



Date: October 25, 2021
To: Bedford Opportunity Fund II, LLC
From: M. S. Hatch Consulting, LLC
**Subject: Air Quality Study – Tentative Tract Map (TTM) 20454 Housing Development –
Mesa View Drive and Nyack Road, Victorville, CA**

M. S. Hatch Consulting, LLC (MSHC) appreciates the opportunity to prepare the air quality study for the proposed construction and operation of the housing development shown on Tentative Tract Map (TTM) 20454 for Bedford Opportunity Fund II, LLC. The project consists of 110 single family homes on 30.22¹ acres in the City of Victorville. This air quality study includes the estimated criteria pollutant and greenhouse gas emissions from the construction and operation of the proposed project.

Executive Summary

Table 1 and Table 2 compare the estimated annual and daily emissions summaries from the construction and operation of the proposed housing development to the significant emission thresholds described in the Mojave Desert Air Quality Management District (MDAQMD) California Environmental Quality Act (CEQA) and Federal Conformity Guidelines, dated February 2020, included in Attachment A. The estimated emissions of criteria pollutants and greenhouse gases for each year of construction and the total operational emissions **are well below the applicable thresholds**. Greenhouse gas emissions are presented in units of carbon dioxide equivalent (CO₂e). The proposed project is not considered one of the project types that the MDAQMD CEQA Guidelines require to be evaluated for potentially exposing sensitive receptors to substantial pollutant concentrations.² As such, hazardous air pollutants (HAP) emissions were not calculated, and the project was not evaluated for potential health risks to sensitive receptors.

¹ Total acreage of the proposed project (30.22 acres) is from the site plan that R.Y. Properties, Inc. provided on 9/10/2021.

² Residences, schools, daycare centers, playgrounds and medical facilities are considered sensitive receptor land uses. The following project types proposed for sites within the specified distance to an existing or planned (zoned) sensitive receptor land use must be evaluated using significance threshold criteria number 4 (refer to the significance threshold discussion): any industrial project within 1000 feet; a distribution center (40 or more trucks per day) within 1000 feet; a major transportation project (50,000 or more vehicles per day) within 1000 feet; a dry cleaner using perchloroethylene within 500 feet; or a gasoline dispensing facility within 300 feet.

Table 1. Annual Emissions Summary and Significance Thresholds

Emissions Source	Total Emissions (tons per year)						
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}	CO _{2e}
Year 1 Construction Emissions (2023)	0.34	2.83	3.16	0.01	0.54	0.25	719
Year 2 Construction Emissions (2024)	0.30	2.26	3.06	0.01	0.43	0.17	737
Year 3 Construction Emissions (2025)	1.06	0.52	0.80	<0.01	0.09	0.04	165
Total Operational Emissions	1.72	0.96	5.47	0.01	1.13	0.32	1,454
Significant Emissions Threshold	25	25	100	25	15	12	100,000

Table 2. Daily Emissions Summary and Significance Thresholds

Emissions Source	Total Emissions (pounds per day)						
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}	CO _{2e}
Year 1 Construction Emissions (2023)	3.39	34.55	28.62	0.06	9.08	5.14	6,459
Year 2 Construction Emissions (2024)	2.45	17.00	24.25	0.06	3.33	1.34	6,352
Year 3 Construction Emissions (2025)	56.78	15.95	23.64	0.06	3.24	1.26	6,249
Total Operational Emissions	10.42	6.53	37.65	0.08	6.60	1.98	9,533
Significant Emissions Threshold	137	137	548	137	82	65	548,000

ROG: Reactive Organic Compounds, used interchangeably with Volatile Organic Compounds (VOC); NO_x: oxides of nitrogen; CO: Carbon monoxide; SO_x: Oxides of sulfur; PM_{2.5}: particulate matter less than 2.5 micrometers in diameter; PM₁₀: particulate matter less than 10 micrometers in diameter; CO_{2e}: Carbon dioxide equivalent

Project Description

The proposed project includes the construction of 110 single family homes and residential streets on 30.22 acres. The project site is located southwest of the intersection of Mesa View Drive and Nyack Road in the City of Victorville. The site location is included in Figure 1 and the proposed site plan is included in Figure 2.

Figure 1. Regional Vicinity

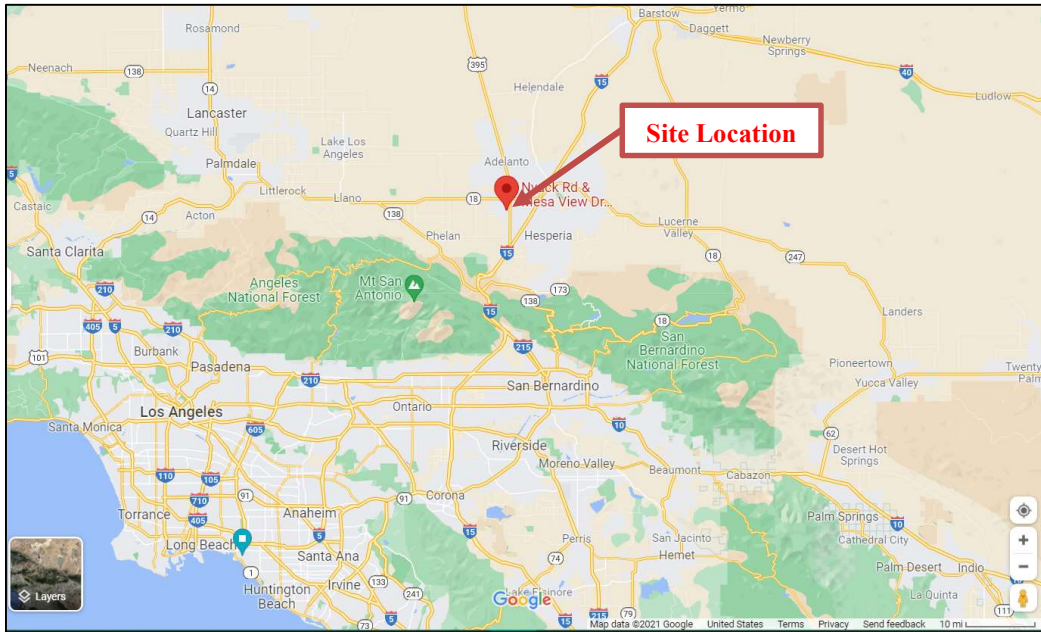
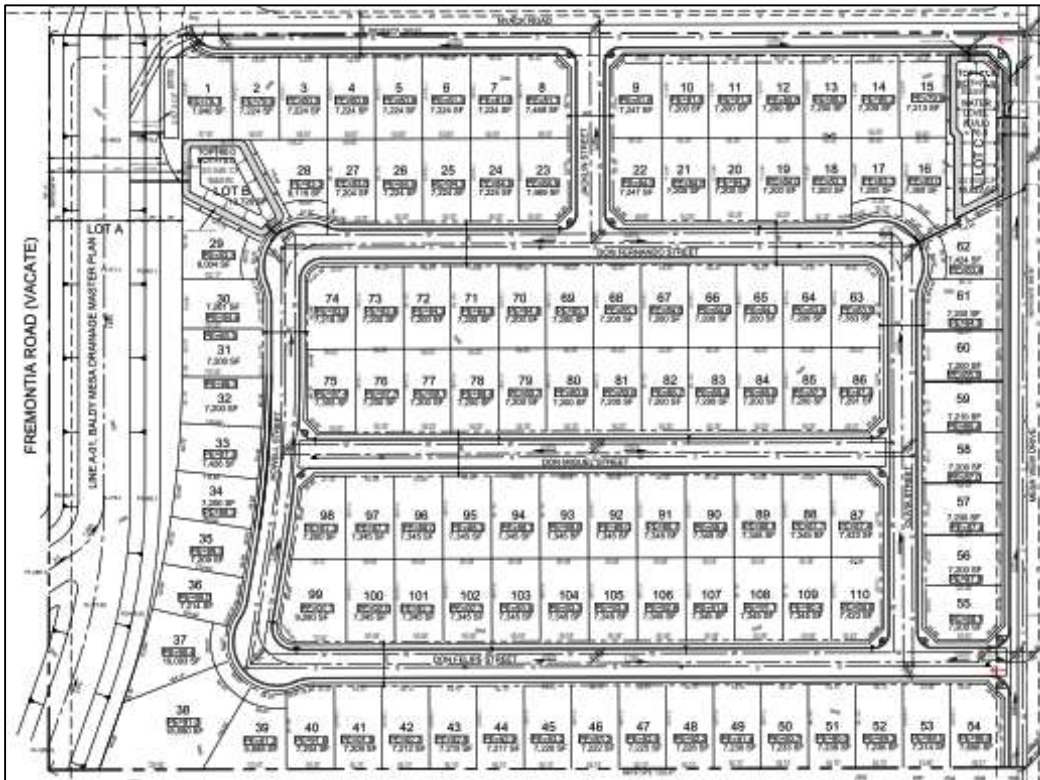


Figure 2. Site Plan – Proposed Housing Development - TTM 20454, Victorville, CA



Sources of Emissions

The emissions associated with the proposed project consist of construction and operational emissions from the housing development. Construction emissions are temporary and include emissions of criteria pollutants and greenhouse gases from construction activities during site preparation, grading, building construction, paving, and the application of architectural coatings. Operational emissions consist of area sources (i.e., re-applying architectural coatings, consumer products, and landscaping equipment), energy use (i.e., electricity and natural gas), mobile sources (e.g., commuting), solid waste disposal, and water and wastewater use (i.e., supplying and treating water and wastewater).

