

January 25, 2023  
File No. 01223019.00

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**Subject: Air Quality (AQ), Vehicle Miles Traveled (VMT), and Greenhouse Gas (GHG) Analyses for the Cimarron Country Estates Land Use Cimarron Located in Merced, Merced County, California**

Dear Mr. Stewart:

Mr. Don Stewart has requested **SCS Engineers (SCS)** to provide AQ, GHG, and VMT analyses for submittal to the County of Merced, California. It is our understanding that the Cimarron County Estates (Cimarron) is required by the County of Merced (County) to analyze the Cimarron's impact on AQ, GHG, and VMT; therefore, SCS provides Cimarron with the following letter summarizing our analyses.

## **CIMARRON BACKGROUND**

SCS understand Cimarron is developing a 52.42-acre subdivision located at 2939 East Olive Avenue, Merced, CA. The subdivision is approximately 40 lots ranges between 43,572 to 68,506 square feet, each lot will be equipped with its own leach fields.

The proposed Cimarron will consist of a constructing a single-family residential subdivision. The County is requesting that a AQ, GHG, and VMT analyses be performed to assess impacts from this subdivision.

## **AIR QUALITY**

### **REGULATORY CONTEXT**

#### Ambient Air Quality Standards

Under the California Clean Air Act (CAA) establishes maximum ambient concentrations for the ten criteria air pollutants (CAPs), known as the California Ambient Air Quality Standards (CAAQS). The six CAPs are ozone (O<sub>3</sub>), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), carbon monoxide (CO), lead (Pb), particulate matter 10 and 2.5 microns in size (PM<sub>10</sub> and PM<sub>2.5</sub>), hydrogen sulfide, sulfates, visibility reducing particles, and vinyl chloride. Concentrations above these time-averaged limits are anticipated to cause adverse health effects to sensitive receptors. **Table 1** shows the standards for the various averaging times for criteria pollutants under the CAAQS. The San Joaquin Valley Air Basin (SJVAB) is in nonattainment for the following CAAQS criteria pollutants: ozone, PM<sub>10</sub>, PM<sub>2.5</sub>.

**TABLE 1**  
 STATE AND FEDERAL AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	Standard
		parts per million or microgram per cubic meter
		CAAQS
Ozone	1 hour	0.09
	8 hour	0.070
CO	8 hour	9
	1 hour	20
NO <sub>2</sub>	Annual Mean	0.03
	1 hour	0.18
SO <sub>2</sub>	24 hour	0.04
	3 hour	N/A
	1 hour	0.25
PM <sub>10</sub>	Annual Mean	(20)
	24 hour	(50)
PM <sub>2.5</sub>	Annual arithmetic mean	(12)
	24 hour	N/A
Pb	Rolling 3-Month Average	N/A
	30 Days	(1.5)
Hydrogen Sulfide	1 hour	0.03
Vinyl Chloride	24 hour	0.01
Sulfate	24 hour	(25)
Visibility Reducing Particles	8 hour	extinction of 0.23 per km

## California State Implementation Plan (SIP)

California's SIP is comprised of the State's overall air quality attainment plans to meet the NAAQS as well as the individual air quality attainment plans of each Air Quality Management District (AQMD) and Air Pollution Control District (APCD). The items included in the California SIP are listed in 40 CFR Chapter I, Part 52, Subpart F §52.220. The California SIP is a compilation of new and previously submitted plans, programs (such as monitoring, modeling, permitting, etc.), AQMD and APCD rules, State regulations, and federal controls for each air basin and California's overall air quality. Many of the items within the California SIP rely on the same control strategies, such as emissions standards for cars and heavy trucks, fuel regulations, and limitations on emissions from consumer products. AQMDs and APCDs, as well as other agencies such as the Bureau of Automotive Repair, prepare draft California SIP elements and submit them to CARB for review and approval. The California CAA identifies California Air Resource Board (CARB) as the lead agency for compiling items for incorporation into the California SIP, and

submitting the items to the CalEPA for approval. San Joaquin Valley Air Basin (SJVAB) is in nonattainment for ozone, PM<sub>10</sub>, PM<sub>2.5</sub> and have approved SIPs.

## San Joaquin Valley Air Pollution Control District (SJVAPCD)

The SJVAPCD is a regional agency which regulates stationary sources of air pollution within the SJVAB whose boundaries are contiguous with the County's boundaries. Its primary purpose is to enforce local, state, and federal air quality regulations in order to satisfy ambient air quality standards and protect the public from harm due to poor air quality. The SJVAPCD regulates air quality through its permit authority over most types of stationary emission sources and through its planning and review activities. Additionally, the SJVAPCD regulates open and agricultural burning and is responsible for air quality monitoring, preparing clean air plans, and responding to citizen complaints regarding air quality.

Cimarron is located in Merced County and is subject to applicable SJVAPCD rules and regulations in effect at the time of construction and operation. The SJVAPCD has adopted air quality thresholds for determination of impact significance for Cimarron's subject to CEQA review. Air quality significance criteria is provided in **Table 2**.

TABLE 2  
 AIR QUALITY THRESHOLDS OF SIGNIFICANCE – CRITERIA POLLUTANTS

Pollutant/Precursor	Construction Emissions	Operational Emissions	
		Permitted Equipment and Activities	Permitted Equipment and Activities
	Tons/Year		
CO	100	100	100
NO <sub>x</sub>	10	10	10
ROG	10	10	10
SO <sub>x</sub>	27	27	27
PM <sub>10</sub>	15	15	15
PM <sub>2.5</sub>	15	15	15

SJVAPCD, AQ Thresholds of Significance – Criteria Pollutants (March 19, 2015)

## Sensitive Receptors

Schools, hospitals, and convalescent homes are considered to be relatively sensitive to poor air quality because children, elderly people, and the infirm are more susceptible to respiratory distress and other air quality related health problems. Residential areas are considered sensitive to poor air quality, because people usually stay home for extended periods of time, increasing the potential exposure to ambient air quality. Recreational uses are also considered sensitive due to the greater exposure to ambient air quality conditions because vigorous exercise associated with recreation places a high demand on the human respiratory system.

The land surrounding the project sites is partially open space, there is a residential subdivision located approximately adjacent to the north west corner of the project site and there are several residential homes on the southeast and east side of the project site. Residences on the western border of project site are located approximately 290 feet from the project site. The project site is located within 0.8 miles from Donn B Chenoweth Elementary school and two miles from Merced High School and Merced College and 2.5 miles from the University of California Merced. Cimarron is located one mile for Rahilly Park and is adjacent to a number of single-family residences.

## Methodology

The proposed Cimarron’s short-term construction-related and operational criteria pollutant emissions were estimated using California Emissions Estimator Model (CalEEMod) Version 2020.4.0. The CalEEMod used default values for construction and operational emissions estimate. Because the County does not provide criteria pollutant emission thresholds, estimated Cimarron-related criteria pollutant emissions were compared to the SJVAPCD construction and operational criteria pollutant significance criteria shown in **Table 2**.

Merced County is classified as nonattainment under the CAAQS for ozone, PM<sub>10</sub>, and PM<sub>2.5</sub>; therefore, an applicable SIP or other applicable air quality plans have been developed and approved by the State of California. The SJVAPCD has developed significance criteria for criteria air pollutants as shown in **Table 2**, if the Cimarron’s emission do not exceed the significance criteria then the Cimarron is considered to have a less than significant impact on air quality.

## Construction

Construction of Cimarron would require site preparation, grading, building/infrastructure, paving and architectural coating. As shown in **Table 3**, construction criteria emission would not exceed the SJVAPCD significance criteria. **Less than Significant.**

TABLE 3  
 MAXIMUM ANNUAL CONSTRUCTION EMISSIONS

Pollutant/Precursor	Construction Emissions	Significant Criteria	Exceed Significant
	Tons/Year		
CO	2.86	100	No
NOx	3.09	10	No
ROG	1.11	10	No
SOx	0.01	27	No
Total PM10	1.05	15	No
Total PM2.5	0.53	15	No

The shortest distance between a project site and the nearest sensitive receptor is approximately 100 feet. Construction activities would be short term and intermittent. Used during construction, heavy construction equipment would be the main source of pollutants during construction of the project. Given that heavy equipment would be used intermittently and during the day time hours, and given the short duration of construction activities in a given area and distance to the nearest sensitive receptor, exposure of sensitive receptors to substantial pollutant concentrations would not occur. Operation of the project would not result in substantial pollutant concentrations. **Less than Significant.**

## Operation

Operation of the Cimarron would emit criteria pollution from area, energy, mobile, stationary, waste, and water sources. **Table 4** shows the emissions from the operation of the Cimarron with 45 single family homes. As shown in **Table 4** Cimarron emission would not exceed the SJVAPCD significance threshold. Therefore, operation of the Cimarron would not adversely impact regional air quality. **Less than Significant.**

TABLE 4  
MAXIMUM ANNUAL OPERATIONAL EMISSIONS

Pollutant/Precursor	Construction Emissions	Significant Criteria	Exceed Significant
	Tons/Year		
CO	1.99	100	No
NOx	0.47	10	No
ROG	0.34	10	No
SOx	0.01	27	No
Total PM10	0.42	15	No
Total PM2.5	0.12	15	No

## Odors

Given the use of heavy equipment during construction, the separation of residential home surrounding the project site, the time of day heavy equipment would be operated, and the distance to the nearest sensitive receptor, the project would not emit objectionable odors that would be adversely affect a substantial number of people. Operation of the project would not emit odors. Therefore, construction and operation of the project would have a less-than-significant impact associated with odors. **Less than Significant.**

## Cumulative Impacts

Although SJVAPCD does not have any quantitative cumulative significant criteria, air quality is cumulative in nature. CAAQS are predicated on past, present, and future emissions; therefore, if Cimarron-related emission are found to have a less-than-significant impact in the near-term conditions, then cumulative impacts would also be less-than-significant. Cimarron-related air quality impacts were found to be less-

than-significant in the near-term conditions; therefore, the Cimarron would not adversely affect regional air quality in the future. **Less than Significant.**

## **GREENHOUSE GAS EMISSIONS**

### **CLIMATE CHANGE**

Global climate change is a change in the average weather of the Earth, which can be measured by wind patterns, storms, precipitation, and temperature. It is exacerbated by GHGs, which trap heat in the atmosphere (called the “greenhouse” effect). GHGs include carbon dioxide, methane, and nitrous oxide, and are emitted by natural processes and human activities. Potential adverse effects of global climate change include a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels, and changes to ecosystems and the natural environment.

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, city, and virtually every individual on Earth. A Cimarron’s GHG emissions are at a micro-scale relative to global emissions, but could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact.

### **REGULATORY CONTEXT**

Since the County of Merced does not have an accepted Climate Action Plan (CAP) and the project site is adjacent to the City of Merced, this analysis will use the City of Merced CAP which has been developed and approved on October 1, 2012. The City of Merced CAP provides strategies for reduction of GHG emissions. The SJVAPC Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for Cimarron’s under CEQA (December 17, 2009) provides guidance for addressing GHG analysis and implements a 29 percent reduction in Cimarron GHG emissions.

### **METHODOLOGY**

The Proposed Cimarron’s short-term construction-related GHG emissions were estimated using the California Emissions Estimator Model (CalEEMod) Version 2020.4.0. The CalEEMod used default values for construction and operational emissions estimate.

### **SIGNIFICANCE CRITERIA**

The CAP provides strategies and actions for new developments in Part 4: CAP Strategies and Actions. Consistency with the CAP strategies and action would show the Cimarron would not significantly increase GHG emissions in the future. The SJVAPCD criteria is to reduce GHG emission by 29 percent over business-as-usual.

## Construction GHG Emissions

Construction of the Cimarron would emit GHGs during the operation of heavy equipment. **Table 5** provides an estimate of Cimarron related GHG emissions per construction year. Detailed calculations are provided in **Appendix A**.

**TABLE 5**  
 CONSTRUCTION RELATED GHG EMISSIONS

Construction Year	CO <sub>2</sub> e Emissions
	MT/year
2024	519.64
2025	376.17
2026	343.13
<b>Maximum Year Emissions</b>	<b>519.64</b>

## Operational GHG Emissions

Operation of the Cimarron would emit GHGs from area, energy, mobile, stationary, waste, and water sources. **Table 5** provides an estimate of Cimarron related GHG emissions per construction year. Detailed calculations are provided in **Appendix A**.

