hazardous Air Pollutants (NESHAP) asbestos regulations. Federal and state regulations prohibit emissions of asbestos from demolition or construction activities. Following identification of friable ACMs, federal and state Occupational and Safety Health Administration (OSHA) regulations require that asbestos trained, and certified abatement personnel perform asbestos abatement and that all asbestos-containing materials removed from on-site structures must be hauled to a licensed receiving facility and disposed of under proper manifest by a transportation company certified to handle asbestos. Demolition of the existing structures would be subject to BAAQMD Regulation 11, Rule 2–Asbestos Demolition, Renovation, and Manufacturing, which regulates the safe handling and disposal of ACMs (BAAQMD 1998).

Section 19827.5 of the California Health and Safety Code requires that local agencies not issue demolition permits until an applicant has demonstrated compliance with notification requirements

under applicable federal regulations regarding hazardous air pollutants. In accordance with the state regulation, the BAAQMD must be notified prior to demolition or abatement activities. The USEPA's Lead Renovation, Repair and Painting Rule (RRP Rule) requires that firms performing renovation, repair, and painting projects that disturb LBP in structures built before 1978 have their firm certified by USEPA (or an authorized state), use certified renovators who are trained by USEPA-approved training providers, and follow lead-safe work practices. These regulations specify precautions and safe work practices that must be followed to minimize the potential for release of asbestos fibers or lead dust and require notice to federal and/or local government agencies prior to beginning demolition or renovation that could disturb ACM. Therefore, compliance with established regulations would ensure that potential impacts associated with ACM and LBP would be less than significant.

### CO Hotspots

CO concentration is a direct function of motor vehicle activity (e.g., idling time and traffic flow conditions) particularly during peak commute hours and meteorological conditions. Under specific meteorological conditions (e.g., stable conditions that result in poor dispersion), CO concentrations may reach unhealthy levels with respect to local sensitive land uses such as residential areas, schools, and hospitals. A CO hotspot is an area of localized CO pollution in excess of the NAAQS concentration limit that is caused by severe vehicle congestion on major roadways, typically near intersections.

The BAAQMD CEQA guidelines provide that, if a project is consistent with the applicable congestion management plan and would not increase traffic volumes at intersections to more than 44,000 vehicles per hour for regular intersections, or would not increase traffic volumes at intersections to more than 24,000 vehicles per hour for intersections with limited vertical mixing zones, the impacts from CO hotpots would be less than significant (BAAQMD 2017a). In the project vicinity the highest volume roadway is SR 12. 2017 Caltrans traffic count data for SR 12 in the project vicinity shows a peak hour traffic volume of 8,200 (Caltrans 2017). The Focused Traffic Study for the project concluded that the project would result in a net increase of 60 peak hour vehicle trips on area streets (W-Trans 2020). The SR 12 traffic volume combined with project trips would be far below the BAAQMD CO hotspot screening guidelines of 44,000 vehicles per hour (or 24,000 vehicles per hour in an area with limited vertical mixing). Therefore, the project would not result in CO hotspots and the impact would be less than significant.

### Gasoline Dispensing Facilities

To determine the impacts related to the exposure of sensitive receptors to TACs from long-term operation of the proposed gas station component of the project, a health risk screening to evaluate community health risks was completed. The BAAQMD has adopted a threshold of 10 in 1 million for a project's contribution to increased community cancer risks from air pollutants. The health risks associated with emissions from gasoline refueling stations are related to the anticipated volume of gasoline dispensed and to the distance to the nearest sensitive receptors. CARB provides a risk assessment screening tool to estimate potential health risks based on gasoline throughput, distance to receptors, and gasoline vapor control technology (CARB 2022c). The project proposes a throughput of 2.7 million gallons per year, the closest sensitive receptor would be approximately 180 feet from the proposed gas pumps, and the closest off-site worker location would be approximately 175 feet from the proposed gas pumps. Based on the highest anticipated throughput, distance to the closest off-site receptors, and required gasoline vapor control technology (EVR Phase I and Phase II, described above),

the CARB screening tool calculated that the maximum increased residential cancer risk would be 0.6 in 1 million and the maximum acute Hazard Index would be 0.03, below the BAAQMD thresholds of 10 in 1 million increased cancer risk and 1.0 Hazard Index. The CARB Gasoline Service Station Assessment Tool printout is included as Attachment C to this report. Therefore, operation of the project gas station would not expose sensitive receptors to substantial concentrations of TACs and a quantitative health risk assessment using air dispersion modeling for TAC emissions from the proposed retail gasoline dispensing facility is not warranted.

Due to the distance to the Douglas Whited Elementary School, approximately 600 feet (0.11 mile), and due to shorter exposure period for an elementary school student (eight hours per day for up to seven years) compared to residents (up to 22 hours per day for 30 years), increased health risks to students at the school due to emissions from the proposed gas station would be well below the screening health risk estimates, described above, and well below the BAAQMD thresholds. However, because the project would be within 1,000 feet of a school with 12 or more students, a public notification (by BAAQMD) of the proposed facility may be triggered as part of the permitting process in accordance with Assembly Bill (AB) 2185 and Health and Safety Code Section 25500, also known as a "Waters Bill Notification."

### Impact Summary

The project would not expose sensitive receptors to substantial pollutant concentrations, including DPM, asbestos, lead or benzene and the impact would be **less than significant**.

*d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

Heavy diesel equipment could generate odors during construction activities. The generation of odors during the construction period would be temporary and would tend to be dispersed within a short distance from the active work area. Once operational, the project would not be a significant source of odors or other emissions. Therefore, due to the short duration of construction activity near any individual residence, the project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people and the impact would be **less than significant**.

## GREENHOUSE GAS EMISSIONS ANALYSIS

## Setting

Global climate change refers to changes in average climatic conditions on Earth including temperature, wind patterns, precipitation, and storms. Global temperatures are moderated by atmospheric gases. These gases are commonly referred to as GHGs because they function like a greenhouse by letting sunlight in but preventing heat from escaping, thus warming the Earth's atmosphere.

GHGs are emitted by natural processes and human (anthropogenic) activities. Anthropogenic GHG emissions are primarily associated with the burning of fossil fuels during motorized transport, electricity generation, natural gas consumption, industrial activity, manufacturing, and other activities; deforestation; agricultural activity; and solid waste decomposition.

The GHGs defined under California's AB 32, described below, include carbon dioxide ($CO_2$), methane ($CH_4$), nitrous oxide ($N_2O$), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride ($SF_6$). Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. Estimates of GHG emissions are commonly presented in carbon dioxide equivalents ($CO_2e$), which weigh each gas by its global warming potential (GWP). Expressing GHG emissions in $CO_2e$ takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only $CO_2$ were being emitted. GHG emissions quantities in this analysis are presented in metric tons (MT) of $CO_2e$. For consistency with United Nations Standards, modeling and reporting of GHGs in California and the U.S. use the GWPs defined in the Intergovernmental Panel on Climate Change's (IPCC) Fourth Assessment Report (IPCC 2007): $CO_2 = 1$; $CH_4 = 25$; $N_2O = 298$.

## Regulatory Framework

### Executive Order S-3-05

On June 1, 2005, Executive Order (EO) S-3-05 proclaimed that California is vulnerable to climate change impacts. It declared that increased temperatures could reduce snowpack in the Sierra Nevada, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To avoid or reduce climate change impacts, EO S-3-05 calls for a reduction in GHG emissions to the year 2000 level by 2010, to year 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. Executive Orders are not laws and can only provide the governor's direction to state agencies to act within their authority to reinforce existing laws.

### Assembly Bill 32 – Global Warming Solution Act of 2006

The California Global Warming Solutions Act of 2006, widely known as AB 32, requires that CARB develop and enforce regulations for the reporting and verification of statewide GHG emissions. CARB is directed by AB 32 to set a GHG emission limit, based on 1990 levels, to be achieved by 2020. The bill requires CARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG emission reductions.

### Executive Order B-30-15

On April 29, 2015, EO B-30-15 established a California GHG emission reduction target of 40 percent below 1990 levels by 2030. The EO aligns California's GHG emission reduction targets with those of leading international governments, including the 28 nation European Union. California is on track to meet or exceed the target of reducing GHGs emissions to 1990 levels by 2020, as established in AB 32. California's new emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the goal established by EO S-3-05 of reducing emissions 80 percent under 1990 levels by 2050.

### Senate Bill 32

Signed into law by Governor Brown on September 8, 2016, Senate Bill (SB) 32 (Amendments to the California Global Warming Solutions Action of 2006) extends California's GHG emission reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include Section 38566, which contains language to authorize CARB to achieve a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. SB 32 codified the targets established

by EO B-30-15 for 2030, which set the next interim step in the State's continuing efforts to pursue the long-term target expressed in EO B-30-15 of 80 percent below 1990 emissions levels by 2050.

## Executive Order N-79-20

EO N-79-20, signed by Governor Newsom on September 23, 2020, establishes three goals for implementation of zero emissions vehicles in California: first, 100 percent of in-state sales of new passenger cars and trucks will be zero-emissions by 2035; second, 100 percent of medium- and heavy-duty vehicles in the state will be zero-emissions vehicles by 2045 for all operations where feasible, and by 2035 for drayage trucks; and third, 100 percent of off-road vehicles and equipment will be zero emissions by 2035 where feasible.

## Assembly Bill 1279

Approved by Governor Newsom on September 16, 2022, AB 1279, *The California Climate Crisis Act*, declares the policy of the State to achieve net zero GHG emissions as soon as possible, but no later than 2045, and achieve and maintain net negative GHG emissions thereafter, and to ensure that by 2045, statewide anthropogenic GHG emissions are reduced to at least 85 percent below the 1990 levels. AB 1279 anticipates achieving these policies through direct GHG emissions reductions, removal of $CO_2$ from the atmosphere (carbon capture), and almost complete transition away from fossil fuels.

## Senate Bill 905

Approved by Governor Newsom on September 16, 2022, SB 905, *Carbon sequestration: Carbon Capture, Removal, Utilization, and Storage Program*, requires CARB to establish a Carbon Capture, Removal, Utilization, and Storage Program to evaluate the efficacy, safety, and viability of carbon capture, utilization, or storage technologies and $CO_2$ removal technologies and facilitate the capture and sequestration of $CO_2$ from those technologies, where appropriate. SB 905 is an integral part of achieving the state policies mandated in AB 1279.

## California Air Resources Board Scoping Plan

The Scoping Plan is a strategy CARB develops and updates at least one every five years, as required by AB 32. It lays out the transformations needed across our society and economy to reduce emissions and reach our climate targets. The current 2022 Scoping Plan is the third update to the original plan that was adopted in 2008. The initial 2008 Scoping Plan laid out a path to achieve the AB 32 mandate of returning to 1990 levels of GHG emissions by 2020, a reduction of approximately 15 percent below business as usual. The 2008 Scoping Plan included a mix of incentives, regulations, and carbon pricing, laying out the portfolio approach to addressing climate change and clearly making the case for using multiple tools to meet California's GHG targets. The 2013 Scoping Plan assessed progress toward achieving the 2020 mandate and made the case for addressing short-lived climate pollutants (SLCPs). The 2017 Scoping Plan also assessed the progress toward achieving the 2020 limit and provided a technologically feasible and cost-effective path to achieving the SB 32 mandate of reducing GHGs by at least 40 percent below 1990 levels by 2030. On December 15, 2022, CARB approved the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan). The 2022 Scoping Plan lays out a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels no later than 2045, as directed by Assembly Bill 1279. The actions and outcomes in the plan will achieve significant reductions in fossil fuel combustion by deploying clean technologies and fuels; further reductions in

SLCPs; support for sustainable development; increased action on natural and working lands to reduce emissions and sequester carbon; and the capture and storage of carbon (CARB 2022d).

### Bay Area Air Quality Management District

The BAAQMD provides direction and recommendations for the analysis of GHG impacts of a project and approach to mitigation measures in its CEQA Guidelines (BAAQMD 2017a). On April 20, 2022, the BAAQMD Board of directors adopted revised *CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans*, described fully in an associated justification report (BAAQMD 2022). The guidance provided in the BAAQMD CEQA Guidelines and Thresholds of Significance Justification Report were used to prepare this analysis.

### Association of Bay Area Governments and Metropolitan Transportation Commission

As required by the Sustainable Communities and Climate Protection Act of 2008 (SB 375), ABAG and the Metropolitan Transportation Commission (MTC) have developed a Regional Transportation Plan and Sustainable Communities Strategy (SCS) as a component of Plan Bay Area 2050 (MTC and ABAG 2021). This plan seeks to reduce GHG and other mobile source emissions through coordinated transportation and land use planning to reduce VMT.

### Sonoma County Regional Climate Protection Authority

The Sonoma County Regional Climate Protection Authority (RCPA) is a coordination agency with representatives from the County of Sonoma and each of the nine incorporated cities in Sonoma County. In March 2021, the RCPA adopted the *Sonoma Climate Mobilization Strategy* (Strategy). The Strategy sets a goal of carbon neutrality by 2030, a more ambitious goal than the State 2020 goal of 40 percent below 1990 levels by 2030 and contains a ten-year policy package that outlines 13 countywide strategies under local authority that have the potential to significantly reduce GHG emissions and increase carbon sequestration by 2030 (Sonoma County Regional Climate Protection Authority 2021). The RCPA does not have any regulatory authority to implement public policy. As of this analysis, the City has not adopted any part of the Strategy and it is not applicable to land use development projects within the jurisdiction of the City.

### City of Santa Rosa

The City adopted a CAP in June 2012, following certification of an Environmental Impact Report for the City's General Plan Amendment and CAP. The CAP contains a community wide GHG inventory for the year 2007; a business-as-usual forecast of GHG emissions out to the year 2035; and goals policies, and actions to be undertaken by the city (combined with statewide GHG reduction measures) to achieve the 2020 reduction goals of AB 32 (Santa Rosa 2012). The CAP includes a checklist to be completed by new project development applicants to demonstrate compliance with the CAP. As of this analysis, the 2012 CAP is the most current GHG reduction plan adopted by the City.

## Existing Conditions

Current GHG emissions from the existing convenience store on the project site were modeled separately to establish a baseline. The modeling used the trip generation calculated for the existing project site use

in the Focused Traffic Study (W-Trans 2020). The estimated existing land use GHG emissions are shown below in Table 6, *Existing Land Use GHG Emissions.*

**Table 6**
**EXISTING LAND USE GHG EMISSIONS**

| Source | Emissions (MT $CO_2e$ per year) |
|---|---|
| Area | <0.1 |
| Energy | 2.8 |
| Mobile | 890.6 |
| Waste | 3.6 |
| Water | 0.4 |
| **Total Emissions[1]** | **897.4** |

Source: CalEEMod version 2020.4.0.
[1] Totals may not sum due to rounding.
MT = metric tons; $CO_2e$ = carbon dioxide equivalent

## Significance Criteria

Given the relatively small levels of emissions generated by a typical development in relationship to the total amount of GHG emissions generated on a national or global basis, individual development projects are not expected to result in significant, direct impacts with respect to climate change. However, given the magnitude of the impact of GHG emissions on the global climate, GHG emissions from new development could result in significant, cumulative impacts with respect to climate change. Thus, the potential for a significant GHG emissions impact is limited to cumulative impacts.

According to Appendix G of the CEQA Guidelines, a project would have a significant environmental impact if it would:

a) *Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?*

b) *Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?*

On April 20, 2022, the BAAQMD Board of directors adopted revised CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans, described fully in an associated justification report. Rather than quantitative thresholds for emissions of GHG, BAAQMD has adopted thresholds based on performance standards. Because GHG emissions from construction represent a very small portion of a project's lifetime GHG emissions, BAAMQD has not adopted a construction-related climate impact threshold. The proposed thresholds for land use projects are designed to address operational GHG emissions which represent the vast majority of project GHG emissions. Land use development projects must include either Threshold A or Threshold B (BAAQMD 2022):

A. Projects must include, at a minimum, the following project design elements:

1. Buildings

    a. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).

    b. The project will not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.

2. Transportation

    a. Achieve a reduction in project generated VMT below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA:

        i. Residential projects: 15 percent below the existing VMT per capita

        ii. Office projects: 15 percent below the existing VMT per employee

        iii. Retail projects: no net increase in existing VMT

    b. Achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.

B. Projects must be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

Per the BAAQMD *CEQA Guidelines and Thresholds of Significance Justification Report*, the thresholds of significance are based on typical residential and commercial land use projects (BAAQMD 2022). BAAQMD was consulted regarding the use of the GHG significance thresholds for determining the significance of the project's GHG emissions. BAAQMD confirmed that a convenience store with gas pumps is a typical commercial land use and that BAAQMD's recommended climate impact thresholds adopted in April 2022 can appropriately be used to evaluate the project (BAAMQD 2023).

## Project Analysis

*a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

### Construction Emissions

Construction GHG emission sources include construction equipment exhaust, on-road hauling trucks exhaust, vendor vehicle exhaust, and worker commuting vehicle exhaust. Construction GHG emissions were estimated using CalEEMod version 2020.4.0, as described in the Air Quality analysis, above. The CalEEMod output files are included as Attachment A to this report. The BAAQMD has not adopted

thresholds of significance for construction-period GHG emissions. The estimated total construction GHG emissions would be 89.5 MT $CO_2e$. Amortized (averaged) over the estimated 30-year project life span, the proposed construction activities would contribute approximately 3.0 MT $CO_2e$ emissions per year.

## Operational Emissions

Long term operation of the project would result in emissions of GHGs from: area sources such as the use of landscape maintenance equipment; energy sources from the use of electricity or natural gas; mobile sources related to the use of vehicles for customer trips, worker commute trips, and vendor trips; solid waste sources related to the disposal and decomposition of waste generated by the project; and water sources related to the energy used for the conveyance and treatment of freshwater and wastewater. Operational GHG emissions were estimated using CalEEMod version 2020.4.0, as described in the Air Quality analysis, above. The CalEEMod output files are included as Attachment A to this report. The modeling used the trip generation calculated for the project and the existing project site use in the Focused Traffic Study (W-Trans 2020), and model defaults for all other operational model settings.

As described above, the BAAQMD has adopted performance standard based thresholds rather than quantitative GHG emissions thresholds. The project's estimated annual operational GHG emissions are disclosed in this report to show the project's increase in emissions over existing (baseline) conditions and the division of project emissions by source. For context related to the scale of project emissions, the BAAQMD's 2017 project-level GHG threshold was 1,100 MT $CO_2e$ per year (BAAQMD 2017). The estimated net operational GHG emissions for the project are shown in Table 7, *Operational GHG Emissions*.

**Table 7**
**OPERATIONAL GHG EMISSIONS**

| Source | Emissions (MT $CO_2e$ per year) |
|---|---|
| Area | <0.1 |
| Energy | 5.3 |
| Mobile | 1,553.2 |
| Waste | 6.3 |
| Water | 0.6 |
| Total Project Emissions[1] | 1,565.4 |
| Existing Use Emissions | (897.4) |
| **Net Project Emissions[1]** | **668** |

Source: CalEEMod version 2020.4.0.
[1] Totals may not sum due to rounding.
MT = metric tons; $CO_2e$ = carbon dioxide equivalent

The City CAP, adopted in 2012, does not address the State's post-2020 GHG reduction mandates. Therefore, the significance of the project's GHG emissions is determined using the BAAQMD performance standard-based threshold A described above:

**A.1.a. No Natural Gas** –As part of the project design, the project building would not include natural gas appliances or natural gas plumbing.

**A.1.b. Energy Efficiency** – The project would be required to comply with the current California Title 24 Part 6 Building Energy Efficiency Standards and the current CALGreen. In addition, as described in the impact b) discussion, below, the project would implement the current CALGreen Tier 1 nonresidential measures, as required by the City for new building permit applications. Therefore, the project would not result in wasteful, inefficient, or unnecessary energy usage.

**A.2.a. Vehicle Miles Traveled** – Per the VMT analysis in the project Traffic Study, the project would be considered local serving retail with less than 50,000 SF of building space and regional VMT would not increase because of the project. In addition, the Traffic Study concluded that the project is located in an area with employee VMT 15 percent or more lower than the regional average (W-Trans 2020). Therefore, the project would not result in a net increase in regional VMT.

**A.2.b. Electric Vehicle Parking** – As part of the project design, in accordance with the 2022 CALGreen nonresidential Tier 2 standard A5.106.5.3.2, a minimum of 8 of the project's 20 parking space would be EV capable spaces,[2] and a minimum of 3 of those EV capable spaces would include EVSE[3] (California Building Standards Commission [CBSC] 2022).

### Impact Summary

The project would comply with or implement all the BAAQMD Threshold A performance standards. Therefore, the project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. The impact would be **less than significant**.

*b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

As discussed in criterion a), above, the project would comply with all BAAQMD's performance standard GHG emissions thresholds. In addition, many long-term GHG reduction plans, including the CARB Scoping Plan, estimate future GHG emissions and corresponding reduction targets based on local and statewide growth estimates. The project site has a City of Santa Rosa General Plan land use designation of Retail and Business Services and is zoned CG. The proposed project would be consistent with the land use destination and zoning. Because the project would be consistent with the project site land use designation and zoning, any population and employment growth in the City as a result of the project would be within the growth assumptions of the City General Plan which provides growth assumptions for GHG forecasting in regional plans such as the BAAQMD 2017 Clean Air Plan, and the Plan Bay Area 2050.

Transportation sources account for the largest portion of the State's GHG emissions inventory—38 percent in 2015 (CARB 2017). Regional metropolitan SCS plans such as Plan Bay Area 2040 aim to reduce GHG emissions in the transportations sector. A key to accomplishing this is to reduce the VMT for cars and light trucks. As part of the 2019 update to the CEQA Statutes and Guidelines that became effective on January 1, 2019, the guidelines for assessing transportation impacts were revised to reflect

[2] An EV Capable Space is defined as a vehicle space with electrical panel space and load capacity to support a branch circuit and necessary raceways, both underground and/or surface mounted to support EV charging.

[3] Electric vehicle supply equipment (EVSE) is defined as the conductors, including the undergrounded, grounded and equipment grounding conductors and the electric vehicle connectors, attachment plugs, and all other fittings, devices, power outlets or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle.