Emissions Estimates

Table 3 and 4 present the annual and daily emissions summaries from the construction and operation of the proposed project, respectively. Emissions were estimated using CalEEMod Version 2020.4.0. The detailed emissions model outputs are included in Attachment B.

This project is not considered one of the project types that the MDAQMD CEQA Guidelines require to be evaluated for potentially exposing sensitive receptors to substantial pollutant concentrations. As such, HAP emissions were not calculated, and the project was not evaluated for potential health risks to sensitive receptors.

Table 3. Annual Construction and Operational Emissions Summary

Emissions Source	Total Emissions (tons per year)						
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}	CO _{2e}
Construction Emissions							
Year 1 Construction Emissions (2023)	0.34	2.83	3.16	0.01	0.54	0.25	719
Year 2 Construction Emissions (2024)	0.30	2.26	3.06	0.01	0.43	0.17	737
Year 3 Construction Emissions (2025)	1.06	0.52	0.80	<0.01	0.09	0.04	165
Operational Emissions							
Area Sources	1.23	0.08	0.85	<0.01	0.01	0.01	89
Energy	0.02	0.14	0.06	<0.01	0.01	0.01	323
Mobile	0.48	0.73	4.56	0.01	1.11	0.30	931
Waste	N/A	N/A	N/A	N/A	0.00	0.00	65
Water	N/A	N/A	N/A	N/A	0.00	0.00	46
Total Operational Emissions	1.72	0.96	5.47	0.01	1.13	0.32	1,454
Significant Emissions Threshold	25	25	100	25	15	12	100,000

Table 4. Daily Construction and Operational Emissions Summary

Emissions Source	Total Emissions (pounds per day)						
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}	CO _{2e}
Construction Emissions							
Year 1 Construction Emissions (2023)	3.39	34.55	28.62	0.06	9.08	5.14	6,459
Year 2 Construction Emissions (2024)	2.45	17.00	24.25	0.06	3.33	1.34	6,352
Year 3 Construction Emissions (2025)	56.78	15.95	23.64	0.06	3.24	1.26	6,249
Operational Emissions							
Area Sources	7.03	1.93	9.84	0.01	0.20	0.20	2,360
Energy	0.09	0.79	0.33	0.01	0.06	0.06	1,009
Mobile	3.30	3.81	27.47	0.06	6.34	1.72	6,164
Waste	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Water	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Operational Emissions	10.42	6.53	37.65	0.08	6.60	1.98	9,533
Significant Emissions Threshold	137	137	548	137	82	65	548,000

ROG: Reactive Organic Compounds, used interchangeably with Volatile Organic Compounds (VOC); NO_x: oxides of nitrogen; CO: Carbon monoxide; SO_x: Oxides of sulfur; PM_{2.5}: particulate matter less than 2.5 micrometers in diameter; PM₁₀: particulate matter less than 10 micrometers in diameter; CO_{2e}: Carbon dioxide equivalent

Emissions Calculation Methodology

Construction and operational emissions were based on four CalEEMod land use types: *Single Family Housing*, *Other Asphalt Surfaces*, *Other Non-Asphalt Surfaces*, and *City Park*. A discussion on the land use types that were used for the emissions modeling is included below.

CalEEMod Land Use Type: Single Family Housing

The *Single Family Housing* land use type was used to model the emissions associated with the proposed housing development. The total building square footage (275,000 square feet) was estimated based on the number of homes (110) and the estimated square footage per home (2,500 square feet).³ The residential acreage (18.79 acres) was based on the sum of the residential lot sizes listed in the site plan that was provided by R.Y. Properties, Inc. (R.Y.).

CalEEMod Land Use Type: Other Asphalt Surfaces

The *Other Asphalt Surfaces* land use type was used to model the emissions associated with the residential streets within the proposed housing development. The street acreage (5.18 acres) was calculated from the length of new streets (5,644 feet) multiplied by the width of 40 feet (20 feet per side) that is listed in the site plan.

³ The number of units (110) was provided in the site plan provided by R.Y. on 9/10/2021. The estimated average home size was provided by R.Y. via phone call on 10/18/2021.

CalEEMod Land Use Type: Other Non-Asphalt Surfaces

The *Other Non-Asphalt Surfaces* land use type was used to model the emissions associated with the sidewalks within the proposed housing development. The total sidewalk acreage (1.67 acres) was based on the sidewalks that will be built for the new streets and along the existing street, Mesa View Drive.⁴

CalEEMod Land Use Type: City Park

The *City Park* land use type was used to model the emissions associated with the open space (e.g., natural detention basins, landscaped land, etc.) within the proposed housing development. The open space acreage (4.58 acres) was based on the remaining acreage after the home, road, and sidewalk areas were subtracted from the total site acreage.

Construction Emissions

Construction emissions were calculated using CalEEMod defaults and input provided by R.Y. Table 5 provides the anticipated construction schedule. R.Y. provided the proposed start date of January 2023.⁵ The construction phase durations and days per week are based on CalEEMod default values.

Table 6 provides the anticipated number of equipment that will be used during each construction phase, the hours per day the equipment will be operated, and the horsepower of the equipment. The values in Table 6 are based on CalEEMod default values.

Based the site plan, no material export or import is expected during the *Site Preparation* and *Grading* phases.⁶ For fugitive dust emissions, CalEEMod defaults do not include any control of fugitive dust from construction sites. MDAQMD Rule 403 requires that “any person shall not cause or allow the emissions of Fugitive Dust from any transport, handling, construction, or storage activity so that the Visible Fugitive Dust remains visible in the atmosphere beyond the property line of the emission source”; to meet this requirement, it is assumed that the construction site will be watered three times per day. Although the addition of watering for dust control is listed as a mitigation measure in CalEEMod, within the MDAQMD this is a requirement, and is therefore included.

⁴ The site plan indicates that 6-foot-wide sidewalks will be built on each side of the new streets. For the 5,644 feet of new streets, the sidewalk area is 67,728 square feet (1.55 acres). For the existing street (Mesa View Drive), only one sidewalk will be required on the west side of the street since the sidewalk on the east side was already built for the existing neighborhood. The sidewalk length along Mesa View Drive (844.73 feet) was based on the sum of the lot lengths along Mesa View Drive that are listed in the site plan. The sidewalk area along Mesa View Drive is 5,068 square feet (0.12 acres).

⁵ Estimated start date was provided by R.Y. via email on 10/20/2021.

⁶ The site plan indicates that “earthwork will be balanced on site”.

For architectural coating operations, VOC emissions were calculated based on the assumption that the coatings would be compliant with the VOC content limits of MDAQMD Rule 1113.⁷

Table 5. Construction Schedule

Construction Phase	Start Date	End Date	Days/week	Total Days
Demolition	N/A	N/A	N/A	N/A
Site Preparation	1/2/2023	1/27/2023	5	20
Grading	1/28/2023	3/31/2023	5	45
Building Construction	4/1/2023	2/28/2025	5	500
Paving	3/1/2025	4/18/2025	5	35
Architectural Coating	4/19/2025	6/6/2025	5	35

Table 6. Construction Equipment

Construction Phase	Equipment	Number of Equipment	Hours per day	Horsepower
Site Preparation	Rubber Tired Dozers	3	8	247
	Tractors/Loaders/Backhoes	4	8	97
Grading	Excavators	2	8	158
	Graders	1	8	187
	Rubber Tired Dozers	1	8	247
	Scrapers	2	8	367
	Tractors/Loaders/Backhoes	2	8	97
Building Construction	Cranes	1	7	231
	Forklifts	3	8	89
	Generator Sets	1	8	84
	Tractors/Loaders/Backhoes	3	7	97
	Welders	1	8	46
Paving	Pavers	2	8	130
	Paving Equipment	2	8	132
	Rollers	2	8	80
Architectural Coating	Air Compressors	1	6	78

Operational Emissions

Operational emissions consist of area sources (i.e., re-applying architectural coatings, consumer products, fireplaces, and landscaping equipment), energy use (i.e., electricity and natural gas), mobile sources (e.g.,

⁷ For building coatings, assumed to be 90% flat paints (50 g/L) and 10% non-flat paints (100 g/L). For the parking lot coatings, assumed to be compliant with the Traffic Marking Coating category (100 g/L). VOC limits based on MDAQMD Rule 1113.

commuting), solid waste disposal, and water and wastewater use (i.e., supplying and treating water and wastewater).

For area-source emissions, it was assumed that woodstoves would not be installed, and gas fireplaces would be installed for each home.⁸ For mobile emissions, it was assumed that the housing development's open space, modeled under the City Park land use type, would not require external vehicle trips.

For architectural coating operations (i.e., re-applying coatings), VOC emissions were calculated based on the assumption that the coatings would be compliant with the VOC content limits of MDAQMD Rule 1113.⁹ All other operational emissions sources were calculated using CalEEMod default factors.