**TABLE 5**  
 ESTIMATION OF CIMARRON RELATED GHG EMISSIONS

Operation	CO <sub>2</sub> e Emissions
	MT/year
Total GHG Emissions	546.90

## Cimarron's Consistency with County's Climate Action Plan

The greatest source of GHG emissions emitted from the Cimarron is from mobile sources (refer to Appendix A). It is important that the Cimarron be consistent with reduced VMT and strategy provided in the CAP. As shown below, in the Vehicle Miles Traveled section the location and connectivity of the Cimarron would reduce the overall VMT and therefore, reduce GHG emissions. It is anticipated that the location of the Cimarron would reduce residential VMT by greater than 50 percent (refer to Vehicle Miles Traveled Section). **Table 6** shows GHG emissions based on the reduction of VMT estimated in Vehicle Miles Traveled Section, as shown emissions are reduced by 37 percent, CalEEMod output files are provided in Appendix B.

**TABLE 6**  
 REDUCED VMT RELATED GHG EMISSIONS

Operation	CO <sub>2</sub> e Emissions
	MT/year
Total GHG Emissions	342.76

Cimarron is also consistent with the City's CAP, Strategy EM 1.5 Mobility Development Review Polices due to the Cimarron's connectivity with the adjacent neighborhoods, nearby transit stops on Gerard

Avenue (Route M5 – Merced South-East), and schools which reduce mobile GHG emissions. The Cimarron would not create any significant new sources of GHG emissions and would comply with the City's CAP and SJVAPCD emissions reduction requirements; therefore, the Cimarron would not contribute to adverse impacts associated with cumulative GHG emissions. **Less than Significant.**

## VEHICLE MILES TRAVELED

### Regulatory Context

Pursuant to Senate Bill 743 (passed in 2013), the metric for analyzing transportation impacts under the California Environmental Quality Act (CEQA) officially changed over on July 1, 2020 from level of service to VMT. The 2030 County of Merced General Plan identifies the improvement Cimarron and strategies that have and will assist the County of Merced in reducing its vehicles miles traveled.

### Vehicle Miles Traveled Analysis

Calculation of VMT shown in the CalEEMod output files in Appendix A, Section 4.0 Operational Detail – Mobile, 4.2 Trip Summary Information shows that the Cimarron's annual VMT is 1,086.69 miles. This is unmitigated VMT and does not show reduction for location of the Cimarron to transportation, schools, connectivity, employment centers, and shopping.

The Cimarron is located within 0.5 miles of the UC Route bus stop on Yosemite Avenue and the M6 Route bus stop at Mckee Road and East Olive Avenue. These bus stops, The Bus, Merced Transit Authority, will service the residence of Cimarron. Cimarron project is located within 0.8 miles from Donn B Chenoweth Elementary school and two miles from Merced High School and Merced College and 2.5 miles from the University of California Merced. Cimarron is located one mile from Rahilly Park and is adjacent to a number of single-family residences. Cimarron would be connected to the adjacent subdivision via roadway with sidewalks, which would provide easy access to transport and other amenities. Cimarron is located within 3.5 miles of the city center where the majority of employers are located. Shopping centers and markets are located throughout Merced, within a distance of less than two miles from the project site.

The CalEEMod trip generation (Institute of Transportation Engineers (ITE), *Trip Generation Manual, 10<sup>th</sup> Edition*) provides for trip lengths of for home to work as 10.8-mile, home to shop as 7.3-miles, and home to other (schools, recreation) as 7.5-miles. As shown above the distance to from home to work, home to shopping, and home to schools is less than half these default distance provided by the ITE; therefore, given the location of the Cimarron, it is expected to reduce VMT by more 50 percent. **Less than Significant.**

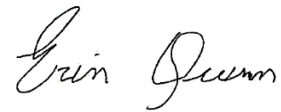


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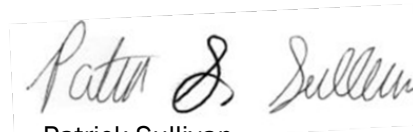
## CONCLUSION

Implementation of the Cimarron would not result in a significant regional AQ impacts, a significant increase in GHG emissions, and would comply with VMT criteria within the County.

Sincerely,



Erin Quinn  
Cimarron Director  
SCS Engineers



Patrick Sullivan  
Senior Vice President  
SCS Engineers

**CalEEMod Output File**  
**Construction and Operation Emissions**

Cimarron Country Estates - Merced County, Annual

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

**Cimarron Country Estates**

**Merced County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	40.00	Dwelling Unit	52.42	32,000.00	114

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	49
<b>Climate Zone</b>	3	<b>Operational Year</b>		2026	
<b>Utility Company</b>	Merced Irrigation District				
<b>CO2 Intensity (lb/MWhr)</b>	290.98	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

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

- Project Characteristics -
- Land Use - Per plans, square feet is based on 40 1,800 square foot homes
- Construction Phase - Two year construction
- Demolition -
- Grading - It is assumed that there will be zero net soil needed.
- Architectural Coating - SJVAPCD Rule 4601
- Vehicle Trips - 50% Reduction due to location of schools, shopping, connetivity, and transportation.
- Woodstoves - No fireplaces are expected.
- Area Coating - SJVAPCD Rule 4601
- Construction Off-road Equipment Mitigation -
- Area Mitigation - SJVAPCD Rule 4601
- Stationary Sources - Process Boilers -

Cimarron Country Estates - Merced County, Annual

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

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	150.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	50.00
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	150	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	150	50
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	150	50
tblLandUse	LandUseSquareFeet	72,000.00	32,000.00
tblLandUse	LotAcreage	12.99	52.42

**2.0 Emissions Summary**

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Cimarron Country Estates - Merced County, Annual

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

**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.3204	3.0923	2.8607	5.8900e-003	0.9187	0.1326	1.0513	0.4082	0.1227	0.5309	0.0000	515.5737	515.5737	0.1498	1.0800e-003	519.6418
2025	0.2073	1.8568	2.5028	4.3000e-003	0.0208	0.0789	0.0998	5.6200e-003	0.0740	0.0797	0.0000	373.4436	373.4436	0.0868	1.8600e-003	376.1673
2026	0.4974	1.6686	2.2900	3.9300e-003	0.0200	0.0714	0.0914	5.3900e-003	0.0673	0.0727	0.0000	340.8218	340.8218	0.0739	1.5400e-003	343.1285
<b>Maximum</b>	<b>0.4974</b>	<b>3.0923</b>	<b>2.8607</b>	<b>5.8900e-003</b>	<b>0.9187</b>	<b>0.1326</b>	<b>1.0513</b>	<b>0.4082</b>	<b>0.1227</b>	<b>0.5309</b>	<b>0.0000</b>	<b>515.5737</b>	<b>515.5737</b>	<b>0.1498</b>	<b>1.8600e-003</b>	<b>519.6418</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.3204	3.0923	2.8607	5.8900e-003	0.3836	0.1326	0.5162	0.1684	0.1227	0.2911	0.0000	515.5731	515.5731	0.1498	1.0800e-003	519.6412
2025	0.2072	1.8567	2.5028	4.3000e-003	0.0208	0.0789	0.0998	5.6200e-003	0.0740	0.0797	0.0000	373.4432	373.4432	0.0868	1.8600e-003	376.1669
2026	0.4974	1.6686	2.2900	3.9300e-003	0.0200	0.0714	0.0914	5.3900e-003	0.0673	0.0727	0.0000	340.8214	340.8214	0.0739	1.5400e-003	343.1281
<b>Maximum</b>	<b>0.4974</b>	<b>3.0923</b>	<b>2.8607</b>	<b>5.8900e-003</b>	<b>0.3836</b>	<b>0.1326</b>	<b>0.5162</b>	<b>0.1684</b>	<b>0.1227</b>	<b>0.2911</b>	<b>0.0000</b>	<b>515.5731</b>	<b>515.5731</b>	<b>0.1498</b>	<b>1.8600e-003</b>	<b>519.6412</b>

Cimarron Country Estates - Merced County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	55.76	0.00	43.07	57.20	0.00	35.10	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2024	3-31-2024	1.0494	1.0494
2	4-1-2024	6-30-2024	1.1607	1.1607
3	7-1-2024	9-30-2024	0.6894	0.6894
4	10-1-2024	12-31-2024	0.4990	0.4990
5	1-1-2025	3-31-2025	0.4532	0.4532
6	4-1-2025	6-30-2025	0.4579	0.4579
7	7-1-2025	9-30-2025	0.4629	0.4629
8	10-1-2025	12-31-2025	0.6856	0.6856
9	1-1-2026	3-31-2026	0.7227	0.7227
10	4-1-2026	6-30-2026	0.5877	0.5877
11	7-1-2026	9-30-2026	0.5941	0.5941
		Highest	1.1607	1.1607

Cimarron Country Estates - Merced County, Annual

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

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.6330	0.0464	3.0247	4.4200e-003		0.3757	0.3757		0.3757	0.3757	33.2329	17.8135	51.0463	8.0000e-004	3.2500e-003	52.0347
Energy	5.1800e-003	0.0443	0.0189	2.8000e-004		3.5800e-003	3.5800e-003		3.5800e-003	3.5800e-003	0.0000	93.4076	93.4076	5.7600e-003	1.5200e-003	94.0043
Mobile	0.1764	0.4248	1.6794	4.3800e-003	0.4089	4.5900e-003	0.4135	0.1097	4.3300e-003	0.1140	0.0000	417.0569	417.0569	0.0191	0.0270	425.5754
Waste						0.0000	0.0000		0.0000	0.0000	8.3308	0.0000	8.3308	0.4923	0.0000	20.6391
Water						0.0000	0.0000		0.0000	0.0000	0.8268	2.6203	3.4471	0.0852	2.0400e-003	6.1858
<b>Total</b>	<b>2.8146</b>	<b>0.5155</b>	<b>4.7230</b>	<b>9.0800e-003</b>	<b>0.4089</b>	<b>0.3838</b>	<b>0.7928</b>	<b>0.1097</b>	<b>0.3836</b>	<b>0.4932</b>	<b>42.3904</b>	<b>530.8982</b>	<b>573.2886</b>	<b>0.6032</b>	<b>0.0338</b>	<b>598.4393</b>

Cimarron Country Estates - Merced County, Annual

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

**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1439	3.4200e-003	0.2967	2.0000e-005		1.6500e-003	1.6500e-003		1.6500e-003	1.6500e-003	0.0000	0.4852	0.4852	4.6000e-004	0.0000	0.4968
Energy	5.1800e-003	0.0443	0.0189	2.8000e-004		3.5800e-003	3.5800e-003		3.5800e-003	3.5800e-003	0.0000	93.4076	93.4076	5.7600e-003	1.5200e-003	94.0043
Mobile	0.1764	0.4248	1.6794	4.3800e-003	0.4089	4.5900e-003	0.4135	0.1097	4.3300e-003	0.1140	0.0000	417.0569	417.0569	0.0191	0.0270	425.5754
Waste						0.0000	0.0000		0.0000	0.0000	8.3308	0.0000	8.3308	0.4923	0.0000	20.6391
Water						0.0000	0.0000		0.0000	0.0000	0.8268	2.6203	3.4471	0.0852	2.0400e-003	6.1858
<b>Total</b>	<b>0.3254</b>	<b>0.4725</b>	<b>1.9950</b>	<b>4.6800e-003</b>	<b>0.4089</b>	<b>9.8200e-003</b>	<b>0.4188</b>	<b>0.1097</b>	<b>9.5600e-003</b>	<b>0.1192</b>	<b>9.1576</b>	<b>513.5699</b>	<b>522.7274</b>	<b>0.6028</b>	<b>0.0306</b>	<b>546.9013</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>88.44</b>	<b>8.34</b>	<b>57.76</b>	<b>48.46</b>	<b>0.00</b>	<b>97.44</b>	<b>47.18</b>	<b>0.00</b>	<b>97.51</b>	<b>75.83</b>	<b>78.40</b>	<b>3.26</b>	<b>8.82</b>	<b>0.06</b>	<b>9.62</b>	<b>8.61</b>