SB 743, which mandates a change in transportation impact analysis from a consideration of the project's congestion impacts to a consideration of a project's VMT impacts. In response to this anticipated change, the Office of Planning and Research (OPR) released the Technical Advisory on Evaluating Transportation Impacts in CEQA to assist CEQA practitioners with the implementation of SB 743. The technical advisory contains the following recommendations for the transportation analysis of retail development projects (OPR 2018):

> Because new retail development typically redistributes shopping trips rather than creating new trips, estimating the total change in VMT (i.e., the difference in total VMT in the area affected with and without the project) is the best way to analyze a retail project's transportation impacts.
>
> By adding retail opportunities into the urban fabric and thereby improving retail destination proximity, local-serving retail development tends to shorten trips and reduce VMT. Thus, lead agencies generally may presume such development creates a less-than-significant transportation impact. Regional-serving retail development, on the other hand, which can lead to substitution of longer trips for shorter ones, may tend to have a significant impact.

In consideration of the OPR's technical advisory, and because the project would be in an area with VMT 15 percent or more below the regional average, the focused traffic study concluded that the project would not result in a regional increase in VMT (W-Trans 2020). Therefore, the project would be consistent with Plan Bay Area 2050.

The City's CAP checklist (Appendix E to the CAP) contains 36 potential action items which development projects could implement to support the reduction goals of the CAP. Of the 36 action items, 17 items are designated as required by all new development projects to demonstrate compliance with the CAP. The City has published an updated Checklist which contains the following discussions concerning checklist item 1.1.3 (City 2023):

> *CAP Goal 1 – 1.1.3 was adopted to coincide with CA Energy Codes. Since the CAP adoption, the CEC has determined that it is not possible to achieve net zero on a wholesale basis and "net zero" has been removed from the CA Energy Codes. Appendix E of the Climate Action Plan states that, "To be in compliance with the CAP, all measures denoted with an asterisk are required in all new development projects unless otherwise specified. If a project cannot meet one or more of the mandatory requirements, substitutions may be made from other measures listed at the discretion of the Community Development Director." CAP Goal 1.1 requires projects to comply with Tier 1 CALGreen requirements, as amended, for new non-residential and residential development. Tier 1 CALGreen does not include "net zero" GHG assumptions for development. In addition, current CA Green Building Code Standards apply to all projects and has been determined by the Director to be an acceptable substitution for CAP Goal 1 – 1.1.3. Therefore, strict compliance with CAP Goal 1 – 1.1.3 is not achievable and not required.*

Table 8, *CAP Checklist Required Action Items,* summarizes the project's consistency with the required action items. The full CAP checklist is included as Attachment B to this report.

**Table 8**
**CAP CHECKLIST REQUIRED ACTION ITEMS**

| Item # | Description | Project Compliance |
|---|---|---|
| 1.1.1 | Comply with CALGreen Tier 1 standards | Complies. 2022 CALGreen + Tier 1 required by the City for new nonresidential building permits applications submitted after January 1, 2022. |
| 1.1.3 | After 2020, all new development will utilize zero net electricity | No longer required. Compliance with 2022 CALGreen and CAP Checklist Item 1.1.1 has been determined by the City to be an acceptable substitution. |
| 1.3.1 | Install real-time energy monitors to track energy use | Complies. Smart meters in accordance with City and PG&E Standards. |
| 1.4.2 | Comply with the City's tree preservation ordinance | Complies. |
| 1.4.3 | Provide public & private trees in compliance with the Zoning Code | Complies. |
| 1.5 | Install new sidewalks and paving with high solar reflectivity materials | Complies. In accordance with City Standards. |
| 4.1.2 | Install bicycle parking consistent with regulations | Complies. |
| 4.3.5 | Encourage new employers of 50+ to provide subsidized transit passes | Not Applicable. |
| 5.2.1 | Provide alternative fuels at new refueling stations | Complies. EV charging is considered an alternative fuel meeting CAP requirements. Included in the project description (and would be required in the project entitlement): A minimum of 8 of the 20 parking spaces would be EV capable and a minimum of 3 of those spaces would include EV charging equipment. |
| 6.1.3 | Increase diversion of construction waste | Complies. 65% diversion required per 2022 CALGreen. |
| 7.1.1 | Reduce potable water use for outdoor landscaping | Complies. Required by 2022 CALGreen. |
| 7.1.3 | Use water meters which track real-time water use | Complies. In accordance with City Standards. |
| 7.3.2 | Meet on-site meter separation requirements in locations with current or future recycled water capabilities | Not Applicable. |
| 9.1.3 | Install low water use landscapes | Complies. Required by 2022 CALGreen. |
| 9.2.1 | Minimize construction equipment idling time to 5 minutes or less | Complies. Included in the BAAQMD BCMMs |
| 9.2.2 | Maintain construction equipment per manufacturer's specs | Complies. Included in the BAAQMD BCMMs |
| 9.2.3 | Limit GHG construction equipment emissions by using electrified equipment or alternative fuels | Complies. Included in the project as a BMP |

Source: Santa Rosa 2012.

## Impact Summary

The project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. The impact would be **less than significant**.

## SUMMARY

The project's construction and operational emissions of criteria pollutants and precursors would be below BAAQMD thresholds and would result in a less than significant impact. Emissions of TACs from the project short-term construction activities and long-term operation would not result in increased health risks beyond the BAAQMD thresholds and the impact would be less than significant. The project would comply with the BAAQMD's performance standard based thresholds, and the project's GHG emissions would be less than significant. The project would be consistent with local and regional GHG emission reduction plans, including the City CAP, and would result in a less than significant impact.

Sincerely,

Martin Rolph
Air Quality Specialist

Joanne Dramko, AICP
Senior Air Quality Specialist

**Attachments:**

| | |
|---|---|
| Figure 1 | Vicinity Map |
| Figure 2 | Aerial Map |
| Figure 3 | Site Plan |
| Attachment A | CalEEMod Output |
| Attachment B | Santa Rosa CAP Checklist |
| Attachment C | CARB Gas Station Screening Tool |

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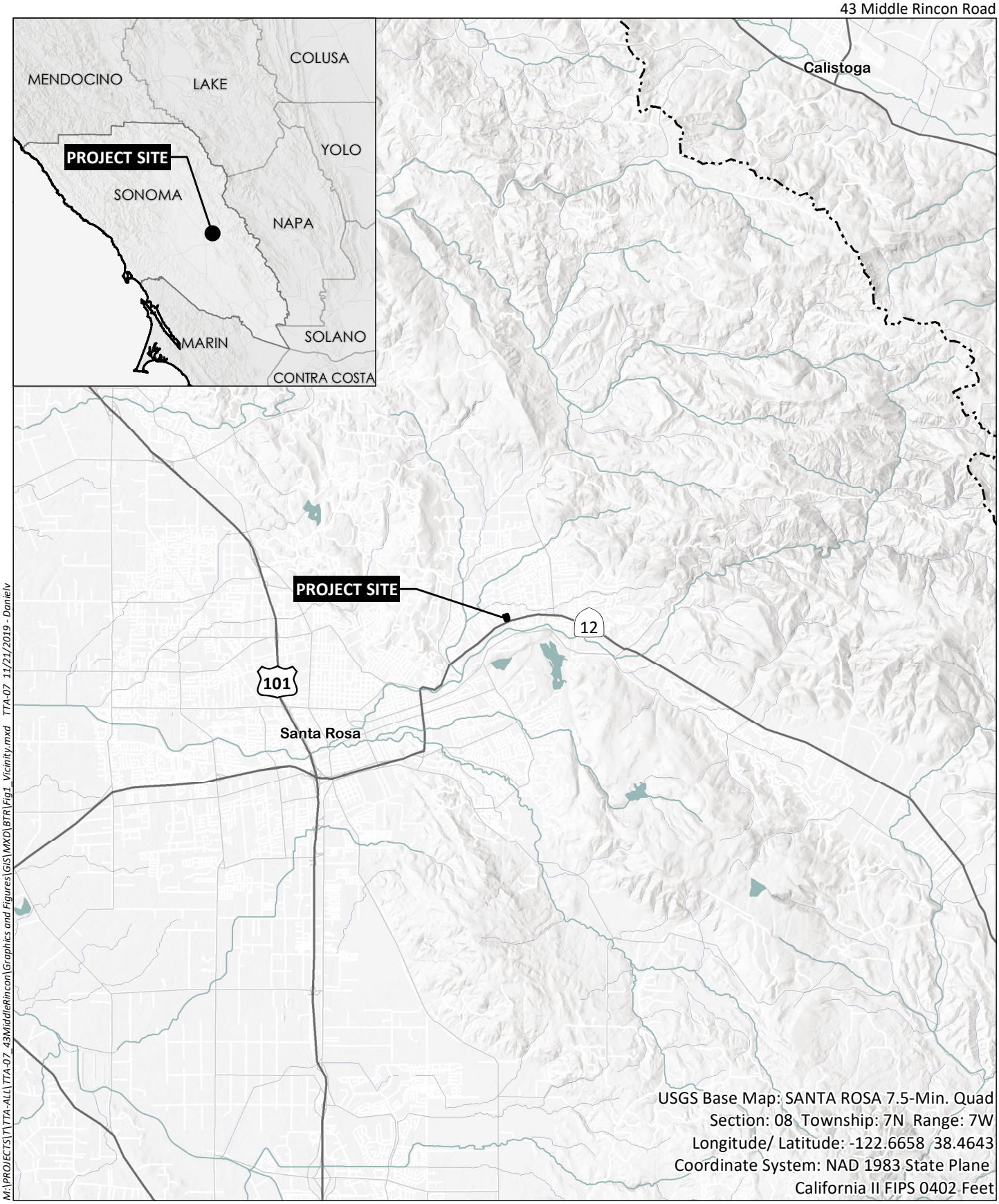


Source: Base Map Layers (Esri, USGS, NGA, NASA); Data (Sonoma County)

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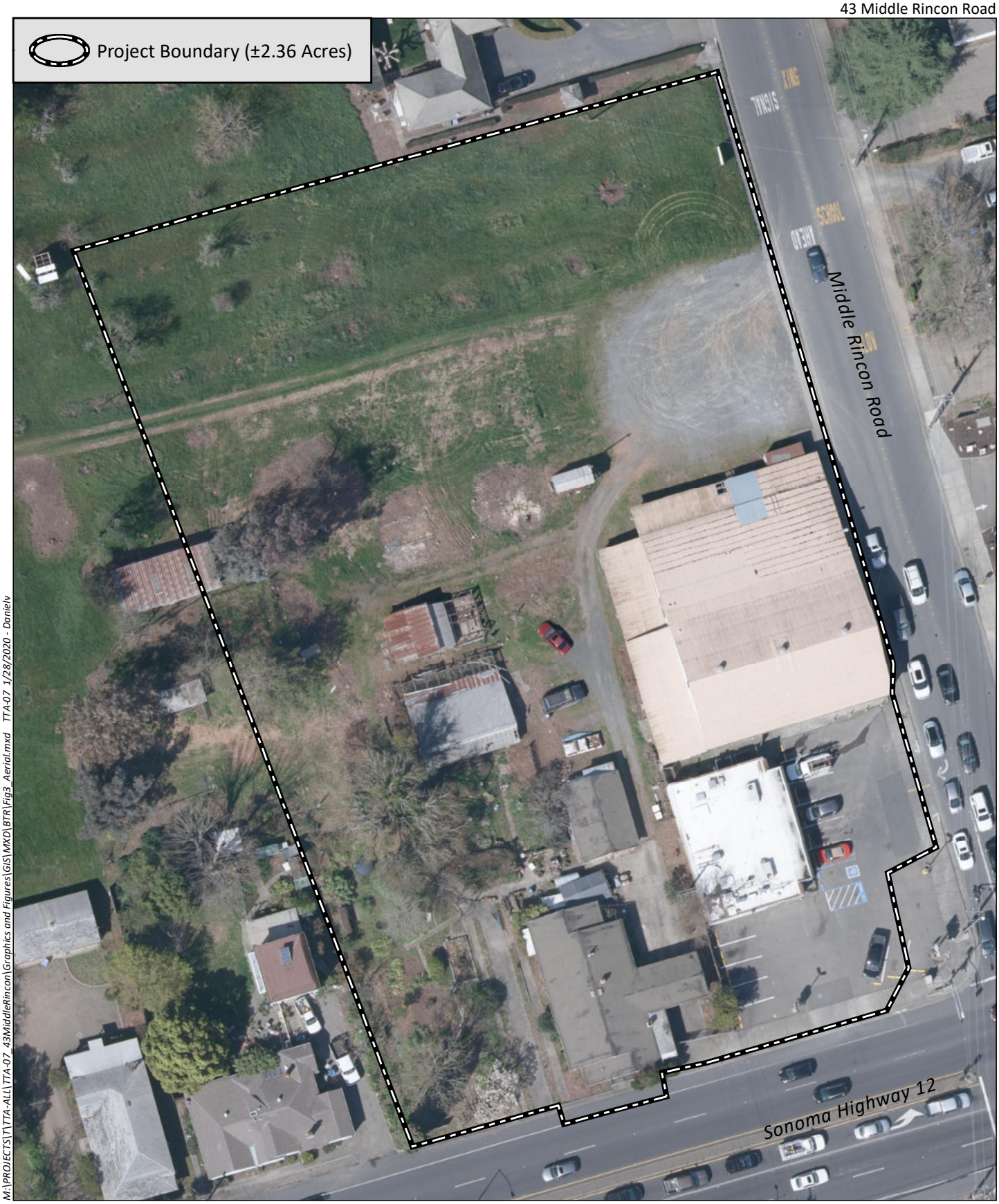
HELIX Environmental Planning

# Vicinity Map

Figure 1

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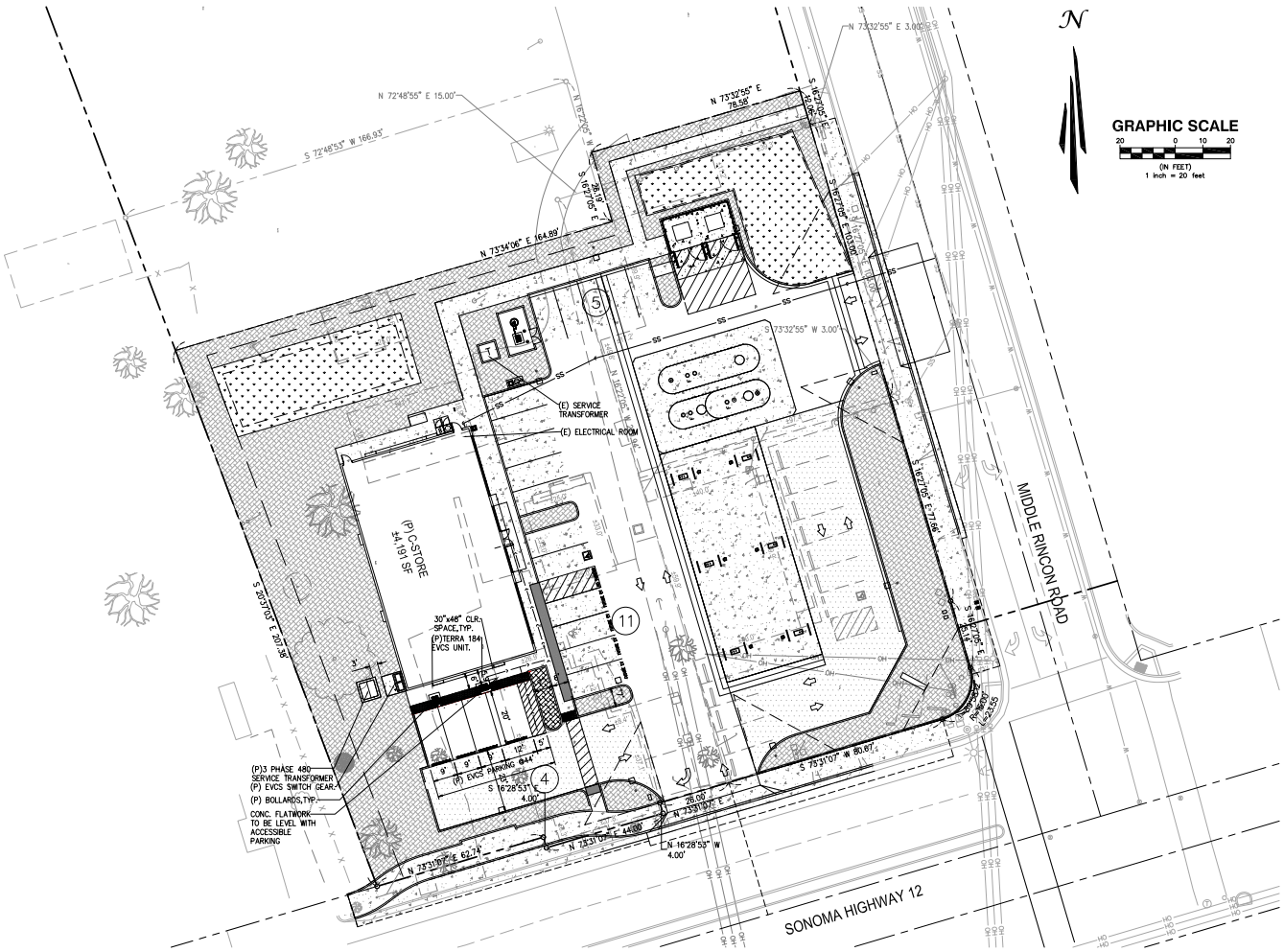
0 50 Feet

Source: Base Map Layers (Esri, USDA, USGS); Data (Sonoma County)

HELIX Environmental Planning

# Aerial Map

Figure 2

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Source: TAIT 2023

HELIX Environmental Planning

# Site Plan

Figure 3

# Attachment A

## CalEEMod Output

43 Middle Rincon Road 7- Eleven - Sonoma-San Francisco County, Annual

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

# 43 Middle Rincon Road 7- Eleven

**Sonoma-San Francisco County, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Parking Lot | 28.70 | 1000sqft | 0.66 | 28,700.00 | 0 |
| Convenience Market With Gas Pumps | 4.19 | 1000sqft | 0.10 | 4,190.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 75 |
| **Climate Zone** | 4 | | | **Operational Year** | 2025 |
| **Utility Company** | Pacific Gas and Electric Company | | | | |
| **CO2 Intensity (lb/MWhr)** | 203.98 | **CH4 Intensity (lb/MWhr)** | 0.033 | **N2O Intensity (lb/MWhr)** | 0.004 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Building size per site plan
Parking Lot = all paved/concrete areas

Construction Phase - Demolition extended to account for estimated 18,700 SF buildings/outbuildings to be demolished.
Grading/Excavation extended to account for underground tanks and utilities excavation.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Off-Highway Truck = Water Truck

Off-road Equipment - Excavator added for underground tanks and utlilities.
Concrete/Industrial Saw added for sidewalk/entrance drive improvements.
Off-Highway Truck = Water Truck.

Off-road Equipment -

Off-road Equipment - Off-Highway Truck = Water Truck.

43 Middle Rincon Road 7- Eleven - Sonoma-San Francisco County, Annual

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

Trips and VMT - Hauling trips = total one-way trips at 16 CY per round trip.

Demolition -

Grading - 400 CY vegetation/soil exported during site prep.
800 CY soil and 150 CY asphalt/concrete exported during grading/excavation.

Vehicle Trips - Proposed project trip rate per traffic study, includes 50% pass-by reduction (W-Trans 2020).

Energy Use - Project would not inlcude natural gas per BAAQMD GHG performance standards.
Defualt Title 24 natural gas converted to equivalent electric energy and added to Title 24 Electricity.

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - Dust mitigation per BAAQMD Basic Construction Mitigation Measures.

