

SMALL PROJECT ANALYSIS LEVEL ASSESSMENT

Sablewood Apartment Complex Bakersfield, CA

Prepared For:

Swanson Engineering

2000 Oak St #150
Bakersfield, CA 93301

Prepared By:

TRINITY CONSULTANTS

4900 California Avenue, Suite 420A
Bakersfield, CA 93309
(661) 282-2200

January 2024 (Revised May 2024)

Project 230505.0238

TABLE OF CONTENTS

1. EXECUTIVE SUMMARY	1-1
1.1 Executive Summary	1-1
1.2 Statement of Finding	1-1
2. PROJECT INFORMATION	2-1
2.1 Introduction.....	2-1
2.2 Project Location.....	2-1
3. SMALL PROJECT ANALYSIS LEVEL QUALIFICATION	3-1
4. AIR QUALITY IMPACTS THRESHOLDS AND EVALUATION METHODOLOGY	4-1
5. PROJECT-RELATED EMISSIONS	5-1
5.1 Short-Term Emissions	5-1
5.2 Long-Term Emissions.....	5-1
5.3 Greenhouse Gas Emissions.....	5-2
5.4 Potential Impact on Sensitive Receptors	5-3
5.5 Potential Impacts to Visibility to Nearby Class 1 Areas.....	5-3
5.6 Potential Odor Impacts	5-3
5.7 Ambient Air Quality Impacts	5-3
5.8 Toxic Air Contaminant (TAC) Impacts	5-3
5.9 Cumulative Impacts	5-5
6. CONCLUSIONS	6-1
7. REFERENCES	7-1
APPENDIX A. CALEEMOD EMISSIONS ESTIMATES OUTPUT FILES	A-1
APPENDIX B. HEALTH RISK ASSEMENT MODELING	B-1

LIST OF FIGURES

Figure 2-1. Project Location	2-1
Figure 2-2. Proposed Site Plan	2-2

LIST OF TABLES

Table 3-1. Small Project Analysis Level in Units for Dwelling (Residential)	3-1
Table 4-1. SJVAPCD Air Quality Thresholds of Significance - Criteria Pollutants	4-1
Table 5-1. Construction Emissions	5-1
Table 5-2. Total Project Operational Emissions	5-1
Table 5-3. Estimated Annual Greenhouse Gas Emissions	5-2
Table 5-4. Potential Maximum Health Risk Impacts	5-5

1. EXECUTIVE SUMMARY

1.1 Executive Summary

Trinity Consultants has completed a limited air quality assessment for a multi-family apartment complex on APNs 464-032-31, 32, 33, and 34 (Project) on the northwest corner of Rosedale Highway and Sablewood Drive in Bakersfield, California. The Project includes the construction of a 6.2-acre site with 6 different apartment buildings, 4 two-story apartment buildings and 2 three-story apartment buildings, consisting of 128 total units.

This limited air quality assessment uses the San Joaquin Valley Air Pollution Control District's (SJVAPCD) screening tool, Small Project Analysis Level (SPAL) (SJVAPCD 2017). This SPAL assessment was prepared pursuant to the SJVAPCD's Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI) (SJVAPCD 2015), the California Environmental Quality Act (CEQA) (Public Resources Code 21000 to 21189) and the CEQA Guidelines (California Code of Regulations Title 14, Division 6, Chapter 3, Sections 15000 – 15387).

1.2 Statement of Finding

Based on the SPAL established by the SJVAPCD's GAMAQI, the emissions estimates prepared pursuant to this SPAL assessment do not exceed the SJVAPCD's established emissions thresholds and significance thresholds for all CEQA air quality determinations; this Project would therefore not pose a significant impact to the San Joaquin Valley Air Basin and would have a less than significant air quality impact.

2. PROJECT INFORMATION

2.1 Introduction

The Project site is located in the City of Bakersfield on the northwest corner of Rosedale Highway and Sablewood Drive. The Project includes the construction of a 6.2-acre site with 6 different apartment buildings, 4 two-story apartment buildings (low-rise apartments) and 2 three-story apartment buildings (mid-rise apartments), consisting of 128 total units. This assessment examines the projected gross impacts to air quality posed by this Project to the San Joaquin Valley Air Basin to determine whether the Project remains below established air quality thresholds of significance.

2.2 Project Location

The Project is located in the City of Bakersfield, on 13304 Rosedale Hwy. **Figure 2-1** depicts the Project location within the City of Bakersfield and **Figure 2-2** depicts the proposed site plan.