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2024	2/23/2024	5	40	
2	Grading	Grading	2/24/2024	7/26/2024	5	110	
3	Building Construction	Building Construction	7/27/2024	10/27/2026	5	1110	



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4	Paving	Paving	10/28/2025	2/27/2026	5	75
5	Architectural Coating	Architectural Coating	2/10/2026	12/25/2026	5	75

**Acres of Grading (Site Preparation Phase): 60**

**Acres of Grading (Grading Phase): 330**

**Acres of Paving: 0**

**Residential Indoor: 64,800; Residential Outdoor: 21,600; 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
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**

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

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	14.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	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**

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

**3.2 Site Preparation - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3931	0.0000	0.3931	0.2021	0.0000	0.2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0532	0.5435	0.3667	7.6000e-004		0.0246	0.0246		0.0226	0.0226	0.0000	66.9141	66.9141	0.0216	0.0000	67.4552
<b>Total</b>	<b>0.0532</b>	<b>0.5435</b>	<b>0.3667</b>	<b>7.6000e-004</b>	<b>0.3931</b>	<b>0.0246</b>	<b>0.4177</b>	<b>0.2021</b>	<b>0.0226</b>	<b>0.2247</b>	<b>0.0000</b>	<b>66.9141</b>	<b>66.9141</b>	<b>0.0216</b>	<b>0.0000</b>	<b>67.4552</b>

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

**3.2 Site Preparation - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2100e-003	8.2000e-004	9.7400e-003	3.0000e-005	2.8700e-003	2.0000e-005	2.8900e-003	7.6000e-004	1.0000e-005	7.8000e-004	0.0000	2.3523	2.3523	8.0000e-005	7.0000e-005	2.3754
<b>Total</b>	<b>1.2100e-003</b>	<b>8.2000e-004</b>	<b>9.7400e-003</b>	<b>3.0000e-005</b>	<b>2.8700e-003</b>	<b>2.0000e-005</b>	<b>2.8900e-003</b>	<b>7.6000e-004</b>	<b>1.0000e-005</b>	<b>7.8000e-004</b>	<b>0.0000</b>	<b>2.3523</b>	<b>2.3523</b>	<b>8.0000e-005</b>	<b>7.0000e-005</b>	<b>2.3754</b>

**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					0.1592	0.0000	0.1592	0.0818	0.0000	0.0818	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0532	0.5435	0.3667	7.6000e-004		0.0246	0.0246		0.0226	0.0226	0.0000	66.9141	66.9141	0.0216	0.0000	67.4551
<b>Total</b>	<b>0.0532</b>	<b>0.5435</b>	<b>0.3667</b>	<b>7.6000e-004</b>	<b>0.1592</b>	<b>0.0246</b>	<b>0.1838</b>	<b>0.0818</b>	<b>0.0226</b>	<b>0.1045</b>	<b>0.0000</b>	<b>66.9141</b>	<b>66.9141</b>	<b>0.0216</b>	<b>0.0000</b>	<b>67.4551</b>

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**3.2 Site Preparation - 2024**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2100e-003	8.2000e-004	9.7400e-003	3.0000e-005	2.8700e-003	2.0000e-005	2.8900e-003	7.6000e-004	1.0000e-005	7.8000e-004	0.0000	2.3523	2.3523	8.0000e-005	7.0000e-005	2.3754
<b>Total</b>	<b>1.2100e-003</b>	<b>8.2000e-004</b>	<b>9.7400e-003</b>	<b>3.0000e-005</b>	<b>2.8700e-003</b>	<b>2.0000e-005</b>	<b>2.8900e-003</b>	<b>7.6000e-004</b>	<b>1.0000e-005</b>	<b>7.8000e-004</b>	<b>0.0000</b>	<b>2.3523</b>	<b>2.3523</b>	<b>8.0000e-005</b>	<b>7.0000e-005</b>	<b>2.3754</b>

**3.3 Grading - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.5062	0.0000	0.5062	0.2010	0.0000	0.2010	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1770	1.7807	1.5248	3.4100e-003		0.0735	0.0735		0.0676	0.0676	0.0000	299.8574	299.8574	0.0970	0.0000	302.2819
<b>Total</b>	<b>0.1770</b>	<b>1.7807</b>	<b>1.5248</b>	<b>3.4100e-003</b>	<b>0.5062</b>	<b>0.0735</b>	<b>0.5797</b>	<b>0.2010</b>	<b>0.0676</b>	<b>0.2685</b>	<b>0.0000</b>	<b>299.8574</b>	<b>299.8574</b>	<b>0.0970</b>	<b>0.0000</b>	<b>302.2819</b>

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**3.3 Grading - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6900e-003	2.5000e-003	0.0298	8.0000e-005	8.7700e-003	5.0000e-005	8.8200e-003	2.3300e-003	5.0000e-005	2.3800e-003	0.0000	7.1875	7.1875	2.4000e-004	2.2000e-004	7.2581
<b>Total</b>	<b>3.6900e-003</b>	<b>2.5000e-003</b>	<b>0.0298</b>	<b>8.0000e-005</b>	<b>8.7700e-003</b>	<b>5.0000e-005</b>	<b>8.8200e-003</b>	<b>2.3300e-003</b>	<b>5.0000e-005</b>	<b>2.3800e-003</b>	<b>0.0000</b>	<b>7.1875</b>	<b>7.1875</b>	<b>2.4000e-004</b>	<b>2.2000e-004</b>	<b>7.2581</b>

**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					0.2050	0.0000	0.2050	0.0814	0.0000	0.0814	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1770	1.7807	1.5248	3.4100e-003		0.0735	0.0735		0.0676	0.0676	0.0000	299.8570	299.8570	0.0970	0.0000	302.2815
<b>Total</b>	<b>0.1770</b>	<b>1.7807</b>	<b>1.5248</b>	<b>3.4100e-003</b>	<b>0.2050</b>	<b>0.0735</b>	<b>0.2785</b>	<b>0.0814</b>	<b>0.0676</b>	<b>0.1490</b>	<b>0.0000</b>	<b>299.8570</b>	<b>299.8570</b>	<b>0.0970</b>	<b>0.0000</b>	<b>302.2815</b>

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**3.3 Grading - 2024**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6900e-003	2.5000e-003	0.0298	8.0000e-005	8.7700e-003	5.0000e-005	8.8200e-003	2.3300e-003	5.0000e-005	2.3800e-003	0.0000	7.1875	7.1875	2.4000e-004	2.2000e-004	7.2581
<b>Total</b>	<b>3.6900e-003</b>	<b>2.5000e-003</b>	<b>0.0298</b>	<b>8.0000e-005</b>	<b>8.7700e-003</b>	<b>5.0000e-005</b>	<b>8.8200e-003</b>	<b>2.3300e-003</b>	<b>5.0000e-005</b>	<b>2.3800e-003</b>	<b>0.0000</b>	<b>7.1875</b>	<b>7.1875</b>	<b>2.4000e-004</b>	<b>2.2000e-004</b>	<b>7.2581</b>

**3.4 Building Construction - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0824	0.7529	0.9053	1.5100e-003		0.0344	0.0344		0.0323	0.0323	0.0000	129.8355	129.8355	0.0307	0.0000	130.6031
<b>Total</b>	<b>0.0824</b>	<b>0.7529</b>	<b>0.9053</b>	<b>1.5100e-003</b>		<b>0.0344</b>	<b>0.0344</b>		<b>0.0323</b>	<b>0.0323</b>	<b>0.0000</b>	<b>129.8355</b>	<b>129.8355</b>	<b>0.0307</b>	<b>0.0000</b>	<b>130.6031</b>

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**3.4 Building Construction - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.5000e-004	0.0101	3.1500e-003	4.0000e-005	1.4800e-003	7.0000e-005	1.5500e-003	4.3000e-004	6.0000e-005	4.9000e-004	0.0000	4.3043	4.3043	2.0000e-005	6.4000e-004	4.4951
Worker	2.6300e-003	1.7800e-003	0.0212	5.0000e-005	6.2500e-003	4.0000e-005	6.2900e-003	1.6600e-003	3.0000e-005	1.6900e-003	0.0000	5.1227	5.1227	1.7000e-004	1.5000e-004	5.1731
<b>Total</b>	<b>2.8800e-003</b>	<b>0.0119</b>	<b>0.0244</b>	<b>9.0000e-005</b>	<b>7.7300e-003</b>	<b>1.1000e-004</b>	<b>7.8400e-003</b>	<b>2.0900e-003</b>	<b>9.0000e-005</b>	<b>2.1800e-003</b>	<b>0.0000</b>	<b>9.4270</b>	<b>9.4270</b>	<b>1.9000e-004</b>	<b>7.9000e-004</b>	<b>9.6682</b>

**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	0.0824	0.7529	0.9053	1.5100e-003		0.0344	0.0344		0.0323	0.0323	0.0000	129.8353	129.8353	0.0307	0.0000	130.6029
<b>Total</b>	<b>0.0824</b>	<b>0.7529</b>	<b>0.9053</b>	<b>1.5100e-003</b>		<b>0.0344</b>	<b>0.0344</b>		<b>0.0323</b>	<b>0.0323</b>	<b>0.0000</b>	<b>129.8353</b>	<b>129.8353</b>	<b>0.0307</b>	<b>0.0000</b>	<b>130.6029</b>

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**3.4 Building Construction - 2024**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.5000e-004	0.0101	3.1500e-003	4.0000e-005	1.4800e-003	7.0000e-005	1.5500e-003	4.3000e-004	6.0000e-005	4.9000e-004	0.0000	4.3043	4.3043	2.0000e-005	6.4000e-004	4.4951
Worker	2.6300e-003	1.7800e-003	0.0212	5.0000e-005	6.2500e-003	4.0000e-005	6.2900e-003	1.6600e-003	3.0000e-005	1.6900e-003	0.0000	5.1227	5.1227	1.7000e-004	1.5000e-004	5.1731
<b>Total</b>	<b>2.8800e-003</b>	<b>0.0119</b>	<b>0.0244</b>	<b>9.0000e-005</b>	<b>7.7300e-003</b>	<b>1.1000e-004</b>	<b>7.8400e-003</b>	<b>2.0900e-003</b>	<b>9.0000e-005</b>	<b>2.1800e-003</b>	<b>0.0000</b>	<b>9.4270</b>	<b>9.4270</b>	<b>1.9000e-004</b>	<b>7.9000e-004</b>	<b>9.6682</b>

**3.4 Building Construction - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
<b>Total</b>	<b>0.1785</b>	<b>1.6273</b>	<b>2.0991</b>	<b>3.5200e-003</b>		<b>0.0689</b>	<b>0.0689</b>		<b>0.0648</b>	<b>0.0648</b>	<b>0.0000</b>	<b>302.6549</b>	<b>302.6549</b>	<b>0.0711</b>	<b>0.0000</b>	<b>304.4335</b>



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

**3.4 Building Construction - 2025**

**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	5.7000e-004	0.0234	7.1100e-003	1.0000e-004	3.4600e-003	1.5000e-004	3.6100e-003	1.0000e-003	1.5000e-004	1.1500e-003	0.0000	9.8513	9.8513	3.0000e-005	1.4600e-003	10.2875
Worker	5.6400e-003	3.6500e-003	0.0453	1.2000e-004	0.0146	8.0000e-005	0.0147	3.8700e-003	7.0000e-005	3.9500e-003	0.0000	11.6453	11.6453	3.5000e-004	3.3000e-004	11.7530
<b>Total</b>	<b>6.2100e-003</b>	<b>0.0271</b>	<b>0.0524</b>	<b>2.2000e-004</b>	<b>0.0180</b>	<b>2.3000e-004</b>	<b>0.0183</b>	<b>4.8700e-003</b>	<b>2.2000e-004</b>	<b>5.1000e-003</b>	<b>0.0000</b>	<b>21.4966</b>	<b>21.4966</b>	<b>3.8000e-004</b>	<b>1.7900e-003</b>	<b>22.0405</b>

**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	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
<b>Total</b>	<b>0.1784</b>	<b>1.6273</b>	<b>2.0991</b>	<b>3.5200e-003</b>		<b>0.0689</b>	<b>0.0689</b>		<b>0.0648</b>	<b>0.0648</b>	<b>0.0000</b>	<b>302.6545</b>	<b>302.6545</b>	<b>0.0711</b>	<b>0.0000</b>	<b>304.4331</b>