Findings

The estimated emissions of criteria pollutants and greenhouse gases for each year of construction and the total operational emissions **are well below the applicable MDAQMD Significant Emissions Thresholds**; therefore, this project does not have a significant air quality impact on the environment. In addition, this project is not expected to expose sensitive receptors to substantial pollutant concentrations. Since the construction and operational emissions are below the significance thresholds, emissions mitigation measures are not required.

⁸ Adjacent homes to the proposed development have fireplaces; it was assumed that each home would have a gas fireplace.

⁹ For building coatings, assumed to be 90% flat paints (50 g/L) and 10% non-flat paints (100 g/L). For the parking lot coatings, assumed to be compliant with the Traffic Marking Coating category (100 g/L). VOC limits based on MDAQMD Rule 1113.

**ATTACHMENT A – Mojave Desert AQMD California Environmental Quality Act (CEQA)
and Federal Conformity Guidelines**



MDAQMD

California Environmental Quality Act (CEQA)

And

Federal Conformity

Guidelines

February 2020

Planning and Rule Making Section
Air Monitoring Section

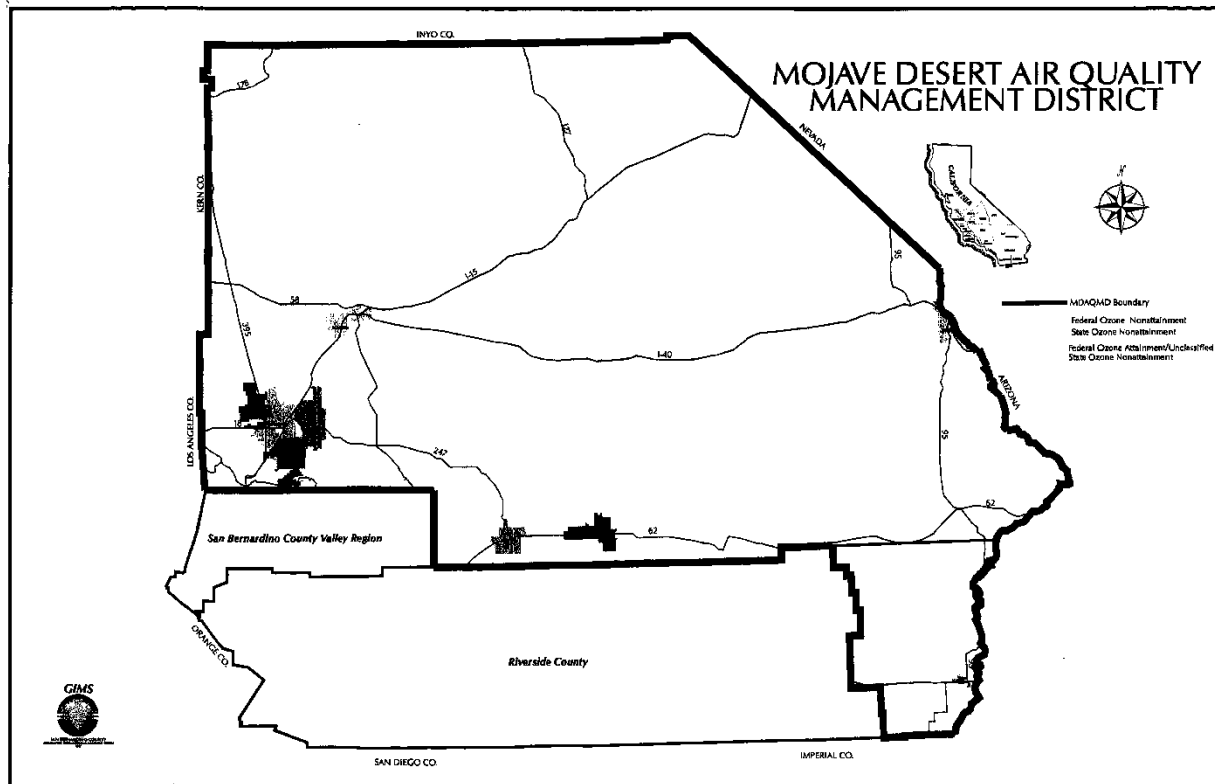
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Background

Under CEQA, the Mojave Desert Air Quality Management District (District) is an expert commenting agency on air quality and related matters within its jurisdiction or impacting on its jurisdiction. Under the Federal Clean Air Act the District has adopted federal attainment plans for ozone and PM₁₀. The District has dedicated assets to reviewing projects to ensure that they will not: (1) cause or contribute to any new violation of any air quality standard; (2) increase the frequency or severity of any existing violation of any air quality standard; or (3) delay timely attainment of any air quality standard or any required interim emission reductions or other milestones of any federal attainment plan. These Guidelines are intended to assist persons preparing environmental analysis or review documents for any project within the jurisdiction of the District by providing background information and guidance on the preferred analysis approach.

Map 1 - District Boundaries



Jurisdiction

The District has jurisdiction over the desert portion of San Bernardino County and the far eastern end of Riverside County (please refer to Map 1). This region includes the incorporated communities of Adelanto, Apple Valley, Barstow, Blythe, Hesperia, Needles, Twentynine Palms, Victorville, and Yucca Valley. This region also includes the National Training Center at Fort Irwin, the Marine Corps Air Ground Combat Center, the Marine Corps Logistics Base, the eastern portion of Edwards Air Force Base, and a portion of the China Lake Naval Air Weapons Station.

Non-attainment Designations and Classification Status

The United States Environmental Protection Agency and the California Air Resources Board have designated portions of the District non-attainment for a variety of pollutants, and some of those designations have an associated classification. Please refer to Table 1 for a chart of these designations and classifications.

Table 1 - Designations and Classifications

Ambient Air Quality Standard	MDAQMD
One-hour Ozone (Federal) – standard has been revoked	Proposed attainment in 2014; historical classification Severe-17*
Eight-hour Ozone (Federal 84 ppb (1997))	Subpart 2 Nonattainment; classified Severe-15**
Eight-hour Ozone (Federal 75 ppb (2008))	Nonattainment, classified Severe-15**
Eight-hour Ozone (Federal 70 ppb (2015))	Expected nonattainment; classified Severe-15**
Ozone (State)	Nonattainment; classified Moderate
PM ₁₀ 24-hour (Federal)	Nonattainment; classified Moderate (portion of MDAQMD in Riverside County is unclassifiable/attainment)
PM _{2.5} Annual (Federal)	Unclassified/attainment
PM _{2.5} 24-hour (Federal)	Unclassified/attainment
PM _{2.5} (State)	Nonattainment**
PM ₁₀ (State)	Nonattainment
Carbon Monoxide (State and Federal)	Unclassifiable/Attainment
Nitrogen Dioxide (State and Federal)	Unclassifiable/Attainment
Sulfur Dioxide (State and Federal)	Attainment/unclassified
Lead (State and Federal)	Unclassifiable/Attainment
Particulate Sulfate (State)	Attainment
Hydrogen Sulfide (State)	Unclassified (Searles Valley Planning Area is nonattainment)
Visibility Reducing Particles (State)	Unclassified

*Note: Portion of MDAQMD outside of Southeast Desert Modified AQMA is unclassified/attainment

**Note: Portion of MDAQMD outside of Western Mojave Desert Ozone Nonattainment Area is unclassifiable/attainment

Attainment Plans

The District has adopted a variety of attainment plans for a variety of nonattainment pollutants. Please refer to Table 2 for a chart of these attainment plans.

Table 2 – MDAQMD Attainment Plans

Name of Plan	Date of Adoption	Standard(s) Targeted	Applicable Area	Pollutant(s) Targeted	Attainment Date*
MDAQMD Federal 75 ppb Ozone Attainment Plan (Western Mojave Desert Nonattainment Area)	27-Feb-17	Federal eight hour ozone (75 ppb)	Western Mojave Desert Nonattainment Area (MDAQMD portion)	NO _x and VOC	2027
Federal 8-Hour Ozone Attainment Plan (Western Mojave Desert Nonattainment Area)	9-Jun-08	Federal eight hour ozone (84 ppb)	Western Mojave Desert Nonattainment Area (MDAQMD portion)	NO _x and VOC	2019 (revised from 2021)
2004 Ozone Attainment Plan (State and Federal)	26-Apr-04	Federal one hour ozone	Entire District	NO _x and VOC	2007
Attainment Demonstration, Maintenance Plan, and Redesignation Request for the Trona Portion of the Searles Valley PM ₁₀ Non-attainment Area	25-Mar-96	Federal daily and annual PM ₁₀	Searles Valley Planning Area	PM ₁₀	N/A
Triennial Revision to the 1991 Air Quality Attainment Plan	22-Jan-96	State one hour ozone	Entire District	NO _x and VOC	2005
Mojave Desert Planning Area Federal Particulate Matter Attainment Plan	31-Jul-95	Federal daily and annual PM ₁₀	Mojave Desert Planning Area	PM ₁₀	2000
Searles Valley PM ₁₀ Plan	28-Jun-95	Federal daily and annual PM ₁₀	Searles Valley Planning Area	PM ₁₀	1994
Post 1996 Attainment Demonstration and Reasonable Further Progress Plan	26-Oct-94	Federal one hour ozone	Southeast Desert Modified AQMA	NO _x and VOC	2007
Reasonable Further Progress Rate-Of-Progress Plan	26-Oct-94	Federal one hour ozone	Southeast Desert Modified AQMA	NO _x and VOC	2007

Name of Plan	Date of Adoption	Standard(s) Targeted	Applicable Area	Pollutant(s) Targeted	Attainment Date*
1991 Air Quality Attainment Plan	26-Aug-91	State one hour ozone	San Bernardino County portion	NO _x and VOC	1994

*Note: A historical attainment date given in an attainment plan does not necessarily mean that the affected area has been re-designated to attainment; please refer to Table 1.