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstructionPhase | NumDays | 10.00 | 15.00 |
| tblConstructionPhase | NumDays | 2.00 | 15.00 |
| tblConstructionPhase | PhaseEndDate | 11/24/2023 | 11/21/2023 |
| tblConstructionPhase | PhaseEndDate | 11/27/2023 | 12/1/2023 |
| tblConstructionPhase | PhaseEndDate | 11/29/2023 | 12/22/2023 |
| tblConstructionPhase | PhaseEndDate | 4/17/2024 | 5/20/2022 |
| tblConstructionPhase | PhaseEndDate | 4/24/2024 | 5/27/2024 |
| tblConstructionPhase | PhaseEndDate | 5/1/2024 | 6/3/2024 |
| tblConstructionPhase | PhaseStartDate | 11/13/2023 | 11/1/2023 |
| tblConstructionPhase | PhaseStartDate | 11/25/2023 | 12/1/2023 |
| tblConstructionPhase | PhaseStartDate | 11/28/2023 | 12/2/2023 |
| tblConstructionPhase | PhaseStartDate | 11/30/2023 | 1/3/2022 |
| tblConstructionPhase | PhaseStartDate | 4/18/2024 | 5/21/2024 |
| tblConstructionPhase | PhaseStartDate | 4/25/2024 | 5/28/2024 |
| tblEnergyUse | T24E | 2.46 | 3.15 |
| tblEnergyUse | T24NG | 2.34 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Off-Highway Trucks |

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

| tblOffRoadEquipment | OffRoadEquipmentType | | Off-Highway Trucks |
|---|---|---|---|
| tblOffRoadEquipment | OffRoadEquipmentType | | Off-Highway Trucks |
| tblVehicleTrips | DV_TP | 21.00 | 0.00 |
| tblVehicleTrips | PB_TP | 65.00 | 0.00 |
| tblVehicleTrips | PR_TP | 14.00 | 100.00 |
| tblVehicleTrips | ST_TR | 624.20 | 418.86 |
| tblVehicleTrips | SU_TR | 624.20 | 418.86 |
| tblVehicleTrips | WD_TR | 624.20 | 418.86 |

## 2.0 Emissions Summary

43 Middle Rincon Road 7- Eleven - Sonoma-San Francisco County, Annual

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

## 2.1 Overall Construction

### Unmitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2022 | 0.0373 | 0.3677 | 0.3812 | 6.7000e-004 | 6.7200e-003 | 0.0188 | 0.0255 | 1.8300e-003 | 0.0173 | 0.0191 | 0.0000 | 59.4650 | 59.4650 | 0.0165 | 9.2000e-004 | 60.1511 |
| 2023 | 0.0148 | 0.1432 | 0.1180 | 2.9000e-004 | 0.0514 | 5.9300e-003 | 0.0573 | 0.0213 | 5.5400e-003 | 0.0268 | 0.0000 | 25.7409 | 25.7409 | 6.1300e-003 | 4.5000e-004 | 26.0271 |
| 2024 | 0.0308 | 0.0162 | 0.0234 | 4.0000e-005 | 4.1000e-004 | 7.6000e-004 | 1.1700e-003 | 1.1000e-004 | 7.2000e-004 | 8.3000e-004 | 0.0000 | 3.3112 | 3.3112 | 7.3000e-004 | 1.0000e-005 | 3.3325 |
| **Maximum** | **0.0373** | **0.3677** | **0.3812** | **6.7000e-004** | **0.0514** | **0.0188** | **0.0573** | **0.0213** | **0.0173** | **0.0268** | **0.0000** | **59.4650** | **59.4650** | **0.0165** | **9.2000e-004** | **60.1511** |

### 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 | 0.0373 | 0.3677 | 0.3812 | 6.7000e-004 | 6.7200e-003 | 0.0188 | 0.0255 | 1.8300e-003 | 0.0173 | 0.0191 | 0.0000 | 59.4649 | 59.4649 | 0.0165 | 9.2000e-004 | 60.1511 |
| 2023 | 0.0148 | 0.1432 | 0.1180 | 2.9000e-004 | 0.0243 | 5.9300e-003 | 0.0302 | 9.8700e-003 | 5.5400e-003 | 0.0154 | 0.0000 | 25.7408 | 25.7408 | 6.1300e-003 | 4.5000e-004 | 26.0271 |
| 2024 | 0.0308 | 0.0162 | 0.0234 | 4.0000e-005 | 4.1000e-004 | 7.6000e-004 | 1.1700e-003 | 1.1000e-004 | 7.2000e-004 | 8.3000e-004 | 0.0000 | 3.3112 | 3.3112 | 7.3000e-004 | 1.0000e-005 | 3.3325 |
| **Maximum** | **0.0373** | **0.3677** | **0.3812** | **6.7000e-004** | **0.0243** | **0.0188** | **0.0302** | **9.8700e-003** | **0.0173** | **0.0191** | **0.0000** | **59.4649** | **59.4649** | **0.0165** | **9.2000e-004** | **60.1511** |

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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** | **46.34** | **0.00** | **32.29** | **49.07** | **0.00** | **24.34** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---|---|---|---|---|
| **1** | **11-13-2023** | **2-12-2024** | 0.1212 | 0.1212 |
| **3** | **5-13-2024** | **8-12-2024** | 0.0470 | 0.0470 |
| | | **Highest** | 0.1212 | 0.1212 |

## 2.2 Overall Operational

### Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 0.0210 | 0.0000 | 3.0000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.9000e-004 | 5.9000e-004 | 0.0000 | 0.0000 | 6.3000e-004 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.2248 | 5.2248 | 8.5000e-004 | 1.0000e-004 | 5.2765 |
| Mobile | 0.9326 | 1.2662 | 8.4645 | 0.0165 | 1.7193 | 0.0154 | 1.7347 | 0.4609 | 0.0144 | 0.4753 | 0.0000 | 1,526.1880 | 1,526.1880 | 0.1057 | 0.0817 | 1,553.1803 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 2.5557 | 0.0000 | 2.5557 | 0.1510 | 0.0000 | 6.3315 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0985 | 0.2170 | 0.3155 | 0.0102 | 2.4000e-004 | 0.6416 |
| **Total** | **0.9536** | **1.2662** | **8.4648** | **0.0165** | **1.7193** | **0.0154** | **1.7347** | **0.4609** | **0.0144** | **0.4753** | **2.6541** | **1,531.6304** | **1,534.2845** | **0.2677** | **0.0821** | **1,565.4305** |

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

## 2.2 Overall Operational

### Mitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 0.0210 | 0.0000 | 3.0000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.9000e-004 | 5.9000e-004 | 0.0000 | 0.0000 | 6.3000e-004 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.2248 | 5.2248 | 8.5000e-004 | 1.0000e-004 | 5.2765 |
| Mobile | 0.9326 | 1.2662 | 8.4645 | 0.0165 | 1.7193 | 0.0154 | 1.7347 | 0.4609 | 0.0144 | 0.4753 | 0.0000 | 1,526.1880 | 1,526.1880 | 0.1057 | 0.0817 | 1,553.1803 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 2.5557 | 0.0000 | 2.5557 | 0.1510 | 0.0000 | 6.3315 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0985 | 0.2170 | 0.3155 | 0.0102 | 2.4000e-004 | 0.6416 |
| **Total** | **0.9536** | **1.2662** | **8.4648** | **0.0165** | **1.7193** | **0.0154** | **1.7347** | **0.4609** | **0.0144** | **0.4753** | **2.6541** | **1,531.6304** | **1,534.2845** | **0.2677** | **0.0821** | **1,565.4305** |

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

## 3.0 Construction Detail

### Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 11/1/2023 | 11/21/2023 | 5 | 15 | |
| 2 | Site Preparation | Site Preparation | 12/1/2023 | 12/1/2023 | 5 | 1 | |
| 3 | Grading/Excavation | Grading | 12/2/2023 | 12/22/2023 | 5 | 15 | |

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

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4 | Building Construction | Building Construction | 1/3/2022 | 5/20/2022 | 5 | 100 | |
| 5 | Paving | Paving | 5/21/2024 | 5/27/2024 | 5 | 5 | |
| 6 | Architectural Coating | Architectural Coating | 5/28/2024 | 6/3/2024 | 5 | 5 | |

**Acres of Grading (Site Preparation Phase): 0.5**

**Acres of Grading (Grading Phase): 11.25**

**Acres of Paving: 0.66**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 6,285; Non-Residential Outdoor: 2,095; Striped Parking Area: 1,722 (Architectural Coating – sqft)**

**OffRoad Equipment**

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Rubber Tired Dozers | 1 | 1.00 | 247 | 0.40 |
| Demolition | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Site Preparation | Graders | 1 | 8.00 | 187 | 0.41 |
| Site Preparation | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Demolition | Off-Highway Trucks | 1 | 2.00 | 402 | 0.38 |
| Site Preparation | Off-Highway Trucks | 1 | 2.00 | 402 | 0.38 |
| Grading/Excavation | Graders | 1 | 6.00 | 187 | 0.41 |
| Grading/Excavation | Rubber Tired Dozers | 1 | 6.00 | 247 | 0.40 |
| Grading/Excavation | Tractors/Loaders/Backhoes | 1 | 7.00 | 97 | 0.37 |
| Building Construction | Cranes | 1 | 4.00 | 231 | 0.29 |
| Building Construction | Forklifts | 2 | 6.00 | 89 | 0.20 |
| Building Construction | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Paving | Cement and Mortar Mixers | 4 | 6.00 | 9 | 0.56 |
| Paving | Pavers | 1 | 7.00 | 130 | 0.42 |
| Paving | Rollers | 1 | 7.00 | 80 | 0.38 |
| Paving | Tractors/Loaders/Backhoes | 1 | 7.00 | 97 | 0.37 |

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

| | | | | | |
|---|---|---|---|---|---|
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |
| Grading/Excavation | Off-Highway Trucks | 1 | 2.00 | 402 | 0.38 |

**Trips and VMT**

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Demolition | 5 | 13.00 | 0.00 | 85.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 3 | 8.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading/Excavation | 4 | 10.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 5 | 13.00 | 5.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 7 | 18.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 3.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

## 3.2 Demolition - 2023

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 9.2000e-003 | 0.0000 | 9.2000e-003 | 1.3900e-003 | 0.0000 | 1.3900e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 5.7900e-003 | 0.0500 | 0.0616 | 1.1000e-004 | | 2.3600e-003 | 2.3600e-003 | | 2.2500e-003 | 2.2500e-003 | 0.0000 | 9.9907 | 9.9907 | 2.1300e-003 | 0.0000 | 10.0438 |
| **Total** | **5.7900e-003** | **0.0500** | **0.0616** | **1.1000e-004** | **9.2000e-003** | **2.3600e-003** | **0.0116** | **1.3900e-003** | **2.2500e-003** | **3.6400e-003** | **0.0000** | **9.9907** | **9.9907** | **2.1300e-003** | **0.0000** | **10.0438** |

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

## 3.2 Demolition - 2023

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 9.0000e-005 | 6.2000e-003 | 1.3500e-003 | 3.0000e-005 | 7.1000e-004 | 4.0000e-005 | 7.5000e-004 | 1.9000e-004 | 4.0000e-005 | 2.4000e-004 | 0.0000 | 2.5934 | 2.5934 | 7.0000e-005 | 4.1000e-004 | 2.7174 |
| 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 | 3.5000e-004 | 2.4000e-004 | 2.6800e-003 | 1.0000e-005 | 7.7000e-004 | 0.0000 | 7.7000e-004 | 2.0000e-004 | 0.0000 | 2.1000e-004 | 0.0000 | 0.6194 | 0.6194 | 2.0000e-005 | 2.0000e-005 | 0.6260 |
| **Total** | **4.4000e-004** | **6.4400e-003** | **4.0300e-003** | **4.0000e-005** | **1.4800e-003** | **4.0000e-005** | **1.5200e-003** | **3.9000e-004** | **4.0000e-005** | **4.5000e-004** | **0.0000** | **3.2129** | **3.2129** | **9.0000e-005** | **4.3000e-004** | **3.3434** |

### 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 | | | | | 4.1400e-003 | 0.0000 | 4.1400e-003 | 6.3000e-004 | 0.0000 | 6.3000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 5.7900e-003 | 0.0500 | 0.0616 | 1.1000e-004 | | 2.3600e-003 | 2.3600e-003 | | 2.2500e-003 | 2.2500e-003 | 0.0000 | 9.9907 | 9.9907 | 2.1300e-003 | 0.0000 | 10.0438 |
| **Total** | **5.7900e-003** | **0.0500** | **0.0616** | **1.1000e-004** | **4.1400e-003** | **2.3600e-003** | **6.5000e-003** | **6.3000e-004** | **2.2500e-003** | **2.8800e-003** | **0.0000** | **9.9907** | **9.9907** | **2.1300e-003** | **0.0000** | **10.0438** |

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

## 3.2 Demolition - 2023

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 9.0000e-005 | 6.2000e-003 | 1.3500e-003 | 3.0000e-005 | 7.1000e-004 | 4.0000e-005 | 7.5000e-004 | 1.9000e-004 | 4.0000e-005 | 2.4000e-004 | 0.0000 | 2.5934 | 2.5934 | 7.0000e-005 | 4.1000e-004 | 2.7174 |
| 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 | 3.5000e-004 | 2.4000e-004 | 2.6800e-003 | 1.0000e-005 | 7.7000e-004 | 0.0000 | 7.7000e-004 | 2.0000e-004 | 0.0000 | 2.1000e-004 | 0.0000 | 0.6194 | 0.6194 | 2.0000e-005 | 2.0000e-005 | 0.6260 |
| **Total** | **4.4000e-004** | **6.4400e-003** | **4.0300e-003** | **4.0000e-005** | **1.4800e-003** | **4.0000e-005** | **1.5200e-003** | **3.9000e-004** | **4.0000e-005** | **4.5000e-004** | **0.0000** | **3.2129** | **3.2129** | **9.0000e-005** | **4.3000e-004** | **3.3434** |

## 3.3 Site Preparation - 2023

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 2.7000e-004 | 0.0000 | 2.7000e-004 | 3.0000e-005 | 0.0000 | 3.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 3.3000e-004 | 3.5400e-003 | 2.3700e-003 | 1.0000e-005 | | 1.3000e-004 | 1.3000e-004 | | 1.2000e-004 | 1.2000e-004 | 0.0000 | 0.5726 | 0.5726 | 1.9000e-004 | 0.0000 | 0.5773 |
| **Total** | **3.3000e-004** | **3.5400e-003** | **2.3700e-003** | **1.0000e-005** | **2.7000e-004** | **1.3000e-004** | **4.0000e-004** | **3.0000e-005** | **1.2000e-004** | **1.5000e-004** | **0.0000** | **0.5726** | **0.5726** | **1.9000e-004** | **0.0000** | **0.5773** |

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

## 3.3 Site Preparation - 2023

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.0000e-005 | 1.0000e-005 | 1.1000e-004 | 0.0000 | 3.0000e-005 | 0.0000 | 3.0000e-005 | 1.0000e-005 | 0.0000 | 1.0000e-005 | 0.0000 | 0.0254 | 0.0254 | 0.0000 | 0.0000 | 0.0257 |
| **Total** | **1.0000e-005** | **1.0000e-005** | **1.1000e-004** | **0.0000** | **3.0000e-005** | **0.0000** | **3.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **0.0000** | **0.0254** | **0.0254** | **0.0000** | **0.0000** | **0.0257** |

### 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 | | | | | 1.2000e-004 | 0.0000 | 1.2000e-004 | 1.0000e-005 | 0.0000 | 1.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 3.3000e-004 | 3.5400e-003 | 2.3700e-003 | 1.0000e-005 | | 1.3000e-004 | 1.3000e-004 | | 1.2000e-004 | 1.2000e-004 | 0.0000 | 0.5726 | 0.5726 | 1.9000e-004 | 0.0000 | 0.5773 |
| **Total** | **3.3000e-004** | **3.5400e-003** | **2.3700e-003** | **1.0000e-005** | **1.2000e-004** | **1.3000e-004** | **2.5000e-004** | **1.0000e-005** | **1.2000e-004** | **1.3000e-004** | **0.0000** | **0.5726** | **0.5726** | **1.9000e-004** | **0.0000** | **0.5773** |

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

## 3.3 Site Preparation - 2023

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.0000e-005 | 1.0000e-005 | 1.1000e-004 | 0.0000 | 3.0000e-005 | 0.0000 | 3.0000e-005 | 1.0000e-005 | 0.0000 | 1.0000e-005 | 0.0000 | 0.0254 | 0.0254 | 0.0000 | 0.0000 | 0.0257 |
| **Total** | **1.0000e-005** | **1.0000e-005** | **1.1000e-004** | **0.0000** | **3.0000e-005** | **0.0000** | **3.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **0.0000** | **0.0254** | **0.0254** | **0.0000** | **0.0000** | **0.0257** |

## 3.4 Grading/Excavation - 2023

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0398 | 0.0000 | 0.0398 | 0.0193 | 0.0000 | 0.0193 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 7.9500e-003 | 0.0830 | 0.0478 | 1.3000e-004 | | 3.3900e-003 | 3.3900e-003 | | 3.1200e-003 | 3.1200e-003 | 0.0000 | 11.4628 | 11.4628 | 3.7100e-003 | 0.0000 | 11.5555 |
| **Total** | **7.9500e-003** | **0.0830** | **0.0478** | **1.3000e-004** | **0.0398** | **3.3900e-003** | **0.0432** | **0.0193** | **3.1200e-003** | **0.0224** | **0.0000** | **11.4628** | **11.4628** | **3.7100e-003** | **0.0000** | **11.5555** |

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

## 3.4 Grading/Excavation - 2023

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.7000e-004 | 1.8000e-004 | 2.0600e-003 | 1.0000e-005 | 5.9000e-004 | 0.0000 | 5.9000e-004 | 1.6000e-004 | 0.0000 | 1.6000e-004 | 0.0000 | 0.4765 | 0.4765 | 2.0000e-005 | 2.0000e-005 | 0.4815 |
| **Total** | **2.7000e-004** | **1.8000e-004** | **2.0600e-003** | **1.0000e-005** | **5.9000e-004** | **0.0000** | **5.9000e-004** | **1.6000e-004** | **0.0000** | **1.6000e-004** | **0.0000** | **0.4765** | **0.4765** | **2.0000e-005** | **2.0000e-005** | **0.4815** |

### 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 | | | | | 0.0179 | 0.0000 | 0.0179 | 8.6700e-003 | 0.0000 | 8.6700e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 7.9500e-003 | 0.0830 | 0.0478 | 1.3000e-004 | | 3.3900e-003 | 3.3900e-003 | | 3.1200e-003 | 3.1200e-003 | 0.0000 | 11.4628 | 11.4628 | 3.7100e-003 | 0.0000 | 11.5555 |
| **Total** | **7.9500e-003** | **0.0830** | **0.0478** | **1.3000e-004** | **0.0179** | **3.3900e-003** | **0.0213** | **8.6700e-003** | **3.1200e-003** | **0.0118** | **0.0000** | **11.4628** | **11.4628** | **3.7100e-003** | **0.0000** | **11.5555** |

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

## 3.4 Grading/Excavation - 2023

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.7000e-004 | 1.8000e-004 | 2.0600e-003 | 1.0000e-005 | 5.9000e-004 | 0.0000 | 5.9000e-004 | 1.6000e-004 | 0.0000 | 1.6000e-004 | 0.0000 | 0.4765 | 0.4765 | 2.0000e-005 | 2.0000e-005 | 0.4815 |
| **Total** | **2.7000e-004** | **1.8000e-004** | **2.0600e-003** | **1.0000e-005** | **5.9000e-004** | **0.0000** | **5.9000e-004** | **1.6000e-004** | **0.0000** | **1.6000e-004** | **0.0000** | **0.4765** | **0.4765** | **2.0000e-005** | **2.0000e-005** | **0.4815** |

## 3.5 Building Construction - 2022

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0343 | 0.3513 | 0.3576 | 5.7000e-004 | | 0.0186 | 0.0186 | | 0.0171 | 0.0171 | 0.0000 | 50.0739 | 50.0739 | 0.0162 | 0.0000 | 50.4787 |
| **Total** | **0.0343** | **0.3513** | **0.3576** | **5.7000e-004** | | **0.0186** | **0.0186** | | **0.0171** | **0.0171** | **0.0000** | **50.0739** | **50.0739** | **0.0162** | **0.0000** | **50.4787** |

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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 Building Construction - 2022

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 5.4000e-004 | 0.0147 | 3.9800e-003 | 5.0000e-005 | 1.6200e-003 | 1.5000e-004 | 1.7700e-003 | 4.7000e-004 | 1.4000e-004 | 6.1000e-004 | 0.0000 | 5.1284 | 5.1284 | 1.0000e-004 | 7.8000e-004 | 5.3624 |
| Worker | 2.4800e-003 | 1.7900e-003 | 0.0196 | 5.0000e-005 | 5.1000e-003 | 3.0000e-005 | 5.1300e-003 | 1.3600e-003 | 3.0000e-005 | 1.3900e-003 | 0.0000 | 4.2627 | 4.2627 | 1.6000e-004 | 1.4000e-004 | 4.3100 |
| **Total** | **3.0200e-003** | **0.0164** | **0.0235** | **1.0000e-004** | **6.7200e-003** | **1.8000e-004** | **6.9000e-003** | **1.8300e-003** | **1.7000e-004** | **2.0000e-003** | **0.0000** | **9.3911** | **9.3911** | **2.6000e-004** | **9.2000e-004** | **9.6724** |

### 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 | 0.0343 | 0.3513 | 0.3576 | 5.7000e-004 | | 0.0186 | 0.0186 | | 0.0171 | 0.0171 | 0.0000 | 50.0738 | 50.0738 | 0.0162 | 0.0000 | 50.4787 |
| **Total** | **0.0343** | **0.3513** | **0.3576** | **5.7000e-004** | | **0.0186** | **0.0186** | | **0.0171** | **0.0171** | **0.0000** | **50.0738** | **50.0738** | **0.0162** | **0.0000** | **50.4787** |

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

## 3.5 Building Construction - 2022

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 5.4000e-004 | 0.0147 | 3.9800e-003 | 5.0000e-005 | 1.6200e-003 | 1.5000e-004 | 1.7700e-003 | 4.7000e-004 | 1.4000e-004 | 6.1000e-004 | 0.0000 | 5.1284 | 5.1284 | 1.0000e-004 | 7.8000e-004 | 5.3624 |
| Worker | 2.4800e-003 | 1.7900e-003 | 0.0196 | 5.0000e-005 | 5.1000e-003 | 3.0000e-005 | 5.1300e-003 | 1.3600e-003 | 3.0000e-005 | 1.3900e-003 | 0.0000 | 4.2627 | 4.2627 | 1.6000e-004 | 1.4000e-004 | 4.3100 |
| **Total** | **3.0200e-003** | **0.0164** | **0.0235** | **1.0000e-004** | **6.7200e-003** | **1.8000e-004** | **6.9000e-003** | **1.8300e-003** | **1.7000e-004** | **2.0000e-003** | **0.0000** | **9.3911** | **9.3911** | **2.6000e-004** | **9.2000e-004** | **9.6724** |

## 3.6 Paving - 2024

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 1.4800e-003 | 0.0131 | 0.0176 | 3.0000e-005 | | 6.1000e-004 | 6.1000e-004 | | 5.7000e-004 | 5.7000e-004 | 0.0000 | 2.3502 | 2.3502 | 6.8000e-004 | 0.0000 | 2.3673 |
| Paving | 8.6000e-004 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **2.3400e-003** | **0.0131** | **0.0176** | **3.0000e-005** | | **6.1000e-004** | **6.1000e-004** | | **5.7000e-004** | **5.7000e-004** | **0.0000** | **2.3502** | **2.3502** | **6.8000e-004** | **0.0000** | **2.3673** |

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

## 3.6 Paving - 2024

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.5000e-004 | 1.0000e-004 | 1.1400e-003 | 0.0000 | 3.5000e-004 | 0.0000 | 3.6000e-004 | 9.0000e-005 | 0.0000 | 1.0000e-004 | 0.0000 | 0.2767 | 0.2767 | 1.0000e-005 | 1.0000e-005 | 0.2794 |
| **Total** | **1.5000e-004** | **1.0000e-004** | **1.1400e-003** | **0.0000** | **3.5000e-004** | **0.0000** | **3.6000e-004** | **9.0000e-005** | **0.0000** | **1.0000e-004** | **0.0000** | **0.2767** | **0.2767** | **1.0000e-005** | **1.0000e-005** | **0.2794** |

### 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 | 1.4800e-003 | 0.0131 | 0.0176 | 3.0000e-005 | | 6.1000e-004 | 6.1000e-004 | | 5.7000e-004 | 5.7000e-004 | 0.0000 | 2.3502 | 2.3502 | 6.8000e-004 | 0.0000 | 2.3673 |
| Paving | 8.6000e-004 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **2.3400e-003** | **0.0131** | **0.0176** | **3.0000e-005** | | **6.1000e-004** | **6.1000e-004** | | **5.7000e-004** | **5.7000e-004** | **0.0000** | **2.3502** | **2.3502** | **6.8000e-004** | **0.0000** | **2.3673** |