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

**3.4 Building Construction - 2025**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive 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	5.7000e-004	0.0234	7.1100e-003	1.0000e-004	3.4600e-003	1.5000e-004	3.6100e-003	1.0000e-003	1.5000e-004	1.1500e-003	0.0000	9.8513	9.8513	3.0000e-005	1.4600e-003	10.2875
Worker	5.6400e-003	3.6500e-003	0.0453	1.2000e-004	0.0146	8.0000e-005	0.0147	3.8700e-003	7.0000e-005	3.9500e-003	0.0000	11.6453	11.6453	3.5000e-004	3.3000e-004	11.7530
<b>Total</b>	<b>6.2100e-003</b>	<b>0.0271</b>	<b>0.0524</b>	<b>2.2000e-004</b>	<b>0.0180</b>	<b>2.3000e-004</b>	<b>0.0183</b>	<b>4.8700e-003</b>	<b>2.2000e-004</b>	<b>5.1000e-003</b>	<b>0.0000</b>	<b>21.4966</b>	<b>21.4966</b>	<b>3.8000e-004</b>	<b>1.7900e-003</b>	<b>22.0405</b>

**3.4 Building Construction - 2026**

**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	0.1463	1.3343	1.7211	2.8800e-003		0.0565	0.0565		0.0531	0.0531	0.0000	248.1538	248.1538	0.0583	0.0000	249.6122
<b>Total</b>	<b>0.1463</b>	<b>1.3343</b>	<b>1.7211</b>	<b>2.8800e-003</b>		<b>0.0565</b>	<b>0.0565</b>		<b>0.0531</b>	<b>0.0531</b>	<b>0.0000</b>	<b>248.1538</b>	<b>248.1538</b>	<b>0.0583</b>	<b>0.0000</b>	<b>249.6122</b>

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

**3.4 Building Construction - 2026**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.6000e-004	0.0191	5.7000e-003	8.0000e-005	2.8300e-003	1.3000e-004	2.9600e-003	8.2000e-004	1.2000e-004	9.4000e-004	0.0000	7.9290	7.9290	3.0000e-005	1.1700e-003	8.2795
Worker	4.2800e-003	2.6600e-003	0.0347	1.0000e-004	0.0120	6.0000e-005	0.0120	3.1800e-003	6.0000e-005	3.2300e-003	0.0000	9.3526	9.3526	2.6000e-004	2.5000e-004	9.4345
<b>Total</b>	<b>4.7400e-003</b>	<b>0.0218</b>	<b>0.0404</b>	<b>1.8000e-004</b>	<b>0.0148</b>	<b>1.9000e-004</b>	<b>0.0150</b>	<b>4.0000e-003</b>	<b>1.8000e-004</b>	<b>4.1700e-003</b>	<b>0.0000</b>	<b>17.2815</b>	<b>17.2815</b>	<b>2.9000e-004</b>	<b>1.4200e-003</b>	<b>17.7140</b>

**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	0.1463	1.3343	1.7211	2.8800e-003		0.0565	0.0565		0.0531	0.0531	0.0000	248.1535	248.1535	0.0583	0.0000	249.6119
<b>Total</b>	<b>0.1463</b>	<b>1.3343</b>	<b>1.7211</b>	<b>2.8800e-003</b>		<b>0.0565</b>	<b>0.0565</b>		<b>0.0531</b>	<b>0.0531</b>	<b>0.0000</b>	<b>248.1535</b>	<b>248.1535</b>	<b>0.0583</b>	<b>0.0000</b>	<b>249.6119</b>

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

**3.4 Building Construction - 2026**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.6000e-004	0.0191	5.7000e-003	8.0000e-005	2.8300e-003	1.3000e-004	2.9600e-003	8.2000e-004	1.2000e-004	9.4000e-004	0.0000	7.9290	7.9290	3.0000e-005	1.1700e-003	8.2795
Worker	4.2800e-003	2.6600e-003	0.0347	1.0000e-004	0.0120	6.0000e-005	0.0120	3.1800e-003	6.0000e-005	3.2300e-003	0.0000	9.3526	9.3526	2.6000e-004	2.5000e-004	9.4345
<b>Total</b>	<b>4.7400e-003</b>	<b>0.0218</b>	<b>0.0404</b>	<b>1.8000e-004</b>	<b>0.0148</b>	<b>1.9000e-004</b>	<b>0.0150</b>	<b>4.0000e-003</b>	<b>1.8000e-004</b>	<b>4.1700e-003</b>	<b>0.0000</b>	<b>17.2815</b>	<b>17.2815</b>	<b>2.9000e-004</b>	<b>1.4200e-003</b>	<b>17.7140</b>

**3.5 Paving - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0215	0.2017	0.3426	5.4000e-004		9.8400e-003	9.8400e-003		9.0500e-003	9.0500e-003	0.0000	47.0453	47.0453	0.0152	0.0000	47.4256
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0215</b>	<b>0.2017</b>	<b>0.3426</b>	<b>5.4000e-004</b>		<b>9.8400e-003</b>	<b>9.8400e-003</b>		<b>9.0500e-003</b>	<b>9.0500e-003</b>	<b>0.0000</b>	<b>47.0453</b>	<b>47.0453</b>	<b>0.0152</b>	<b>0.0000</b>	<b>47.4256</b>

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

**3.5 Paving - 2025**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0900e-003	7.0000e-004	8.7400e-003	2.0000e-005	2.8100e-003	2.0000e-005	2.8300e-003	7.5000e-004	1.0000e-005	7.6000e-004	0.0000	2.2468	2.2468	7.0000e-005	6.0000e-005	2.2676
<b>Total</b>	<b>1.0900e-003</b>	<b>7.0000e-004</b>	<b>8.7400e-003</b>	<b>2.0000e-005</b>	<b>2.8100e-003</b>	<b>2.0000e-005</b>	<b>2.8300e-003</b>	<b>7.5000e-004</b>	<b>1.0000e-005</b>	<b>7.6000e-004</b>	<b>0.0000</b>	<b>2.2468</b>	<b>2.2468</b>	<b>7.0000e-005</b>	<b>6.0000e-005</b>	<b>2.2676</b>

**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	0.0215	0.2017	0.3426	5.4000e-004		9.8400e-003	9.8400e-003		9.0500e-003	9.0500e-003	0.0000	47.0452	47.0452	0.0152	0.0000	47.4256
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0215</b>	<b>0.2017</b>	<b>0.3426</b>	<b>5.4000e-004</b>		<b>9.8400e-003</b>	<b>9.8400e-003</b>		<b>9.0500e-003</b>	<b>9.0500e-003</b>	<b>0.0000</b>	<b>47.0452</b>	<b>47.0452</b>	<b>0.0152</b>	<b>0.0000</b>	<b>47.4256</b>

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

**3.5 Paving - 2025**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0900e-003	7.0000e-004	8.7400e-003	2.0000e-005	2.8100e-003	2.0000e-005	2.8300e-003	7.5000e-004	1.0000e-005	7.6000e-004	0.0000	2.2468	2.2468	7.0000e-005	6.0000e-005	2.2676
<b>Total</b>	<b>1.0900e-003</b>	<b>7.0000e-004</b>	<b>8.7400e-003</b>	<b>2.0000e-005</b>	<b>2.8100e-003</b>	<b>2.0000e-005</b>	<b>2.8300e-003</b>	<b>7.5000e-004</b>	<b>1.0000e-005</b>	<b>7.6000e-004</b>	<b>0.0000</b>	<b>2.2468</b>	<b>2.2468</b>	<b>7.0000e-005</b>	<b>6.0000e-005</b>	<b>2.2676</b>

**3.5 Paving - 2026**

**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	0.0192	0.1802	0.3061	4.8000e-004		8.7900e-003	8.7900e-003		8.0900e-003	8.0900e-003	0.0000	42.0404	42.0404	0.0136	0.0000	42.3804
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0192</b>	<b>0.1802</b>	<b>0.3061</b>	<b>4.8000e-004</b>		<b>8.7900e-003</b>	<b>8.7900e-003</b>		<b>8.0900e-003</b>	<b>8.0900e-003</b>	<b>0.0000</b>	<b>42.0404</b>	<b>42.0404</b>	<b>0.0136</b>	<b>0.0000</b>	<b>42.3804</b>

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

**3.5 Paving - 2026**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-004	5.6000e-004	7.2900e-003	2.0000e-005	2.5100e-003	1.0000e-005	2.5300e-003	6.7000e-004	1.0000e-005	6.8000e-004	0.0000	1.9667	1.9667	5.0000e-005	5.0000e-005	1.9839
<b>Total</b>	<b>9.0000e-004</b>	<b>5.6000e-004</b>	<b>7.2900e-003</b>	<b>2.0000e-005</b>	<b>2.5100e-003</b>	<b>1.0000e-005</b>	<b>2.5300e-003</b>	<b>6.7000e-004</b>	<b>1.0000e-005</b>	<b>6.8000e-004</b>	<b>0.0000</b>	<b>1.9667</b>	<b>1.9667</b>	<b>5.0000e-005</b>	<b>5.0000e-005</b>	<b>1.9839</b>

**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	0.0192	0.1802	0.3061	4.8000e-004		8.7900e-003	8.7900e-003		8.0900e-003	8.0900e-003	0.0000	42.0404	42.0404	0.0136	0.0000	42.3803
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0192</b>	<b>0.1802</b>	<b>0.3061</b>	<b>4.8000e-004</b>		<b>8.7900e-003</b>	<b>8.7900e-003</b>		<b>8.0900e-003</b>	<b>8.0900e-003</b>	<b>0.0000</b>	<b>42.0404</b>	<b>42.0404</b>	<b>0.0136</b>	<b>0.0000</b>	<b>42.3803</b>

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

**3.5 Paving - 2026**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-004	5.6000e-004	7.2900e-003	2.0000e-005	2.5100e-003	1.0000e-005	2.5300e-003	6.7000e-004	1.0000e-005	6.8000e-004	0.0000	1.9667	1.9667	5.0000e-005	5.0000e-005	1.9839
<b>Total</b>	<b>9.0000e-004</b>	<b>5.6000e-004</b>	<b>7.2900e-003</b>	<b>2.0000e-005</b>	<b>2.5100e-003</b>	<b>1.0000e-005</b>	<b>2.5300e-003</b>	<b>6.7000e-004</b>	<b>1.0000e-005</b>	<b>6.8000e-004</b>	<b>0.0000</b>	<b>1.9667</b>	<b>1.9667</b>	<b>5.0000e-005</b>	<b>5.0000e-005</b>	<b>1.9839</b>

**3.6 Architectural Coating - 2026**

**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	0.3057					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0196	0.1312	0.2072	3.4000e-004		5.9000e-003	5.9000e-003		5.9000e-003	5.9000e-003	0.0000	29.2348	29.2348	1.5900e-003	0.0000	29.2746
<b>Total</b>	<b>0.3253</b>	<b>0.1312</b>	<b>0.2072</b>	<b>3.4000e-004</b>		<b>5.9000e-003</b>	<b>5.9000e-003</b>		<b>5.9000e-003</b>	<b>5.9000e-003</b>	<b>0.0000</b>	<b>29.2348</b>	<b>29.2348</b>	<b>1.5900e-003</b>	<b>0.0000</b>	<b>29.2746</b>



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**3.6 Architectural Coating - 2026**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.8000e-004	6.1000e-004	7.9500e-003	2.0000e-005	2.7400e-003	1.0000e-005	2.7500e-003	7.3000e-004	1.0000e-005	7.4000e-004	0.0000	2.1446	2.1446	6.0000e-005	6.0000e-005	2.1634
<b>Total</b>	<b>9.8000e-004</b>	<b>6.1000e-004</b>	<b>7.9500e-003</b>	<b>2.0000e-005</b>	<b>2.7400e-003</b>	<b>1.0000e-005</b>	<b>2.7500e-003</b>	<b>7.3000e-004</b>	<b>1.0000e-005</b>	<b>7.4000e-004</b>	<b>0.0000</b>	<b>2.1446</b>	<b>2.1446</b>	<b>6.0000e-005</b>	<b>6.0000e-005</b>	<b>2.1634</b>