Figure 2-1. Project Location

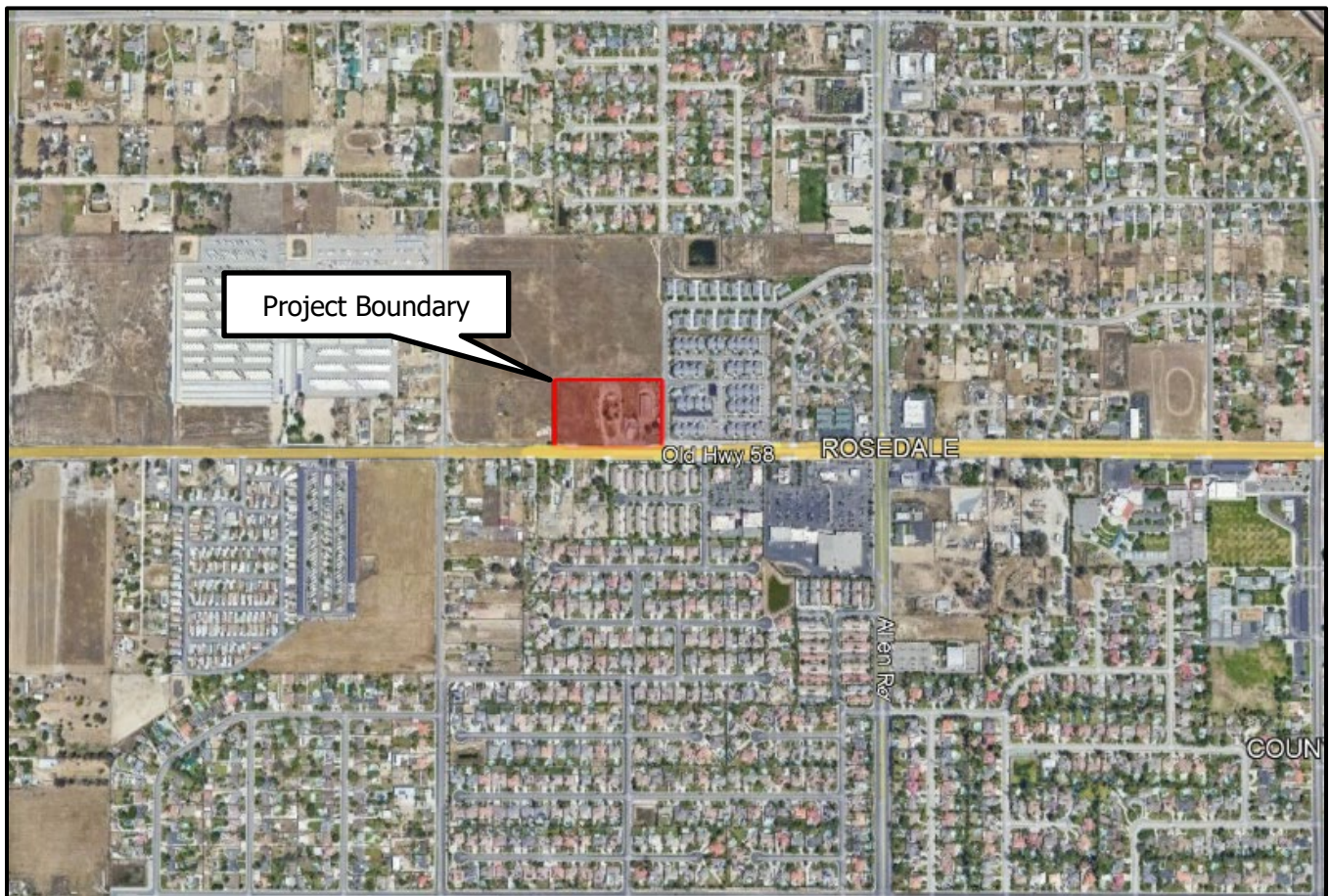
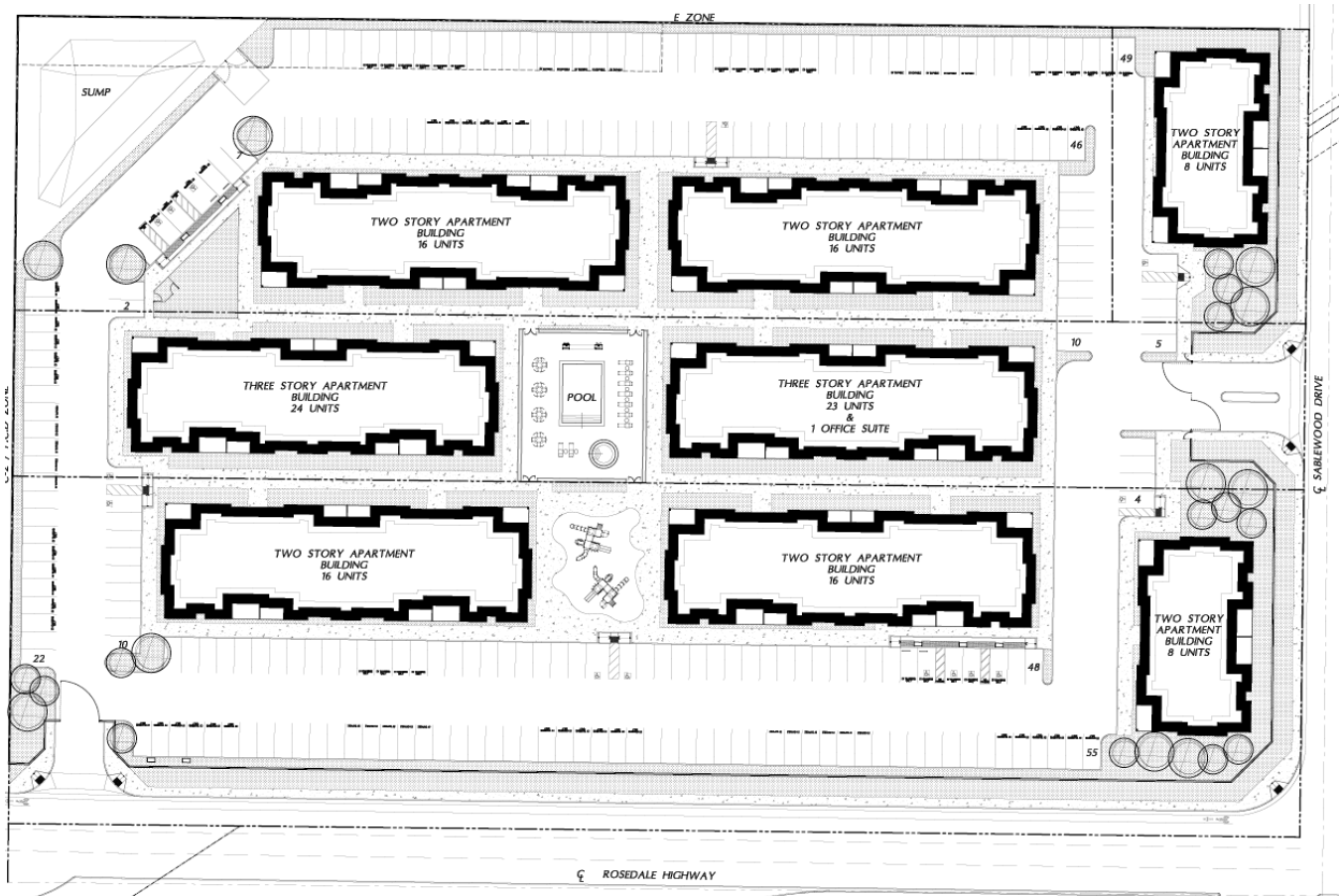


Figure 2-2. Proposed Site Plan



3. SMALL PROJECT ANALYSIS LEVEL QUALIFICATION

This assessment was prepared pursuant to the SJVAPCD’s GAMAQI (SJVAPCD 2015), the CEQA (Public Resources Code 21000 to 21189) and CEQA Guidelines (California Code of Regulations Title 14, Division 6, Chapter 3, Sections 15000 – 15387). The SJVAPCD created the SPAL screening tool to streamline air quality assessments of commonly encountered projects. According to GAMAQI, the SJVAPCD “pre-calculated the emissions on a large number and types of projects to identify the level at which they have no possibility of exceeding the emissions thresholds”¹.

The SJVAPCD SPAL process established review parameters to determine whether a project qualifies as a “small project.” A project that is found to be “less than” the established parameters has “no possibility of exceeding criteria pollutant emissions thresholds”. **Table 3-1** presents the SPAL size parameters for residential projects.

Table 3-1. Small Project Analysis Level in Units for Dwelling (Residential)

Land Use Category – Residential	Project Size (Dwelling Units) *	ADT One-Way for all Fleet Types (except HHDT)	ADT One-Way for HHDT Trips Only
Single Family	155	800	15
Apartment, Low Rise	224		
Apartment, Mid Rise	225		
Apartment, High Rise	340		
Condominiums/Townhouse	256		
Condominiums, High Rise	352		
Mobile Home Park	292		
Retirement Community	580		
Congregate Care Assisted Living	536		
*Project size based on SPAL Table 1, as posted on SJVAPCD webpage: https://www.valleyair.org/transportation/CEQA%20Rules/GAMAQI-SPAL.PDF			

As shown in **Table 3-1**, the proposed Project would not exceed the established SPAL limits for both the “Apartment, Low Rise” and “Apartment, Mid Rise”. The Project would construct 128 apartment dwelling units compared to the allowable project size of 224 dwelling units for low-rise apartments and 225 dwelling units for mid-rise apartments. And based on CalEEMod default trip rate and the SJVAPCD approved residential fleet mix, the Project’s average daily trips (ADTs) trips would be below both SPAL ADT thresholds. Based on the above information, this Project qualifies for a limited air quality analysis applying the SPAL guidance to determine air quality impacts.

¹ SJVAPCD GAMAQI, Section 8.3.4, Page 85.

4. AIR QUALITY IMPACTS THRESHOLDS AND EVALUATION METHODOLOGY

Significance thresholds are based on the CEQA Appendix G Environmental Checklist Form (not included herein) and SJVAPCD air quality thresholds (SJVAPCD 2015). A potentially significant impact to air quality, as defined by the CEQA Checklist, would occur if the project caused one or more of the following to occur:

- ▶ Conflict with or obstruct implementation of the applicable air quality plan;
- ▶ Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard;
- ▶ Expose sensitive receptors to substantial pollutant concentrations; and/or
- ▶ Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The SJVAPCD has identified quantitative emission thresholds to determine whether the potential air quality impacts of a project require analysis in the form of an Environmental Impact Report. The SJVAPCD air quality thresholds from the GAMAQI are presented in **Table 4-1** (SJVAPCD 2015). The SJVAPCD separates construction emissions from operational emissions, and further separates permitted operational emissions from non-permitted operational emissions, for determining significance thresholds for air pollutant emissions.