Rules and Regulations

The District maintains a set of Rules and Regulations to improve air quality and maintain good air quality. Please visit www.mdaqmd.ca.gov.

Recommended Environmental Setting Elements

Air Quality Data

The District gathers a variety of air quality data from a variety of monitoring sites (from the USMC AGCC site on contract). Table 3 details the data available from the District for each monitoring site. Each site with current PM₁₀ monitoring is operating a Beta Attenuation Monitor (or BAM) with realtime hourly data, and BAMs replaced TEOMs and Hi-Vols beginning in 2011.

Table 3 - Available Air Quality Data

Site	Address	Pollutants	Dates
Barstow	225 E. Mountain View	O ₃ , NO _x , CO, PM ₁₀	5/1/80 to present
Hesperia	17288 Olive	O ₃ , PM ₁₀	1/2/86 to present
Lucerne Valley	8560 Aliento Road	PM ₁₀	6/1/89 to present
Phelan	Beekley and Phelan Road	O ₃	1/1/88 to present
Trona	Market Street	O ₃ , NO _x , SO ₂ , H ₂ S, PM ₁₀	8/1//80 to 2/13/93
Trona	Athol Street	O ₃ , NO _x , SO ₂ , H ₂ S, PM ₁₀	1/25/93 to 3/1997
Trona	Telescope	O ₃ , NO _x , SO ₂ , H ₂ S, PM ₁₀	4/1997 to present
Twentynine Palms	6136 Adobe Road	O ₃ , NO _x , SO ₂ , CO, PM ₁₀	8/1/80 to 12/2005
Victorville	County Fairgrounds	O ₃ , NO _x , SO ₂ , CO, TSP	8/1980 to 12/1985
Victorville	Eighth Street	O ₃ , NO _x , SO ₂ , CO, TSP	1/1985 to 12/1989
Victorville	County Fairgrounds	O ₃ , NO _x , SO ₂ , CO, PM ₁₀	1/1990 to 4/1991
Victorville	14029 Amargosa Rd	O ₃ , NO _x , SO ₂ , CO, PM ₁₀	4/1991 to 12/1999
Victorville	14306 Park Avenue	O ₃ , NO _x , SO ₂ , CO, PM _{2.5} (dual co-located), PM ₁₀	1/2000 to present

Meteorological Data

A variety of meteorological data is available from the District for several monitoring sites

throughout the District. Table 4 contains a list of monitoring sites and the date range the following data is available for: wind speed (hourly average and peak), wind direction, temperature, barometric pressure, and relative humidity.

Table 4 - Available Meteorological Data

Site	Address	Dates
Barstow	225 E. Mountain View	1/1988 to present
Hesperia	17288 Olive Street	1/1988 to present
Lucerne Valley	8560 Aliento Road	3/2020 to present
Phelan	Beekley and Phelan Road	1/88 to present
Trona	Athol Street	2/1993 to 3/1997
Trona	Telescope	4/1997 to present
Twentynine Palms	6136 Adobe Road	1/1988 to 12/2005
Victorville	14029 Amargosa Road	4/91 to 12/1999
Victorville	14306 Park Avenue	1/2000 to present

Topography and Climate Discussion

The District covers the majority of the Mojave Desert Air Basin (MDAB). The MDAB is an assemblage of mountain ranges interspersed with long broad valleys that often contain dry lakes. Many of the lower mountains which dot the vast terrain rise from 1,000 to 4,000 feet above the valley floor. Prevailing winds in the MDAB are out of the west and southwest. These prevailing winds are due to the proximity of the MDAB to coastal and central regions and the blocking nature of the Sierra Nevada mountains to the north; air masses pushed onshore in southern California by differential heating are channeled through the MDAB. The MDAB is separated from the southern California coastal and central California valley regions by mountains (highest elevation approximately 10,000 feet), whose passes form the main channels for these air masses. The Antelope Valley is bordered in the northwest by the Tehachapi Mountains, separated from the Sierra Nevadas in the north by the Tehachapi Pass (3,800 ft elevation). The Antelope Valley is bordered in the south by the San Gabriel Mountains, bisected by Soledad Canyon (3,300 ft). The Mojave Desert is bordered in the southwest by the San Bernardino Mountains, separated from the San Gabriels by the Cajon Pass (4,200 ft). A lesser channel lies between the San Bernardino Mountains and the Little San Bernardino Mountains (the Morongo Valley).

The Palo Verde Valley portion of the Mojave Desert lies in the low desert, at the eastern end of a series of valleys (notably the Coachella Valley) whose primary channel is the San Gorgonio Pass (2,300 ft) between the San Bernardino and San Jacinto Mountains.

During the summer the MDAB is generally influenced by a Pacific Subtropical High cell that sits off the coast, inhibiting cloud formation and encouraging daytime solar heating. The MDAB is rarely influenced by cold air masses moving south from Canada and Alaska, as these frontal systems are weak and diffuse by the time they reach the desert. Most desert moisture arrives from infrequent warm, moist and unstable air masses from the south. As can be seen from Table 5, the MDAB averages between three and seven inches of precipitation per year (from 16 to 30 days with at least 0.01 inches of precipitation). The MDAB is classified as a dry-hot desert

climate (BWh), with portions classified as dry-very hot desert (BWhh), to indicate at least three months have maximum average temperatures over 100.4° F.

Table 5 - MDAB Average Precipitation and Evaporation History

Location	Precipitation (inches)	Precipitation (days)	Evaporation (inches)	Length of Observations (years)
Trona	3.82	16		48
Randsburg	5.89	23		48
China Lake	4.42			34
Goldstone Echo	5.42	20		23
Daggett Airport	3.87	23		48
Barstow Fire	4.60	23		16
Barstow CIMIS	5.10	27	70	22
Granite Mountain	5.76	22		5
Victorville CIMIS	7.30	29	63	15
Mitchell Caverns	10.41	32		38
Mountain Pass	7.63	28		41
Parker Reservoir	5.38	24		48
Needles Airport	4.55	23		48
Twentynine Palms	3.95	19		48
Blythe Airport	3.57	17		48
Iron Mountain	3.40	19		48

Recommended Impacts Discussion Elements

Direct Impacts

Direct impacts are the result of the project itself (from its construction and operation), in the form of project activity and trips generated by the project. For example, in the case of a subdivision project, construction emissions (equipment exhaust, wind erosion, vehicle exhaust), housing use activity (natural gas consumption) and trips to and from the housing (vehicle exhaust, tire wear) represent direct impacts. In the case of a new mine project, construction emissions (equipment exhaust, wind erosion, vehicle exhaust), material handling (drilling, blasting, transfers, crushing, screening, bagging), operational emissions (wind erosion, vehicle travel, vehicle exhaust, tire wear), and employee/customer/delivery travel (vehicle exhaust, tire wear) represent direct impacts.

Indirect Impacts

Indirect impacts are the result of changes that would not occur without the project. In the case of a subdivision project, indirect impacts on the surrounding community can be generated in many ways: nearby construction of roadways (or roadway modifications) and other infrastructure to support the subdivision, construction and operation of new commercial/retail establishments, changes in traffic/circulation patterns that result in increased congestion/delays, etc. In the case of a new mine project, indirect impacts can be generated by nearby construction of infrastructure

to support the mine, housing constructed and/or occupied by mine employees, changes in traffic/circulation patterns that result in increased congestion/delays, etc.

Cumulative Impacts

Cumulative impacts are similar to direct and indirect impacts of the project, which the project contributes to. In the case of a subdivision project, a given project has a cumulative impact with all other subdivision projects, from the standpoint of each type of impact (cumulative construction emissions, residential natural gas consumption, solvent use, transportation emissions, congestion, etc.). Similarly, a new mine project has a cumulative impact with all other mining projects, from the standpoint of each type of impact (cumulative construction emissions, diesel equipment emissions, blasting emissions, fugitive emissions, transportation, congestion, etc.).

Conformity Impacts

A project is non-conforming if it conflicts with or delays implementation of any applicable attainment or maintenance plan. A project is conforming if it complies with all applicable District rules and regulations, complies with all proposed control measures that are not yet adopted from the applicable plan(s), and is consistent with the growth forecasts in the applicable plan(s) (or is directly included in the applicable plan). Conformity with growth forecasts can be established by demonstrating that the project is consistent with the land use plan that was used to generate the growth forecast. An example of a non-conforming project would be one that increases the gross number of dwelling units, increases the number of trips, and/or increases the overall vehicle miles traveled in an affected area (relative to the applicable land use plan).

Sensitive Receptor Land Uses

Residences, schools, daycare centers, playgrounds and medical facilities are considered sensitive receptor land uses. The following project types proposed for sites within the specified distance to an existing or planned (zoned) sensitive receptor land use must be evaluated using significance threshold criteria number 4 (refer to the significance threshold discussion):

- Any industrial project within 1000 feet;
- A distribution center (40 or more trucks per day) within 1000 feet;
- A major transportation project (50,000 or more vehicles per day) within 1000 feet;
- A dry cleaner using perchloroethylene within 500 feet;
- A gasoline dispensing facility within 300 feet.