**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	0.3057					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0196	0.1312	0.2072	3.4000e-004		5.9000e-003	5.9000e-003		5.9000e-003	5.9000e-003	0.0000	29.2347	29.2347	1.5900e-003	0.0000	29.2746
<b>Total</b>	<b>0.3253</b>	<b>0.1312</b>	<b>0.2072</b>	<b>3.4000e-004</b>		<b>5.9000e-003</b>	<b>5.9000e-003</b>		<b>5.9000e-003</b>	<b>5.9000e-003</b>	<b>0.0000</b>	<b>29.2347</b>	<b>29.2347</b>	<b>1.5900e-003</b>	<b>0.0000</b>	<b>29.2746</b>

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**3.6 Architectural Coating - 2026**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.8000e-004	6.1000e-004	7.9500e-003	2.0000e-005	2.7400e-003	1.0000e-005	2.7500e-003	7.3000e-004	1.0000e-005	7.4000e-004	0.0000	2.1446	2.1446	6.0000e-005	6.0000e-005	2.1634
<b>Total</b>	<b>9.8000e-004</b>	<b>6.1000e-004</b>	<b>7.9500e-003</b>	<b>2.0000e-005</b>	<b>2.7400e-003</b>	<b>1.0000e-005</b>	<b>2.7500e-003</b>	<b>7.3000e-004</b>	<b>1.0000e-005</b>	<b>7.4000e-004</b>	<b>0.0000</b>	<b>2.1446</b>	<b>2.1446</b>	<b>6.0000e-005</b>	<b>6.0000e-005</b>	<b>2.1634</b>

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**4.0 Operational Detail - Mobile**

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1764	0.4248	1.6794	4.3800e-003	0.4089	4.5900e-003	0.4135	0.1097	4.3300e-003	0.1140	0.0000	417.0569	417.0569	0.0191	0.0270	425.5754
Unmitigated	0.1764	0.4248	1.6794	4.3800e-003	0.4089	4.5900e-003	0.4135	0.1097	4.3300e-003	0.1140	0.0000	417.0569	417.0569	0.0191	0.0270	425.5754

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	377.60	381.60	342.00	1,086,690	1,086,690
Total	377.60	381.60	342.00	1,086,690	1,086,690

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	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
Single Family Housing	10.80	7.30	7.50	46.90	17.40	35.70	86	11	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.530302	0.047786	0.155927	0.140874	0.027072	0.006797	0.014220	0.050043	0.000830	0.000457	0.020823	0.002143	0.002726

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	42.0981	42.0981	4.7700e-003	5.8000e-004	42.3900
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	42.0981	42.0981	4.7700e-003	5.8000e-004	42.3900
NaturalGas Mitigated	5.1800e-003	0.0443	0.0189	2.8000e-004		3.5800e-003	3.5800e-003		3.5800e-003	3.5800e-003	0.0000	51.3094	51.3094	9.8000e-004	9.4000e-004	51.6143
NaturalGas Unmitigated	5.1800e-003	0.0443	0.0189	2.8000e-004		3.5800e-003	3.5800e-003		3.5800e-003	3.5800e-003	0.0000	51.3094	51.3094	9.8000e-004	9.4000e-004	51.6143

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

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	961502	5.1800e-003	0.0443	0.0189	2.8000e-004		3.5800e-003	3.5800e-003		3.5800e-003	3.5800e-003	0.0000	51.3094	51.3094	9.8000e-004	9.4000e-004	51.6143
<b>Total</b>		<b>5.1800e-003</b>	<b>0.0443</b>	<b>0.0189</b>	<b>2.8000e-004</b>		<b>3.5800e-003</b>	<b>3.5800e-003</b>		<b>3.5800e-003</b>	<b>3.5800e-003</b>	<b>0.0000</b>	<b>51.3094</b>	<b>51.3094</b>	<b>9.8000e-004</b>	<b>9.4000e-004</b>	<b>51.6143</b>

**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					
Single Family Housing	961502	5.1800e-003	0.0443	0.0189	2.8000e-004		3.5800e-003	3.5800e-003		3.5800e-003	3.5800e-003	0.0000	51.3094	51.3094	9.8000e-004	9.4000e-004	51.6143
<b>Total</b>		<b>5.1800e-003</b>	<b>0.0443</b>	<b>0.0189</b>	<b>2.8000e-004</b>		<b>3.5800e-003</b>	<b>3.5800e-003</b>		<b>3.5800e-003</b>	<b>3.5800e-003</b>	<b>0.0000</b>	<b>51.3094</b>	<b>51.3094</b>	<b>9.8000e-004</b>	<b>9.4000e-004</b>	<b>51.6143</b>

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

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	318958	42.0981	4.7700e-003	5.8000e-004	42.3900
<b>Total</b>		<b>42.0981</b>	<b>4.7700e-003</b>	<b>5.8000e-004</b>	<b>42.3900</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	318958	42.0981	4.7700e-003	5.8000e-004	42.3900
<b>Total</b>		<b>42.0981</b>	<b>4.7700e-003</b>	<b>5.8000e-004</b>	<b>42.3900</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use Low VOC Paint - Residential Interior

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

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive 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	0.1439	3.4200e-003	0.2967	2.0000e-005		1.6500e-003	1.6500e-003		1.6500e-003	1.6500e-003	0.0000	0.4852	0.4852	4.6000e-004	0.0000	0.4968
Unmitigated	2.6330	0.0464	3.0247	4.4200e-003		0.3757	0.3757		0.3757	0.3757	33.2329	17.8135	51.0463	8.0000e-004	3.2500e-003	52.0347

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

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0300					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1250					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.4691	0.0430	2.7280	4.4100e-003		0.3740	0.3740		0.3740	0.3740	33.2329	17.3283	50.5612	3.3000e-004	3.2500e-003	51.5380
Landscaping	8.9100e-003	3.4200e-003	0.2967	2.0000e-005		1.6500e-003	1.6500e-003		1.6500e-003	1.6500e-003	0.0000	0.4852	0.4852	4.6000e-004	0.0000	0.4968
<b>Total</b>	<b>2.6330</b>	<b>0.0464</b>	<b>3.0247</b>	<b>4.4300e-003</b>		<b>0.3757</b>	<b>0.3757</b>		<b>0.3757</b>	<b>0.3757</b>	<b>33.2329</b>	<b>17.8135</b>	<b>51.0463</b>	<b>7.9000e-004</b>	<b>3.2500e-003</b>	<b>52.0347</b>



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

**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0100					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1250					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.9100e-003	3.4200e-003	0.2967	2.0000e-005		1.6500e-003	1.6500e-003		1.6500e-003	1.6500e-003	0.0000	0.4852	0.4852	4.6000e-004	0.0000	0.4968
<b>Total</b>	<b>0.1439</b>	<b>3.4200e-003</b>	<b>0.2967</b>	<b>2.0000e-005</b>		<b>1.6500e-003</b>	<b>1.6500e-003</b>		<b>1.6500e-003</b>	<b>1.6500e-003</b>	<b>0.0000</b>	<b>0.4852</b>	<b>0.4852</b>	<b>4.6000e-004</b>	<b>0.0000</b>	<b>0.4968</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3.4471	0.0852	2.0400e-003	6.1858
Unmitigated	3.4471	0.0852	2.0400e-003	6.1858

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	2.60616 / 1.64301	3.4471	0.0852	2.0400e-003	6.1858
<b>Total</b>		<b>3.4471</b>	<b>0.0852</b>	<b>2.0400e-003</b>	<b>6.1858</b>

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

**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	2.60616 / 1.64301	3.4471	0.0852	2.0400e-003	6.1858
<b>Total</b>		<b>3.4471</b>	<b>0.0852</b>	<b>2.0400e-003</b>	<b>6.1858</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	8.3308	0.4923	0.0000	20.6391
Unmitigated	8.3308	0.4923	0.0000	20.6391

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

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	41.04	8.3308	0.4923	0.0000	20.6391
<b>Total</b>		<b>8.3308</b>	<b>0.4923</b>	<b>0.0000</b>	<b>20.6391</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	41.04	8.3308	0.4923	0.0000	20.6391
<b>Total</b>		<b>8.3308</b>	<b>0.4923</b>	<b>0.0000</b>	<b>20.6391</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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**CalEEMod Output File**  
**Construction and Operation Emissions with VMT Reductions**

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

**Cimarron Country Estates**

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**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	40.00	Dwelling Unit	52.42	32,000.00	114

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	49
<b>Climate Zone</b>	3			<b>Operational Year</b>	2026
<b>Utility Company</b>	Merced Irrigation District				
<b>CO2 Intensity (lb/MWhr)</b>	290.98	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

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

- Project Characteristics -
- Land Use - Per plans, square feet is based on 40 1,800 square foot homes
- Construction Phase - Two year construction
- Demolition -
- Grading - It is assumed that there will be zero net soil needed.
- Architectural Coating - SJVAPCD Rule 4601
- Vehicle Trips - 50% Reduction due to location of schools, shopping, connetivity, and transportation.
- Woodstoves - No fireplaces are expected.
- Area Coating - SJVAPCD Rule 4601
- Construction Off-road Equipment Mitigation -
- Area Mitigation - SJVAPCD Rule 4601
- Stationary Sources - Process Boilers -

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

Mobile Land Use Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	150.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	50.00
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	150	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	150	50
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	150	50
tblLandUse	LandUseSquareFeet	72,000.00	32,000.00
tblLandUse	LotAcreage	12.99	52.42
tblVehicleTrips	HO_TL	7.50	3.75
tblVehicleTrips	HS_TL	7.30	3.65
tblVehicleTrips	HW_TL	10.80	5.40

**2.0 Emissions Summary**

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

**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.3204	3.0923	2.8607	5.8900e-003	0.9187	0.1326	1.0513	0.4082	0.1227	0.5309	0.0000	515.5737	515.5737	0.1498	1.0800e-003	519.6418
2025	0.2073	1.8568	2.5028	4.3000e-003	0.0208	0.0789	0.0998	5.6200e-003	0.0740	0.0797	0.0000	373.4436	373.4436	0.0868	1.8600e-003	376.1673
2026	0.4974	1.6686	2.2900	3.9300e-003	0.0200	0.0714	0.0914	5.3900e-003	0.0673	0.0727	0.0000	340.8218	340.8218	0.0739	1.5400e-003	343.1285
<b>Maximum</b>	<b>0.4974</b>	<b>3.0923</b>	<b>2.8607</b>	<b>5.8900e-003</b>	<b>0.9187</b>	<b>0.1326</b>	<b>1.0513</b>	<b>0.4082</b>	<b>0.1227</b>	<b>0.5309</b>	<b>0.0000</b>	<b>515.5737</b>	<b>515.5737</b>	<b>0.1498</b>	<b>1.8600e-003</b>	<b>519.6418</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.3204	3.0923	2.8607	5.8900e-003	0.3836	0.1326	0.5162	0.1684	0.1227	0.2911	0.0000	515.5731	515.5731	0.1498	1.0800e-003	519.6412
2025	0.2072	1.8567	2.5028	4.3000e-003	0.0208	0.0789	0.0998	5.6200e-003	0.0740	0.0797	0.0000	373.4432	373.4432	0.0868	1.8600e-003	376.1669
2026	0.4974	1.6686	2.2900	3.9300e-003	0.0200	0.0714	0.0914	5.3900e-003	0.0673	0.0727	0.0000	340.8214	340.8214	0.0739	1.5400e-003	343.1281
<b>Maximum</b>	<b>0.4974</b>	<b>3.0923</b>	<b>2.8607</b>	<b>5.8900e-003</b>	<b>0.3836</b>	<b>0.1326</b>	<b>0.5162</b>	<b>0.1684</b>	<b>0.1227</b>	<b>0.2911</b>	<b>0.0000</b>	<b>515.5731</b>	<b>515.5731</b>	<b>0.1498</b>	<b>1.8600e-003</b>	<b>519.6412</b>