Table 4-1. SJVAPCD Air Quality Thresholds of Significance - Criteria Pollutants

Pollutant/ Precursor	Construction Emissions	Operational Emissions	
		Permitted Equipment and Activities	Non-Permitted Equipment and Activities
	Emissions (tpy)	Emissions (tpy)	Emissions (tpy)
CO	100	100	100
NOx	10	10	10
ROG	10	10	10
SOx	27	27	27
PM ₁₀	15	15	15
PM _{2.5}	15	15	15

Source: SJVAPCD 2015

Criteria pollutant emissions were estimated using the California Emissions Estimator Model (CalEEMod) version 2020.4.0 (California Air Pollution Control Officers Association (CAPCOA) 2021). This project would generate short-term construction emissions and long-term operational emissions.

An air quality evaluation also considers: 1) exposure of sensitive receptors to substantial pollutant concentrations; and 2) the creation of other emissions (such as those leading to odors) adversely affecting a substantial number of people. The criteria for this evaluation are based on the Lead Agency's determination of the proximity of the proposed Project to sensitive receptors. A sensitive receptor is a location where human populations, especially children, senior citizens and sick persons, are present, and where there is a reasonable expectation of continuous human exposure to pollutants, according to the averaging period for ambient air quality standards, i.e. the 24-hour, 8-hour or 1-hour standards. Commercial and industrial sources are not considered sensitive receptors.

5. PROJECT-RELATED EMISSIONS

This document was prepared pursuant to the SJVAPCD’s GAMAQI and SPAL guidelines and provides a cursory review of the Project emissions to demonstrate that it would not exceed established air quality emissions thresholds.

5.1 Short-Term Emissions

Table 5-1 shows the construction emission levels using default CalEEMod factors for construction of a 128-unit multi-family apartment complex (see Attachment A).

Construction emission estimates also included the following options available in the model to reduce PM₁₀ emissions in compliance with Air District Regulation VIII requirements :

- ▶ Water exposed area 3 times per day; and
- ▶ Reduce vehicle speed to less than 15 miles per hour.

Based on these anticipated activity levels, the Project construction activities would not exceed construction thresholds (**Table 4-1**). Therefore, construction emissions were found to be less than significant, and no further evaluation is required.

Table 5-1. Construction Emissions

Emissions Source	Pollutant					
	ROG	NOx	CO	SOx	PM ₁₀	PM _{2.5}
	(tons/year)					
2025 Construction Emissions	0.20	1.66	2.06	0.00	0.25	0.13
2026 Construction Emissions	1.29	0.53	0.76	0.00	0.07	0.03
Max Annual Construction Emissions	1.29	1.66	2.06	0.00	0.25	0.13
SJVAPCD Construction Emissions Thresholds	10	10	100	27	15	15
Is Threshold Exceeded?	No	No	No	No	No	No

5.2 Long-Term Emissions

Table 5-2 presents the Project’s long-term operations emissions generated from mobile, energy, and area sources as well as from water use and waste generation emissions. Most of these emissions impacts are from mobile sources traveling to and from the Project area.

Table 5-2. Total Project Operational Emissions

Emissions Source	Pollutant					
	ROG	NOx	CO	SOx	PM ₁₀	PM _{2.5}
	(tons/year)					
Project Operational Emissions	0.89	0.49	3.64	0.01	0.82	0.23
SJVAPCD Operational Emissions Thresholds – non-permitted sources	10	10	100	27	15	15
Is Threshold Exceeded?	No	No	No	No	No	No

As calculated (see **Appendix A**), the long-term operational emissions associated with the proposed Project would be less than SJVAPCD significance threshold levels and would, therefore, not pose a significant impact to criteria air pollutants. This finding is consistent with the SPAL screening thresholds.

5.3 Greenhouse Gas Emissions

The Project’s greenhouse gas (GHG) emissions are primarily from mobile source activities. Not all GHGs exhibit the same ability to induce climate change; as a result, GHG contributions are commonly quantified as carbon dioxide equivalents (CO₂e) (see **Appendix A**). The proposed Project’s operational CO₂e emissions were estimated using CalEEMod. These emissions are summarized in **Table 5-3**.

Table 5-3. Estimated Annual Greenhouse Gas Emissions

	CO₂ Emissions metric tons	CH₄ Emissions metric tons	N₂O Emissions metric tons	CO₂e Emissions metric tons
Total Project Operations	852.38	1.05	0.04	891.27

In the decade after SJVAPCD adopted their Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA, several new laws and executive orders were adopted that require additional reductions in years after 2020. For instance, Senate Bill 32 requires that GHG emissions be 40% less than 1990 levels by 2030. More drastic still, Senate Bill 100 which was signed by the Governor recently requires 100% zero-carbon electricity by 2045. On the day SB 100 was signed into law, the Governor also signed Executive Order B-55-18 which commits California to total, economy-wide carbon neutrality by 2045. Clearly, the 2009 Guidance may be somewhat inadequate in producing a meaningful comparison by today’s standards which propose a grand vision that, if achieved, would fundamentally change how business is conducted and citizens live in the State. Thus, as discussed in the most recent updates to the Scoping Plan, objectives of the Scoping Plan affect all sectors of the economy and it no longer makes sense to evaluate GHG emissions on a project-level.

For these reasons, Project GHG emissions levels presented in Table 5-3 are primarily for disclosure purposes. The Project’s largest contributors to GHG emissions are from electricity and exhaust from transportation fuels. Electricity and transportation fuels are, in effect, regulated by requiring providers and importers of electricity and fuel to participate in the GHG Cap-and-Trade Program and other Programs (e.g., low carbon fuel standard, renewable portfolio standard, etc.). Each sector-wide program exists within the framework of AB 32 and its descendant laws the purpose of which is to achieve GHG emissions reductions consistent with the AB 32 Scoping Plan.

The Project would generate GHGs from electricity use and combustion of gasoline/diesel fuels, each of which is regulated near the top of the supply-chain. As such, each citizen of California (including those creating emissions of this Project) will have no choice but to purchase electricity and fuels produced in a way that is acceptable to the California market. Thus, Project GHG emissions will be consistent with the relevant plan (i.e., AB 32 Scoping Plan). The Project would meet its fair share of the cost to mitigate the cumulative impact of global climate change based on energy purchases from the California market. Thus, consumers of electricity and transportation fuels are in effect regulated by higher level emissions restrictions on the producers of these energy sources. Therefore, the Project would have a less than significant impact on applicable GHG reduction plans and the Project’s contribution to cumulative global climate change impacts would not be cumulatively considerable.

5.4 Potential Impact on Sensitive Receptors

The proposed Project is located on the northwest corner of Rosedale Highway and Sablewood Drive in Bakersfield, CA. Sensitive receptors are defined as areas where young children, chronically ill individuals, the elderly or people who are more sensitive than the general population reside. Schools, hospitals, nursing homes and daycare centers are locations where sensitive receptors would likely reside. There are 6 sensitive receptors that are within a 1-mile radius; Rosedale Middle School is located 0.47 miles to the east, Independence Elementary School is located 0.64 miles to the east, ABC Preschool Academy and Little Wonders Enlightening Preschool are both located 0.48 miles to the east, Little Steps Home Day Care is located 0.56 miles to the north, and Centennial Elementary School is located 0.89 miles to the southwest.

Based on the predicted operational emissions and activity types, the proposed Project is not expected to affect any on-site or off-site sensitive receptors and is not expected to have any adverse impacts on any known sensitive receptor.