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

## 3.6 Paving - 2024

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.5000e-004 | 1.0000e-004 | 1.1400e-003 | 0.0000 | 3.5000e-004 | 0.0000 | 3.6000e-004 | 9.0000e-005 | 0.0000 | 1.0000e-004 | 0.0000 | 0.2767 | 0.2767 | 1.0000e-005 | 1.0000e-005 | 0.2794 |
| **Total** | **1.5000e-004** | **1.0000e-004** | **1.1400e-003** | **0.0000** | **3.5000e-004** | **0.0000** | **3.6000e-004** | **9.0000e-005** | **0.0000** | **1.0000e-004** | **0.0000** | **0.2767** | **0.2767** | **1.0000e-005** | **1.0000e-005** | **0.2794** |

## 3.7 Architectural Coating - 2024

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Archit. Coating | 0.0278 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 4.5000e-004 | 3.0500e-003 | 4.5300e-003 | 1.0000e-005 | | 1.5000e-004 | 1.5000e-004 | | 1.5000e-004 | 1.5000e-004 | 0.0000 | 0.6383 | 0.6383 | 4.0000e-005 | 0.0000 | 0.6392 |
| **Total** | **0.0283** | **3.0500e-003** | **4.5300e-003** | **1.0000e-005** | | **1.5000e-004** | **1.5000e-004** | | **1.5000e-004** | **1.5000e-004** | **0.0000** | **0.6383** | **0.6383** | **4.0000e-005** | **0.0000** | **0.6392** |

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

## 3.7 Architectural Coating - 2024

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.0000e-005 | 2.0000e-005 | 1.9000e-004 | 0.0000 | 6.0000e-005 | 0.0000 | 6.0000e-005 | 2.0000e-005 | 0.0000 | 2.0000e-005 | 0.0000 | 0.0461 | 0.0461 | 0.0000 | 0.0000 | 0.0466 |
| **Total** | **2.0000e-005** | **2.0000e-005** | **1.9000e-004** | **0.0000** | **6.0000e-005** | **0.0000** | **6.0000e-005** | **2.0000e-005** | **0.0000** | **2.0000e-005** | **0.0000** | **0.0461** | **0.0461** | **0.0000** | **0.0000** | **0.0466** |

### 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 | 0.0278 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 4.5000e-004 | 3.0500e-003 | 4.5300e-003 | 1.0000e-005 | | 1.5000e-004 | 1.5000e-004 | | 1.5000e-004 | 1.5000e-004 | 0.0000 | 0.6383 | 0.6383 | 4.0000e-005 | 0.0000 | 0.6392 |
| **Total** | **0.0283** | **3.0500e-003** | **4.5300e-003** | **1.0000e-005** | | **1.5000e-004** | **1.5000e-004** | | **1.5000e-004** | **1.5000e-004** | **0.0000** | **0.6383** | **0.6383** | **4.0000e-005** | **0.0000** | **0.6392** |

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

### 3.7 Architectural Coating - 2024

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.0000e-005 | 2.0000e-005 | 1.9000e-004 | 0.0000 | 6.0000e-005 | 0.0000 | 6.0000e-005 | 2.0000e-005 | 0.0000 | 2.0000e-005 | 0.0000 | 0.0461 | 0.0461 | 0.0000 | 0.0000 | 0.0466 |
| **Total** | **2.0000e-005** | **2.0000e-005** | **1.9000e-004** | **0.0000** | **6.0000e-005** | **0.0000** | **6.0000e-005** | **2.0000e-005** | **0.0000** | **2.0000e-005** | **0.0000** | **0.0461** | **0.0461** | **0.0000** | **0.0000** | **0.0466** |

## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 0.9326 | 1.2662 | 8.4645 | 0.0165 | 1.7193 | 0.0154 | 1.7347 | 0.4609 | 0.0144 | 0.4753 | 0.0000 | 1,526.1880 | 1,526.1880 | 0.1057 | 0.0817 | 1,553.1803 |
| Unmitigated | 0.9326 | 1.2662 | 8.4645 | 0.0165 | 1.7193 | 0.0154 | 1.7347 | 0.4609 | 0.0144 | 0.4753 | 0.0000 | 1,526.1880 | 1,526.1880 | 0.1057 | 0.0817 | 1,553.1803 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Convenience Market With Gas Pumps | 1,755.02 | 1,755.02 | 1755.02 | 4,674,692 | 4,674,692 |
| Parking Lot | 0.00 | 0.00 | 0.00 | | |
| Total | 1,755.02 | 1,755.02 | 1,755.02 | 4,674,692 | 4,674,692 |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Convenience Market With Gas | 9.50 | 7.30 | 7.30 | 0.80 | 80.20 | 19.00 | 100 | 0 | 0 |
| Parking Lot | 9.50 | 7.30 | 7.30 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Convenience Market With Gas Pumps | 0.545153 | 0.057779 | 0.171448 | 0.124342 | 0.034691 | 0.008619 | 0.014761 | 0.006626 | 0.001095 | 0.000293 | 0.029514 | 0.001540 | 0.004140 |
| Parking Lot | 0.545153 | 0.057779 | 0.171448 | 0.124342 | 0.034691 | 0.008619 | 0.014761 | 0.006626 | 0.001095 | 0.000293 | 0.029514 | 0.001540 | 0.004140 |

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

## 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 | 5.2248 | 5.2248 | 8.5000e-004 | 1.0000e-004 | 5.2765 |
| Electricity Unmitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.2248 | 5.2248 | 8.5000e-004 | 1.0000e-004 | 5.2765 |
| NaturalGas Mitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| NaturalGas Unmitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

## 5.2 Energy by Land Use - NaturalGas

**Unmitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Convenience Market With Gas Pumps | 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 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Convenience Market With Gas Pumps | 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 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

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

## 5.3 Energy by Land Use - Electricity

**Unmitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Convenience Market With Gas Pumps | 46425.2 | 4.2954 | 6.9000e-004 | 8.0000e-005 | 4.3379 |
| Parking Lot | 10045 | 0.9294 | 1.5000e-004 | 2.0000e-005 | 0.9386 |
| **Total** | | **5.2248** | **8.4000e-004** | **1.0000e-004** | **5.2765** |

**Mitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Convenience Market With Gas Pumps | 46425.2 | 4.2954 | 6.9000e-004 | 8.0000e-005 | 4.3379 |
| Parking Lot | 10045 | 0.9294 | 1.5000e-004 | 2.0000e-005 | 0.9386 |
| **Total** | | **5.2248** | **8.4000e-004** | **1.0000e-004** | **5.2765** |

## 6.0 Area Detail

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

## 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 | 0.0210 | 0.0000 | 3.0000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.9000e-004 | 5.9000e-004 | 0.0000 | 0.0000 | 6.3000e-004 |
| Unmitigated | 0.0210 | 0.0000 | 3.0000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.9000e-004 | 5.9000e-004 | 0.0000 | 0.0000 | 6.3000e-004 |

## 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 | 2.7800e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.0182 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 3.0000e-005 | 0.0000 | 3.0000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.9000e-004 | 5.9000e-004 | 0.0000 | 0.0000 | 6.3000e-004 |
| **Total** | **0.0210** | **0.0000** | **3.0000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **5.9000e-004** | **5.9000e-004** | **0.0000** | **0.0000** | **6.3000e-004** |

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

## 6.2 Area by SubCategory

**Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 2.7800e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.0182 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 3.0000e-005 | 0.0000 | 3.0000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.9000e-004 | 5.9000e-004 | 0.0000 | 0.0000 | 6.3000e-004 |
| **Total** | **0.0210** | **0.0000** | **3.0000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **5.9000e-004** | **5.9000e-004** | **0.0000** | **0.0000** | **6.3000e-004** |

# 7.0 Water Detail

## 7.1 Mitigation Measures Water

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

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| Category | MT/yr | | | |
| Mitigated | 0.3155 | 0.0102 | 2.4000e-004 | 0.6416 |
| Unmitigated | 0.3155 | 0.0102 | 2.4000e-004 | 0.6416 |

## 7.2 Water by Land Use

**Unmitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Convenience Market With Gas Pumps | 0.310364 / 0.190223 | 0.3155 | 0.0102 | 2.4000e-004 | 0.6416 |
| Parking Lot | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.3155** | **0.0102** | **2.4000e-004** | **0.6416** |

### 7.2 Water by Land Use

**Mitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Convenience Market With Gas Pumps | 0.310364 / 0.190223 | 0.3155 | 0.0102 | 2.4000e-004 | 0.6416 |
| Parking Lot | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.3155** | **0.0102** | **2.4000e-004** | **0.6416** |

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

**Category/Year**

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| | MT/yr | | | |
| Mitigated | 2.5557 | 0.1510 | 0.0000 | 6.3315 |
| Unmitigated | 2.5557 | 0.1510 | 0.0000 | 6.3315 |

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

## 8.2 Waste by Land Use

**Unmitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Convenience Market With Gas Pumps | 12.59 | 2.5557 | 0.1510 | 0.0000 | 6.3315 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **2.5557** | **0.1510** | **0.0000** | **6.3315** |

**Mitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Convenience Market With Gas Pumps | 12.59 | 2.5557 | 0.1510 | 0.0000 | 6.3315 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **2.5557** | **0.1510** | **0.0000** | **6.3315** |

## 9.0 Operational Offroad

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

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

## 10.0 Stationary Equipment

### Fire Pumps and Emergency Generators

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

### Boilers

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

### User Defined Equipment

| Equipment Type | Number |
|---|---|

## 11.0 Vegetation

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

# 43 Middle Rincon Road 7- Eleven

**Sonoma-San Francisco County, Winter**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Parking Lot | 28.70 | 1000sqft | 0.66 | 28,700.00 | 0 |
| Convenience Market With Gas Pumps | 4.19 | 1000sqft | 0.10 | 4,190.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 75 |
| **Climate Zone** | 4 | | | **Operational Year** | 2025 |
| **Utility Company** | Pacific Gas and Electric Company | | | | |
| **CO2 Intensity (lb/MWhr)** | 203.98 | **CH4 Intensity (lb/MWhr)** | 0.033 | **N2O Intensity (lb/MWhr)** | 0.004 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Building size per site plan
Parking Lot = all paved/concrete areas

Construction Phase - Demolition extended to account for estimated 18,700 SF buildings/outbuildings to be demolished.
Grading/Excavation extended to account for underground tanks and utilities excavation.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Off-Highway Truck = Water Truck

Off-road Equipment - Excavator added for underground tanks and utlilities.
Concrete/Industrial Saw added for sidewalk/entrance drive improvements.
Off-Highway Truck = Water Truck.

Off-road Equipment -

Off-road Equipment - Off-Highway Truck = Water Truck.

43 Middle Rincon Road 7- Eleven - Sonoma-San Francisco County, Winter

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

Trips and VMT - Hauling trips = total one-way trips at 16 CY per round trip.

Demolition -

Grading - 400 CY vegetation/soil exported during site prep.
800 CY soil and 150 CY asphalt/concrete exported during grading/excavation.

Vehicle Trips - Proposed project trip rate per traffic study, includes 50% pass-by reduction (W-Trans 2020).

Energy Use - Project would not inlcude natural gas per BAAQMD GHG performance standards.
Defualt Title 24 natural gas converted to equivalent electric energy and added to Title 24 Electricity.

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - Dust mitigation per BAAQMD Basic Construction Mitigation Measures.

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstructionPhase | NumDays | 10.00 | 15.00 |
| tblConstructionPhase | NumDays | 2.00 | 15.00 |
| tblConstructionPhase | PhaseEndDate | 11/24/2023 | 11/21/2023 |
| tblConstructionPhase | PhaseEndDate | 11/27/2023 | 12/1/2023 |
| tblConstructionPhase | PhaseEndDate | 11/29/2023 | 12/22/2023 |
| tblConstructionPhase | PhaseEndDate | 4/17/2024 | 5/20/2022 |
| tblConstructionPhase | PhaseEndDate | 4/24/2024 | 5/27/2024 |
| tblConstructionPhase | PhaseEndDate | 5/1/2024 | 6/3/2024 |
| tblConstructionPhase | PhaseStartDate | 11/13/2023 | 11/1/2023 |
| tblConstructionPhase | PhaseStartDate | 11/25/2023 | 12/1/2023 |
| tblConstructionPhase | PhaseStartDate | 11/28/2023 | 12/2/2023 |
| tblConstructionPhase | PhaseStartDate | 11/30/2023 | 1/3/2022 |
| tblConstructionPhase | PhaseStartDate | 4/18/2024 | 5/21/2024 |
| tblConstructionPhase | PhaseStartDate | 4/25/2024 | 5/28/2024 |
| tblEnergyUse | T24E | 2.46 | 3.15 |
| tblEnergyUse | T24NG | 2.34 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Off-Highway Trucks |

43 Middle Rincon Road 7- Eleven - Sonoma-San Francisco County, Winter

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

| tblOffRoadEquipment | OffRoadEquipmentType | | Off-Highway Trucks |
|---|---|---|---|
| tblOffRoadEquipment | OffRoadEquipmentType | | Off-Highway Trucks |
| tblVehicleTrips | DV_TP | 21.00 | 0.00 |
| tblVehicleTrips | PB_TP | 65.00 | 0.00 |
| tblVehicleTrips | PR_TP | 14.00 | 100.00 |
| tblVehicleTrips | ST_TR | 624.20 | 418.86 |
| tblVehicleTrips | SU_TR | 624.20 | 418.86 |
| tblVehicleTrips | WD_TR | 624.20 | 418.86 |

## 2.0 Emissions Summary

43 Middle Rincon Road 7- Eleven - Sonoma-San Francisco County, Winter

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

## 2.1 Overall Construction (Maximum Daily Emission)

### Unmitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2022 | 0.7508 | 7.3639 | 7.6343 | 0.0134 | 0.1405 | 0.3756 | 0.5161 | 0.0380 | 0.3456 | 0.3836 | 0.0000 | 1,310.0877 | 1,310.0877 | 0.3630 | 0.0206 | 1,325.2872 |
| 2023 | 1.0978 | 11.0975 | 8.7611 | 0.0197 | 5.3941 | 0.4528 | 5.8469 | 2.5903 | 0.4166 | 3.0069 | 0.0000 | 1,939.8607 | 1,939.8607 | 0.5475 | 0.0634 | 1,966.9253 |
| 2024 | 11.3252 | 5.2723 | 7.4984 | 0.0125 | 0.1479 | 0.2437 | 0.3915 | 0.0392 | 0.2276 | 0.2668 | 0.0000 | 1,157.0445 | 1,157.0445 | 0.3062 | 4.0100e-003 | 1,165.8943 |
| **Maximum** | **11.3252** | **11.0975** | **8.7611** | **0.0197** | **5.3941** | **0.4528** | **5.8469** | **2.5903** | **0.4166** | **3.0069** | **0.0000** | **1,939.8607** | **1,939.8607** | **0.5475** | **0.0634** | **1,966.9253** |

### 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 | 0.7508 | 7.3639 | 7.6343 | 0.0134 | 0.1405 | 0.3756 | 0.5161 | 0.0380 | 0.3456 | 0.3836 | 0.0000 | 1,310.0876 | 1,310.0876 | 0.3630 | 0.0206 | 1,325.2872 |
| 2023 | 1.0978 | 11.0975 | 8.7611 | 0.0197 | 2.4725 | 0.4528 | 2.9254 | 1.1776 | 0.4166 | 1.5942 | 0.0000 | 1,939.8607 | 1,939.8607 | 0.5475 | 0.0634 | 1,966.9253 |
| 2024 | 11.3252 | 5.2723 | 7.4984 | 0.0125 | 0.1479 | 0.2437 | 0.3915 | 0.0392 | 0.2276 | 0.2668 | 0.0000 | 1,157.0445 | 1,157.0445 | 0.3062 | 4.0100e-003 | 1,165.8943 |
| **Maximum** | **11.3252** | **11.0975** | **8.7611** | **0.0197** | **2.4725** | **0.4528** | **2.9254** | **1.1776** | **0.4166** | **1.5942** | **0.0000** | **1,939.8607** | **1,939.8607** | **0.5475** | **0.0634** | **1,966.9253** |

43 Middle Rincon Road 7- Eleven - Sonoma-San Francisco 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 | 51.41 | 0.00 | 43.25 | 52.96 | 0.00 | 38.63 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

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

## 2.2 Overall Operational

### Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.1154 | 3.0000e-005 | 3.3500e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 7.2000e-003 | 7.2000e-003 | 2.0000e-005 | | 7.6700e-003 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Mobile | 5.1448 | 7.3344 | 49.4779 | 0.0903 | 9.8829 | 0.0847 | 9.9676 | 2.6392 | 0.0794 | 2.7186 | | 9,192.7669 | 9,192.7669 | 0.6774 | 0.5141 | 9,362.9091 |
| **Total** | **5.2602** | **7.3344** | **49.4812** | **0.0903** | **9.8829** | **0.0847** | **9.9676** | **2.6392** | **0.0794** | **2.7186** | | **9,192.7741** | **9,192.7741** | **0.6775** | **0.5141** | **9,362.9168** |

### Mitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.1154 | 3.0000e-005 | 3.3500e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 7.2000e-003 | 7.2000e-003 | 2.0000e-005 | | 7.6700e-003 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Mobile | 5.1448 | 7.3344 | 49.4779 | 0.0903 | 9.8829 | 0.0847 | 9.9676 | 2.6392 | 0.0794 | 2.7186 | | 9,192.7669 | 9,192.7669 | 0.6774 | 0.5141 | 9,362.9091 |
| **Total** | **5.2602** | **7.3344** | **49.4812** | **0.0903** | **9.8829** | **0.0847** | **9.9676** | **2.6392** | **0.0794** | **2.7186** | | **9,192.7741** | **9,192.7741** | **0.6775** | **0.5141** | **9,362.9168** |

**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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.0 Construction Detail

### Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 11/1/2023 | 11/21/2023 | 5 | 15 | |
| 2 | Site Preparation | Site Preparation | 12/1/2023 | 12/1/2023 | 5 | 1 | |
| 3 | Grading/Excavation | Grading | 12/2/2023 | 12/22/2023 | 5 | 15 | |
| 4 | Building Construction | Building Construction | 1/3/2022 | 5/20/2022 | 5 | 100 | |
| 5 | Paving | Paving | 5/21/2024 | 5/27/2024 | 5 | 5 | |
| 6 | Architectural Coating | Architectural Coating | 5/28/2024 | 6/3/2024 | 5 | 5 | |

**Acres of Grading (Site Preparation Phase): 0.5**

**Acres of Grading (Grading Phase): 11.25**

**Acres of Paving: 0.66**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 6,285; Non-Residential Outdoor: 2,095; Striped Parking Area: 1,722 (Architectural Coating – sqft)**

### OffRoad Equipment

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Rubber Tired Dozers | 1 | 1.00 | 247 | 0.40 |
| Demolition | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Site Preparation | Graders | 1 | 8.00 | 187 | 0.41 |
| Site Preparation | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |

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

| | | | | | |
|---|---|---|---|---|---|
| Demolition | Off-Highway Trucks | 1 | 2.00 | 402 | 0.38 |
| Site Preparation | Off-Highway Trucks | 1 | 2.00 | 402 | 0.38 |
| Grading/Excavation | Graders | 1 | 6.00 | 187 | 0.41 |
| Grading/Excavation | Rubber Tired Dozers | 1 | 6.00 | 247 | 0.40 |
| Grading/Excavation | Tractors/Loaders/Backhoes | 1 | 7.00 | 97 | 0.37 |
| Building Construction | Cranes | 1 | 4.00 | 231 | 0.29 |
| Building Construction | Forklifts | 2 | 6.00 | 89 | 0.20 |
| Building Construction | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Paving | Cement and Mortar Mixers | 4 | 6.00 | 9 | 0.56 |
| Paving | Pavers | 1 | 7.00 | 130 | 0.42 |
| Paving | Rollers | 1 | 7.00 | 80 | 0.38 |
| Paving | Tractors/Loaders/Backhoes | 1 | 7.00 | 97 | 0.37 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |
| Grading/Excavation | Off-Highway Trucks | 1 | 2.00 | 402 | 0.38 |

**Trips and VMT**

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Demolition | 5 | 13.00 | 0.00 | 85.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 3 | 8.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading/Excavation | 4 | 10.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 5 | 13.00 | 5.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 7 | 18.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 3.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

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

## 3.2 Demolition - 2023

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 1.2272 | 0.0000 | 1.2272 | 0.1858 | 0.0000 | 0.1858 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.7723 | 6.6706 | 8.2148 | 0.0153 | | 0.3144 | 0.3144 | | 0.2995 | 0.2995 | | 1,468.3776 | 1,468.3776 | 0.3124 | | 1,476.1882 |
| **Total** | **0.7723** | **6.6706** | **8.2148** | **0.0153** | **1.2272** | **0.3144** | **1.5415** | **0.1858** | **0.2995** | **0.4853** | | **1,468.3776** | **1,468.3776** | **0.3124** | | **1,476.1882** |

### 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 | 0.0117 | 0.8434 | 0.1803 | 3.5200e-003 | 0.0981 | 5.7500e-003 | 0.1039 | 0.0268 | 5.5000e-003 | 0.0323 | | 381.3205 | 381.3205 | 0.0109 | 0.0603 | 399.5537 |
| 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 | 0.0498 | 0.0347 | 0.3661 | 8.9000e-004 | 0.1068 | 6.2000e-004 | 0.1074 | 0.0283 | 5.7000e-004 | 0.0289 | | 90.1626 | 90.1626 | 3.4600e-003 | 3.1400e-003 | 91.1834 |
| **Total** | **0.0615** | **0.8781** | **0.5463** | **4.4100e-003** | **0.2049** | **6.3700e-003** | **0.2113** | **0.0551** | **6.0700e-003** | **0.0612** | | **471.4830** | **471.4830** | **0.0143** | **0.0634** | **490.7371** |