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	55.76	0.00	43.07	57.20	0.00	35.10	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2024	3-31-2024	1.0494	1.0494
2	4-1-2024	6-30-2024	1.1607	1.1607
3	7-1-2024	9-30-2024	0.6894	0.6894
4	10-1-2024	12-31-2024	0.4990	0.4990
5	1-1-2025	3-31-2025	0.4532	0.4532
6	4-1-2025	6-30-2025	0.4579	0.4579
7	7-1-2025	9-30-2025	0.4629	0.4629
8	10-1-2025	12-31-2025	0.6856	0.6856
9	1-1-2026	3-31-2026	0.7227	0.7227
10	4-1-2026	6-30-2026	0.5877	0.5877
11	7-1-2026	9-30-2026	0.5941	0.5941
		Highest	1.1607	1.1607

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

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.6330	0.0464	3.0247	4.4200e-003		0.3757	0.3757		0.3757	0.3757	33.2329	17.8135	51.0463	8.0000e-004	3.2500e-003	52.0347
Energy	5.1800e-003	0.0443	0.0189	2.8000e-004		3.5800e-003	3.5800e-003		3.5800e-003	3.5800e-003	0.0000	93.4076	93.4076	5.7600e-003	1.5200e-003	94.0043
Mobile	0.1365	0.2620	1.0343	2.2700e-003	0.2046	2.4300e-003	0.2070	0.0549	2.2900e-003	0.0571	0.0000	216.4129	216.4129	0.0131	0.0158	221.4376
Waste						0.0000	0.0000		0.0000	0.0000	8.3308	0.0000	8.3308	0.4923	0.0000	20.6391
Water						0.0000	0.0000		0.0000	0.0000	0.8268	2.6203	3.4471	0.0852	2.0400e-003	6.1858
<b>Total</b>	<b>2.7747</b>	<b>0.3527</b>	<b>4.0779</b>	<b>6.9700e-003</b>	<b>0.2046</b>	<b>0.3817</b>	<b>0.5862</b>	<b>0.0549</b>	<b>0.3815</b>	<b>0.4364</b>	<b>42.3904</b>	<b>330.2542</b>	<b>372.6446</b>	<b>0.5972</b>	<b>0.0226</b>	<b>394.3015</b>

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

**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1439	3.4200e-003	0.2967	2.0000e-005		1.6500e-003	1.6500e-003		1.6500e-003	1.6500e-003	0.0000	0.4852	0.4852	4.6000e-004	0.0000	0.4968
Energy	5.1800e-003	0.0443	0.0189	2.8000e-004		3.5800e-003	3.5800e-003		3.5800e-003	3.5800e-003	0.0000	93.4076	93.4076	5.7600e-003	1.5200e-003	94.0043
Mobile	0.1365	0.2620	1.0343	2.2700e-003	0.2046	2.4300e-003	0.2070	0.0549	2.2900e-003	0.0571	0.0000	216.4129	216.4129	0.0131	0.0158	221.4376
Waste						0.0000	0.0000		0.0000	0.0000	8.3308	0.0000	8.3308	0.4923	0.0000	20.6391
Water						0.0000	0.0000		0.0000	0.0000	0.8268	2.6203	3.4471	0.0852	2.0400e-003	6.1858
<b>Total</b>	<b>0.2856</b>	<b>0.3097</b>	<b>1.3499</b>	<b>2.5700e-003</b>	<b>0.2046</b>	<b>7.6600e-003</b>	<b>0.2122</b>	<b>0.0549</b>	<b>7.5200e-003</b>	<b>0.0624</b>	<b>9.1576</b>	<b>312.9259</b>	<b>322.0834</b>	<b>0.5969</b>	<b>0.0193</b>	<b>342.7635</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>89.71</b>	<b>12.18</b>	<b>66.90</b>	<b>63.13</b>	<b>0.00</b>	<b>97.99</b>	<b>63.80</b>	<b>0.00</b>	<b>98.03</b>	<b>85.71</b>	<b>78.40</b>	<b>5.25</b>	<b>13.57</b>	<b>0.06</b>	<b>14.40</b>	<b>13.07</b>

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2024	2/23/2024	5	40	
2	Grading	Grading	2/24/2024	7/26/2024	5	110	
3	Building Construction	Building Construction	7/27/2024	10/27/2026	5	1110	

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4	Paving	Paving	10/28/2025	2/27/2026	5	75
5	Architectural Coating	Architectural Coating	2/10/2026	12/25/2026	5	75

**Acres of Grading (Site Preparation Phase): 60**

**Acres of Grading (Grading Phase): 330**

**Acres of Paving: 0**

**Residential Indoor: 64,800; Residential Outdoor: 21,600; 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
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**

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

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	14.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	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**

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

**3.2 Site Preparation - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3931	0.0000	0.3931	0.2021	0.0000	0.2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0532	0.5435	0.3667	7.6000e-004		0.0246	0.0246		0.0226	0.0226	0.0000	66.9141	66.9141	0.0216	0.0000	67.4552
<b>Total</b>	<b>0.0532</b>	<b>0.5435</b>	<b>0.3667</b>	<b>7.6000e-004</b>	<b>0.3931</b>	<b>0.0246</b>	<b>0.4177</b>	<b>0.2021</b>	<b>0.0226</b>	<b>0.2247</b>	<b>0.0000</b>	<b>66.9141</b>	<b>66.9141</b>	<b>0.0216</b>	<b>0.0000</b>	<b>67.4552</b>

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

**3.2 Site Preparation - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2100e-003	8.2000e-004	9.7400e-003	3.0000e-005	2.8700e-003	2.0000e-005	2.8900e-003	7.6000e-004	1.0000e-005	7.8000e-004	0.0000	2.3523	2.3523	8.0000e-005	7.0000e-005	2.3754
<b>Total</b>	<b>1.2100e-003</b>	<b>8.2000e-004</b>	<b>9.7400e-003</b>	<b>3.0000e-005</b>	<b>2.8700e-003</b>	<b>2.0000e-005</b>	<b>2.8900e-003</b>	<b>7.6000e-004</b>	<b>1.0000e-005</b>	<b>7.8000e-004</b>	<b>0.0000</b>	<b>2.3523</b>	<b>2.3523</b>	<b>8.0000e-005</b>	<b>7.0000e-005</b>	<b>2.3754</b>

**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					0.1592	0.0000	0.1592	0.0818	0.0000	0.0818	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0532	0.5435	0.3667	7.6000e-004		0.0246	0.0246		0.0226	0.0226	0.0000	66.9141	66.9141	0.0216	0.0000	67.4551
<b>Total</b>	<b>0.0532</b>	<b>0.5435</b>	<b>0.3667</b>	<b>7.6000e-004</b>	<b>0.1592</b>	<b>0.0246</b>	<b>0.1838</b>	<b>0.0818</b>	<b>0.0226</b>	<b>0.1045</b>	<b>0.0000</b>	<b>66.9141</b>	<b>66.9141</b>	<b>0.0216</b>	<b>0.0000</b>	<b>67.4551</b>

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

**3.2 Site Preparation - 2024**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2100e-003	8.2000e-004	9.7400e-003	3.0000e-005	2.8700e-003	2.0000e-005	2.8900e-003	7.6000e-004	1.0000e-005	7.8000e-004	0.0000	2.3523	2.3523	8.0000e-005	7.0000e-005	2.3754
<b>Total</b>	<b>1.2100e-003</b>	<b>8.2000e-004</b>	<b>9.7400e-003</b>	<b>3.0000e-005</b>	<b>2.8700e-003</b>	<b>2.0000e-005</b>	<b>2.8900e-003</b>	<b>7.6000e-004</b>	<b>1.0000e-005</b>	<b>7.8000e-004</b>	<b>0.0000</b>	<b>2.3523</b>	<b>2.3523</b>	<b>8.0000e-005</b>	<b>7.0000e-005</b>	<b>2.3754</b>

**3.3 Grading - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.5062	0.0000	0.5062	0.2010	0.0000	0.2010	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1770	1.7807	1.5248	3.4100e-003		0.0735	0.0735		0.0676	0.0676	0.0000	299.8574	299.8574	0.0970	0.0000	302.2819
<b>Total</b>	<b>0.1770</b>	<b>1.7807</b>	<b>1.5248</b>	<b>3.4100e-003</b>	<b>0.5062</b>	<b>0.0735</b>	<b>0.5797</b>	<b>0.2010</b>	<b>0.0676</b>	<b>0.2685</b>	<b>0.0000</b>	<b>299.8574</b>	<b>299.8574</b>	<b>0.0970</b>	<b>0.0000</b>	<b>302.2819</b>



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**3.3 Grading - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6900e-003	2.5000e-003	0.0298	8.0000e-005	8.7700e-003	5.0000e-005	8.8200e-003	2.3300e-003	5.0000e-005	2.3800e-003	0.0000	7.1875	7.1875	2.4000e-004	2.2000e-004	7.2581
<b>Total</b>	<b>3.6900e-003</b>	<b>2.5000e-003</b>	<b>0.0298</b>	<b>8.0000e-005</b>	<b>8.7700e-003</b>	<b>5.0000e-005</b>	<b>8.8200e-003</b>	<b>2.3300e-003</b>	<b>5.0000e-005</b>	<b>2.3800e-003</b>	<b>0.0000</b>	<b>7.1875</b>	<b>7.1875</b>	<b>2.4000e-004</b>	<b>2.2000e-004</b>	<b>7.2581</b>

**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					0.2050	0.0000	0.2050	0.0814	0.0000	0.0814	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1770	1.7807	1.5248	3.4100e-003		0.0735	0.0735		0.0676	0.0676	0.0000	299.8570	299.8570	0.0970	0.0000	302.2815
<b>Total</b>	<b>0.1770</b>	<b>1.7807</b>	<b>1.5248</b>	<b>3.4100e-003</b>	<b>0.2050</b>	<b>0.0735</b>	<b>0.2785</b>	<b>0.0814</b>	<b>0.0676</b>	<b>0.1490</b>	<b>0.0000</b>	<b>299.8570</b>	<b>299.8570</b>	<b>0.0970</b>	<b>0.0000</b>	<b>302.2815</b>

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**3.3 Grading - 2024**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6900e-003	2.5000e-003	0.0298	8.0000e-005	8.7700e-003	5.0000e-005	8.8200e-003	2.3300e-003	5.0000e-005	2.3800e-003	0.0000	7.1875	7.1875	2.4000e-004	2.2000e-004	7.2581
<b>Total</b>	<b>3.6900e-003</b>	<b>2.5000e-003</b>	<b>0.0298</b>	<b>8.0000e-005</b>	<b>8.7700e-003</b>	<b>5.0000e-005</b>	<b>8.8200e-003</b>	<b>2.3300e-003</b>	<b>5.0000e-005</b>	<b>2.3800e-003</b>	<b>0.0000</b>	<b>7.1875</b>	<b>7.1875</b>	<b>2.4000e-004</b>	<b>2.2000e-004</b>	<b>7.2581</b>

**3.4 Building Construction - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0824	0.7529	0.9053	1.5100e-003		0.0344	0.0344		0.0323	0.0323	0.0000	129.8355	129.8355	0.0307	0.0000	130.6031
<b>Total</b>	<b>0.0824</b>	<b>0.7529</b>	<b>0.9053</b>	<b>1.5100e-003</b>		<b>0.0344</b>	<b>0.0344</b>		<b>0.0323</b>	<b>0.0323</b>	<b>0.0000</b>	<b>129.8355</b>	<b>129.8355</b>	<b>0.0307</b>	<b>0.0000</b>	<b>130.6031</b>

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

**3.4 Building Construction - 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	2.5000e-004	0.0101	3.1500e-003	4.0000e-005	1.4800e-003	7.0000e-005	1.5500e-003	4.3000e-004	6.0000e-005	4.9000e-004	0.0000	4.3043	4.3043	2.0000e-005	6.4000e-004	4.4951
Worker	2.6300e-003	1.7800e-003	0.0212	5.0000e-005	6.2500e-003	4.0000e-005	6.2900e-003	1.6600e-003	3.0000e-005	1.6900e-003	0.0000	5.1227	5.1227	1.7000e-004	1.5000e-004	5.1731
<b>Total</b>	<b>2.8800e-003</b>	<b>0.0119</b>	<b>0.0244</b>	<b>9.0000e-005</b>	<b>7.7300e-003</b>	<b>1.1000e-004</b>	<b>7.8400e-003</b>	<b>2.0900e-003</b>	<b>9.0000e-005</b>	<b>2.1800e-003</b>	<b>0.0000</b>	<b>9.4270</b>	<b>9.4270</b>	<b>1.9000e-004</b>	<b>7.9000e-004</b>	<b>9.6682</b>