5.5 Potential Impacts to Visibility to Nearby Class 1 Areas

It should be noted that visibility impact analyses are not usually conducted for area sources. The recommended analysis methodology was initially intended for stationary sources of emissions which were subject to the Prevention of Significant Deterioration (PSD) requirements in 40 CFR Part 60. Since the Project's emissions are predicted to be significantly less than the PSD threshold levels, an impact to nearby class 1 areas is extremely unlikely. Therefore, based on the Project's predicted emissions, the Project is not expected to have any adverse impact to visibility at any Class 1 Area.

5.6 Potential Odor Impacts

The proposed Project is an apartment complex office building located near existing residential neighborhoods and commercial uses. Expected uses are not known to be a source of nuisance odors and are not listed in Table 6 of the SJVAPCD's GAMAQI. The Project is therefore not anticipated to have substantial odor impacts. The Project is therefore anticipated to have a less than significant odor impact.

5.7 Ambient Air Quality Impacts

As stated in the of GAMAQI (2015, p 96-97), SJVAPCD has developed screening levels for requiring an Ambient Air Quality Analysis (AAQA). The SJVAPCD recommends that an AAQA be performed for all criteria pollutants when emissions of any criteria pollutant resulting from project construction or operational activities exceed the 100 pounds per day screening level, after compliance with Rule 9510 requirements and implementation of all enforceable mitigation measures.

As shown above in **Table 5-1** and **5-2**, average daily emissions for construction and operational activities associated with this Project would not exceed 100 pounds per day. Therefore, an AAQA is not required for this Project.

5.8 Toxic Air Contaminant (TAC) Impacts

TACs, as defined by the California Health & Safety Code (CH&SC) §44321, are listed in Appendices AI and AII in AB 2588 Air Toxic "Hot Spots" and Assessment Act's Emissions Inventory Criteria and Guideline Regulation document. SJVAPCD's risk management objectives for permitting and CEQA are as follows:

- ▶ Minimize health risks from new and modified sources of air pollution.

- ▶ Health risks from new and modified sources shall not be significant relative to the background risk levels and other risk levels that are typically accepted throughout the community.
- ▶ Avoid unreasonable restrictions on permitting.

The proposed Project would result in emissions of Hazardous Air Pollutants (HAPs) during construction and would be located near existing residents; therefore, an assessment of the potential risk to the population attributable to emissions of hazardous air pollutants from the proposed Project is required. To predict the potential health risk to the population attributable to emissions of HAPs from the proposed Project, ambient air concentrations were predicted with dispersion modeling to arrive at a conservative estimate of increased individual carcinogenic risk that might occur as a result of continuous exposure over the construction period for construction emissions. Similarly, predicted concentrations were used to calculate non-cancer chronic and acute hazard indices (HIs), which are the ratio of expected exposure to acceptable exposure. The basis for evaluating potential health risk is the identification of sources with increased HAPs. HAP emissions from anticipated on-site construction activities were evaluated.

Health risk is determined using the Hotspots Analysis and Reporting Program (HARP2) software distributed by the CARB; HARP2 requires peak 1-hour emission rates and annual-averaged emission rates for all pollutants for each modeling source. Assumptions used to calculate the emission rates for the proposed Project are outlined below.

The most recent version of EPA's AMS/EPA Regulatory Model - AERMOD was used to predict the dispersion of emissions from the proposed Project. The analysis employed all of the regulatory default AERMOD model keyword parameters, including elevated terrain options.

Diesel combustion emissions from diesel on-site construction equipment were modeled as an area source for on-site construction activity on the property. Diesel particulate matter was calculated using CalEEMod for onsite construction equipment. A unit emission rate of 1 grams/second (g/sec) was input to AERMOD for each source. Clean fleet emission reductions were applied to the CalEEMod estimates. The time-of-day variable emissions rates were applied in AERMOD since construction emissions are expected to be limited to specific work hours provided by the project proponent. This scenario places the highest level of activity and impact in the closest proximity to potential receptors to determine if, at the Project's highest potential impact, it would present adverse health risks to nearby receptors. Operational emissions from the condominium/townhouse community would not generate HAP emissions.

Discrete receptors were placed on individual residences and businesses within close proximity of the Project site and receptor grids over more densely populated areas further away. A total of 1,761 discrete off-site receptors were analyzed. Elevated terrain options were employed even though there is not complex terrain in the Project area.

SJVAPCD-provided, AERMET processed meteorological datasets for the Bakersfield monitoring station, calendar years 2018 through 2022 was input to AERMOD (SJVAPCD 2023). This was the most recent available dataset available at the time the modeling was conducted.

Plot files generated by AERMOD were uploaded to the Air Dispersion Modeling and Risk Assessment Tool (ADMRT v22118) program in the Hotspots Analysis and Reporting Program Version 2 (HARP 2) (CARB 2022). ADMRT post-processing was used to assess the potential for excess cancer risk and chronic and acute noncancer effects using the most recent health effects data from the California EPA Office of Environmental Health Hazard Assessment (OEHHA). HARP2 site parameters were set for the mandatory minimum pathways of inhalation, soil ingestion, dermal, homegrown produce and mother's milk for residential. Risk reports were generated using the derived OEHHA analysis method for carcinogenic risk and non-carcinogenic chronic and

acute risk. Site parameters are included in the HARP2 output files. Total cancer risk was predicted for each receptor. A hazard index was computed for chronic non-cancer health effects for each applicable endpoint and each receptor. A hazard index for acute non-cancer health effects was not computed since DPM does not have a risk exposure level for acute risk.

SJVAPCD has set the level of significance for carcinogenic risk at twenty in one million, which is understood as the possibility of causing twenty additional cancer cases in a population of one million people. The level of significance for chronic non-cancer risk is a hazard index of 1.0. All receptors were modeled with a 6-year exposure for the construction activities.

The carcinogenic risk and the health hazard index (HI) for chronic non-cancer risk at the maximum exposed individual resident and worker (MEIR and MEIW, respectively) do not exceed the significance levels of twenty in one million (2E-05) and 1.0, respectively for the proposed Project. The MEIR and MEIW are identified by receptor location and risk and are provided in **Table 5-4**. The electronic AERMOD and HARP2 output files are provided in Appendix B.

Table 5-4. Potential Maximum Health Risk Impacts

	Value	UTM East	UTM N
Excess Cancer Risk (residence)	1.67E-05	304749.23	3917734.7
Chronic Hazard Index (residence)	2.30E-02	304749.23	3917734.7

As shown above in **Table 5-4**, the maximum predicted cancer risk for the proposed Project is 1.67E-05. The maximum chronic non-cancer hazard index for the proposed Project is 2.30E-02. Since the PMI remained below the significance threshold for cancer and chronic risk, this Project would not have an adverse effect to any of the surrounding communities.

The potential health risk attributable to the proposed Project is determined to be less than significant based on the following conclusions:

1. Potential carcinogenic risk from the proposed Project is below the significance level of twenty in a million at each of the modeled receptors; and
2. The hazard index for the potential chronic non-cancer risk from the proposed Project is below the significance level of 1.0 at each of the modeled receptors.
3. The hazard index for the potential acute non-cancer risk was not calculated since there is no acute risk associated with DPM emission; therefore, the proposed Project is considered below the significance level.

Therefore, potential risk to the population attributable to emissions of HAPs from the proposed Project would be less than significant.

5.9 Cumulative Impacts

Cumulative impacts were also evaluated; however, cumulative emissions were not quantified because no other tentative projects were found within a one-mile radius of the Proposed Project that provided enough project detail information to accurately estimate emissions. Owing to the inherently cumulative nature of air quality impacts, the threshold for whether a project would make a cumulatively considerable contribution to a significant cumulative impact is currently based on whether the proposed Project would exceed established project-level thresholds. As such, a qualitative evaluation of the cumulative projects supports a finding that the Project’s contribution would not be cumulatively considerable because the proposed Project’s incremental emissions increase would be less than significant.