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

## 3.2 Demolition - 2023

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.5522 | 0.0000 | 0.5522 | 0.0836 | 0.0000 | 0.0836 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.7723 | 6.6706 | 8.2148 | 0.0153 | | 0.3144 | 0.3144 | | 0.2995 | 0.2995 | 0.0000 | 1,468.3776 | 1,468.3776 | 0.3124 | | 1,476.1882 |
| **Total** | **0.7723** | **6.6706** | **8.2148** | **0.0153** | **0.5522** | **0.3144** | **0.8666** | **0.0836** | **0.2995** | **0.3831** | **0.0000** | **1,468.3776** | **1,468.3776** | **0.3124** | | **1,476.1882** |

### 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 | 0.0117 | 0.8434 | 0.1803 | 3.5200e-003 | 0.0981 | 5.7500e-003 | 0.1039 | 0.0268 | 5.5000e-003 | 0.0323 | | 381.3205 | 381.3205 | 0.0109 | 0.0603 | 399.5537 |
| 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 | 0.0498 | 0.0347 | 0.3661 | 8.9000e-004 | 0.1068 | 6.2000e-004 | 0.1074 | 0.0283 | 5.7000e-004 | 0.0289 | | 90.1626 | 90.1626 | 3.4600e-003 | 3.1400e-003 | 91.1834 |
| **Total** | **0.0615** | **0.8781** | **0.5463** | **4.4100e-003** | **0.2049** | **6.3700e-003** | **0.2113** | **0.0551** | **6.0700e-003** | **0.0612** | | **471.4830** | **471.4830** | **0.0143** | **0.0634** | **490.7371** |

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

## 3.3 Site Preparation - 2023

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.6608 | 7.0807 | 4.7461 | 0.0130 | | 0.2588 | 0.2588 | | 0.2381 | 0.2381 | | 1,262.4038 | 1,262.4038 | 0.4083 | | 1,272.6110 |
| **Total** | **0.6608** | **7.0807** | **4.7461** | **0.0130** | **0.5303** | **0.2588** | **0.7891** | **0.0573** | **0.2381** | **0.2954** | | **1,262.4038** | **1,262.4038** | **0.4083** | | **1,272.6110** |

### 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 | 0.0307 | 0.0214 | 0.2253 | 5.5000e-004 | 0.0657 | 3.8000e-004 | 0.0661 | 0.0174 | 3.5000e-004 | 0.0178 | | 55.4847 | 55.4847 | 2.1300e-003 | 1.9300e-003 | 56.1128 |
| **Total** | **0.0307** | **0.0214** | **0.2253** | **5.5000e-004** | **0.0657** | **3.8000e-004** | **0.0661** | **0.0174** | **3.5000e-004** | **0.0178** | | **55.4847** | **55.4847** | **2.1300e-003** | **1.9300e-003** | **56.1128** |

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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 Site Preparation - 2023

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.2386 | 0.0000 | 0.2386 | 0.0258 | 0.0000 | 0.0258 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.6608 | 7.0807 | 4.7461 | 0.0130 | | 0.2588 | 0.2588 | | 0.2381 | 0.2381 | 0.0000 | 1,262.4038 | 1,262.4038 | 0.4083 | | 1,272.6110 |
| **Total** | **0.6608** | **7.0807** | **4.7461** | **0.0130** | **0.2386** | **0.2588** | **0.4974** | **0.0258** | **0.2381** | **0.2639** | **0.0000** | **1,262.4038** | **1,262.4038** | **0.4083** | | **1,272.6110** |

### 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 | 0.0307 | 0.0214 | 0.2253 | 5.5000e-004 | 0.0657 | 3.8000e-004 | 0.0661 | 0.0174 | 3.5000e-004 | 0.0178 | | 55.4847 | 55.4847 | 2.1300e-003 | 1.9300e-003 | 56.1128 |
| **Total** | **0.0307** | **0.0214** | **0.2253** | **5.5000e-004** | **0.0657** | **3.8000e-004** | **0.0661** | **0.0174** | **3.5000e-004** | **0.0178** | | **55.4847** | **55.4847** | **2.1300e-003** | **1.9300e-003** | **56.1128** |

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

## 3.4 Grading/Excavation - 2023

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 5.3119 | 0.0000 | 5.3119 | 2.5686 | 0.0000 | 2.5686 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.0595 | 11.0708 | 6.3738 | 0.0174 | | 0.4524 | 0.4524 | | 0.4162 | 0.4162 | | 1,684.7435 | 1,684.7435 | 0.5449 | | 1,698.3655 |
| **Total** | **1.0595** | **11.0708** | **6.3738** | **0.0174** | **5.3119** | **0.4524** | **5.7643** | **2.5686** | **0.4162** | **2.9847** | | **1,684.7435** | **1,684.7435** | **0.5449** | | **1,698.3655** |

### 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 | 0.0383 | 0.0267 | 0.2816 | 6.9000e-004 | 0.0822 | 4.8000e-004 | 0.0826 | 0.0218 | 4.4000e-004 | 0.0222 | | 69.3558 | 69.3558 | 2.6600e-003 | 2.4100e-003 | 70.1411 |
| **Total** | **0.0383** | **0.0267** | **0.2816** | **6.9000e-004** | **0.0822** | **4.8000e-004** | **0.0826** | **0.0218** | **4.4000e-004** | **0.0222** | | **69.3558** | **69.3558** | **2.6600e-003** | **2.4100e-003** | **70.1411** |

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

## 3.4 Grading/Excavation - 2023

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 2.3904 | 0.0000 | 2.3904 | 1.1559 | 0.0000 | 1.1559 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.0595 | 11.0708 | 6.3738 | 0.0174 | | 0.4524 | 0.4524 | | 0.4162 | 0.4162 | 0.0000 | 1,684.7435 | 1,684.7435 | 0.5449 | | 1,698.3655 |
| **Total** | **1.0595** | **11.0708** | **6.3738** | **0.0174** | **2.3904** | **0.4524** | **2.8427** | **1.1559** | **0.4162** | **1.5720** | **0.0000** | **1,684.7435** | **1,684.7435** | **0.5449** | | **1,698.3655** |

### 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 | 0.0383 | 0.0267 | 0.2816 | 6.9000e-004 | 0.0822 | 4.8000e-004 | 0.0826 | 0.0218 | 4.4000e-004 | 0.0222 | | 69.3558 | 69.3558 | 2.6600e-003 | 2.4100e-003 | 70.1411 |
| **Total** | **0.0383** | **0.0267** | **0.2816** | **6.9000e-004** | **0.0822** | **4.8000e-004** | **0.0826** | **0.0218** | **4.4000e-004** | **0.0222** | | **69.3558** | **69.3558** | **2.6600e-003** | **2.4100e-003** | **70.1411** |

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

## 3.5 Building Construction - 2022

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.6863 | 7.0258 | 7.1527 | 0.0114 | | 0.3719 | 0.3719 | | 0.3422 | 0.3422 | | 1,103.9393 | 1,103.9393 | 0.3570 | | 1,112.8652 |
| **Total** | **0.6863** | **7.0258** | **7.1527** | **0.0114** | | **0.3719** | **0.3719** | | **0.3422** | **0.3422** | | **1,103.9393** | **1,103.9393** | **0.3570** | | **1,112.8652** |

### 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 | 0.0108 | 0.2987 | 0.0809 | 1.0600e-003 | 0.0337 | 2.9700e-003 | 0.0367 | 9.6900e-003 | 2.8400e-003 | 0.0125 | | 113.0813 | 113.0813 | 2.1600e-003 | 0.0171 | 118.2425 |
| Worker | 0.0537 | 0.0394 | 0.4007 | 9.2000e-004 | 0.1068 | 6.6000e-004 | 0.1075 | 0.0283 | 6.1000e-004 | 0.0289 | | 93.0670 | 93.0670 | 3.8400e-003 | 3.4100e-003 | 94.1796 |
| **Total** | **0.0645** | **0.3381** | **0.4816** | **1.9800e-003** | **0.1405** | **3.6300e-003** | **0.1441** | **0.0380** | **3.4500e-003** | **0.0415** | | **206.1483** | **206.1483** | **6.0000e-003** | **0.0206** | **212.4220** |

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

## 3.5 Building Construction - 2022

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.6863 | 7.0258 | 7.1527 | 0.0114 | | 0.3719 | 0.3719 | | 0.3422 | 0.3422 | 0.0000 | 1,103.9393 | 1,103.9393 | 0.3570 | | 1,112.8652 |
| **Total** | **0.6863** | **7.0258** | **7.1527** | **0.0114** | | **0.3719** | **0.3719** | | **0.3422** | **0.3422** | **0.0000** | **1,103.9393** | **1,103.9393** | **0.3570** | | **1,112.8652** |

### 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 | 0.0108 | 0.2987 | 0.0809 | 1.0600e-003 | 0.0337 | 2.9700e-003 | 0.0367 | 9.6900e-003 | 2.8400e-003 | 0.0125 | | 113.0813 | 113.0813 | 2.1600e-003 | 0.0171 | 118.2425 |
| Worker | 0.0537 | 0.0394 | 0.4007 | 9.2000e-004 | 0.1068 | 6.6000e-004 | 0.1075 | 0.0283 | 6.1000e-004 | 0.0289 | | 93.0670 | 93.0670 | 3.8400e-003 | 3.4100e-003 | 94.1796 |
| **Total** | **0.0645** | **0.3381** | **0.4816** | **1.9800e-003** | **0.1405** | **3.6300e-003** | **0.1441** | **0.0380** | **3.4500e-003** | **0.0415** | | **206.1483** | **206.1483** | **6.0000e-003** | **0.0206** | **212.4220** |

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

## 3.6 Paving - 2024

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.5904 | 5.2297 | 7.0314 | 0.0113 | | 0.2429 | 0.2429 | | 0.2269 | 0.2269 | | 1,036.2393 | 1,036.2393 | 0.3019 | | 1,043.7858 |
| Paving | 0.3458 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **0.9362** | **5.2297** | **7.0314** | **0.0113** | | **0.2429** | **0.2429** | | **0.2269** | **0.2269** | | **1,036.2393** | **1,036.2393** | **0.3019** | | **1,043.7858** |

### 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 | 0.0642 | 0.0426 | 0.4670 | 1.2000e-003 | 0.1479 | 8.1000e-004 | 0.1487 | 0.0392 | 7.5000e-004 | 0.0400 | | 120.8053 | 120.8053 | 4.3200e-003 | 4.0100e-003 | 122.1085 |
| **Total** | **0.0642** | **0.0426** | **0.4670** | **1.2000e-003** | **0.1479** | **8.1000e-004** | **0.1487** | **0.0392** | **7.5000e-004** | **0.0400** | | **120.8053** | **120.8053** | **4.3200e-003** | **4.0100e-003** | **122.1085** |

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

## 3.6 Paving - 2024

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.5904 | 5.2297 | 7.0314 | 0.0113 | | 0.2429 | 0.2429 | | 0.2269 | 0.2269 | 0.0000 | 1,036.2393 | 1,036.2393 | 0.3019 | | 1,043.7858 |
| Paving | 0.3458 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **0.9362** | **5.2297** | **7.0314** | **0.0113** | | **0.2429** | **0.2429** | | **0.2269** | **0.2269** | **0.0000** | **1,036.2393** | **1,036.2393** | **0.3019** | | **1,043.7858** |

**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 | 0.0642 | 0.0426 | 0.4670 | 1.2000e-003 | 0.1479 | 8.1000e-004 | 0.1487 | 0.0392 | 7.5000e-004 | 0.0400 | | 120.8053 | 120.8053 | 4.3200e-003 | 4.0100e-003 | 122.1085 |
| **Total** | **0.0642** | **0.0426** | **0.4670** | **1.2000e-003** | **0.1479** | **8.1000e-004** | **0.1487** | **0.0392** | **7.5000e-004** | **0.0400** | | **120.8053** | **120.8053** | **4.3200e-003** | **4.0100e-003** | **122.1085** |

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

## 3.7 Architectural Coating - 2024

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 11.1337 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.1808 | 1.2188 | 1.8101 | 2.9700e-003 | | 0.0609 | 0.0609 | | 0.0609 | 0.0609 | | 281.4481 | 281.4481 | 0.0159 | | 281.8443 |
| **Total** | **11.3145** | **1.2188** | **1.8101** | **2.9700e-003** | | **0.0609** | **0.0609** | | **0.0609** | **0.0609** | | **281.4481** | **281.4481** | **0.0159** | | **281.8443** |

### 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 | 0.0107 | 7.1000e-003 | 0.0778 | 2.0000e-004 | 0.0246 | 1.4000e-004 | 0.0248 | 6.5400e-003 | 1.2000e-004 | 6.6600e-003 | | 20.1342 | 20.1342 | 7.2000e-004 | 6.7000e-004 | 20.3514 |
| **Total** | **0.0107** | **7.1000e-003** | **0.0778** | **2.0000e-004** | **0.0246** | **1.4000e-004** | **0.0248** | **6.5400e-003** | **1.2000e-004** | **6.6600e-003** | | **20.1342** | **20.1342** | **7.2000e-004** | **6.7000e-004** | **20.3514** |

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

## 3.7 Architectural Coating - 2024

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 11.1337 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.1808 | 1.2188 | 1.8101 | 2.9700e-003 | | 0.0609 | 0.0609 | | 0.0609 | 0.0609 | 0.0000 | 281.4481 | 281.4481 | 0.0159 | | 281.8443 |
| **Total** | **11.3145** | **1.2188** | **1.8101** | **2.9700e-003** | | **0.0609** | **0.0609** | | **0.0609** | **0.0609** | **0.0000** | **281.4481** | **281.4481** | **0.0159** | | **281.8443** |

**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 | 0.0107 | 7.1000e-003 | 0.0778 | 2.0000e-004 | 0.0246 | 1.4000e-004 | 0.0248 | 6.5400e-003 | 1.2000e-004 | 6.6600e-003 | | 20.1342 | 20.1342 | 7.2000e-004 | 6.7000e-004 | 20.3514 |
| **Total** | **0.0107** | **7.1000e-003** | **0.0778** | **2.0000e-004** | **0.0246** | **1.4000e-004** | **0.0248** | **6.5400e-003** | **1.2000e-004** | **6.6600e-003** | | **20.1342** | **20.1342** | **7.2000e-004** | **6.7000e-004** | **20.3514** |

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

# 4.0 Operational Detail - Mobile

## 4.1 Mitigation Measures Mobile

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 5.1448 | 7.3344 | 49.4779 | 0.0903 | 9.8829 | 0.0847 | 9.9676 | 2.6392 | 0.0794 | 2.7186 | | 9,192.7669 | 9,192.7669 | 0.6774 | 0.5141 | 9,362.9091 |
| Unmitigated | 5.1448 | 7.3344 | 49.4779 | 0.0903 | 9.8829 | 0.0847 | 9.9676 | 2.6392 | 0.0794 | 2.7186 | | 9,192.7669 | 9,192.7669 | 0.6774 | 0.5141 | 9,362.9091 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Convenience Market With Gas Pumps | 1,755.02 | 1,755.02 | 1755.02 | 4,674,692 | 4,674,692 |
| Parking Lot | 0.00 | 0.00 | 0.00 | | |
| Total | 1,755.02 | 1,755.02 | 1,755.02 | 4,674,692 | 4,674,692 |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Convenience Market With Gas | 9.50 | 7.30 | 7.30 | 0.80 | 80.20 | 19.00 | 100 | 0 | 0 |
| Parking Lot | 9.50 | 7.30 | 7.30 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

## 4.4 Fleet Mix

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

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Convenience Market With Gas Pumps | 0.545153 | 0.057779 | 0.171448 | 0.124342 | 0.034691 | 0.008619 | 0.014761 | 0.006626 | 0.001095 | 0.000293 | 0.029514 | 0.001540 | 0.004140 |
| Parking Lot | 0.545153 | 0.057779 | 0.171448 | 0.124342 | 0.034691 | 0.008619 | 0.014761 | 0.006626 | 0.001095 | 0.000293 | 0.029514 | 0.001540 | 0.004140 |

## 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| NaturalGas Unmitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

## 5.2 Energy by Land Use - NaturalGas

**Unmitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Convenience Market With Gas Pumps | 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 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Convenience Market With Gas Pumps | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

43 Middle Rincon Road 7- Eleven - Sonoma-San Francisco County, Winter

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

## 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 | 0.1154 | 3.0000e-005 | 3.3500e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 7.2000e-003 | 7.2000e-003 | 2.0000e-005 | | 7.6700e-003 |
| Unmitigated | 0.1154 | 3.0000e-005 | 3.3500e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 7.2000e-003 | 7.2000e-003 | 2.0000e-005 | | 7.6700e-003 |

## 6.2 Area by SubCategory

**Unmitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.0153 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0998 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 3.1000e-004 | 3.0000e-005 | 3.3500e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 7.2000e-003 | 7.2000e-003 | 2.0000e-005 | | 7.6700e-003 |
| **Total** | **0.1154** | **3.0000e-005** | **3.3500e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **7.2000e-003** | **7.2000e-003** | **2.0000e-005** | | **7.6700e-003** |

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

## 6.2 Area by SubCategory

**Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.0153 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0998 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 3.1000e-004 | 3.0000e-005 | 3.3500e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 7.2000e-003 | 7.2000e-003 | 2.0000e-005 | | 7.6700e-003 |
| **Total** | **0.1154** | **3.0000e-005** | **3.3500e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **7.2000e-003** | **7.2000e-003** | **2.0000e-005** | | **7.6700e-003** |

# 7.0 Water Detail

## 7.1 Mitigation Measures Water

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

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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

## 10.0 Stationary Equipment

**Fire Pumps and Emergency Generators**

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

**Boilers**

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

**User Defined Equipment**

| Equipment Type | Number |
|---|---|

## 11.0 Vegetation

43 Middle Rincon Road 7- Eleven - Sonoma-San Francisco County, Summer

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

# 43 Middle Rincon Road 7- Eleven

**Sonoma-San Francisco County, Summer**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Parking Lot | 28.70 | 1000sqft | 0.66 | 28,700.00 | 0 |
| Convenience Market With Gas Pumps | 4.19 | 1000sqft | 0.10 | 4,190.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 75 |
| **Climate Zone** | 4 | | | **Operational Year** | 2025 |
| **Utility Company** | Pacific Gas and Electric Company | | | | |
| **CO2 Intensity (lb/MWhr)** | 203.98 | **CH4 Intensity (lb/MWhr)** | 0.033 | **N2O Intensity (lb/MWhr)** | 0.004 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Building size per site plan
Parking Lot = all paved/concrete areas

Construction Phase - Demolition extended to account for estimated 18,700 SF buildings/outbuildings to be demolished.
Grading/Excavation extended to account for underground tanks and utilities excavation.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Off-Highway Truck = Water Truck

Off-road Equipment - Excavator added for underground tanks and utlilities.
Concrete/Industrial Saw added for sidewalk/entrance drive improvements.
Off-Highway Truck = Water Truck.

Off-road Equipment -

Off-road Equipment - Off-Highway Truck = Water Truck.

43 Middle Rincon Road 7- Eleven - Sonoma-San Francisco County, Summer

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

Trips and VMT - Hauling trips = total one-way trips at 16 CY per round trip.

Demolition -

Grading - 400 CY vegetation/soil exported during site prep.
800 CY soil and 150 CY asphalt/concrete exported during grading/excavation.

Vehicle Trips - Proposed project trip rate per traffic study, includes 50% pass-by reduction (W-Trans 2020).

Energy Use - Project would not inlcude natural gas per BAAQMD GHG performance standards.
Defualt Title 24 natural gas converted to equivalent electric energy and added to Title 24 Electricity.

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - Dust mitigation per BAAQMD Basic Construction Mitigation Measures.