**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	0.0824	0.7529	0.9053	1.5100e-003		0.0344	0.0344		0.0323	0.0323	0.0000	129.8353	129.8353	0.0307	0.0000	130.6029
<b>Total</b>	<b>0.0824</b>	<b>0.7529</b>	<b>0.9053</b>	<b>1.5100e-003</b>		<b>0.0344</b>	<b>0.0344</b>		<b>0.0323</b>	<b>0.0323</b>	<b>0.0000</b>	<b>129.8353</b>	<b>129.8353</b>	<b>0.0307</b>	<b>0.0000</b>	<b>130.6029</b>

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

**3.4 Building Construction - 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	2.5000e-004	0.0101	3.1500e-003	4.0000e-005	1.4800e-003	7.0000e-005	1.5500e-003	4.3000e-004	6.0000e-005	4.9000e-004	0.0000	4.3043	4.3043	2.0000e-005	6.4000e-004	4.4951
Worker	2.6300e-003	1.7800e-003	0.0212	5.0000e-005	6.2500e-003	4.0000e-005	6.2900e-003	1.6600e-003	3.0000e-005	1.6900e-003	0.0000	5.1227	5.1227	1.7000e-004	1.5000e-004	5.1731
<b>Total</b>	<b>2.8800e-003</b>	<b>0.0119</b>	<b>0.0244</b>	<b>9.0000e-005</b>	<b>7.7300e-003</b>	<b>1.1000e-004</b>	<b>7.8400e-003</b>	<b>2.0900e-003</b>	<b>9.0000e-005</b>	<b>2.1800e-003</b>	<b>0.0000</b>	<b>9.4270</b>	<b>9.4270</b>	<b>1.9000e-004</b>	<b>7.9000e-004</b>	<b>9.6682</b>

**3.4 Building Construction - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
<b>Total</b>	<b>0.1785</b>	<b>1.6273</b>	<b>2.0991</b>	<b>3.5200e-003</b>		<b>0.0689</b>	<b>0.0689</b>		<b>0.0648</b>	<b>0.0648</b>	<b>0.0000</b>	<b>302.6549</b>	<b>302.6549</b>	<b>0.0711</b>	<b>0.0000</b>	<b>304.4335</b>

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

**3.4 Building Construction - 2025**

**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	5.7000e-004	0.0234	7.1100e-003	1.0000e-004	3.4600e-003	1.5000e-004	3.6100e-003	1.0000e-003	1.5000e-004	1.1500e-003	0.0000	9.8513	9.8513	3.0000e-005	1.4600e-003	10.2875
Worker	5.6400e-003	3.6500e-003	0.0453	1.2000e-004	0.0146	8.0000e-005	0.0147	3.8700e-003	7.0000e-005	3.9500e-003	0.0000	11.6453	11.6453	3.5000e-004	3.3000e-004	11.7530
<b>Total</b>	<b>6.2100e-003</b>	<b>0.0271</b>	<b>0.0524</b>	<b>2.2000e-004</b>	<b>0.0180</b>	<b>2.3000e-004</b>	<b>0.0183</b>	<b>4.8700e-003</b>	<b>2.2000e-004</b>	<b>5.1000e-003</b>	<b>0.0000</b>	<b>21.4966</b>	<b>21.4966</b>	<b>3.8000e-004</b>	<b>1.7900e-003</b>	<b>22.0405</b>

**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	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
<b>Total</b>	<b>0.1784</b>	<b>1.6273</b>	<b>2.0991</b>	<b>3.5200e-003</b>		<b>0.0689</b>	<b>0.0689</b>		<b>0.0648</b>	<b>0.0648</b>	<b>0.0000</b>	<b>302.6545</b>	<b>302.6545</b>	<b>0.0711</b>	<b>0.0000</b>	<b>304.4331</b>

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

**3.4 Building Construction - 2025**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive 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	5.7000e-004	0.0234	7.1100e-003	1.0000e-004	3.4600e-003	1.5000e-004	3.6100e-003	1.0000e-003	1.5000e-004	1.1500e-003	0.0000	9.8513	9.8513	3.0000e-005	1.4600e-003	10.2875
Worker	5.6400e-003	3.6500e-003	0.0453	1.2000e-004	0.0146	8.0000e-005	0.0147	3.8700e-003	7.0000e-005	3.9500e-003	0.0000	11.6453	11.6453	3.5000e-004	3.3000e-004	11.7530
<b>Total</b>	<b>6.2100e-003</b>	<b>0.0271</b>	<b>0.0524</b>	<b>2.2000e-004</b>	<b>0.0180</b>	<b>2.3000e-004</b>	<b>0.0183</b>	<b>4.8700e-003</b>	<b>2.2000e-004</b>	<b>5.1000e-003</b>	<b>0.0000</b>	<b>21.4966</b>	<b>21.4966</b>	<b>3.8000e-004</b>	<b>1.7900e-003</b>	<b>22.0405</b>

**3.4 Building Construction - 2026**

**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	0.1463	1.3343	1.7211	2.8800e-003		0.0565	0.0565		0.0531	0.0531	0.0000	248.1538	248.1538	0.0583	0.0000	249.6122
<b>Total</b>	<b>0.1463</b>	<b>1.3343</b>	<b>1.7211</b>	<b>2.8800e-003</b>		<b>0.0565</b>	<b>0.0565</b>		<b>0.0531</b>	<b>0.0531</b>	<b>0.0000</b>	<b>248.1538</b>	<b>248.1538</b>	<b>0.0583</b>	<b>0.0000</b>	<b>249.6122</b>

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

**3.4 Building Construction - 2026**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.6000e-004	0.0191	5.7000e-003	8.0000e-005	2.8300e-003	1.3000e-004	2.9600e-003	8.2000e-004	1.2000e-004	9.4000e-004	0.0000	7.9290	7.9290	3.0000e-005	1.1700e-003	8.2795
Worker	4.2800e-003	2.6600e-003	0.0347	1.0000e-004	0.0120	6.0000e-005	0.0120	3.1800e-003	6.0000e-005	3.2300e-003	0.0000	9.3526	9.3526	2.6000e-004	2.5000e-004	9.4345
<b>Total</b>	<b>4.7400e-003</b>	<b>0.0218</b>	<b>0.0404</b>	<b>1.8000e-004</b>	<b>0.0148</b>	<b>1.9000e-004</b>	<b>0.0150</b>	<b>4.0000e-003</b>	<b>1.8000e-004</b>	<b>4.1700e-003</b>	<b>0.0000</b>	<b>17.2815</b>	<b>17.2815</b>	<b>2.9000e-004</b>	<b>1.4200e-003</b>	<b>17.7140</b>

**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	0.1463	1.3343	1.7211	2.8800e-003		0.0565	0.0565		0.0531	0.0531	0.0000	248.1535	248.1535	0.0583	0.0000	249.6119
<b>Total</b>	<b>0.1463</b>	<b>1.3343</b>	<b>1.7211</b>	<b>2.8800e-003</b>		<b>0.0565</b>	<b>0.0565</b>		<b>0.0531</b>	<b>0.0531</b>	<b>0.0000</b>	<b>248.1535</b>	<b>248.1535</b>	<b>0.0583</b>	<b>0.0000</b>	<b>249.6119</b>

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

**3.4 Building Construction - 2026**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.6000e-004	0.0191	5.7000e-003	8.0000e-005	2.8300e-003	1.3000e-004	2.9600e-003	8.2000e-004	1.2000e-004	9.4000e-004	0.0000	7.9290	7.9290	3.0000e-005	1.1700e-003	8.2795
Worker	4.2800e-003	2.6600e-003	0.0347	1.0000e-004	0.0120	6.0000e-005	0.0120	3.1800e-003	6.0000e-005	3.2300e-003	0.0000	9.3526	9.3526	2.6000e-004	2.5000e-004	9.4345
<b>Total</b>	<b>4.7400e-003</b>	<b>0.0218</b>	<b>0.0404</b>	<b>1.8000e-004</b>	<b>0.0148</b>	<b>1.9000e-004</b>	<b>0.0150</b>	<b>4.0000e-003</b>	<b>1.8000e-004</b>	<b>4.1700e-003</b>	<b>0.0000</b>	<b>17.2815</b>	<b>17.2815</b>	<b>2.9000e-004</b>	<b>1.4200e-003</b>	<b>17.7140</b>

**3.5 Paving - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0215	0.2017	0.3426	5.4000e-004		9.8400e-003	9.8400e-003		9.0500e-003	9.0500e-003	0.0000	47.0453	47.0453	0.0152	0.0000	47.4256
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0215</b>	<b>0.2017</b>	<b>0.3426</b>	<b>5.4000e-004</b>		<b>9.8400e-003</b>	<b>9.8400e-003</b>		<b>9.0500e-003</b>	<b>9.0500e-003</b>	<b>0.0000</b>	<b>47.0453</b>	<b>47.0453</b>	<b>0.0152</b>	<b>0.0000</b>	<b>47.4256</b>



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

**3.5 Paving - 2025**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0900e-003	7.0000e-004	8.7400e-003	2.0000e-005	2.8100e-003	2.0000e-005	2.8300e-003	7.5000e-004	1.0000e-005	7.6000e-004	0.0000	2.2468	2.2468	7.0000e-005	6.0000e-005	2.2676
<b>Total</b>	<b>1.0900e-003</b>	<b>7.0000e-004</b>	<b>8.7400e-003</b>	<b>2.0000e-005</b>	<b>2.8100e-003</b>	<b>2.0000e-005</b>	<b>2.8300e-003</b>	<b>7.5000e-004</b>	<b>1.0000e-005</b>	<b>7.6000e-004</b>	<b>0.0000</b>	<b>2.2468</b>	<b>2.2468</b>	<b>7.0000e-005</b>	<b>6.0000e-005</b>	<b>2.2676</b>

**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	0.0215	0.2017	0.3426	5.4000e-004		9.8400e-003	9.8400e-003		9.0500e-003	9.0500e-003	0.0000	47.0452	47.0452	0.0152	0.0000	47.4256
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0215</b>	<b>0.2017</b>	<b>0.3426</b>	<b>5.4000e-004</b>		<b>9.8400e-003</b>	<b>9.8400e-003</b>		<b>9.0500e-003</b>	<b>9.0500e-003</b>	<b>0.0000</b>	<b>47.0452</b>	<b>47.0452</b>	<b>0.0152</b>	<b>0.0000</b>	<b>47.4256</b>

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

**3.5 Paving - 2025**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0900e-003	7.0000e-004	8.7400e-003	2.0000e-005	2.8100e-003	2.0000e-005	2.8300e-003	7.5000e-004	1.0000e-005	7.6000e-004	0.0000	2.2468	2.2468	7.0000e-005	6.0000e-005	2.2676
<b>Total</b>	<b>1.0900e-003</b>	<b>7.0000e-004</b>	<b>8.7400e-003</b>	<b>2.0000e-005</b>	<b>2.8100e-003</b>	<b>2.0000e-005</b>	<b>2.8300e-003</b>	<b>7.5000e-004</b>	<b>1.0000e-005</b>	<b>7.6000e-004</b>	<b>0.0000</b>	<b>2.2468</b>	<b>2.2468</b>	<b>7.0000e-005</b>	<b>6.0000e-005</b>	<b>2.2676</b>

**3.5 Paving - 2026**

**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	0.0192	0.1802	0.3061	4.8000e-004		8.7900e-003	8.7900e-003		8.0900e-003	8.0900e-003	0.0000	42.0404	42.0404	0.0136	0.0000	42.3804
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0192</b>	<b>0.1802</b>	<b>0.3061</b>	<b>4.8000e-004</b>		<b>8.7900e-003</b>	<b>8.7900e-003</b>		<b>8.0900e-003</b>	<b>8.0900e-003</b>	<b>0.0000</b>	<b>42.0404</b>	<b>42.0404</b>	<b>0.0136</b>	<b>0.0000</b>	<b>42.3804</b>