6. CONCLUSIONS

Based on the criteria established by the SJVAPCD's GAMAQI and SPAL guidelines, the proposed Project does not meet the minimum standards to require a full Air Quality Impact Analysis. Furthermore, the Project as proposed would not exceed the SJVAPCD's criteria air pollutant emission levels and would generate *less than significant air quality impacts*.

7. REFERENCES

- California Environmental Quality Act (CEQA). 2019. (Public Resources Code 21000 - 21189) and CEQA Guidelines (California Code of Regulations Title 14, Division 6, Chapter 3, Sections 15000 – 15387).
- . 2019. CEQA, Appendix G – Environmental Checklist Form, Final Text.
- California Air Pollution Control Officers Association (CAPCOA). 2021. California Emissions Estimator Model tm (CalEEMod), version 2020.4.0.
- . 2016. "Air Toxic Hot Spots" Facility Prioritization Guidelines, Revised 2016.
- San Joaquin Valley Air Pollution Control District (SJVAPCD). 2020. Small Project Analysis Level (SPAL) Memorandum. November 13, 2020.
<http://www.valleyair.org/transportation/CEQA%20Rules/GAMAQI-SPAL.PDF>
- . 2015. Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI). March 19, 2015.
http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf
- . 2009. Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA. December 17, 2009.

APPENDIX A. CALEEMOD EMISSIONS ESTIMATES OUTPUT FILES

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

**Sablewood Apartment Complex
Kern-San Joaquin County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	258.00	Space	1.68	103,200.00	0
Apartments Low Rise	80.00	Dwelling Unit	3.61	80,000.00	229
Apartments Mid Rise	48.00	Dwelling Unit	0.91	48,000.00	137

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	32
Climate Zone	3			Operational Year	2026
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - Total project site is 6.2 acres. Lot acreage for each land us subtype adjusted according to default ratio
- Demolition -
- Construction Off-road Equipment Mitigation -
- Mobile Land Use Mitigation -
- Area Mitigation -
- Fleet Mix - SJVAPCD's Residential Fleet Mix for 2026
- Woodstoves -

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFleetMix	HHD	0.04	0.02
tblFleetMix	HHD	0.04	0.02
tblFleetMix	LDA	0.48	0.52
tblFleetMix	LDA	0.48	0.52
tblFleetMix	LDT1	0.05	0.21
tblFleetMix	LDT1	0.05	0.21
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LHD1	0.03	8.0000e-004
tblFleetMix	LHD1	0.03	8.0000e-004
tblFleetMix	LHD2	9.1740e-003	9.0000e-004
tblFleetMix	LHD2	9.1740e-003	9.0000e-004
tblFleetMix	MCY	0.02	2.5000e-003
tblFleetMix	MCY	0.02	2.5000e-003
tblFleetMix	MDV	0.16	0.06
tblFleetMix	MDV	0.16	0.06
tblFleetMix	MH	4.2820e-003	2.3000e-003
tblFleetMix	MH	4.2820e-003	2.3000e-003
tblFleetMix	MHD	0.01	7.5000e-003
tblFleetMix	MHD	0.01	7.5000e-003
tblFleetMix	OBUS	5.8000e-004	0.00
tblFleetMix	OBUS	5.8000e-004	0.00
tblFleetMix	SBUS	1.4400e-003	2.0000e-004
tblFleetMix	SBUS	1.4400e-003	2.0000e-004
tblFleetMix	UBUS	2.3600e-004	4.4000e-003
tblFleetMix	UBUS	2.3600e-004	4.4000e-003
tblLandUse	LotAcreage	2.32	1.68

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

tblLandUse	LotAcreage	5.00	3.61
tblLandUse	LotAcreage	1.26	0.91

2.0 Emissions Summary

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2025	0.1959	1.6568	2.0595	4.4500e-003	0.2897	0.0658	0.3555	0.1163	0.0615	0.1779	0.0000	394.1492	394.1492	0.0712	9.4000e-003	398.7300
2026	1.2902	0.5327	0.7647	1.5800e-003	0.0438	0.0215	0.0653	0.0118	0.0202	0.0320	0.0000	139.4204	139.4204	0.0243	3.3100e-003	141.0130
Maximum	1.2902	1.6568	2.0595	4.4500e-003	0.2897	0.0658	0.3555	0.1163	0.0615	0.1779	0.0000	394.1492	394.1492	0.0712	9.4000e-003	398.7300

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					
2025	0.1959	1.6567	2.0595	4.4500e-003	0.1820	0.0658	0.2478	0.0640	0.0615	0.1255	0.0000	394.1488	394.1488	0.0712	9.4000e-003	398.7297
2026	1.2902	0.5327	0.7647	1.5800e-003	0.0438	0.0215	0.0653	0.0118	0.0202	0.0320	0.0000	139.4203	139.4203	0.0243	3.3100e-003	141.0129
Maximum	1.2902	1.6567	2.0595	4.4500e-003	0.1820	0.0658	0.2478	0.0640	0.0615	0.1255	0.0000	394.1488	394.1488	0.0712	9.4000e-003	398.7297

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	32.29	0.00	25.59	40.88	0.00	24.97	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	3-3-2025	6-2-2025	0.6455	0.6455
2	6-3-2025	9-2-2025	0.5186	0.5186
3	9-3-2025	12-2-2025	0.5145	0.5145
4	12-3-2025	3-2-2026	0.5084	0.5084
5	3-3-2026	6-2-2026	1.4760	1.4760
		Highest	1.4760	1.4760

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.6632	0.0588	0.9723	3.6000e-004		9.1500e-003	9.1500e-003		9.1500e-003	9.1500e-003	0.0000	57.0076	57.0076	2.5600e-003	1.0200e-003	57.3746
Energy	8.9400e-003	0.0764	0.0325	4.9000e-004		6.1700e-003	6.1700e-003		6.1700e-003	6.1700e-003	0.0000	139.8747	139.8747	0.0100	2.6300e-003	140.9088
Mobile	0.2291	0.4395	2.9185	8.3200e-003	0.9074	6.3700e-003	0.9137	0.2416	5.9400e-003	0.2476	0.0000	779.6235	779.6235	0.0625	0.0368	792.1545
Waste						0.0000	0.0000		0.0000	0.0000	11.9521	0.0000	11.9521	0.7064	0.0000	29.6108
Water						0.0000	0.0000		0.0000	0.0000	2.6458	5.8779	8.5237	0.2727	6.5300e-003	17.2877
Total	0.9013	0.5747	3.9232	9.1700e-003	0.9074	0.0217	0.9291	0.2416	0.0213	0.2629	14.5979	982.3837	996.9816	1.0542	0.0470	1,037.3365

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.6572	0.0109	0.9450	5.0000e-005		5.2400e-003	5.2400e-003		5.2400e-003	5.2400e-003	0.0000	1.5431	1.5431	1.4800e-003	0.0000	1.5800
Energy	8.9400e-003	0.0764	0.0325	4.9000e-004		6.1700e-003	6.1700e-003		6.1700e-003	6.1700e-003	0.0000	139.8747	139.8747	0.0100	2.6300e-003	140.9088
Mobile	0.2236	0.4026	2.6633	7.3700e-003	0.8003	5.6900e-003	0.8060	0.2131	5.3000e-003	0.2184	0.0000	690.4898	690.4898	0.0569	0.0335	701.8852
Waste						0.0000	0.0000		0.0000	0.0000	11.9521	0.0000	11.9521	0.7064	0.0000	29.6108
Water						0.0000	0.0000		0.0000	0.0000	2.6458	5.8779	8.5237	0.2727	6.5300e-003	17.2877
Total	0.8898	0.4899	3.6408	7.9100e-003	0.8003	0.0171	0.8174	0.2131	0.0167	0.2298	14.5979	837.7853	852.3832	1.0474	0.0426	891.2726