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstructionPhase | NumDays | 10.00 | 15.00 |
| tblConstructionPhase | NumDays | 2.00 | 15.00 |
| tblConstructionPhase | PhaseEndDate | 11/24/2023 | 11/21/2023 |
| tblConstructionPhase | PhaseEndDate | 11/27/2023 | 12/1/2023 |
| tblConstructionPhase | PhaseEndDate | 11/29/2023 | 12/22/2023 |
| tblConstructionPhase | PhaseEndDate | 4/17/2024 | 5/20/2022 |
| tblConstructionPhase | PhaseEndDate | 4/24/2024 | 5/27/2024 |
| tblConstructionPhase | PhaseEndDate | 5/1/2024 | 6/3/2024 |
| tblConstructionPhase | PhaseStartDate | 11/13/2023 | 11/1/2023 |
| tblConstructionPhase | PhaseStartDate | 11/25/2023 | 12/1/2023 |
| tblConstructionPhase | PhaseStartDate | 11/28/2023 | 12/2/2023 |
| tblConstructionPhase | PhaseStartDate | 11/30/2023 | 1/3/2022 |
| tblConstructionPhase | PhaseStartDate | 4/18/2024 | 5/21/2024 |
| tblConstructionPhase | PhaseStartDate | 4/25/2024 | 5/28/2024 |
| tblEnergyUse | T24E | 2.46 | 3.15 |
| tblEnergyUse | T24NG | 2.34 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Off-Highway Trucks |

43 Middle Rincon Road 7- Eleven - Sonoma-San Francisco County, Summer

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

| tblOffRoadEquipment | OffRoadEquipmentType | | Off-Highway Trucks |
|---|---|---|---|
| tblOffRoadEquipment | OffRoadEquipmentType | | Off-Highway Trucks |
| tblVehicleTrips | DV_TP | 21.00 | 0.00 |
| tblVehicleTrips | PB_TP | 65.00 | 0.00 |
| tblVehicleTrips | PR_TP | 14.00 | 100.00 |
| tblVehicleTrips | ST_TR | 624.20 | 418.86 |
| tblVehicleTrips | SU_TR | 624.20 | 418.86 |
| tblVehicleTrips | WD_TR | 624.20 | 418.86 |

## 2.0 Emissions Summary

43 Middle Rincon Road 7- Eleven - Sonoma-San Francisco County, Summer

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

## 2.1 Overall Construction (Maximum Daily Emission)

### Unmitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2022 | 0.7489 | 7.3416 | 7.6489 | 0.0134 | 0.1405 | 0.3755 | 0.5160 | 0.0380 | 0.3456 | 0.3836 | 0.0000 | 1,316.3758 | 1,316.3758 | 0.3626 | 0.0201 | 1,331.4226 |
| 2023 | 1.0964 | 11.0924 | 8.7743 | 0.0198 | 5.3941 | 0.4528 | 5.8469 | 2.5903 | 0.4166 | 3.0069 | 0.0000 | 1,945.7030 | 1,945.7030 | 0.5473 | 0.0629 | 1,972.6187 |
| 2024 | 11.3248 | 5.2641 | 7.5148 | 0.0126 | 0.1479 | 0.2437 | 0.3915 | 0.0392 | 0.2276 | 0.2668 | 0.0000 | 1,165.2064 | 1,165.2064 | 0.3057 | 3.4800e-003 | 1,173.8852 |
| **Maximum** | **11.3248** | **11.0924** | **8.7743** | **0.0198** | **5.3941** | **0.4528** | **5.8469** | **2.5903** | **0.4166** | **3.0069** | **0.0000** | **1,945.7030** | **1,945.7030** | **0.5473** | **0.0629** | **1,972.6187** |

### 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 | 0.7489 | 7.3416 | 7.6489 | 0.0134 | 0.1405 | 0.3755 | 0.5160 | 0.0380 | 0.3456 | 0.3836 | 0.0000 | 1,316.3758 | 1,316.3758 | 0.3626 | 0.0201 | 1,331.4226 |
| 2023 | 1.0964 | 11.0924 | 8.7743 | 0.0198 | 2.4725 | 0.4528 | 2.9254 | 1.1776 | 0.4166 | 1.5942 | 0.0000 | 1,945.7030 | 1,945.7030 | 0.5473 | 0.0629 | 1,972.6187 |
| 2024 | 11.3248 | 5.2641 | 7.5148 | 0.0126 | 0.1479 | 0.2437 | 0.3915 | 0.0392 | 0.2276 | 0.2668 | 0.0000 | 1,165.2064 | 1,165.2064 | 0.3057 | 3.4800e-003 | 1,173.8852 |
| **Maximum** | **11.3248** | **11.0924** | **8.7743** | **0.0198** | **2.4725** | **0.4528** | **2.9254** | **1.1776** | **0.4166** | **1.5942** | **0.0000** | **1,945.7030** | **1,945.7030** | **0.5473** | **0.0629** | **1,972.6187** |

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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 | 51.41 | 0.00 | 43.25 | 52.96 | 0.00 | 38.63 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

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

## 2.2 Overall Operational

### Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.1154 | 3.0000e-005 | 3.3500e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 7.2000e-003 | 7.2000e-003 | 2.0000e-005 | | 7.6700e-003 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Mobile | 5.6083 | 6.4854 | 46.1626 | 0.0947 | 9.8829 | 0.0847 | 9.9676 | 2.6392 | 0.0793 | 2.7185 | | 9,645.2522 | 9,645.2522 | 0.6023 | 0.4727 | 9,801.1589 |
| **Total** | **5.7237** | **6.4855** | **46.1659** | **0.0947** | **9.8829** | **0.0847** | **9.9676** | **2.6392** | **0.0793** | **2.7186** | | **9,645.2594** | **9,645.2594** | **0.6023** | **0.4727** | **9,801.1665** |

### Mitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.1154 | 3.0000e-005 | 3.3500e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 7.2000e-003 | 7.2000e-003 | 2.0000e-005 | | 7.6700e-003 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Mobile | 5.6083 | 6.4854 | 46.1626 | 0.0947 | 9.8829 | 0.0847 | 9.9676 | 2.6392 | 0.0793 | 2.7185 | | 9,645.2522 | 9,645.2522 | 0.6023 | 0.4727 | 9,801.1589 |
| **Total** | **5.7237** | **6.4855** | **46.1659** | **0.0947** | **9.8829** | **0.0847** | **9.9676** | **2.6392** | **0.0793** | **2.7186** | | **9,645.2594** | **9,645.2594** | **0.6023** | **0.4727** | **9,801.1665** |

**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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.0 Construction Detail

### Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 11/1/2023 | 11/21/2023 | 5 | 15 | |
| 2 | Site Preparation | Site Preparation | 12/1/2023 | 12/1/2023 | 5 | 1 | |
| 3 | Grading/Excavation | Grading | 12/2/2023 | 12/22/2023 | 5 | 15 | |
| 4 | Building Construction | Building Construction | 1/3/2022 | 5/20/2022 | 5 | 100 | |
| 5 | Paving | Paving | 5/21/2024 | 5/27/2024 | 5 | 5 | |
| 6 | Architectural Coating | Architectural Coating | 5/28/2024 | 6/3/2024 | 5 | 5 | |

**Acres of Grading (Site Preparation Phase): 0.5**

**Acres of Grading (Grading Phase): 11.25**

**Acres of Paving: 0.66**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 6,285; Non-Residential Outdoor: 2,095; Striped Parking Area: 1,722 (Architectural Coating – sqft)**

### OffRoad Equipment

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Rubber Tired Dozers | 1 | 1.00 | 247 | 0.40 |
| Demolition | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Site Preparation | Graders | 1 | 8.00 | 187 | 0.41 |
| Site Preparation | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |

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

| | | | | | |
|---|---|---|---|---|---|
| Demolition | Off-Highway Trucks | 1 | 2.00 | 402 | 0.38 |
| Site Preparation | Off-Highway Trucks | 1 | 2.00 | 402 | 0.38 |
| Grading/Excavation | Graders | 1 | 6.00 | 187 | 0.41 |
| Grading/Excavation | Rubber Tired Dozers | 1 | 6.00 | 247 | 0.40 |
| Grading/Excavation | Tractors/Loaders/Backhoes | 1 | 7.00 | 97 | 0.37 |
| Building Construction | Cranes | 1 | 4.00 | 231 | 0.29 |
| Building Construction | Forklifts | 2 | 6.00 | 89 | 0.20 |
| Building Construction | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Paving | Cement and Mortar Mixers | 4 | 6.00 | 9 | 0.56 |
| Paving | Pavers | 1 | 7.00 | 130 | 0.42 |
| Paving | Rollers | 1 | 7.00 | 80 | 0.38 |
| Paving | Tractors/Loaders/Backhoes | 1 | 7.00 | 97 | 0.37 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |
| Grading/Excavation | Off-Highway Trucks | 1 | 2.00 | 402 | 0.38 |

**Trips and VMT**

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Demolition | 5 | 13.00 | 0.00 | 85.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 3 | 8.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading/Excavation | 4 | 10.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 5 | 13.00 | 5.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 7 | 18.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 3.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

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

## 3.2 Demolition - 2023

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 1.2272 | 0.0000 | 1.2272 | 0.1858 | 0.0000 | 0.1858 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.7723 | 6.6706 | 8.2148 | 0.0153 | | 0.3144 | 0.3144 | | 0.2995 | 0.2995 | | 1,468.3776 | 1,468.3776 | 0.3124 | | 1,476.1882 |
| **Total** | **0.7723** | **6.6706** | **8.2148** | **0.0153** | **1.2272** | **0.3144** | **1.5415** | **0.1858** | **0.2995** | **0.4853** | | **1,468.3776** | **1,468.3776** | **0.3124** | | **1,476.1882** |

### 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 | 0.0123 | 0.8000 | 0.1793 | 3.5200e-003 | 0.0981 | 5.7400e-003 | 0.1038 | 0.0268 | 5.4900e-003 | 0.0323 | | 381.0568 | 381.0568 | 0.0109 | 0.0602 | 399.2751 |
| 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 | 0.0479 | 0.0281 | 0.3802 | 9.5000e-004 | 0.1068 | 6.2000e-004 | 0.1074 | 0.0283 | 5.7000e-004 | 0.0289 | | 96.2686 | 96.2686 | 3.0800e-003 | 2.7200e-003 | 97.1554 |
| **Total** | **0.0602** | **0.8281** | **0.5595** | **4.4700e-003** | **0.2049** | **6.3600e-003** | **0.2113** | **0.0551** | **6.0600e-003** | **0.0612** | | **477.3254** | **477.3254** | **0.0140** | **0.0629** | **496.4305** |

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

## 3.2 Demolition - 2023

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.5522 | 0.0000 | 0.5522 | 0.0836 | 0.0000 | 0.0836 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.7723 | 6.6706 | 8.2148 | 0.0153 | | 0.3144 | 0.3144 | | 0.2995 | 0.2995 | 0.0000 | 1,468.3776 | 1,468.3776 | 0.3124 | | 1,476.1882 |
| **Total** | **0.7723** | **6.6706** | **8.2148** | **0.0153** | **0.5522** | **0.3144** | **0.8666** | **0.0836** | **0.2995** | **0.3831** | **0.0000** | **1,468.3776** | **1,468.3776** | **0.3124** | | **1,476.1882** |

### 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 | 0.0123 | 0.8000 | 0.1793 | 3.5200e-003 | 0.0981 | 5.7400e-003 | 0.1038 | 0.0268 | 5.4900e-003 | 0.0323 | | 381.0568 | 381.0568 | 0.0109 | 0.0602 | 399.2751 |
| 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 | 0.0479 | 0.0281 | 0.3802 | 9.5000e-004 | 0.1068 | 6.2000e-004 | 0.1074 | 0.0283 | 5.7000e-004 | 0.0289 | | 96.2686 | 96.2686 | 3.0800e-003 | 2.7200e-003 | 97.1554 |
| **Total** | **0.0602** | **0.8281** | **0.5595** | **4.4700e-003** | **0.2049** | **6.3600e-003** | **0.2113** | **0.0551** | **6.0600e-003** | **0.0612** | | **477.3254** | **477.3254** | **0.0140** | **0.0629** | **496.4305** |

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

## 3.3 Site Preparation - 2023

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.6608 | 7.0807 | 4.7461 | 0.0130 | | 0.2588 | 0.2588 | | 0.2381 | 0.2381 | | 1,262.4038 | 1,262.4038 | 0.4083 | | 1,272.6110 |
| **Total** | **0.6608** | **7.0807** | **4.7461** | **0.0130** | **0.5303** | **0.2588** | **0.7891** | **0.0573** | **0.2381** | **0.2954** | | **1,262.4038** | **1,262.4038** | **0.4083** | | **1,272.6110** |

### 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 | 0.0295 | 0.0173 | 0.2340 | 5.9000e-004 | 0.0657 | 3.8000e-004 | 0.0661 | 0.0174 | 3.5000e-004 | 0.0178 | | 59.2422 | 59.2422 | 1.8900e-003 | 1.6700e-003 | 59.7880 |
| **Total** | **0.0295** | **0.0173** | **0.2340** | **5.9000e-004** | **0.0657** | **3.8000e-004** | **0.0661** | **0.0174** | **3.5000e-004** | **0.0178** | | **59.2422** | **59.2422** | **1.8900e-003** | **1.6700e-003** | **59.7880** |

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

## 3.3 Site Preparation - 2023

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.2386 | 0.0000 | 0.2386 | 0.0258 | 0.0000 | 0.0258 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.6608 | 7.0807 | 4.7461 | 0.0130 | | 0.2588 | 0.2588 | | 0.2381 | 0.2381 | 0.0000 | 1,262.4038 | 1,262.4038 | 0.4083 | | 1,272.6110 |
| **Total** | **0.6608** | **7.0807** | **4.7461** | **0.0130** | **0.2386** | **0.2588** | **0.4974** | **0.0258** | **0.2381** | **0.2639** | **0.0000** | **1,262.4038** | **1,262.4038** | **0.4083** | | **1,272.6110** |

### 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 | 0.0295 | 0.0173 | 0.2340 | 5.9000e-004 | 0.0657 | 3.8000e-004 | 0.0661 | 0.0174 | 3.5000e-004 | 0.0178 | | 59.2422 | 59.2422 | 1.8900e-003 | 1.6700e-003 | 59.7880 |
| **Total** | **0.0295** | **0.0173** | **0.2340** | **5.9000e-004** | **0.0657** | **3.8000e-004** | **0.0661** | **0.0174** | **3.5000e-004** | **0.0178** | | **59.2422** | **59.2422** | **1.8900e-003** | **1.6700e-003** | **59.7880** |

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

## 3.4 Grading/Excavation - 2023

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 5.3119 | 0.0000 | 5.3119 | 2.5686 | 0.0000 | 2.5686 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.0595 | 11.0708 | 6.3738 | 0.0174 | | 0.4524 | 0.4524 | | 0.4162 | 0.4162 | | 1,684.7435 | 1,684.7435 | 0.5449 | | 1,698.3655 |
| **Total** | **1.0595** | **11.0708** | **6.3738** | **0.0174** | **5.3119** | **0.4524** | **5.7643** | **2.5686** | **0.4162** | **2.9847** | | **1,684.7435** | **1,684.7435** | **0.5449** | | **1,698.3655** |

### 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 | 0.0369 | 0.0216 | 0.2924 | 7.3000e-004 | 0.0822 | 4.8000e-004 | 0.0826 | 0.0218 | 4.4000e-004 | 0.0222 | | 74.0527 | 74.0527 | 2.3700e-003 | 2.0900e-003 | 74.7349 |
| **Total** | **0.0369** | **0.0216** | **0.2924** | **7.3000e-004** | **0.0822** | **4.8000e-004** | **0.0826** | **0.0218** | **4.4000e-004** | **0.0222** | | **74.0527** | **74.0527** | **2.3700e-003** | **2.0900e-003** | **74.7349** |

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

## 3.4 Grading/Excavation - 2023

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 2.3904 | 0.0000 | 2.3904 | 1.1559 | 0.0000 | 1.1559 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.0595 | 11.0708 | 6.3738 | 0.0174 | | 0.4524 | 0.4524 | | 0.4162 | 0.4162 | 0.0000 | 1,684.7435 | 1,684.7435 | 0.5449 | | 1,698.3655 |
| **Total** | **1.0595** | **11.0708** | **6.3738** | **0.0174** | **2.3904** | **0.4524** | **2.8427** | **1.1559** | **0.4162** | **1.5720** | **0.0000** | **1,684.7435** | **1,684.7435** | **0.5449** | | **1,698.3655** |

### 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 | 0.0369 | 0.0216 | 0.2924 | 7.3000e-004 | 0.0822 | 4.8000e-004 | 0.0826 | 0.0218 | 4.4000e-004 | 0.0222 | | 74.0527 | 74.0527 | 2.3700e-003 | 2.0900e-003 | 74.7349 |
| **Total** | **0.0369** | **0.0216** | **0.2924** | **7.3000e-004** | **0.0822** | **4.8000e-004** | **0.0826** | **0.0218** | **4.4000e-004** | **0.0222** | | **74.0527** | **74.0527** | **2.3700e-003** | **2.0900e-003** | **74.7349** |

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

## 3.5 Building Construction - 2022

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.6863 | 7.0258 | 7.1527 | 0.0114 | | 0.3719 | 0.3719 | | 0.3422 | 0.3422 | | 1,103.9393 | 1,103.9393 | 0.3570 | | 1,112.8652 |
| **Total** | **0.6863** | **7.0258** | **7.1527** | **0.0114** | | **0.3719** | **0.3719** | | **0.3422** | **0.3422** | | **1,103.9393** | **1,103.9393** | **0.3570** | | **1,112.8652** |

### 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 | 0.0108 | 0.2840 | 0.0787 | 1.0600e-003 | 0.0337 | 2.9500e-003 | 0.0367 | 9.6900e-003 | 2.8200e-003 | 0.0125 | | 113.0493 | 113.0493 | 2.1700e-003 | 0.0171 | 118.2038 |
| Worker | 0.0517 | 0.0319 | 0.4175 | 9.8000e-004 | 0.1068 | 6.6000e-004 | 0.1075 | 0.0283 | 6.1000e-004 | 0.0289 | | 99.3872 | 99.3872 | 3.4300e-003 | 2.9600e-003 | 100.3537 |
| **Total** | **0.0626** | **0.3159** | **0.4962** | **2.0400e-003** | **0.1405** | **3.6100e-003** | **0.1441** | **0.0380** | **3.4300e-003** | **0.0415** | | **212.4365** | **212.4365** | **5.6000e-003** | **0.0201** | **218.5574** |

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

## 3.5 Building Construction - 2022

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.6863 | 7.0258 | 7.1527 | 0.0114 | | 0.3719 | 0.3719 | | 0.3422 | 0.3422 | 0.0000 | 1,103.9393 | 1,103.9393 | 0.3570 | | 1,112.8652 |
| **Total** | **0.6863** | **7.0258** | **7.1527** | **0.0114** | | **0.3719** | **0.3719** | | **0.3422** | **0.3422** | **0.0000** | **1,103.9393** | **1,103.9393** | **0.3570** | | **1,112.8652** |

### 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 | 0.0108 | 0.2840 | 0.0787 | 1.0600e-003 | 0.0337 | 2.9500e-003 | 0.0367 | 9.6900e-003 | 2.8200e-003 | 0.0125 | | 113.0493 | 113.0493 | 2.1700e-003 | 0.0171 | 118.2038 |
| Worker | 0.0517 | 0.0319 | 0.4175 | 9.8000e-004 | 0.1068 | 6.6000e-004 | 0.1075 | 0.0283 | 6.1000e-004 | 0.0289 | | 99.3872 | 99.3872 | 3.4300e-003 | 2.9600e-003 | 100.3537 |
| **Total** | **0.0626** | **0.3159** | **0.4962** | **2.0400e-003** | **0.1405** | **3.6100e-003** | **0.1441** | **0.0380** | **3.4300e-003** | **0.0415** | | **212.4365** | **212.4365** | **5.6000e-003** | **0.0201** | **218.5574** |

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

## 3.6 Paving - 2024

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.5904 | 5.2297 | 7.0314 | 0.0113 | | 0.2429 | 0.2429 | | 0.2269 | 0.2269 | | 1,036.2393 | 1,036.2393 | 0.3019 | | 1,043.7858 |
| Paving | 0.3458 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **0.9362** | **5.2297** | **7.0314** | **0.0113** | | **0.2429** | **0.2429** | | **0.2269** | **0.2269** | | **1,036.2393** | **1,036.2393** | **0.3019** | | **1,043.7858** |

### 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 | 0.0616 | 0.0344 | 0.4834 | 1.2800e-003 | 0.1479 | 8.1000e-004 | 0.1487 | 0.0392 | 7.5000e-004 | 0.0400 | | 128.9671 | 128.9671 | 3.8300e-003 | 3.4800e-003 | 130.0994 |
| **Total** | **0.0616** | **0.0344** | **0.4834** | **1.2800e-003** | **0.1479** | **8.1000e-004** | **0.1487** | **0.0392** | **7.5000e-004** | **0.0400** | | **128.9671** | **128.9671** | **3.8300e-003** | **3.4800e-003** | **130.0994** |

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

## 3.6 Paving - 2024

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.5904 | 5.2297 | 7.0314 | 0.0113 | | 0.2429 | 0.2429 | | 0.2269 | 0.2269 | 0.0000 | 1,036.2393 | 1,036.2393 | 0.3019 | | 1,043.7858 |
| Paving | 0.3458 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **0.9362** | **5.2297** | **7.0314** | **0.0113** | | **0.2429** | **0.2429** | | **0.2269** | **0.2269** | **0.0000** | **1,036.2393** | **1,036.2393** | **0.3019** | | **1,043.7858** |

### 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 | 0.0616 | 0.0344 | 0.4834 | 1.2800e-003 | 0.1479 | 8.1000e-004 | 0.1487 | 0.0392 | 7.5000e-004 | 0.0400 | | 128.9671 | 128.9671 | 3.8300e-003 | 3.4800e-003 | 130.0994 |
| **Total** | **0.0616** | **0.0344** | **0.4834** | **1.2800e-003** | **0.1479** | **8.1000e-004** | **0.1487** | **0.0392** | **7.5000e-004** | **0.0400** | | **128.9671** | **128.9671** | **3.8300e-003** | **3.4800e-003** | **130.0994** |

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

## 3.7 Architectural Coating - 2024

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 11.1337 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.1808 | 1.2188 | 1.8101 | 2.9700e-003 | | 0.0609 | 0.0609 | | 0.0609 | 0.0609 | | 281.4481 | 281.4481 | 0.0159 | | 281.8443 |
| **Total** | **11.3145** | **1.2188** | **1.8101** | **2.9700e-003** | | **0.0609** | **0.0609** | | **0.0609** | **0.0609** | | **281.4481** | **281.4481** | **0.0159** | | **281.8443** |

### 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 | 0.0103 | 5.7400e-003 | 0.0806 | 2.1000e-004 | 0.0246 | 1.4000e-004 | 0.0248 | 6.5400e-003 | 1.2000e-004 | 6.6600e-003 | | 21.4945 | 21.4945 | 6.4000e-004 | 5.8000e-004 | 21.6832 |
| **Total** | **0.0103** | **5.7400e-003** | **0.0806** | **2.1000e-004** | **0.0246** | **1.4000e-004** | **0.0248** | **6.5400e-003** | **1.2000e-004** | **6.6600e-003** | | **21.4945** | **21.4945** | **6.4000e-004** | **5.8000e-004** | **21.6832** |

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

## 3.7 Architectural Coating - 2024

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 11.1337 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.1808 | 1.2188 | 1.8101 | 2.9700e-003 | | 0.0609 | 0.0609 | | 0.0609 | 0.0609 | 0.0000 | 281.4481 | 281.4481 | 0.0159 | | 281.8443 |
| **Total** | **11.3145** | **1.2188** | **1.8101** | **2.9700e-003** | | **0.0609** | **0.0609** | | **0.0609** | **0.0609** | **0.0000** | **281.4481** | **281.4481** | **0.0159** | | **281.8443** |

**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 | 0.0103 | 5.7400e-003 | 0.0806 | 2.1000e-004 | 0.0246 | 1.4000e-004 | 0.0248 | 6.5400e-003 | 1.2000e-004 | 6.6600e-003 | | 21.4945 | 21.4945 | 6.4000e-004 | 5.8000e-004 | 21.6832 |
| **Total** | **0.0103** | **5.7400e-003** | **0.0806** | **2.1000e-004** | **0.0246** | **1.4000e-004** | **0.0248** | **6.5400e-003** | **1.2000e-004** | **6.6600e-003** | | **21.4945** | **21.4945** | **6.4000e-004** | **5.8000e-004** | **21.6832** |