Friant Ranch Decision

The MDAQMD does not currently have a methodology that would correlate the expected air quality emissions of project to the likely health consequences of those emissions. However, the MDAQMD does recommend the use of specific tools which are available (such as CalEEMod) for the purposes of project evaluation. Outside of existing tools, the MDAQMD does not currently have methodologies that would provide lead agencies and the public with a consistent, reliable and meaningful analysis to correlate specific health impacts that may result from a

proposed project's air emissions.

Recommended Substantiation Discussion Elements

For projects applying the emissions-based significance thresholds, project emissions quantification is required. In addition the environmental documentation must include support for the quantification methodology used, including emission factors, emission factors source, assumptions, and sample calculations where necessary. For projects using a calculation tool such as CalEEMod or URBEMIS, the support section must specify the inputs and settings used for the evaluation.

Significance Thresholds

Any project is significant if it triggers or exceeds the most appropriate evaluation criteria. The District will clarify upon request which threshold is most appropriate for a given project; in general, the emissions comparison (criteria number 1) is sufficient:

1. Generates total emissions (direct and indirect) in excess of the thresholds given in Table 6;
2. Generates a violation of any ambient air quality standard when added to the local background;
3. Does not conform with the applicable attainment or maintenance plan(s) ¹;
4. Exposes sensitive receptors to substantial pollutant concentrations, including those resulting in a cancer risk greater than or equal to 10 in a million and/or a Hazard Index (HI) (non-cancerous) greater than or equal to 1.*

**Refer to the Sensitive Receptor Land Use discussion above*

A significant project must incorporate mitigation sufficient to reduce its impact to a level that is not significant. A project that cannot be mitigated to a level that is not significant must incorporate all feasible mitigation. Note that the emission thresholds are given as a daily value and an annual value, so that multi-phased project (such as project with a construction phase and a separate operational phase) with phases shorter than one year can be compared to the daily value.

Table 6 – Significant Emissions Thresholds

Criteria Pollutant	Annual Threshold (short tons)	Daily Threshold (pounds)
Greenhouse Gases (CO ₂ e)	100,000	548,000
Carbon Monoxide (CO)	100	548
Oxides of Nitrogen (NO _x)	25	137
Volatile Organic Compounds (VOC)	25	137
Oxides of Sulfur (SO _x)	25	137
Particulate Matter (PM ₁₀)	15	82

¹ A project is deemed to not exceed this threshold, and hence not be significant, if it is consistent with the existing land use plan. Zoning changes, specific plans, general plan amendments and similar land use plan changes which do not increase dwelling unit density, do not increase vehicle trips, and do not increase vehicle miles traveled are also deemed to not exceed this threshold.

Criteria Pollutant	Annual Threshold (short tons)	Daily Threshold (pounds)
Particulate Matter (PM _{2.5})	12	65
Hydrogen Sulfide (H ₂ S)	10	54
Lead (Pb)	0.6	3

District Contacts

If an address is not listed, use the general address for the District, to the attention of the listed individual.

Mojave Desert Air Quality Management District General	(760) 245-1661 14306 Park Avenue Victorville, CA 92392-2310
Planning and Rules	Tracy Walters (760) 245-1661 x6122
Air Quality and Meteorological Data	Chris Collins (760) 245-1661 x6282
CEQA and Conformity	Alan De Salvio (760) 245-1661 x6726
Permitting	Sheri Haggard (760) 245-1661 x1864

Appendix A – Basic Definitions of Major Air Pollutants

Technical and/or legal definitions exist for many of these pollutants, depending on context. The following definitions are for general, introductory purposes only:

Carbon Dioxide (CO₂) – Common product of combustion. Not a criteria pollutant, but considered an important greenhouse gas. Important on a national or global scale.

Carbon Monoxide (CO) – Common product of incomplete combustion. A criteria pollutant with state and federal standards. Not a primary photochemical reaction compound, but involved in photochemical reactions. Dissipates rapidly, and is therefore only important on a local scale near sources.

Criteria Pollutants – Those air pollutants specifically identified for control under the Federal Clean Air Act (currently six: carbon monoxide, nitrogen oxides, lead, sulfur oxides, ozone and particulates).

Lead (Pb) – A heavy metal, present in the environment mainly due to historical use in motor vehicle fuel. Primarily associated with lead smelting operations. A criteria pollutant with state and federal standards. Primarily of concern near sources.

Oxides of Nitrogen (NO_x) – Common product of combustion in the presence of nitrogen. Includes NO₂, which is a criteria pollutant with state and federal standards. Locally and regionally important due to its involvement in the photochemical formation of ozone.

Oxides of Sulfur (SO_x) – Common product of combustion in the presence of sulfur. Associated primarily with diesel and coal burning. Includes SO₂, a criteria pollutant with state and federal standards. Primarily of concern near sources.

Ozone (O₃) – A gas mainly produced by a photochemical reaction between reactive organic gases and oxides of nitrogen in the presence of sunlight (also produced by molecular oxygen in the presence of ultraviolet light or electrical discharge). A strong oxidant that is damaging at ground level but necessary at high altitude (in the stratosphere, where it absorbs dangerous ultraviolet light). Also considered an important greenhouse gas. A criteria pollutant with state and federal standards.

Particulate Matter (TSP or PM₃₀) – Solid or liquid matter suspended in the atmosphere, excluding water. Includes aerosols and droplets that form in the atmosphere. Locally and regionally important.

Reactive/Volatile Organic Compounds/Gases (ROG, VOC, NMOG, NMOC) – A portion of total organic compounds or gases, excludes methane, ethane and acetone (due to low photochemical reactivity). “ROG” is generally used by the California Air Resources Board, “VOC” is generally used by the United States Environmental Protection Agency, but all four terms are interchangeable for most uses. Regionally important due to its involvement in the photochemical reaction that produces ozone.

Respirable Particulate Matter (coarse or PM₁₀, and fine or PM_{2.5}) – That portion of particulate matter that tends to penetrate into the human lung. The subscript refers to aerodynamic diameter. Criteria pollutants with state and federal standards. Locally and regionally important.

Total Organic Compounds/Gases (TOC or TOG) – Compounds containing at least one atom of carbon, except carbon monoxide, carbon dioxide, carbonic acid, metallic carbides and metallic carbonates. Primarily methane in the atmosphere, a greenhouse gas.

ATTACHMENT B – CalEEMod Emissions Model Output

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Annual

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

Air Quality Study - TTM 20454 Housing Development, Victorville, CA

Mojave Desert AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	5.18	Acre	5.18	225,640.80	0
Other Non-Asphalt Surfaces	1.67	Acre	1.67	72,745.20	0
City Park	4.58	Acre	4.58	199,504.80	0
Single Family Housing	110.00	Dwelling Unit	18.79	275,000.00	315

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	30
Climate Zone	10	Operational Year			2026
Utility Company	Southern California Edison				

CO2 Intensity (lb/MW/hr)	390.98	CH4 Intensity (lb/MW/hr)	0.033	N2O Intensity (lb/MW/hr)	0.004
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1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Information provided on site plan.

Construction Phase - An estimated start date of January 2023 was provided by client.

Architectural Coating - VOC limits from MDAQMD Rule 1113. For the building, assumes 90% flat paint (50 g/L) and 10% non-flat (100 g/L). For parking lot coatings, assumed to be compliant with the Traffic Marking Coating category VOC limit of 100 g/L.

Vehicle Trips - All areas modeled as City Park are within the housing development and no vehicle trips are expected.

Woodstoves - Based on adjacent neighborhoods, it was assumed that woodstoves would not be installed and gas fireplaces would be installed in every home.

Area Coating - VOC limits from MDAQMD Rule 1113. For the building, assumes 90% flat paint (50 g/L) and 10% non-flat (100 g/L). For parking lot coatings, assumed to be compliant with the Traffic Marking Coating category VOC limit of 100 g/L.

Construction Off-road Equipment Mitigation - Assumes that construction site will be watered 3 times per day to be in compliance with MDAQMD Rule 403.

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Annual

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

Area Mitigation - VOC limits from MDAQMD Rule 1113. For the building, assumes 90% flat paint (50 g/L) and 10% non-flat (100 g/L). For parking lot coatings, assumed to be compliant with the Traffic Marking Coating category VOC limit of 100 g/L.