	ROG	NOx	CO	SO2	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	1.28	14.76	7.20	13.74	11.80	21.16	12.02	11.80	21.40	12.58	0.00	14.72	14.50	0.64	9.26	14.08

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/3/2025	3/28/2025	5	20	
2	Site Preparation	Site Preparation	3/29/2025	4/11/2025	5	10	
3	Grading	Grading	4/12/2025	5/9/2025	5	20	

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

4	Building Construction	Building Construction	5/10/2025	3/27/2026	5	230
5	Paving	Paving	3/28/2026	4/24/2026	5	20
6	Architectural Coating	Architectural Coating	4/25/2026	5/22/2026	5	20

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 20

Acres of Paving: 1.68

Residential Indoor: 259,200; Residential Outdoor: 86,400; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 6,192 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	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

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

Architectural Coating	Air Compressors	1	6.00	78	0.48
-----------------------	-----------------	---	------	----	------

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	67.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	136.00	31.00	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	27.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 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					
Fugitive Dust					7.4000e-003	0.0000	7.4000e-003	1.1200e-003	0.0000	1.1200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0209	0.1920	0.1942	3.9000e-004		8.5300e-003	8.5300e-003		7.9200e-003	7.9200e-003	0.0000	33.9977	33.9977	9.4900e-003	0.0000	34.2350
Total	0.0209	0.1920	0.1942	3.9000e-004	7.4000e-003	8.5300e-003	0.0159	1.1200e-003	7.9200e-003	9.0400e-003	0.0000	33.9977	33.9977	9.4900e-003	0.0000	34.2350

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

3.2 Demolition - 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	7.0000e-005	4.1000e-003	9.1000e-004	2.0000e-005	5.8000e-004	4.0000e-005	6.2000e-004	1.6000e-004	4.0000e-005	2.0000e-004	0.0000	1.8014	1.8014	1.0000e-005	2.8000e-004	1.8859
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	3.8000e-004	2.4000e-004	3.0800e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9101	0.9101	2.0000e-005	2.0000e-005	0.9178
Total	4.5000e-004	4.3400e-003	3.9900e-003	3.0000e-005	1.7900e-003	5.0000e-005	1.8300e-003	4.8000e-004	5.0000e-005	5.3000e-004	0.0000	2.7115	2.7115	3.0000e-005	3.0000e-004	2.8037

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.8900e-003	0.0000	2.8900e-003	4.4000e-004	0.0000	4.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0209	0.1920	0.1942	3.9000e-004		8.5300e-003	8.5300e-003		7.9200e-003	7.9200e-003	0.0000	33.9976	33.9976	9.4900e-003	0.0000	34.2349
Total	0.0209	0.1920	0.1942	3.9000e-004	2.8900e-003	8.5300e-003	0.0114	4.4000e-004	7.9200e-003	8.3600e-003	0.0000	33.9976	33.9976	9.4900e-003	0.0000	34.2349

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

3.2 Demolition - 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	7.0000e-005	4.1000e-003	9.1000e-004	2.0000e-005	5.8000e-004	4.0000e-005	6.2000e-004	1.6000e-004	4.0000e-005	2.0000e-004	0.0000	1.8014	1.8014	1.0000e-005	2.8000e-004	1.8859
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	3.8000e-004	2.4000e-004	3.0800e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9101	0.9101	2.0000e-005	2.0000e-005	0.9178
Total	4.5000e-004	4.3400e-003	3.9900e-003	3.0000e-005	1.7900e-003	5.0000e-005	1.8300e-003	4.8000e-004	5.0000e-005	5.3000e-004	0.0000	2.7115	2.7115	3.0000e-005	3.0000e-004	2.8037

3.3 Site Preparation - 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					
Fugitive Dust					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0124	0.1262	0.0896	1.9000e-004		5.4300e-003	5.4300e-003		5.0000e-003	5.0000e-003	0.0000	16.7335	16.7335	5.4100e-003	0.0000	16.8688
Total	0.0124	0.1262	0.0896	1.9000e-004	0.0983	5.4300e-003	0.1037	0.0505	5.0000e-003	0.0555	0.0000	16.7335	16.7335	5.4100e-003	0.0000	16.8688

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

3.3 Site Preparation - 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	2.3000e-004	1.4000e-004	1.8500e-003	1.0000e-005	7.3000e-004	0.0000	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.5461	0.5461	1.0000e-005	1.0000e-005	0.5507
Total	2.3000e-004	1.4000e-004	1.8500e-003	1.0000e-005	7.3000e-004	0.0000	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.5461	0.5461	1.0000e-005	1.0000e-005	0.5507

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					0.0383	0.0000	0.0383	0.0197	0.0000	0.0197	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0124	0.1262	0.0896	1.9000e-004		5.4300e-003	5.4300e-003		5.0000e-003	5.0000e-003	0.0000	16.7335	16.7335	5.4100e-003	0.0000	16.8688
Total	0.0124	0.1262	0.0896	1.9000e-004	0.0383	5.4300e-003	0.0438	0.0197	5.0000e-003	0.0247	0.0000	16.7335	16.7335	5.4100e-003	0.0000	16.8688

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

3.3 Site Preparation - 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	2.3000e-004	1.4000e-004	1.8500e-003	1.0000e-005	7.3000e-004	0.0000	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.5461	0.5461	1.0000e-005	1.0000e-005	0.5507
Total	2.3000e-004	1.4000e-004	1.8500e-003	1.0000e-005	7.3000e-004	0.0000	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.5461	0.5461	1.0000e-005	1.0000e-005	0.5507

3.4 Grading - 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					
Fugitive Dust					0.0708	0.0000	0.0708	0.0343	0.0000	0.0343	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0152	0.1532	0.1454	3.0000e-004		6.2400e-003	6.2400e-003		5.7400e-003	5.7400e-003	0.0000	26.0698	26.0698	8.4300e-003	0.0000	26.2806
Total	0.0152	0.1532	0.1454	3.0000e-004	0.0708	6.2400e-003	0.0771	0.0343	5.7400e-003	0.0400	0.0000	26.0698	26.0698	8.4300e-003	0.0000	26.2806

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

3.4 Grading - 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	3.8000e-004	2.4000e-004	3.0800e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9101	0.9101	2.0000e-005	2.0000e-005	0.9178
Total	3.8000e-004	2.4000e-004	3.0800e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9101	0.9101	2.0000e-005	2.0000e-005	0.9178

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					0.0276	0.0000	0.0276	0.0134	0.0000	0.0134	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0152	0.1532	0.1454	3.0000e-004		6.2400e-003	6.2400e-003		5.7400e-003	5.7400e-003	0.0000	26.0698	26.0698	8.4300e-003	0.0000	26.2806
Total	0.0152	0.1532	0.1454	3.0000e-004	0.0276	6.2400e-003	0.0339	0.0134	5.7400e-003	0.0191	0.0000	26.0698	26.0698	8.4300e-003	0.0000	26.2806

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

3.4 Grading - 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	3.8000e-004	2.4000e-004	3.0800e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9101	0.9101	2.0000e-005	2.0000e-005	0.9178
Total	3.8000e-004	2.4000e-004	3.0800e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9101	0.9101	2.0000e-005	2.0000e-005	0.9178