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

# 4.0 Operational Detail - Mobile

## 4.1 Mitigation Measures Mobile

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 5.6083 | 6.4854 | 46.1626 | 0.0947 | 9.8829 | 0.0847 | 9.9676 | 2.6392 | 0.0793 | 2.7185 | | 9,645.2522 | 9,645.2522 | 0.6023 | 0.4727 | 9,801.1589 |
| Unmitigated | 5.6083 | 6.4854 | 46.1626 | 0.0947 | 9.8829 | 0.0847 | 9.9676 | 2.6392 | 0.0793 | 2.7185 | | 9,645.2522 | 9,645.2522 | 0.6023 | 0.4727 | 9,801.1589 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Convenience Market With Gas Pumps | 1,755.02 | 1,755.02 | 1755.02 | 4,674,692 | 4,674,692 |
| Parking Lot | 0.00 | 0.00 | 0.00 | | |
| Total | 1,755.02 | 1,755.02 | 1,755.02 | 4,674,692 | 4,674,692 |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Convenience Market With Gas | 9.50 | 7.30 | 7.30 | 0.80 | 80.20 | 19.00 | 100 | 0 | 0 |
| Parking Lot | 9.50 | 7.30 | 7.30 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

## 4.4 Fleet Mix

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

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Convenience Market With Gas Pumps | 0.545153 | 0.057779 | 0.171448 | 0.124342 | 0.034691 | 0.008619 | 0.014761 | 0.006626 | 0.001095 | 0.000293 | 0.029514 | 0.001540 | 0.004140 |
| Parking Lot | 0.545153 | 0.057779 | 0.171448 | 0.124342 | 0.034691 | 0.008619 | 0.014761 | 0.006626 | 0.001095 | 0.000293 | 0.029514 | 0.001540 | 0.004140 |

## 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| NaturalGas Unmitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

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

## 5.2 Energy by Land Use - NaturalGas

**Unmitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Convenience Market With Gas Pumps | 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 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Convenience Market With Gas Pumps | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

43 Middle Rincon Road 7- Eleven - Sonoma-San Francisco County, Summer

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

## 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 | 0.1154 | 3.0000e-005 | 3.3500e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 7.2000e-003 | 7.2000e-003 | 2.0000e-005 | | 7.6700e-003 |
| Unmitigated | 0.1154 | 3.0000e-005 | 3.3500e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 7.2000e-003 | 7.2000e-003 | 2.0000e-005 | | 7.6700e-003 |

## 6.2 Area by SubCategory

**Unmitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.0153 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0998 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 3.1000e-004 | 3.0000e-005 | 3.3500e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 7.2000e-003 | 7.2000e-003 | 2.0000e-005 | | 7.6700e-003 |
| **Total** | **0.1154** | **3.0000e-005** | **3.3500e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **7.2000e-003** | **7.2000e-003** | **2.0000e-005** | | **7.6700e-003** |

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

## 6.2 Area by SubCategory

**Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.0153 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0998 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 3.1000e-004 | 3.0000e-005 | 3.3500e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 7.2000e-003 | 7.2000e-003 | 2.0000e-005 | | 7.6700e-003 |
| **Total** | **0.1154** | **3.0000e-005** | **3.3500e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **7.2000e-003** | **7.2000e-003** | **2.0000e-005** | | **7.6700e-003** |

# 7.0 Water Detail

## 7.1 Mitigation Measures Water

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

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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

## 10.0 Stationary Equipment

**Fire Pumps and Emergency Generators**

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

**Boilers**

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

**User Defined Equipment**

| Equipment Type | Number |
|---|---|

## 11.0 Vegetation

43 Middle Rincon Road 7-Eleven - Sonoma-San Francisco County, Annual

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

# 43 Middle Rincon Road 7-Eleven

**Sonoma-San Francisco County, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Parking Lot | 6.60 | 1000sqft | 0.15 | 6,600.00 | 0 |
| Convenience Market (24 Hour) | 2.40 | 1000sqft | 0.06 | 2,400.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 75 |
| **Climate Zone** | 4 | | | **Operational Year** | 2025 |
| **Utility Company** | Pacific Gas and Electric Company | | | | |
| **CO2 Intensity (lb/MWhr)** | 203.98 | **CH4 Intensity (lb/MWhr)** | 0.033 | **N2O Intensity (lb/MWhr)** | 0.004 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - Existing land use operational emissions - no construction

Land Use - Exsiting convenience store and parking lot (no gas station).

Construction Phase - No construction this model

Off-road Equipment - No construction this model

Trips and VMT - No construction this model

Vehicle Trips - Existing land use trip rate per traffic study, includes 45% pass-by reduction.

Energy Use -

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |

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

| | | | |
|---|---|---|---|
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblVehicleTrips | DV_TP | 15.00 | 0.00 |
| tblVehicleTrips | PB_TP | 61.00 | 0.00 |
| tblVehicleTrips | PR_TP | 24.00 | 100.00 |
| tblVehicleTrips | ST_TR | 1,084.17 | 419.17 |
| tblVehicleTrips | SU_TR | 901.17 | 419.17 |
| tblVehicleTrips | WD_TR | 762.28 | 419.17 |

## 2.0 Emissions Summary

43 Middle Rincon Road 7-Eleven - Sonoma-San Francisco County, Annual

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

## 2.1 Overall Construction

### Unmitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2023 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Maximum** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### Mitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2023 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Maximum** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

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

| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---|---|---|---|---|

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

| | | | | |
|---|---|---|---|---|
| | | **Highest** | | |

## 2.2 Overall Operational

**Unmitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 0.0112 | 0.0000 | 8.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 1.6000e-004 | 1.6000e-004 | 0.0000 | 0.0000 | 1.7000e-004 |
| Energy | 3.0000e-005 | 2.8000e-004 | 2.3000e-004 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | 0.0000 | 2.8206 | 2.8206 | 4.1000e-004 | 5.0000e-005 | 2.8473 |
| Mobile | 0.5346 | 0.7260 | 4.8531 | 9.4700e-003 | 0.9858 | 8.8300e-003 | 0.9947 | 0.2643 | 8.2700e-003 | 0.2725 | 0.0000 | 875.0920 | 875.0920 | 0.0606 | 0.0469 | 890.5680 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 1.4636 | 0.0000 | 1.4636 | 0.0865 | 0.0000 | 3.6259 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0564 | 0.1243 | 0.1807 | 5.8100e-003 | 1.4000e-004 | 0.3675 |
| **Total** | **0.5459** | **0.7263** | **4.8534** | **9.4700e-003** | **0.9858** | **8.8500e-003** | **0.9947** | **0.2643** | **8.2900e-003** | **0.2725** | **1.5200** | **878.0370** | **879.5570** | **0.1533** | **0.0470** | **897.4089** |

43 Middle Rincon Road 7-Eleven - Sonoma-San Francisco County, Annual

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

## 2.2 Overall Operational

**Mitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 0.0112 | 0.0000 | 8.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 1.6000e-004 | 1.6000e-004 | 0.0000 | 0.0000 | 1.7000e-004 |
| Energy | 3.0000e-005 | 2.8000e-004 | 2.3000e-004 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | 0.0000 | 2.8206 | 2.8206 | 4.1000e-004 | 5.0000e-005 | 2.8473 |
| Mobile | 0.5346 | 0.7260 | 4.8531 | 9.4700e-003 | 0.9858 | 8.8300e-003 | 0.9947 | 0.2643 | 8.2700e-003 | 0.2725 | 0.0000 | 875.0920 | 875.0920 | 0.0606 | 0.0469 | 890.5680 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 1.4636 | 0.0000 | 1.4636 | 0.0865 | 0.0000 | 3.6259 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0564 | 0.1243 | 0.1807 | 5.8100e-003 | 1.4000e-004 | 0.3675 |
| **Total** | **0.5459** | **0.7263** | **4.8534** | **9.4700e-003** | **0.9858** | **8.8500e-003** | **0.9947** | **0.2643** | **8.2900e-003** | **0.2725** | **1.5200** | **878.0370** | **879.5570** | **0.1533** | **0.0470** | **897.4089** |

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

## 3.0 Construction Detail

**Construction Phase**

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 11/1/2023 | 11/14/2023 | 5 | 10 | |

**Acres of Grading (Site Preparation Phase): 0**

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

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0.15**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Demolition | Concrete/Industrial Saws | 0 | 8.00 | 81 | 0.73 |
| Demolition | Rubber Tired Dozers | 0 | 1.00 | 247 | 0.40 |
| Demolition | Tractors/Loaders/Backhoes | 0 | 6.00 | 97 | 0.37 |

**Trips and VMT**

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Demolition | 0 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

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

## 3.2 Demolition - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

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

## 3.2 Demolition - 2023

**Mitigated Construction On-Site**

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

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 4.0 Operational Detail - Mobile

43 Middle Rincon Road 7-Eleven - Sonoma-San Francisco County, Annual

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

## 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 | 0.5346 | 0.7260 | 4.8531 | 9.4700e-003 | 0.9858 | 8.8300e-003 | 0.9947 | 0.2643 | 8.2700e-003 | 0.2725 | 0.0000 | 875.0920 | 875.0920 | 0.0606 | 0.0469 | 890.5680 |
| Unmitigated | 0.5346 | 0.7260 | 4.8531 | 9.4700e-003 | 0.9858 | 8.8300e-003 | 0.9947 | 0.2643 | 8.2700e-003 | 0.2725 | 0.0000 | 875.0920 | 875.0920 | 0.0606 | 0.0469 | 890.5680 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Convenience Market (24 Hour) | 1,006.01 | 1,006.01 | 1006.01 | 2,680,415 | 2,680,415 |
| Parking Lot | 0.00 | 0.00 | 0.00 | | |
| Total | 1,006.01 | 1,006.01 | 1,006.01 | 2,680,415 | 2,680,415 |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Convenience Market (24 Hour) | 9.50 | 7.30 | 7.30 | 0.90 | 80.10 | 19.00 | 100 | 0 | 0 |
| Parking Lot | 9.50 | 7.30 | 7.30 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Convenience Market (24 Hour) | 0.545153 | 0.057779 | 0.171448 | 0.124342 | 0.034691 | 0.008619 | 0.014761 | 0.006626 | 0.001095 | 0.000293 | 0.029514 | 0.001540 | 0.004140 |

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

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Parking Lot | 0.545153 | 0.057779 | 0.171448 | 0.124342 | 0.034691 | 0.008619 | 0.014761 | 0.006626 | 0.001095 | 0.000293 | 0.029514 | 0.001540 | 0.004140 |

## 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 | 2.5209 | 2.5209 | 4.1000e-004 | 5.0000e-005 | 2.5458 |
| Electricity Unmitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.5209 | 2.5209 | 4.1000e-004 | 5.0000e-005 | 2.5458 |
| NaturalGas Mitigated | 3.0000e-005 | 2.8000e-004 | 2.3000e-004 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | 0.0000 | 0.2997 | 0.2997 | 1.0000e-005 | 1.0000e-005 | 0.3015 |
| NaturalGas Unmitigated | 3.0000e-005 | 2.8000e-004 | 2.3000e-004 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | 0.0000 | 0.2997 | 0.2997 | 1.0000e-005 | 1.0000e-005 | 0.3015 |

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

## 5.2 Energy by Land Use - NaturalGas

### Unmitigated

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Convenience Market (24 Hour) | 5616 | 3.0000e-005 | 2.8000e-004 | 2.3000e-004 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | 0.0000 | 0.2997 | 0.2997 | 1.0000e-005 | 1.0000e-005 | 0.3015 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **3.0000e-005** | **2.8000e-004** | **2.3000e-004** | **0.0000** | | **2.0000e-005** | **2.0000e-005** | | **2.0000e-005** | **2.0000e-005** | **0.0000** | **0.2997** | **0.2997** | **1.0000e-005** | **1.0000e-005** | **0.3015** |

### Mitigated

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Convenience Market (24 Hour) | 5616 | 3.0000e-005 | 2.8000e-004 | 2.3000e-004 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | 0.0000 | 0.2997 | 0.2997 | 1.0000e-005 | 1.0000e-005 | 0.3015 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **3.0000e-005** | **2.8000e-004** | **2.3000e-004** | **0.0000** | | **2.0000e-005** | **2.0000e-005** | | **2.0000e-005** | **2.0000e-005** | **0.0000** | **0.2997** | **0.2997** | **1.0000e-005** | **1.0000e-005** | **0.3015** |

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

## 5.3 Energy by Land Use - Electricity

**Unmitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Convenience Market (24 Hour) | 24936 | 2.3072 | 3.7000e-004 | 5.0000e-005 | 2.3300 |
| Parking Lot | 2310 | 0.2137 | 3.0000e-005 | 0.0000 | 0.2158 |
| **Total** | | **2.5209** | **4.0000e-004** | **5.0000e-005** | **2.5458** |

**Mitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Convenience Market (24 Hour) | 24936 | 2.3072 | 3.7000e-004 | 5.0000e-005 | 2.3300 |
| Parking Lot | 2310 | 0.2137 | 3.0000e-005 | 0.0000 | 0.2158 |
| **Total** | | **2.5209** | **4.0000e-004** | **5.0000e-005** | **2.5458** |

## 6.0 Area Detail

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

## 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 | 0.0112 | 0.0000 | 8.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 1.6000e-004 | 1.6000e-004 | 0.0000 | 0.0000 | 1.7000e-004 |
| Unmitigated | 0.0112 | 0.0000 | 8.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 1.6000e-004 | 1.6000e-004 | 0.0000 | 0.0000 | 1.7000e-004 |

## 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 | 1.3900e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 9.8000e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 1.0000e-005 | 0.0000 | 8.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 1.6000e-004 | 1.6000e-004 | 0.0000 | 0.0000 | 1.7000e-004 |
| **Total** | **0.0112** | **0.0000** | **8.0000e-005** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **1.6000e-004** | **1.6000e-004** | **0.0000** | **0.0000** | **1.7000e-004** |

43 Middle Rincon Road 7-Eleven - Sonoma-San Francisco County, Annual

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

## 6.2 Area by SubCategory

**Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 1.3900e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 9.8000e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 1.0000e-005 | 0.0000 | 8.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 1.6000e-004 | 1.6000e-004 | 0.0000 | 0.0000 | 1.7000e-004 |
| **Total** | **0.0112** | **0.0000** | **8.0000e-005** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **1.6000e-004** | **1.6000e-004** | **0.0000** | **0.0000** | **1.7000e-004** |

# 7.0 Water Detail

## 7.1 Mitigation Measures Water

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

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| Category | MT/yr | | | |
| Mitigated | 0.1807 | 5.8100e-003 | 1.4000e-004 | 0.3675 |
| Unmitigated | 0.1807 | 5.8100e-003 | 1.4000e-004 | 0.3675 |

## 7.2 Water by Land Use

**Unmitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Convenience Market (24 Hour) | 0.177774 / 0.108958 | 0.1807 | 5.8100e-003 | 1.4000e-004 | 0.3675 |
| Parking Lot | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.1807** | **5.8100e-003** | **1.4000e-004** | **0.3675** |

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

### 7.2 Water by Land Use

**Mitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Convenience Market (24 Hour) | 0.177774 / 0.108958 | 0.1807 | 5.8100e-003 | 1.4000e-004 | 0.3675 |
| Parking Lot | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.1807** | **5.8100e-003** | **1.4000e-004** | **0.3675** |

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

**Category/Year**

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| | MT/yr | | | |
| Mitigated | 1.4636 | 0.0865 | 0.0000 | 3.6259 |
| Unmitigated | 1.4636 | 0.0865 | 0.0000 | 3.6259 |

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

## 8.2 Waste by Land Use

**Unmitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Convenience Market (24 Hour) | 7.21 | 1.4636 | 0.0865 | 0.0000 | 3.6259 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **1.4636** | **0.0865** | **0.0000** | **3.6259** |

**Mitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Convenience Market (24 Hour) | 7.21 | 1.4636 | 0.0865 | 0.0000 | 3.6259 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **1.4636** | **0.0865** | **0.0000** | **3.6259** |

## 9.0 Operational Offroad

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

| 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

43 Middle Rincon Road 7-Eleven - Sonoma-San Francisco County, Winter

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

# 43 Middle Rincon Road 7-Eleven

**Sonoma-San Francisco County, Winter**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Parking Lot | 6.60 | 1000sqft | 0.15 | 6,600.00 | 0 |
| Convenience Market (24 Hour) | 2.40 | 1000sqft | 0.06 | 2,400.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 75 |
| **Climate Zone** | 4 | | | **Operational Year** | 2025 |
| **Utility Company** | Pacific Gas and Electric Company | | | | |
| **CO2 Intensity (lb/MWhr)** | 203.98 | **CH4 Intensity (lb/MWhr)** | 0.033 | **N2O Intensity (lb/MWhr)** | 0.004 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - Existing land use operational emissions - no construction

Land Use - Exsiting convenience store and parking lot (no gas station).

Construction Phase - No construction this model

Off-road Equipment - No construction this model

Trips and VMT - No construction this model

Vehicle Trips - Existing land use trip rate per traffic study, includes 45% pass-by reduction.

Energy Use -

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |

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

| | | | |
|---|---|---|---|
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblVehicleTrips | DV_TP | 15.00 | 0.00 |
| tblVehicleTrips | PB_TP | 61.00 | 0.00 |
| tblVehicleTrips | PR_TP | 24.00 | 100.00 |
| tblVehicleTrips | ST_TR | 1,084.17 | 419.17 |
| tblVehicleTrips | SU_TR | 901.17 | 419.17 |
| tblVehicleTrips | WD_TR | 762.28 | 419.17 |

## 2.0 Emissions Summary

43 Middle Rincon Road 7-Eleven - Sonoma-San Francisco County, Winter

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

## 2.1 Overall Construction (Maximum Daily Emission)

### Unmitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2023 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Maximum** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### Mitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2023 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Maximum** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

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

43 Middle Rincon Road 7-Eleven - Sonoma-San Francisco County, Winter

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

## 2.2 Overall Operational

### Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.0614 | 1.0000e-005 | 9.2000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.9700e-003 | 1.9700e-003 | 1.0000e-005 | | 2.1000e-003 |
| Energy | 1.7000e-004 | 1.5100e-003 | 1.2700e-003 | 1.0000e-005 | | 1.1000e-004 | 1.1000e-004 | | 1.1000e-004 | 1.1000e-004 | | 1.8102 | 1.8102 | 3.0000e-005 | 3.0000e-005 | 1.8209 |
| Mobile | 2.9495 | 4.2052 | 28.3681 | 0.0518 | 5.6668 | 0.0486 | 5.7153 | 1.5133 | 0.0455 | 1.5588 | | 5,270.9859 | 5,270.9859 | 0.3884 | 0.2948 | 5,368.5368 |
| **Total** | **3.0111** | **4.2067** | **28.3703** | **0.0518** | **5.6668** | **0.0487** | **5.7154** | **1.5133** | **0.0456** | **1.5589** | | **5,272.7981** | **5,272.7981** | **0.3884** | **0.2948** | **5,370.3599** |

### Mitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.0614 | 1.0000e-005 | 9.2000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.9700e-003 | 1.9700e-003 | 1.0000e-005 | | 2.1000e-003 |
| Energy | 1.7000e-004 | 1.5100e-003 | 1.2700e-003 | 1.0000e-005 | | 1.1000e-004 | 1.1000e-004 | | 1.1000e-004 | 1.1000e-004 | | 1.8102 | 1.8102 | 3.0000e-005 | 3.0000e-005 | 1.8209 |
| Mobile | 2.9495 | 4.2052 | 28.3681 | 0.0518 | 5.6668 | 0.0486 | 5.7153 | 1.5133 | 0.0455 | 1.5588 | | 5,270.9859 | 5,270.9859 | 0.3884 | 0.2948 | 5,368.5368 |
| **Total** | **3.0111** | **4.2067** | **28.3703** | **0.0518** | **5.6668** | **0.0487** | **5.7154** | **1.5133** | **0.0456** | **1.5589** | | **5,272.7981** | **5,272.7981** | **0.3884** | **0.2948** | **5,370.3599** |

43 Middle Rincon Road 7-Eleven - Sonoma-San Francisco 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.0 Construction Detail

### Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 11/1/2023 | 11/14/2023 | 5 | 10 | |

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0.15**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

### OffRoad Equipment

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Demolition | Concrete/Industrial Saws | 0 | 8.00 | 81 | 0.73 |
| Demolition | Rubber Tired Dozers | 0 | 1.00 | 247 | 0.40 |
| Demolition | Tractors/Loaders/Backhoes | 0 | 6.00 | 97 | 0.37 |

### Trips and VMT

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Demolition | 0 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

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

## 3.2 Demolition - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

**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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

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

## 3.2 Demolition - 2023

**Mitigated Construction On-Site**

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

**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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 4.0 Operational Detail - Mobile

43 Middle Rincon Road 7-Eleven - Sonoma-San Francisco County, Winter

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

## 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 | 2.9495 | 4.2052 | 28.3681 | 0.0518 | 5.6668 | 0.0486 | 5.7153 | 1.5133 | 0.0455 | 1.5588 | | 5,270.9859 | 5,270.9859 | 0.3884 | 0.2948 | 5,368.5368 |
| Unmitigated | 2.9495 | 4.2052 | 28.3681 | 0.0518 | 5.6668 | 0.0486 | 5.7153 | 1.5133 | 0.0455 | 1.5588 | | 5,270.9859 | 5,270.9859 | 0.3884 | 0.2948 | 5,368.5368 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Convenience Market (24 Hour) | 1,006.01 | 1,006.01 | 1006.01 | 2,680,415 | 2,680,415 |
| Parking Lot | 0.00 | 0.00 | 0.00 | | |
| Total | 1,006.01 | 1,006.01 | 1,006.01 | 2,680,415 | 2,680,415 |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Convenience Market (24 Hour) | 9.50 | 7.30 | 7.30 | 0.90 | 80.10 | 19.00 | 100 | 0 | 0 |
| Parking Lot | 9.50 | 7.30 | 7.30 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Convenience Market (24 Hour) | 0.545153 | 0.057779 | 0.171448 | 0.124342 | 0.034691 | 0.008619 | 0.014761 | 0.006626 | 0.001095 | 0.000293 | 0.029514 | 0.001540 | 0.004140 |

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

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Parking Lot | 0.545153 | 0.057779 | 0.171448 | 0.124342 | 0.034691 | 0.008619 | 0.014761 | 0.006626 | 0.001095 | 0.000293 | 0.029514 | 0.001540 | 0.004140 |