Table Name	Column Name	Default Value	New Value
tb/ArchitecturalCoating	EF_Nonresidential_Exterior	250.00	55.00
tb/ArchitecturalCoating	EF_Nonresidential_Interior	250.00	55.00
tb/ArchitecturalCoating	EF_Parking	250.00	100.00
tb/ArchitecturalCoating	EF_Residential_Exterior	250.00	55.00
tb/ArchitecturalCoating	EF_Residential_Interior	250.00	55.00
tb/AreaCoating	Area_EF_Nonresidential_Exterior	250	55
tb/AreaCoating	Area_EF_Nonresidential_Interior	250	55
tb/AreaCoating	Area_EF_Parking	250	100
tb/AreaCoating	Area_EF_Residential_Exterior	250	55
tb/AreaCoating	Area_EF_Residential_Interior	250	55
tb/Fireplaces	FireplaceWoodMass	3,078.40	0.00
tb/Fireplaces	NumberGas	60.50	110.00
tb/Fireplaces	NumberNoFireplace	11.00	0.00
tb/Fireplaces	NumberWood	38.50	0.00
tb/LandUse	LandUseSquareFeet	198,000.00	275,000.00
tb/LandUse	LotAcreage	35.71	18.79
tb/VehicleTrips	CC_TL	7.30	0.00
tb/VehicleTrips	CC_TTP	48.00	0.00
tb/VehicleTrips	CNW_TL	7.30	0.00
tb/VehicleTrips	CNW_TTP	19.00	0.00
tb/VehicleTrips	CW_TL	9.50	0.00
tb/VehicleTrips	CW_TTP	33.00	0.00
tb/VehicleTrips	DV_TP	28.00	0.00
tb/VehicleTrips	PB_TP	6.00	0.00
tb/VehicleTrips	PR_TP	66.00	0.00
tb/VehicleTrips	ST_TR	1.96	0.00

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

tbVehicleTrips	SU_TR	2.19	0.00
tbVehicleTrips	WD_TR	0.78	0.00
tbWoodstoves	NumberCatalytic	5.50	0.00
tbWoodstoves	NumberNoncatalytic	5.50	0.00
tbWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, 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

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
2023	0.3443	2.8334	3.1617	7.8800e-003	0.6652	0.1170	0.7823	0.2541	0.1092	0.3633	0.0000	707.6502	707.6502	0.1099	0.0280	718.7473
2024	0.3026	2.2554	3.0595	8.0200e-003	0.3446	0.0857	0.4303	0.0934	0.0807	0.1741	0.0000	724.0546	724.0546	0.0786	0.0363	736.8368
2025	1.0630	0.5195	0.8014	1.8200e-003	0.0657	0.0205	0.0862	0.0178	0.0192	0.0369	0.0000	163.0828	163.0828	0.0245	5.9600e-003	165.4722
Maximum	1.0630	2.8334	3.1617	8.0200e-003	0.6652	0.1170	0.7823	0.2541	0.1092	0.3633	0.0000	724.0546	724.0546	0.1099	0.0363	736.8368

Mitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
MT/yr																
2023	0.3443	2.8334	3.1617	7.8800e-003	0.4190	0.1170	0.5360	0.1423	0.1092	0.2516	0.0000	707.6497	707.6497	0.1099	0.0280	718.7469
2024	0.3026	2.2554	3.0595	8.0200e-003	0.3446	0.0857	0.4303	0.0934	0.0807	0.1741	0.0000	724.0542	724.0542	0.0786	0.0363	736.8364
2025	1.0630	0.5195	0.8014	1.8200e-003	0.0657	0.0205	0.0862	0.0178	0.0192	0.0369	0.0000	163.0827	163.0827	0.0245	5.9600e-003	165.4721
Maximum	1.0630	2.8334	3.1617	8.0200e-003	0.4190	0.1170	0.5360	0.1423	0.1092	0.2516	0.0000	724.0542	724.0542	0.1099	0.0363	736.8364

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Annual

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

2.2 Overall Operational

Unmitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
tons/yr											MT/yr					
Area	1.2272	0.0842	0.8479	5.2000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	87.9759	87.9759	2.9400e-003	1.5900e-003	88.5227
Energy	0.0168	0.1434	0.0610	9.2000e-004		0.0116	0.0116		0.0116	0.0116	0.0000	321.4195	321.4195	0.0163	4.6300e-003	323.2078
Mobile	0.4770	0.7344	4.5630	9.9100e-003	1.0993	8.6300e-003	1.1079	0.2934	8.1100e-003	0.3015	0.0000	915.2847	915.2847	0.0519	0.0490	931.1936
Waste						0.0000	0.0000		0.0000	0.0000	26.2955	0.0000	26.2955	1.5540	0.0000	65.1459
Water						0.0000	0.0000		0.0000	0.0000	2.2737	36.2044	38.4781	0.2366	5.8800e-003	46.1465
Total	1.7210	0.9620	5.4719	0.0114	1.0993	0.0308	1.1301	0.2934	0.0303	0.3237	28.5692	1,360,884⁵	1,389,453⁷	1.8618	0.0611	1,454,216⁵

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, 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

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Area	1.2272	0.0842	0.8479	5.2000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	87.9759	87.9759	2.9400e-003	1.5900e-003	88.5227
Energy	0.0168	0.1434	0.0610	9.2000e-004		0.0116	0.0116		0.0116	0.0116	0.0000	321.4195	321.4195	0.0163	4.6300e-003	323.2078
Mobile	0.4770	0.7344	4.5630	9.9100e-003	1.0993	8.6300e-003	1.1079	0.2934	8.1100e-003	0.3015	0.0000	915.2847	915.2847	0.0519	0.0490	931.1936
Waste						0.0000	0.0000		0.0000	0.0000	26.2955	0.0000	26.2955	1.5540	0.0000	65.1459
Water						0.0000	0.0000		0.0000	0.0000	2.2737	36.2044	38.4781	0.2366	5.8800e-003	46.1465
Total	1.7210	0.9620	5.4719	0.0114	1.0993	0.0308	1.1301	0.2934	0.0303	0.3237	28.5692	1,360,884	1,389,453	1.8618	0.0611	1,454,216
												5	7			5

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/27/2023	1/27/2023	5	20	
2	Grading	Grading	1/28/2023	3/31/2023	5	45	
3	Building Construction	Building Construction	4/1/2023	2/28/2025	5	500	

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4	Paving	Paving	3/1/2025	4/18/2025	5	35
5	Architectural Coating	Architectural Coating	4/19/2025	6/6/2025	5	35

Acres of Grading (Site Preparation Phase): 30

Acres of Grading (Grading Phase): 135

Acres of Paving: 6.85

Residential Indoor: 556,875; Residential Outdoor: 185,625; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 17,903 (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 Not 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	249.00	93.00	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	50.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Fugitive Dust					0.1966	0.0000	0.1966	0.1010	0.0000	0.1010	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0266	0.2752	0.1824	3.8000e-004	0.0127	0.0127	0.0127	0.0117	0.0117	0.0117	0.0000	33.4507	33.4507	0.0108	0.0000	33.7212
Total	0.0266	0.2752	0.1824	3.8000e-004	0.1966	0.0127	0.2092	0.1010	0.0117	0.1127	0.0000	33.4507	33.4507	0.0108	0.0000	33.7212

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

3.2 Site Preparation - 2023

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
tons/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	5.5000e-004	3.8000e-004	4.3600e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.9000e-004	1.0000e-005	3.9000e-004	0.0000	1.1168	1.1168	4.0000e-005	3.0000e-005	1.1278
Total	5.5000e-004	3.8000e-004	4.3600e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.9000e-004	1.0000e-005	3.9000e-004	0.0000	1.1168	1.1168	4.0000e-005	3.0000e-005	1.1278
MT/yr																

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
Fugitive Dust					0.0767	0.0000	0.0767	0.0394	0.0000	0.0394	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0266	0.2752	0.1824	3.8000e-004	0.0127	0.0127	0.0127	0.0117	0.0117	0.0117	0.0000	33.4507	33.4507	0.0108	0.0000	33.7211
Total	0.0266	0.2752	0.1824	3.8000e-004	0.0767	0.0127	0.0893	0.0394	0.0117	0.0511	0.0000	33.4507	33.4507	0.0108	0.0000	33.7211
MT/yr																

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Annual

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

3.2 Site Preparation - 2023

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
tons/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	5.5000e-004	3.8000e-004	4.3600e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.9000e-004	1.0000e-005	3.9000e-004	0.0000	1.1168	1.1168	4.0000e-005	3.0000e-005	1.1278
Total	5.5000e-004	3.8000e-004	4.3600e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.9000e-004	1.0000e-005	3.9000e-004	0.0000	1.1168	1.1168	4.0000e-005	3.0000e-005	1.1278
MT/yr																

3.3 Grading - 2023

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
Fugitive Dust					0.2071	0.0000	0.2071	0.0822	0.0000	0.0822	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0747	0.7766	0.6312	1.4000e-003	0.0321	0.0321	0.0321	0.0295	0.0295	0.0295	0.0000	122.7042	122.7042	0.0397	0.0000	123.6964
Total	0.0747	0.7766	0.6312	1.4000e-003	0.2071	0.0321	0.2391	0.0822	0.0295	0.1117	0.0000	122.7042	122.7042	0.0397	0.0000	123.6964
MT/yr																

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Annual

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

3.3 Grading - 2023

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
tons/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	1.3800e-003	9.6000e-004	0.0109	3.0000e-005	3.6300e-003	2.0000e-005	3.6500e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	2.7919	2.7919	9.0000e-005	9.0000e-005	2.8195
Total	1.3800e-003	9.6000e-004	0.0109	3.0000e-005	3.6300e-003	2.0000e-005	3.6500e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	2.7919	2.7919	9.0000e-005	9.0000e-005	2.8195