3.5 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	0.1149	1.0475	1.3511	2.2600e-003		0.0443	0.0443		0.0417	0.0417	0.0000	194.8123	194.8123	0.0458	0.0000	195.9572
Total	0.1149	1.0475	1.3511	2.2600e-003		0.0443	0.0443		0.0417	0.0417	0.0000	194.8123	194.8123	0.0458	0.0000	195.9572

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

3.5 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	2.8900e-003	0.1151	0.0358	5.1000e-004	0.0174	7.6000e-004	0.0181	5.0200e-003	7.3000e-004	5.7500e-003	0.0000	49.0548	49.0548	1.8000e-004	7.2300e-003	51.2152
Worker	0.0286	0.0182	0.2345	7.6000e-004	0.0921	4.5000e-004	0.0925	0.0245	4.1000e-004	0.0249	0.0000	69.3134	69.3134	1.8100e-003	1.8200e-003	69.9011
Total	0.0315	0.1333	0.2704	1.2700e-003	0.1094	1.2100e-003	0.1107	0.0295	1.1400e-003	0.0306	0.0000	118.3682	118.3682	1.9900e-003	9.0500e-003	121.1162

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	0.1149	1.0475	1.3511	2.2600e-003		0.0443	0.0443		0.0417	0.0417	0.0000	194.8121	194.8121	0.0458	0.0000	195.9570
Total	0.1149	1.0475	1.3511	2.2600e-003		0.0443	0.0443		0.0417	0.0417	0.0000	194.8121	194.8121	0.0458	0.0000	195.9570

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

3.5 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	2.8900e-003	0.1151	0.0358	5.1000e-004	0.0174	7.6000e-004	0.0181	5.0200e-003	7.3000e-004	5.7500e-003	0.0000	49.0548	49.0548	1.8000e-004	7.2300e-003	51.2152
Worker	0.0286	0.0182	0.2345	7.6000e-004	0.0921	4.5000e-004	0.0925	0.0245	4.1000e-004	0.0249	0.0000	69.3134	69.3134	1.8100e-003	1.8200e-003	69.9011
Total	0.0315	0.1333	0.2704	1.2700e-003	0.1094	1.2100e-003	0.1107	0.0295	1.1400e-003	0.0306	0.0000	118.3682	118.3682	1.9900e-003	9.0500e-003	121.1162

3.5 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	0.0424	0.3866	0.4986	8.4000e-004		0.0164	0.0164		0.0154	0.0154	0.0000	71.8950	71.8950	0.0169	0.0000	72.3175
Total	0.0424	0.3866	0.4986	8.4000e-004		0.0164	0.0164		0.0154	0.0154	0.0000	71.8950	71.8950	0.0169	0.0000	72.3175

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

3.5 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	1.0500e-003	0.0422	0.0130	1.9000e-004	6.4200e-003	2.8000e-004	6.6900e-003	1.8500e-003	2.7000e-004	2.1200e-003	0.0000	17.7651	17.7651	6.0000e-005	2.6200e-003	18.5464
Worker	9.8200e-003	6.0500e-003	0.0811	2.7000e-004	0.0340	1.6000e-004	0.0341	9.0200e-003	1.4000e-004	9.1700e-003	0.0000	24.7247	24.7247	6.1000e-004	6.3000e-004	24.9279
Total	0.0109	0.0483	0.0941	4.6000e-004	0.0404	4.4000e-004	0.0408	0.0109	4.1000e-004	0.0113	0.0000	42.4898	42.4898	6.7000e-004	3.2500e-003	43.4743

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	0.0424	0.3866	0.4986	8.4000e-004		0.0164	0.0164		0.0154	0.0154	0.0000	71.8949	71.8949	0.0169	0.0000	72.3175
Total	0.0424	0.3866	0.4986	8.4000e-004		0.0164	0.0164		0.0154	0.0154	0.0000	71.8949	71.8949	0.0169	0.0000	72.3175

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

3.5 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	1.0500e-003	0.0422	0.0130	1.9000e-004	6.4200e-003	2.8000e-004	6.6900e-003	1.8500e-003	2.7000e-004	2.1200e-003	0.0000	17.7651	17.7651	6.0000e-005	2.6200e-003	18.5464
Worker	9.8200e-003	6.0500e-003	0.0811	2.7000e-004	0.0340	1.6000e-004	0.0341	9.0200e-003	1.4000e-004	9.1700e-003	0.0000	24.7247	24.7247	6.1000e-004	6.3000e-004	24.9279
Total	0.0109	0.0483	0.0941	4.6000e-004	0.0404	4.4000e-004	0.0408	0.0109	4.1000e-004	0.0113	0.0000	42.4898	42.4898	6.7000e-004	3.2500e-003	43.4743

3.6 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	9.1500e-003	0.0858	0.1458	2.3000e-004		4.1900e-003	4.1900e-003		3.8500e-003	3.8500e-003	0.0000	20.0193	20.0193	6.4700e-003	0.0000	20.1811
Paving	2.2000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0114	0.0858	0.1458	2.3000e-004		4.1900e-003	4.1900e-003		3.8500e-003	3.8500e-003	0.0000	20.0193	20.0193	6.4700e-003	0.0000	20.1811

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

3.6 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	3.5000e-004	2.2000e-004	2.8900e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.8797	0.8797	2.0000e-005	2.0000e-005	0.8869
Total	3.5000e-004	2.2000e-004	2.8900e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.8797	0.8797	2.0000e-005	2.0000e-005	0.8869

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	9.1500e-003	0.0858	0.1458	2.3000e-004		4.1900e-003	4.1900e-003		3.8500e-003	3.8500e-003	0.0000	20.0192	20.0192	6.4700e-003	0.0000	20.1811
Paving	2.2000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0114	0.0858	0.1458	2.3000e-004		4.1900e-003	4.1900e-003		3.8500e-003	3.8500e-003	0.0000	20.0192	20.0192	6.4700e-003	0.0000	20.1811

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

3.6 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	3.5000e-004	2.2000e-004	2.8900e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.8797	0.8797	2.0000e-005	2.0000e-005	0.8869
Total	3.5000e-004	2.2000e-004	2.8900e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.8797	0.8797	2.0000e-005	2.0000e-005	0.8869

3.7 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	1.2229					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0115	0.0181	3.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5567
Total	1.2246	0.0115	0.0181	3.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5567

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

3.7 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	6.3000e-004	3.9000e-004	5.1900e-003	2.0000e-005	2.1800e-003	1.0000e-005	2.1900e-003	5.8000e-004	1.0000e-005	5.9000e-004	0.0000	1.5834	1.5834	4.0000e-005	4.0000e-005	1.5964
Total	6.3000e-004	3.9000e-004	5.1900e-003	2.0000e-005	2.1800e-003	1.0000e-005	2.1900e-003	5.8000e-004	1.0000e-005	5.9000e-004	0.0000	1.5834	1.5834	4.0000e-005	4.0000e-005	1.5964

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2229					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0115	0.0181	3.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5567
Total	1.2246	0.0115	0.0181	3.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5567

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

3.7 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	6.3000e-004	3.9000e-004	5.1900e-003	2.0000e-005	2.1800e-003	1.0000e-005	2.1900e-003	5.8000e-004	1.0000e-005	5.9000e-004	0.0000	1.5834	1.5834	4.0000e-005	4.0000e-005	1.5964
Total	6.3000e-004	3.9000e-004	5.1900e-003	2.0000e-005	2.1800e-003	1.0000e-005	2.1900e-003	5.8000e-004	1.0000e-005	5.9000e-004	0.0000	1.5834	1.5834	4.0000e-005	4.0000e-005	1.5964