## 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 1.7000e-004 | 1.5100e-003 | 1.2700e-003 | 1.0000e-005 | | 1.1000e-004 | 1.1000e-004 | | 1.1000e-004 | 1.1000e-004 | | 1.8102 | 1.8102 | 3.0000e-005 | 3.0000e-005 | 1.8209 |
| NaturalGas Unmitigated | 1.7000e-004 | 1.5100e-003 | 1.2700e-003 | 1.0000e-005 | | 1.1000e-004 | 1.1000e-004 | | 1.1000e-004 | 1.1000e-004 | | 1.8102 | 1.8102 | 3.0000e-005 | 3.0000e-005 | 1.8209 |

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

## 5.2 Energy by Land Use - NaturalGas

**Unmitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Convenience Market (24 Hour) | 15.3863 | 1.7000e-004 | 1.5100e-003 | 1.2700e-003 | 1.0000e-005 | | 1.1000e-004 | 1.1000e-004 | | 1.1000e-004 | 1.1000e-004 | | 1.8102 | 1.8102 | 3.0000e-005 | 3.0000e-005 | 1.8209 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **1.7000e-004** | **1.5100e-003** | **1.2700e-003** | **1.0000e-005** | | **1.1000e-004** | **1.1000e-004** | | **1.1000e-004** | **1.1000e-004** | | **1.8102** | **1.8102** | **3.0000e-005** | **3.0000e-005** | **1.8209** |

**Mitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Convenience Market (24 Hour) | 0.0153863 | 1.7000e-004 | 1.5100e-003 | 1.2700e-003 | 1.0000e-005 | | 1.1000e-004 | 1.1000e-004 | | 1.1000e-004 | 1.1000e-004 | | 1.8102 | 1.8102 | 3.0000e-005 | 3.0000e-005 | 1.8209 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **1.7000e-004** | **1.5100e-003** | **1.2700e-003** | **1.0000e-005** | | **1.1000e-004** | **1.1000e-004** | | **1.1000e-004** | **1.1000e-004** | | **1.8102** | **1.8102** | **3.0000e-005** | **3.0000e-005** | **1.8209** |

## 6.0 Area Detail

43 Middle Rincon Road 7-Eleven - Sonoma-San Francisco County, Winter

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

## 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 | 0.0614 | 1.0000e-005 | 9.2000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.9700e-003 | 1.9700e-003 | 1.0000e-005 | | 2.1000e-003 |
| Unmitigated | 0.0614 | 1.0000e-005 | 9.2000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.9700e-003 | 1.9700e-003 | 1.0000e-005 | | 2.1000e-003 |

## 6.2 Area by SubCategory

**Unmitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 7.6100e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0537 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 8.0000e-005 | 1.0000e-005 | 9.2000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.9700e-003 | 1.9700e-003 | 1.0000e-005 | | 2.1000e-003 |
| **Total** | **0.0614** | **1.0000e-005** | **9.2000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **1.9700e-003** | **1.9700e-003** | **1.0000e-005** | | **2.1000e-003** |

43 Middle Rincon Road 7-Eleven - Sonoma-San Francisco County, Winter

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

## 6.2 Area by SubCategory

**Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 7.6100e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0537 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 8.0000e-005 | 1.0000e-005 | 9.2000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.9700e-003 | 1.9700e-003 | 1.0000e-005 | | 2.1000e-003 |
| **Total** | **0.0614** | **1.0000e-005** | **9.2000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **1.9700e-003** | **1.9700e-003** | **1.0000e-005** | | **2.1000e-003** |

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

43 Middle Rincon Road 7-Eleven - Sonoma-San Francisco County, Winter

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

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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

## 10.0 Stationary Equipment

**Fire Pumps and Emergency Generators**

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

**Boilers**

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

**User Defined Equipment**

| Equipment Type | Number |
|---|---|

## 11.0 Vegetation

43 Middle Rincon Road 7-Eleven - Sonoma-San Francisco County, Summer

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

# 43 Middle Rincon Road 7-Eleven

**Sonoma-San Francisco County, Summer**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Parking Lot | 6.60 | 1000sqft | 0.15 | 6,600.00 | 0 |
| Convenience Market (24 Hour) | 2.40 | 1000sqft | 0.06 | 2,400.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 75 |
| **Climate Zone** | 4 | | | **Operational Year** | 2025 |
| **Utility Company** | Pacific Gas and Electric Company | | | | |
| **CO2 Intensity (lb/MWhr)** | 203.98 | **CH4 Intensity (lb/MWhr)** | 0.033 | **N2O Intensity (lb/MWhr)** | 0.004 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - Existing land use operational emissions - no construction

Land Use - Exsiting convenience store and parking lot (no gas station).

Construction Phase - No construction this model

Off-road Equipment - No construction this model

Trips and VMT - No construction this model

Vehicle Trips - Existing land use trip rate per traffic study, includes 45% pass-by reduction.

Energy Use -

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |

43 Middle Rincon Road 7-Eleven - Sonoma-San Francisco County, Summer

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

| | | | |
|---|---|---|---|
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblVehicleTrips | DV_TP | 15.00 | 0.00 |
| tblVehicleTrips | PB_TP | 61.00 | 0.00 |
| tblVehicleTrips | PR_TP | 24.00 | 100.00 |
| tblVehicleTrips | ST_TR | 1,084.17 | 419.17 |
| tblVehicleTrips | SU_TR | 901.17 | 419.17 |
| tblVehicleTrips | WD_TR | 762.28 | 419.17 |

## 2.0 Emissions Summary

43 Middle Rincon Road 7-Eleven - Sonoma-San Francisco County, Summer

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

## 2.1 Overall Construction (Maximum Daily Emission)

### Unmitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2023 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Maximum** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### Mitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2023 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Maximum** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

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

43 Middle Rincon Road 7-Eleven - Sonoma-San Francisco County, Summer

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

## 2.2 Overall Operational

### Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.0614 | 1.0000e-005 | 9.2000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.9700e-003 | 1.9700e-003 | 1.0000e-005 | | 2.1000e-003 |
| Energy | 1.7000e-004 | 1.5100e-003 | 1.2700e-003 | 1.0000e-005 | | 1.1000e-004 | 1.1000e-004 | | 1.1000e-004 | 1.1000e-004 | | 1.8102 | 1.8102 | 3.0000e-005 | 3.0000e-005 | 1.8209 |
| Mobile | 3.2152 | 3.7185 | 26.4677 | 0.0543 | 5.6668 | 0.0485 | 5.7153 | 1.5133 | 0.0455 | 1.5588 | | 5,530.4371 | 5,530.4371 | 0.3453 | 0.2710 | 5,619.8266 |
| **Total** | **3.2768** | **3.7200** | **26.4699** | **0.0543** | **5.6668** | **0.0487** | **5.7154** | **1.5133** | **0.0456** | **1.5589** | | **5,532.2492** | **5,532.2492** | **0.3454** | **0.2710** | **5,621.6496** |

### Mitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.0614 | 1.0000e-005 | 9.2000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.9700e-003 | 1.9700e-003 | 1.0000e-005 | | 2.1000e-003 |
| Energy | 1.7000e-004 | 1.5100e-003 | 1.2700e-003 | 1.0000e-005 | | 1.1000e-004 | 1.1000e-004 | | 1.1000e-004 | 1.1000e-004 | | 1.8102 | 1.8102 | 3.0000e-005 | 3.0000e-005 | 1.8209 |
| Mobile | 3.2152 | 3.7185 | 26.4677 | 0.0543 | 5.6668 | 0.0485 | 5.7153 | 1.5133 | 0.0455 | 1.5588 | | 5,530.4371 | 5,530.4371 | 0.3453 | 0.2710 | 5,619.8266 |
| **Total** | **3.2768** | **3.7200** | **26.4699** | **0.0543** | **5.6668** | **0.0487** | **5.7154** | **1.5133** | **0.0456** | **1.5589** | | **5,532.2492** | **5,532.2492** | **0.3454** | **0.2710** | **5,621.6496** |

43 Middle Rincon Road 7-Eleven - Sonoma-San Francisco 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.0 Construction Detail

### Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 11/1/2023 | 11/14/2023 | 5 | 10 | |

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0.15**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

### OffRoad Equipment

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Demolition | Concrete/Industrial Saws | 0 | 8.00 | 81 | 0.73 |
| Demolition | Rubber Tired Dozers | 0 | 1.00 | 247 | 0.40 |
| Demolition | Tractors/Loaders/Backhoes | 0 | 6.00 | 97 | 0.37 |

### Trips and VMT

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Demolition | 0 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

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

## 3.2 Demolition - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

**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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

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

## 3.2 Demolition - 2023

**Mitigated Construction On-Site**

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

**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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 4.0 Operational Detail - Mobile

43 Middle Rincon Road 7-Eleven - Sonoma-San Francisco County, Summer

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

## 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 | 3.2152 | 3.7185 | 26.4677 | 0.0543 | 5.6668 | 0.0485 | 5.7153 | 1.5133 | 0.0455 | 1.5588 | | 5,530.4371 | 5,530.4371 | 0.3453 | 0.2710 | 5,619.8266 |
| Unmitigated | 3.2152 | 3.7185 | 26.4677 | 0.0543 | 5.6668 | 0.0485 | 5.7153 | 1.5133 | 0.0455 | 1.5588 | | 5,530.4371 | 5,530.4371 | 0.3453 | 0.2710 | 5,619.8266 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Convenience Market (24 Hour) | 1,006.01 | 1,006.01 | 1006.01 | 2,680,415 | 2,680,415 |
| Parking Lot | 0.00 | 0.00 | 0.00 | | |
| Total | 1,006.01 | 1,006.01 | 1,006.01 | 2,680,415 | 2,680,415 |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Convenience Market (24 Hour) | 9.50 | 7.30 | 7.30 | 0.90 | 80.10 | 19.00 | 100 | 0 | 0 |
| Parking Lot | 9.50 | 7.30 | 7.30 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Convenience Market (24 Hour) | 0.545153 | 0.057779 | 0.171448 | 0.124342 | 0.034691 | 0.008619 | 0.014761 | 0.006626 | 0.001095 | 0.000293 | 0.029514 | 0.001540 | 0.004140 |

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

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Parking Lot | 0.545153 | 0.057779 | 0.171448 | 0.124342 | 0.034691 | 0.008619 | 0.014761 | 0.006626 | 0.001095 | 0.000293 | 0.029514 | 0.001540 | 0.004140 |

## 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 1.7000e-004 | 1.5100e-003 | 1.2700e-003 | 1.0000e-005 | | 1.1000e-004 | 1.1000e-004 | | 1.1000e-004 | 1.1000e-004 | | 1.8102 | 1.8102 | 3.0000e-005 | 3.0000e-005 | 1.8209 |
| NaturalGas Unmitigated | 1.7000e-004 | 1.5100e-003 | 1.2700e-003 | 1.0000e-005 | | 1.1000e-004 | 1.1000e-004 | | 1.1000e-004 | 1.1000e-004 | | 1.8102 | 1.8102 | 3.0000e-005 | 3.0000e-005 | 1.8209 |

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

## 5.2 Energy by Land Use - NaturalGas

**Unmitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Convenience Market (24 Hour) | 15.3863 | 1.7000e-004 | 1.5100e-003 | 1.2700e-003 | 1.0000e-005 | | 1.1000e-004 | 1.1000e-004 | | 1.1000e-004 | 1.1000e-004 | | 1.8102 | 1.8102 | 3.0000e-005 | 3.0000e-005 | 1.8209 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **1.7000e-004** | **1.5100e-003** | **1.2700e-003** | **1.0000e-005** | | **1.1000e-004** | **1.1000e-004** | | **1.1000e-004** | **1.1000e-004** | | **1.8102** | **1.8102** | **3.0000e-005** | **3.0000e-005** | **1.8209** |

**Mitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Convenience Market (24 Hour) | 0.0153863 | 1.7000e-004 | 1.5100e-003 | 1.2700e-003 | 1.0000e-005 | | 1.1000e-004 | 1.1000e-004 | | 1.1000e-004 | 1.1000e-004 | | 1.8102 | 1.8102 | 3.0000e-005 | 3.0000e-005 | 1.8209 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **1.7000e-004** | **1.5100e-003** | **1.2700e-003** | **1.0000e-005** | | **1.1000e-004** | **1.1000e-004** | | **1.1000e-004** | **1.1000e-004** | | **1.8102** | **1.8102** | **3.0000e-005** | **3.0000e-005** | **1.8209** |

## 6.0 Area Detail

43 Middle Rincon Road 7-Eleven - Sonoma-San Francisco County, Summer

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

## 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 | 0.0614 | 1.0000e-005 | 9.2000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.9700e-003 | 1.9700e-003 | 1.0000e-005 | | 2.1000e-003 |
| Unmitigated | 0.0614 | 1.0000e-005 | 9.2000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.9700e-003 | 1.9700e-003 | 1.0000e-005 | | 2.1000e-003 |

## 6.2 Area by SubCategory

**Unmitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 7.6100e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0537 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 8.0000e-005 | 1.0000e-005 | 9.2000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.9700e-003 | 1.9700e-003 | 1.0000e-005 | | 2.1000e-003 |
| **Total** | **0.0614** | **1.0000e-005** | **9.2000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **1.9700e-003** | **1.9700e-003** | **1.0000e-005** | | **2.1000e-003** |

43 Middle Rincon Road 7-Eleven - Sonoma-San Francisco County, Summer

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

## 6.2 Area by SubCategory

**Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 7.6100e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0537 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 8.0000e-005 | 1.0000e-005 | 9.2000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.9700e-003 | 1.9700e-003 | 1.0000e-005 | | 2.1000e-003 |
| **Total** | **0.0614** | **1.0000e-005** | **9.2000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **1.9700e-003** | **1.9700e-003** | **1.0000e-005** | | **2.1000e-003** |

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

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

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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

## 10.0 Stationary Equipment

**Fire Pumps and Emergency Generators**

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

**Boilers**

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

**User Defined Equipment**

| Equipment Type | Number |
|---|---|

## 11.0 Vegetation

# Attachment B

## Santa Rosa CAP Checklist

City of Santa Rosa PLANNING & ECONOMIC DEVELOPMENT

# APPENDIX E: CAP NEW DEVELOPMENT CHECKLIST


To ensure new development projects are compliant with the City's Climate Action Plan, the following checklist has been developed. This checklist should be filled out for each new project, subject to discretionary review, to allow new development to find a less than significant impact for greenhouse gas emissions in the environmental review process.

| # | Description | Compliance | | | |
|---|---|---|---|---|---|
| | | Complies | Does Not Comply | N/A | See Discussion |
| 1.1.1 | Comply with CALGreen Tier 1 standards* | ☐ | ☐ | ☐ | ☐ |
| 1.1.3 | After 2020, all new development will utilize zero net electricity* | ☐ | ☐ | ☐ | ✔ |
| 1.3.1 | Install real-time energy monitors to track energy use* | ☐ | ☐ | ☐ | ☐ |
| 1.4.2 | Comply with the City's tree preservation ordinance* | ☐ | ☐ | ☐ | ☐ |
| 1.4.3 | Provide public & private trees in compliance with the Zoning Code* | ☐ | ☐ | ☐ | ☐ |
| 1.5 | Install new sidewalks and paving with high solar reflectivity materials* | ☐ | ☐ | ☐ | ☐ |
| 2.1.3 | Pre-wire and pre-plumb for solar thermal or PV systems | ☐ | ☐ | ☐ | ☐ |
| 3.1.2 | Support implementation of station plans and corridor plans | ☐ | ☐ | ☐ | ☐ |
| 3.2.1 | Provide on-site services such as ATMs or dry cleaning to site users | ☐ | ☐ | ☐ | ☐ |
| 3.2.2 | Improve non-vehicular network to promote walking, biking | ☐ | ☐ | ☐ | ☐ |
| 3.2.3 | Support mixed-use, higher-density development near services | ☐ | ☐ | ☐ | ☐ |
| 3.3.1 | Provide affordable housing near transit | ☐ | ☐ | ☐ | ☐ |
| 3.5.1 | Unbundle parking from property cost | ☐ | ☐ | ☐ | ☐ |
| 3.6.1 | Install calming features to improve ped/bike experience | ☐ | ☐ | ☐ | ☐ |
| 4.1.1 | Implement the Bicycle and Pedestrian Master Plan | ☐ | ☐ | ☐ | ☐ |
| 4.1.2 | Install bicycle parking consistent with regulations* | ☐ | ☐ | ☐ | ☐ |
| 4.1.3 | Provide bicycle safety training to residents, employees, motorists | ☐ | ☐ | ☐ | ☐ |
| 4.2.2 | Provide safe spaces to wait for bus arrival | ☐ | ☐ | ☐ | ☐ |
| | | | | | |

# APPENDIX E NEW DEVELOPMENT CHECKLIST

| # | Description | Compliance | | | |
|---|---|---|---|---|---|
| | | Complies | Does Not Comply | N/A | See Discussion |
| 4.3.2 | Work with large employers to provide rideshare programs | ☐ | ☐ | ☐ | ☐ |
| 4.3.3 | Consider expanding employee programs promoting transit use | ☐ | ☐ | ☐ | ☐ |
| 4.3.4 | Provide awards for employee use of alternative commute options | ☐ | ☐ | ☐ | ☐ |
| 4.3.5 | Encourage new employers of 50+ to provide subsidized transit passes* | ☐ | ☐ | ☐ | ☐ |
| 4.3.7 | Provide space for additional park-and-ride lots | ☐ | ☐ | ☐ | ☐ |
| 4.5.1 | Include facilities for employees that promote telecommuting | ☐ | ☐ | ☐ | ☐ |
| 5.1.2 | Install electric vehicle charging equipment | ☐ | ☐ | ☐ | ☐ |
| 5.2.1 | Provide alternative fuels at new refueling stations* | ☐ | ☐ | ☐ | ☐ |
| 6.1.3 | Increase diversion of construction waste* | ☐ | ☐ | ☐ | ☐ |
| 7.1.1 | Reduce potable water use for outdoor landscaping* | ☐ | ☐ | ☐ | ☐ |
| 7.1.3 | Use water meters which track real-time water use* | ☐ | ☐ | ☐ | ☐ |
| 7.3.2 | Meet on-site meter separation requirements in locations with current or future recycled water capabilities* | ☐ | ☐ | ☐ | ☐ |
| 8.1.3 | Establish community gardens and urban farms | ☐ | ☐ | ☐ | ☐ |
| 9.1.2 | Provide outdoor electrical outlets for charging lawn equipment | ☐ | ☐ | ☐ | ☐ |
| 9.1.3 | Install low water use landscapes* | ☐ | ☐ | ☐ | ☐ |
| 9.2.1 | Minimize construction equipment idling time to 5 minutes or less* | ☐ | ☐ | ☐ | ☐ |
| 9.2.2 | Maintain construction equipment per manufacturer's specs* | ☐ | ☐ | ☐ | ☐ |
| 9.2.3 | Limit GHG construction equipment emissions by using electrified equipment or alternative fuels* | ☐ | ☐ | ☐ | ☐ |

**To be in compliance with the CAP, all measures denoted with an asterisk are required in all new development projects unless otherwise specified. If a project cannot meet one or more of the mandatory requirements, substitutions may be made from other measures listed at the discretion of the Community Development Director.*

| DISCUSSION (PLEASE LIST POLICY #) |
| --- |
| CAP Goal 1 – 1.1.3 was adopted to coincide with CA Energy Codes. Since the CAP adoption, the CEC has determined that it is not possible to achieve net zero on a wholesale basis and "net zero" has been removed from the CA Energy Codes. Appendix E of the Climate Action Plan states that, "To be in compliance with the CAP, all measures denoted with an asterisk are required in all new development projects unless otherwise specified. If a project cannot meet one or more of the mandatory requirements, substitutions may be made from other measures listed at the discretion of the Community Development Director." CAP Goal 1.1 requires projects to comply with Tier 1 CALGreen requirements, as amended, for new non-residential and residential development. Tier 1 CALGreen does not include "net zero" GHG assumptions for development. In addition, current CA Green Building Code Standards apply to all projects and has been determined by the Director to be an acceptable substitution for CAP Goal 1 – 1.1.3. Therefore, strict compliance with CAP Goal 1 – 1.1.3 is not achievable and not required. |

# Attachment C

## CARB Gas Station Screening Tool

# 2022 CARB & CAPCOA Gasoline Service Station Industrywide Risk Assessment Look-up Tool
## Version 1.0 - February 18, 2022

| Required Value | User Defined Input | Instructions |
|---|---|---|
| Annual Throughput (gallons/year) | 2700000 | Enter your gas station's annual throughput in gallons of gasoline dispensed per year. |
| Hourly Dispensing Throughput (gallons/hour) | 700 | The tool will calculate the maximum hourly vehicle fueling throughput based on annual throughput as defined by Table 10 of the 2020 Gasoline Service Station Industrywide Risk Assessment Technical Guidance Document (Technical Guidance). If a different value is desired please enter it into cell L4. |
| Hourly Loading Throughput (gallons/hour) | 8800 | The tool will calculate the maximum hourly loading throughput based on annual throughput as defined by Table 10 of the Technical Guidance. If a different value is desired please enter it into cell L5. |
| Meteorological Data | San Jose | Select appropriate meteorological data. Met sets provided include 2 rural (Redding and Lancaster) and 4 urban (Fresno, Ontario, San Diego, and San Jose) locations. Use whichever best correlates to your location. If you would like to use site-specific meteorological data please refer to the Variable Met Tool. |
| Distance to Nearest Resident (meters) | 180 | Enter the distance to the nearest residential receptor in meters as measured from the edge of the station canopy. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance). |
| Distance to Nearest Business (meters) | 175 | Enter the distance to the nearest worker receptor in meters as measured from the edge of the station canopy. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance). |
| Distance to Acute Receptor (meters) | 175 | Enter the distance where acute impacts are expected in meters as measured from the edge of the station canopy. This can be the distance to the property boundary, nearest resident, nearest worker, or any other user defined location. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance). |
| Control Scenario | EVR Phase I & EVR Phase II | Select the appropriate control scenario for your gas station. Please refer to technical Guidance for an explanation of the different control scenarios. Almost all gas stations in California are equipped with EVR Phase I and EVR Phase II controls. |
| Include Building Downwash Adjustments | no | Building downwash may over estimate risk results. High results should be investigated further through site-specific health risk assessment. |

| Risk Value | Results |
|---|---|
| Max Residential Cancer Risk (chances/million) | 0.57 |
| Max Worker Cancer Risk (chances/million) | 0.06 |
| Chronic HI | 0.00 |
| Acute HI | 0.03 |

12/21/2022 11:40 AM