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
Fugitive Dust					0.0808	0.0000	0.0808	0.0321	0.0000	0.0321	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0747	0.7766	0.6312	1.4000e-003	0.0321	0.0321	0.0321	0.0295	0.0295	0.0295	0.0000	122.7041	122.7041	0.0397	0.0000	123.6962
Total	0.0747	0.7766	0.6312	1.4000e-003	0.0808	0.0321	0.1128	0.0321	0.0295	0.0616	0.0000	122.7041	122.7041	0.0397	0.0000	123.6962

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Annual

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

3.3 Grading - 2023

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/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	1.3800e-003	9.6000e-004	0.0109	3.0000e-005	3.6300e-003	2.0000e-005	3.6500e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	2.7919	2.7919	9.0000e-005	9.0000e-005	2.8195
Total	1.3800e-003	9.6000e-004	0.0109	3.0000e-005	3.6300e-003	2.0000e-005	3.6500e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	2.7919	2.7919	9.0000e-005	9.0000e-005	2.8195

3.4 Building Construction - 2023

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
Off-Road	0.1533	1.4025	1.5838	2.6300e-003	0.0682	0.0682	0.0682	0.0642	0.0642	0.0642	0.0000	226.0096	226.0096	0.0538	0.0000	227.3537
Total	0.1533	1.4025	1.5838	2.6300e-003	0.0682	0.0682	0.0682	0.0642	0.0642	0.0642	0.0000	226.0096	226.0096	0.0538	0.0000	227.3537

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Annual

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

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/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	0.0134	0.3259	0.1607	1.7900e-003	0.0606	3.1400e-003	0.0637	0.0175	3.0000e-003	0.0205	0.0000	170.9516	170.9516	7.4000e-004	0.0233	177.9154
Worker	0.0743	0.0518	0.5883	1.6400e-003	0.1959	9.4000e-004	0.1968	0.0520	8.7000e-004	0.0529	0.0000	150.6253	150.6253	4.7800e-003	4.5900e-003	152.1134
Total	0.0877	0.3777	0.7491	3.4300e-003	0.2565	4.0800e-003	0.2606	0.0695	3.8700e-003	0.0734	0.0000	321.5769	321.5769	5.5200e-003	0.0279	330.0288
MT/yr																

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
Off-Road	0.1533	1.4025	1.5638	2.6300e-003		0.0682	0.0682		0.0642	0.0642	0.0000	226.0094	226.0094	0.0538	0.0000	227.3535
Total	0.1533	1.4025	1.5638	2.6300e-003		0.0682	0.0682		0.0642	0.0642	0.0000	226.0094	226.0094	0.0538	0.0000	227.3535
MT/yr																

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Annual

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

3.4 Building Construction - 2023

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/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	0.0134	0.3259	0.1607	1.7900e-003	0.0606	3.1400e-003	0.0637	0.0175	3.0000e-003	0.0205	0.0000	170.9516	170.9516	7.4000e-004	0.0233	177.9154
Worker	0.0743	0.0518	0.5883	1.6400e-003	0.1959	9.4000e-004	0.1968	0.0520	8.7000e-004	0.0529	0.0000	150.6253	150.6253	4.7800e-003	4.5900e-003	152.1134
Total	0.0877	0.3777	0.7491	3.4300e-003	0.2565	4.0800e-003	0.2806	0.0695	3.8700e-003	0.0734	0.0000	321.5769	321.5769	5.5200e-003	0.0279	330.0288
MT/yr																

3.4 Building Construction - 2024

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
Off-Road	0.1928	1.7611	2.1179	3.5300e-003	0.0803	0.0803	0.0803	0.0756	0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	0.1928	1.7611	2.1179	3.5300e-003	0.0803	0.0803	0.0803	0.0756	0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
MT/yr																

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Annual

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

3.4 Building Construction - 2024

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/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	0.0174	0.4327	0.2084	2.3600e-003	0.0814	4.2000e-003	0.0856	0.0235	4.0100e-003	0.0275	0.0000	224.6879	224.6879	9.5000e-004	0.0306	233.8273
Worker	0.0925	0.0616	0.7332	2.1300e-003	0.2632	1.1900e-003	0.2644	0.0699	1.1000e-003	0.0710	0.0000	195.6444	195.6444	5.8000e-003	5.7100e-003	197.4916
Total	0.1099	0.4943	0.9417	4.4900e-003	0.3446	5.3900e-003	0.3500	0.0934	5.1100e-003	0.0985	0.0000	420.3322	420.3322	6.7500e-003	0.0363	431.3189
MT/yr																

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
MT/yr																

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Annual

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

3.4 Building Construction - 2024

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/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	0.0174	0.4327	0.2084	2.3600e-003	0.0814	4.2000e-003	0.0856	0.0235	4.0100e-003	0.0275	0.0000	224.6879	224.6879	9.5000e-004	0.0306	233.8273
Worker	0.0925	0.0616	0.7332	2.1300e-003	0.2632	1.1900e-003	0.2644	0.0699	1.1000e-003	0.0710	0.0000	195.6444	195.6444	5.8000e-003	5.7100e-003	197.4916
Total	0.1099	0.4943	0.9417	4.4900e-003	0.3446	5.3900e-003	0.3500	0.0934	5.1100e-003	0.0985	0.0000	420.3322	420.3322	6.7500e-003	0.0363	431.3189
MT/yr																

3.4 Building Construction - 2025

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
Off-Road	0.0294	0.2681	0.3458	5.8000e-004	0.0113	0.0113	0.0113	0.0107	0.0107	0.0107	0.0000	49.8627	49.8627	0.0117	0.0000	50.1557
Total	0.0294	0.2681	0.3458	5.8000e-004	0.0113	0.0113	0.0113	0.0107	0.0107	0.0107	0.0000	49.8627	49.8627	0.0117	0.0000	50.1557
MT/yr																

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Annual

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

3.4 Building Construction - 2025

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/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	2.7900e-003	0.0703	0.0334	3.8000e-004	0.0134	6.9000e-004	0.0141	3.8600e-003	6.6000e-004	4.5100e-003	0.0000	36.1182	36.1182	1.5000e-004	4.9000e-003	37.5837
Worker	0.0141	9.0300e-003	0.1117	3.4000e-004	0.0432	1.9000e-004	0.0434	0.0115	1.7000e-004	0.0116	0.0000	31.0109	31.0109	8.6000e-004	8.7000e-004	31.2926
Total	0.0169	0.0793	0.1451	7.2000e-004	0.0566	8.8000e-004	0.0574	0.0153	8.3000e-004	0.0162	0.0000	67.1291	67.1291	1.0100e-003	5.7700e-003	68.8763

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr															
Off-Road	0.0294	0.2681	0.3458	5.8000e-004	0.0113	0.0113	0.0113	0.0107	0.0107	0.0107	0.0000	49.8626	49.8626	0.0117	0.0000	50.1557
Total	0.0294	0.2681	0.3458	5.8000e-004	0.0113	0.0113	0.0113	0.0107	0.0107	0.0107	0.0000	49.8626	49.8626	0.0117	0.0000	50.1557

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Annual

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

3.4 Building Construction - 2025

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
tons/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	2.7900e-003	0.0703	0.0334	3.8000e-004	0.0134	6.9000e-004	0.0141	3.8600e-003	6.6000e-004	4.5100e-003	0.0000	36.1182	36.1182	1.5000e-004	4.9000e-003	37.5837
Worker	0.0141	9.0300e-003	0.1117	3.4000e-004	0.0432	1.9000e-004	0.0434	0.0115	1.7000e-004	0.0116	0.0000	31.0109	31.0109	8.6000e-004	8.7000e-004	31.2926
Total	0.0169	0.0793	0.1451	7.2000e-004	0.0566	8.8000e-004	0.0574	0.0153	8.3000e-004	0.0162	0.0000	67.1291	67.1291	1.0100e-003	5.7700e-003	68.8763
MT/yr																

3.5 Paving - 2025

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
Off-Road	0.0160	0.1502	0.2551	4.0000e-004	7.3200e-003	7.3200e-003	7.3200e-003	6.7400e-003	6.7400e-003	6.7400e-003	0.0000	35.0337	35.0337	0.0113	0.0000	35.3170
Paving	6.7900e-003				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0228	0.1502	0.2551	4.0000e-004	7.3200e-003	7.3200e-003	7.3200e-003	6.7400e-003	6.7400e-003	6.7400e-003	0.0000	35.0337	35.0337	0.0113	0.0000	35.3170
MT/yr																

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Annual

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

3.5 Paving - 2025

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
tons/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	6.9000e-004	4.4000e-004	5.4800e-003	2.0000e-005	2.1200e-003	1.0000e-005	2.1300e-003	5.6000e-004	1.0000e-005	5.7000e-004	0.0000	1.5206	1.5206	4.0000e-005	4.0000e-005	1.5344
Total	6.9000e-004	4.4000e-004	5.4800e-003	2.0000e-005	2.1200e-003	1.0000e-005	2.1300e-003	5.6000e-004	1.0000e-005	5.7000e-004	0.0000	1.5206	1.5206	4.0000e-005	4.0000e-005	1.5344

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
Off-Road	0.0160	0.1502	0.2551	4.0000e-004	7.3200e-003	7.3200e-003	7.3200e-003	6.7400e-003	6.7400e-003	6.7400e-003	0.0000	35.0337	35.0337	0.0113	0.0000	35.3169
Paving	6.7900e-003				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0228	0.1502	0.2551	4.0000e-004	7.3200e-003	7.3200e-003	7.3200e-003	6.7400e-003	6.7400e-003	6.7400e-003	0.0000	35.0337	35.0337	0.0113	0.0000	35.3169