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Walkability Design

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2236	0.4026	2.6633	7.3700e-003	0.8003	5.6900e-003	0.8060	0.2131	5.3000e-003	0.2184	0.0000	690.4898	690.4898	0.0569	0.0335	701.8852
Unmitigated	0.2291	0.4395	2.9185	8.3200e-003	0.9074	6.3700e-003	0.9137	0.2416	5.9400e-003	0.2476	0.0000	779.6235	779.6235	0.0625	0.0368	792.1545

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	585.60	651.20	502.40	1,695,628	1,495,544
Apartments Mid Rise	261.12	235.68	196.32	721,855	636,676
Parking Lot	0.00	0.00	0.00		
Total	846.72	886.88	698.72	2,417,483	2,132,220

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
Apartments Low Rise	10.80	7.30	7.50	46.40	16.40	37.20	86	11	3
Apartments Mid Rise	10.80	7.30	7.50	46.40	16.40	37.20	86	11	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.521500	0.214600	0.168100	0.056900	0.000800	0.000900	0.007500	0.020300	0.000000	0.004400	0.002500	0.000200	0.002300
Apartments Mid Rise	0.521500	0.214600	0.168100	0.056900	0.000800	0.000900	0.007500	0.020300	0.000000	0.004400	0.002500	0.000200	0.002300

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

Parking Lot	0.484198	0.053757	0.178516	0.160963	0.029711	0.009174	0.014127	0.038282	0.000580	0.000236	0.024732	0.001440	0.004282
-------------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------

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	51.4388	51.4388	8.3200e-003	1.0100e-003	51.9474
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	51.4388	51.4388	8.3200e-003	1.0100e-003	51.9474
NaturalGas Mitigated	8.9400e-003	0.0764	0.0325	4.9000e-004		6.1700e-003	6.1700e-003		6.1700e-003	6.1700e-003	0.0000	88.4358	88.4358	1.7000e-003	1.6200e-003	88.9614
NaturalGas Unmitigated	8.9400e-003	0.0764	0.0325	4.9000e-004		6.1700e-003	6.1700e-003		6.1700e-003	6.1700e-003	0.0000	88.4358	88.4358	1.7000e-003	1.6200e-003	88.9614

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	1.09176e+006	5.8900e-003	0.0503	0.0214	3.2000e-004		4.0700e-003	4.0700e-003		4.0700e-003	4.0700e-003	0.0000	58.2606	58.2606	1.1200e-003	1.0700e-003	58.6068
Apartments Mid Rise	565464	3.0500e-003	0.0261	0.0111	1.7000e-004		2.1100e-003	2.1100e-003		2.1100e-003	2.1100e-003	0.0000	30.1753	30.1753	5.8000e-004	5.5000e-004	30.3546
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		8.9400e-003	0.0764	0.0325	4.9000e-004		6.1800e-003	6.1800e-003		6.1800e-003	6.1800e-003	0.0000	88.4359	88.4359	1.7000e-003	1.6200e-003	88.9614

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

5.2 Energy by Land Use - Natural Gas

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	1.09176e+006	5.8900e-003	0.0503	0.0214	3.2000e-004		4.0700e-003	4.0700e-003		4.0700e-003	4.0700e-003	0.0000	58.2606	58.2606	1.1200e-003	1.0700e-003	58.6068
Apartments Mid Rise	565464	3.0500e-003	0.0261	0.0111	1.7000e-004		2.1100e-003	2.1100e-003		2.1100e-003	2.1100e-003	0.0000	30.1753	30.1753	5.8000e-004	5.5000e-004	30.3546
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		8.9400e-003	0.0764	0.0325	4.9000e-004		6.1800e-003	6.1800e-003		6.1800e-003	6.1800e-003	0.0000	88.4359	88.4359	1.7000e-003	1.6200e-003	88.9614

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	330482	30.5775	4.9500e-003	6.0000e-004	30.8798
Apartments Mid Rise	189350	17.5194	2.8300e-003	3.4000e-004	17.6926
Parking Lot	36120	3.3420	5.4000e-004	7.0000e-005	3.3750
Total		51.4388	8.3200e-003	1.0100e-003	51.9474

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	330482	30.5775	4.9500e-003	6.0000e-004	30.8798
Apartments Mid Rise	189350	17.5194	2.8300e-003	3.4000e-004	17.6926
Parking Lot	36120	3.3420	5.4000e-004	7.0000e-005	3.3750
Total		51.4388	8.3200e-003	1.0100e-003	51.9474

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- No Hearths Installed

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.6572	0.0109	0.9450	5.0000e-005		5.2400e-003	5.2400e-003		5.2400e-003	5.2400e-003	0.0000	1.5431	1.5431	1.4800e-003	0.0000	1.5800
Unmitigated	0.6632	0.0588	0.9723	3.6000e-004		9.1500e-003	9.1500e-003		9.1500e-003	9.1500e-003	0.0000	57.0076	57.0076	2.5600e-003	1.0200e-003	57.3746

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	0.1223					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5066					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.6000e-003	0.0479	0.0204	3.1000e-004		3.8700e-003	3.8700e-003		3.8700e-003	3.8700e-003	0.0000	55.4506	55.4506	1.0600e-003	1.0200e-003	55.7801
Landscaping	0.0287	0.0110	0.9519	5.0000e-005		5.2800e-003	5.2800e-003		5.2800e-003	5.2800e-003	0.0000	1.5571	1.5571	1.5000e-003	0.0000	1.5946
Total	0.6632	0.0588	0.9723	3.6000e-004		9.1500e-003	9.1500e-003		9.1500e-003	9.1500e-003	0.0000	57.0077	57.0077	2.5600e-003	1.0200e-003	57.3746

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1223					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5066					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	0.0283	0.0109	0.9450	5.0000e-005		5.2400e-003	5.2400e-003		5.2400e-003	5.2400e-003	0.0000	1.5431	1.5431	1.4800e-003	0.0000	1.5800
Total	0.6572	0.0109	0.9450	5.0000e-005		5.2400e-003	5.2400e-003		5.2400e-003	5.2400e-003	0.0000	1.5431	1.5431	1.4800e-003	0.0000	1.5800

7.0 Water Detail

7.1 Mitigation Measures Water

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	8.5237	0.2727	6.5300e-003	17.2877
Unmitigated	8.5237	0.2727	6.5300e-003	17.2877

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	5.21232 / 3.28603	5.3273	0.1704	4.0800e-003	10.8048
Apartments Mid Rise	3.12739 / 1.97162	3.1964	0.1023	2.4500e-003	6.4829
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		8.5237	0.2727	6.5300e-003	17.2877

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	5.21232 / 3.28603	5.3273	0.1704	4.0800e-003	10.8048
Apartments Mid Rise	3.12739 / 1.97162	3.1964	0.1023	2.4500e-003	6.4829
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		8.5237	0.2727	6.5300e-003	17.2877

8.0 Waste Detail

8.1 Mitigation Measures Waste

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	11.9521	0.7064	0.0000	29.6108
Unmitigated	11.9521	0.7064	0.0000	29.6108

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	36.8	7.4701	0.4415	0.0000	18.5068
Apartments Mid Rise	22.08	4.4820	0.2649	0.0000	11.1041
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		11.9521	0.7064	0.0000	29.6109

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	36.8	7.4701	0.4415	0.0000	18.5068
Apartments Mid Rise	22.08	4.4820	0.2649	0.0000	11.1041
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		11.9521	0.7064	0.0000	29.6109

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

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

Sablewood Apartment Complex - Kern-San Joaquin County, Annual

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

11.0 Vegetation

APPENDIX B. HEALTH RISK ASSEMENT MODELING

(Electronic Files)