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**3.5 Paving - 2026**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-004	5.6000e-004	7.2900e-003	2.0000e-005	2.5100e-003	1.0000e-005	2.5300e-003	6.7000e-004	1.0000e-005	6.8000e-004	0.0000	1.9667	1.9667	5.0000e-005	5.0000e-005	1.9839
<b>Total</b>	<b>9.0000e-004</b>	<b>5.6000e-004</b>	<b>7.2900e-003</b>	<b>2.0000e-005</b>	<b>2.5100e-003</b>	<b>1.0000e-005</b>	<b>2.5300e-003</b>	<b>6.7000e-004</b>	<b>1.0000e-005</b>	<b>6.8000e-004</b>	<b>0.0000</b>	<b>1.9667</b>	<b>1.9667</b>	<b>5.0000e-005</b>	<b>5.0000e-005</b>	<b>1.9839</b>

**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	0.0192	0.1802	0.3061	4.8000e-004		8.7900e-003	8.7900e-003		8.0900e-003	8.0900e-003	0.0000	42.0404	42.0404	0.0136	0.0000	42.3803
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0192</b>	<b>0.1802</b>	<b>0.3061</b>	<b>4.8000e-004</b>		<b>8.7900e-003</b>	<b>8.7900e-003</b>		<b>8.0900e-003</b>	<b>8.0900e-003</b>	<b>0.0000</b>	<b>42.0404</b>	<b>42.0404</b>	<b>0.0136</b>	<b>0.0000</b>	<b>42.3803</b>

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**3.5 Paving - 2026**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-004	5.6000e-004	7.2900e-003	2.0000e-005	2.5100e-003	1.0000e-005	2.5300e-003	6.7000e-004	1.0000e-005	6.8000e-004	0.0000	1.9667	1.9667	5.0000e-005	5.0000e-005	1.9839
<b>Total</b>	<b>9.0000e-004</b>	<b>5.6000e-004</b>	<b>7.2900e-003</b>	<b>2.0000e-005</b>	<b>2.5100e-003</b>	<b>1.0000e-005</b>	<b>2.5300e-003</b>	<b>6.7000e-004</b>	<b>1.0000e-005</b>	<b>6.8000e-004</b>	<b>0.0000</b>	<b>1.9667</b>	<b>1.9667</b>	<b>5.0000e-005</b>	<b>5.0000e-005</b>	<b>1.9839</b>

**3.6 Architectural Coating - 2026**

**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	0.3057					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0196	0.1312	0.2072	3.4000e-004		5.9000e-003	5.9000e-003		5.9000e-003	5.9000e-003	0.0000	29.2348	29.2348	1.5900e-003	0.0000	29.2746
<b>Total</b>	<b>0.3253</b>	<b>0.1312</b>	<b>0.2072</b>	<b>3.4000e-004</b>		<b>5.9000e-003</b>	<b>5.9000e-003</b>		<b>5.9000e-003</b>	<b>5.9000e-003</b>	<b>0.0000</b>	<b>29.2348</b>	<b>29.2348</b>	<b>1.5900e-003</b>	<b>0.0000</b>	<b>29.2746</b>

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**3.6 Architectural Coating - 2026**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.8000e-004	6.1000e-004	7.9500e-003	2.0000e-005	2.7400e-003	1.0000e-005	2.7500e-003	7.3000e-004	1.0000e-005	7.4000e-004	0.0000	2.1446	2.1446	6.0000e-005	6.0000e-005	2.1634
<b>Total</b>	<b>9.8000e-004</b>	<b>6.1000e-004</b>	<b>7.9500e-003</b>	<b>2.0000e-005</b>	<b>2.7400e-003</b>	<b>1.0000e-005</b>	<b>2.7500e-003</b>	<b>7.3000e-004</b>	<b>1.0000e-005</b>	<b>7.4000e-004</b>	<b>0.0000</b>	<b>2.1446</b>	<b>2.1446</b>	<b>6.0000e-005</b>	<b>6.0000e-005</b>	<b>2.1634</b>

**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	0.3057					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0196	0.1312	0.2072	3.4000e-004		5.9000e-003	5.9000e-003		5.9000e-003	5.9000e-003	0.0000	29.2347	29.2347	1.5900e-003	0.0000	29.2746
<b>Total</b>	<b>0.3253</b>	<b>0.1312</b>	<b>0.2072</b>	<b>3.4000e-004</b>		<b>5.9000e-003</b>	<b>5.9000e-003</b>		<b>5.9000e-003</b>	<b>5.9000e-003</b>	<b>0.0000</b>	<b>29.2347</b>	<b>29.2347</b>	<b>1.5900e-003</b>	<b>0.0000</b>	<b>29.2746</b>

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**3.6 Architectural Coating - 2026**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.8000e-004	6.1000e-004	7.9500e-003	2.0000e-005	2.7400e-003	1.0000e-005	2.7500e-003	7.3000e-004	1.0000e-005	7.4000e-004	0.0000	2.1446	2.1446	6.0000e-005	6.0000e-005	2.1634
<b>Total</b>	<b>9.8000e-004</b>	<b>6.1000e-004</b>	<b>7.9500e-003</b>	<b>2.0000e-005</b>	<b>2.7400e-003</b>	<b>1.0000e-005</b>	<b>2.7500e-003</b>	<b>7.3000e-004</b>	<b>1.0000e-005</b>	<b>7.4000e-004</b>	<b>0.0000</b>	<b>2.1446</b>	<b>2.1446</b>	<b>6.0000e-005</b>	<b>6.0000e-005</b>	<b>2.1634</b>

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

**4.0 Operational Detail - Mobile**

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1365	0.2620	1.0343	2.2700e-003	0.2046	2.4300e-003	0.2070	0.0549	2.2900e-003	0.0571	0.0000	216.4129	216.4129	0.0131	0.0158	221.4376
Unmitigated	0.1365	0.2620	1.0343	2.2700e-003	0.2046	2.4300e-003	0.2070	0.0549	2.2900e-003	0.0571	0.0000	216.4129	216.4129	0.0131	0.0158	221.4376

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	377.60	381.60	342.00	543,549	543,549
Total	377.60	381.60	342.00	543,549	543,549

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	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
Single Family Housing	5.40	3.65	3.75	46.90	17.40	35.70	86	11	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.530302	0.047786	0.155927	0.140874	0.027072	0.006797	0.014220	0.050043	0.000830	0.000457	0.020823	0.002143	0.002726

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	42.0981	42.0981	4.7700e-003	5.8000e-004	42.3900
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	42.0981	42.0981	4.7700e-003	5.8000e-004	42.3900
NaturalGas Mitigated	5.1800e-003	0.0443	0.0189	2.8000e-004		3.5800e-003	3.5800e-003		3.5800e-003	3.5800e-003	0.0000	51.3094	51.3094	9.8000e-004	9.4000e-004	51.6143
NaturalGas Unmitigated	5.1800e-003	0.0443	0.0189	2.8000e-004		3.5800e-003	3.5800e-003		3.5800e-003	3.5800e-003	0.0000	51.3094	51.3094	9.8000e-004	9.4000e-004	51.6143



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

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	961502	5.1800e-003	0.0443	0.0189	2.8000e-004		3.5800e-003	3.5800e-003		3.5800e-003	3.5800e-003	0.0000	51.3094	51.3094	9.8000e-004	9.4000e-004	51.6143
<b>Total</b>		<b>5.1800e-003</b>	<b>0.0443</b>	<b>0.0189</b>	<b>2.8000e-004</b>		<b>3.5800e-003</b>	<b>3.5800e-003</b>		<b>3.5800e-003</b>	<b>3.5800e-003</b>	<b>0.0000</b>	<b>51.3094</b>	<b>51.3094</b>	<b>9.8000e-004</b>	<b>9.4000e-004</b>	<b>51.6143</b>

**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					
Single Family Housing	961502	5.1800e-003	0.0443	0.0189	2.8000e-004		3.5800e-003	3.5800e-003		3.5800e-003	3.5800e-003	0.0000	51.3094	51.3094	9.8000e-004	9.4000e-004	51.6143
<b>Total</b>		<b>5.1800e-003</b>	<b>0.0443</b>	<b>0.0189</b>	<b>2.8000e-004</b>		<b>3.5800e-003</b>	<b>3.5800e-003</b>		<b>3.5800e-003</b>	<b>3.5800e-003</b>	<b>0.0000</b>	<b>51.3094</b>	<b>51.3094</b>	<b>9.8000e-004</b>	<b>9.4000e-004</b>	<b>51.6143</b>

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

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	318958	42.0981	4.7700e-003	5.8000e-004	42.3900
<b>Total</b>		<b>42.0981</b>	<b>4.7700e-003</b>	<b>5.8000e-004</b>	<b>42.3900</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	318958	42.0981	4.7700e-003	5.8000e-004	42.3900
<b>Total</b>		<b>42.0981</b>	<b>4.7700e-003</b>	<b>5.8000e-004</b>	<b>42.3900</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use Low VOC Paint - Residential Interior

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

- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- Use only Natural Gas Hearths
- No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive 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	0.1439	3.4200e-003	0.2967	2.0000e-005		1.6500e-003	1.6500e-003		1.6500e-003	1.6500e-003	0.0000	0.4852	0.4852	4.6000e-004	0.0000	0.4968
Unmitigated	2.6330	0.0464	3.0247	4.4200e-003		0.3757	0.3757		0.3757	0.3757	33.2329	17.8135	51.0463	8.0000e-004	3.2500e-003	52.0347

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

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0300					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1250					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.4691	0.0430	2.7280	4.4100e-003		0.3740	0.3740		0.3740	0.3740	33.2329	17.3283	50.5612	3.3000e-004	3.2500e-003	51.5380
Landscaping	8.9100e-003	3.4200e-003	0.2967	2.0000e-005		1.6500e-003	1.6500e-003		1.6500e-003	1.6500e-003	0.0000	0.4852	0.4852	4.6000e-004	0.0000	0.4968
<b>Total</b>	<b>2.6330</b>	<b>0.0464</b>	<b>3.0247</b>	<b>4.4300e-003</b>		<b>0.3757</b>	<b>0.3757</b>		<b>0.3757</b>	<b>0.3757</b>	<b>33.2329</b>	<b>17.8135</b>	<b>51.0463</b>	<b>7.9000e-004</b>	<b>3.2500e-003</b>	<b>52.0347</b>

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

**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0100					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1250					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.9100e-003	3.4200e-003	0.2967	2.0000e-005		1.6500e-003	1.6500e-003		1.6500e-003	1.6500e-003	0.0000	0.4852	0.4852	4.6000e-004	0.0000	0.4968
<b>Total</b>	<b>0.1439</b>	<b>3.4200e-003</b>	<b>0.2967</b>	<b>2.0000e-005</b>		<b>1.6500e-003</b>	<b>1.6500e-003</b>		<b>1.6500e-003</b>	<b>1.6500e-003</b>	<b>0.0000</b>	<b>0.4852</b>	<b>0.4852</b>	<b>4.6000e-004</b>	<b>0.0000</b>	<b>0.4968</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

Cimarron Country Estates - Merced County, Annual

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3.4471	0.0852	2.0400e-003	6.1858
Unmitigated	3.4471	0.0852	2.0400e-003	6.1858

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	2.60616 / 1.64301	3.4471	0.0852	2.0400e-003	6.1858
<b>Total</b>		<b>3.4471</b>	<b>0.0852</b>	<b>2.0400e-003</b>	<b>6.1858</b>

Cimarron Country Estates - Merced County, Annual

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

**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	2.60616 / 1.64301	3.4471	0.0852	2.0400e-003	6.1858
<b>Total</b>		<b>3.4471</b>	<b>0.0852</b>	<b>2.0400e-003</b>	<b>6.1858</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	8.3308	0.4923	0.0000	20.6391
Unmitigated	8.3308	0.4923	0.0000	20.6391

Cimarron Country Estates - Merced County, Annual

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

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	41.04	8.3308	0.4923	0.0000	20.6391
<b>Total</b>		<b>8.3308</b>	<b>0.4923</b>	<b>0.0000</b>	<b>20.6391</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	41.04	8.3308	0.4923	0.0000	20.6391
<b>Total</b>		<b>8.3308</b>	<b>0.4923</b>	<b>0.0000</b>	<b>20.6391</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Cimarron Country Estates - Merced County, Annual

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

**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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