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Annual

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

3.5 Paving - 2025

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/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	6.9000e-004	4.4000e-004	5.4800e-003	2.0000e-005	2.1200e-003	1.0000e-005	2.1300e-003	5.6000e-004	1.0000e-005	5.7000e-004	0.0000	1.5206	1.5206	4.0000e-005	4.0000e-005	1.5344
Total	6.9000e-004	4.4000e-004	5.4800e-003	2.0000e-005	2.1200e-003	1.0000e-005	2.1300e-003	5.6000e-004	1.0000e-005	5.7000e-004	0.0000	1.5206	1.5206	4.0000e-005	4.0000e-005	1.5344
MT/yr																

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
Archit. Coating	0.9879					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0317	5.0000e-005	9.0000e-004	9.0000e-004	9.0000e-004	9.0000e-004	9.0000e-004	9.0000e-004	0.0000	4.4682	4.4682	2.4000e-004	0.0000	4.4743
Total	0.9909	0.0201	0.0317	5.0000e-005	9.0000e-004	9.0000e-004	9.0000e-004	9.0000e-004	9.0000e-004	9.0000e-004	0.0000	4.4682	4.4682	2.4000e-004	0.0000	4.4743
MT/yr																

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Annual

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

3.6 Architectural Coating - 2025

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/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-003	1.4800e-003	0.0183	6.0000e-005	7.0600e-003	3.0000e-005	7.0900e-003	1.8800e-003	3.0000e-005	1.9000e-003	0.0000	5.0686	5.0686	1.4000e-004	1.4000e-004	5.1146
Total	2.3000e-003	1.4800e-003	0.0183	6.0000e-005	7.0600e-003	3.0000e-005	7.0900e-003	1.8800e-003	3.0000e-005	1.9000e-003	0.0000	5.0686	5.0686	1.4000e-004	1.4000e-004	5.1146

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
Archit. Coating	0.9879					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0317	5.0000e-005	9.0000e-004	9.0000e-004	9.0000e-004	9.0000e-004	9.0000e-004	9.0000e-004	0.0000	4.4682	4.4682	2.4000e-004	0.0000	4.4743
Total	0.9909	0.0201	0.0317	5.0000e-005	9.0000e-004	9.0000e-004	9.0000e-004	9.0000e-004	9.0000e-004	9.0000e-004	0.0000	4.4682	4.4682	2.4000e-004	0.0000	4.4743

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Annual

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

3.6 Architectural Coating - 2025

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/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-003	1.4800e-003	0.0183	6.0000e-005	7.0600e-003	3.0000e-005	7.0900e-003	1.8800e-003	3.0000e-005	1.9000e-003	0.0000	5.0686	5.0686	1.4000e-004	1.4000e-004	5.1146
Total	2.3000e-003	1.4800e-003	0.0183	6.0000e-005	7.0600e-003	3.0000e-005	7.0900e-003	1.8800e-003	3.0000e-005	1.9000e-003	0.0000	5.0686	5.0686	1.4000e-004	1.4000e-004	5.1146
MT/yr																

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Annual

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

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Mitigated	0.4770	0.7344	4.5630	9.9100e-003	1.0993	8.6300e-003	1.1079	0.2934	8.1100e-003	0.3015	0.0000	915.2847	915.2847	0.0519	0.0490	931.1936
Unmitigated	0.4770	0.7344	4.5630	9.9100e-003	1.0993	8.6300e-003	1.1079	0.2934	8.1100e-003	0.3015	0.0000	915.2847	915.2847	0.0519	0.0490	931.1936
	tons/yr															
	MT/yr															

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
City Park	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	1,038.40	1,049.40	940.50	2,913,923	2,913,923
Total	1,038.40	1,049.40	940.50	2,913,923	2,913,923

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		
City Park	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0		
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0		
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0		
Single Family Housing	10.80	7.30	7.50	40.20	19.20	40.60	86	11	3		

4.4 Fleet Mix

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Annual

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

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.536887	0.057340	0.175255	0.133113	0.027571	0.007441	0.006401	0.022397	0.000473	0.000155	0.027151	0.000934	0.004880
Other Asphalt Surfaces	0.536887	0.057340	0.175255	0.133113	0.027571	0.007441	0.006401	0.022397	0.000473	0.000155	0.027151	0.000934	0.004880
Other Non-Asphalt Surfaces	0.536887	0.057340	0.175255	0.133113	0.027571	0.007441	0.006401	0.022397	0.000473	0.000155	0.027151	0.000934	0.004880
Single Family Housing	0.536887	0.057340	0.175255	0.133113	0.027571	0.007441	0.006401	0.022397	0.000473	0.000155	0.027151	0.000934	0.004880

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	FOG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	155.3747	155.3747	0.0131	1.5900e-003	156.1762
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	155.3747	155.3747	0.0131	1.5900e-003	156.1762
NaturalGas Mitigated	0.0168	0.1434	0.0610	9.2000e-004		0.0116	0.0116		0.0116	0.0116	0.0000	166.0449	166.0449	3.1800e-003	3.0400e-003	167.0316
NaturalGas Unmitigated	0.0168	0.1434	0.0610	9.2000e-004		0.0116	0.0116		0.0116	0.0116	0.0000	166.0449	166.0449	3.1800e-003	3.0400e-003	167.0316
	tons/yr										MT/yr					

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, 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

Land Use	NaturalGas Use kBTU/yr	ROG	NOx	CO	SO2	Fugitive PM10 tons/yr	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4 MT/yr	N2O	CO2e
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	3.11156e+006	0.0168	0.1434	0.0610	9.2000e-004		0.0116	0.0116		0.0116	0.0116	0.0000	166.0449	166.0449	3.1800e-003	3.0400e-003	167.0316
Total		0.0168	0.1434	0.0610	9.2000e-004		0.0116	0.0116		0.0116	0.0116	0.0000	166.0449	166.0449	3.1800e-003	3.0400e-003	167.0316

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, 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

Mitigated

Land Use	NaturalGas Use kBTU/yr	ROG	NOx	CO	SO2	Fugitive PM10 tons/yr	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4 MT/yr	N2O	CO2e
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	3.11156e+006	0.0168	0.1434	0.0610	9.2000e-004		0.0116	0.0116		0.0116	0.0116	0.0000	166.0449	166.0449	3.1800e-003	3.0400e-003	167.0316
Total		0.0168	0.1434	0.0610	9.2000e-004		0.0116	0.0116		0.0116	0.0116	0.0000	166.0449	166.0449	3.1800e-003	3.0400e-003	167.0316

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, 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

Land Use	Electricity Use kWh/yr	Total CO2	CH4	N2O	CO2e
		MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	876113	155.3747	0.0131	1.5900e-003	156.1762
Total		155.3747	0.0131	1.5900e-003	156.1762

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, 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

Land Use	Electricity Use kWh/yr	Total CO2	CH4	N2O	CO2e
			MT/yr		
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	876113	155.3747	0.0131	1.5900e-003	156.1762
Total		155.3747	0.0131	1.5900e-003	156.1762

6.0 Area Detail

6.1 Mitigation Measures Area

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Annual

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

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Mitigated	1.2272	0.0842	0.8479	5.2000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	87.9759	87.9759	2.9400e-003	1.5900e-003	88.5227
Unmitigated	1.2272	0.0842	0.8479	5.2000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	87.9759	87.9759	2.9400e-003	1.5900e-003	88.5227

6.2 Area by SubCategory

Unmitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Architectural Coating	0.0988					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0952					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	8.7500e-003	0.0748	0.0318		4.8000e-004	6.0500e-003	6.0500e-003		6.0500e-003	6.0500e-003	0.0000	86.6415	86.6415	1.6600e-003	1.5900e-003	87.1564
Landscaping	0.0245	9.4000e-003	0.8161		4.0000e-005	4.5300e-003	4.5300e-003		4.5300e-003	4.5300e-003	0.0000	1.3344	1.3344	1.2800e-003	0.0000	1.3663
Total	1.2272	0.0842	0.8479			0.0106	0.0106		0.0106	0.0106	0.0000	87.9759	87.9759	2.9400e-003	1.5900e-003	88.5227

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, 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

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Architectural Coating	0.0988					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0952					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	8.7500e-003	0.0748	0.0318	4.8000e-004	6.0500e-003	6.0500e-003	6.0500e-003	6.0500e-003	6.0500e-003	6.0500e-003	0.0000	86.6415	86.6415	1.6600e-003	1.5900e-003	87.1564
Landscaping	0.0245	9.4000e-003	0.8161	4.0000e-005	4.5300e-003	4.5300e-003	4.5300e-003	4.5300e-003	4.5300e-003	4.5300e-003	0.0000	1.3344	1.3344	1.2800e-003	0.0000	1.3663
Total	1.2272	0.0842	0.8479	5.2000e-004	0.0106	0.0106	0.0106	0.0106	0.0106	0.0106	0.0000	87.9759	87.9759	2.9400e-003	1.5900e-003	88.5227

7.0 Water Detail

7.1 Mitigation Measures Water

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, 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	38.4781	0.2366	5.8800e-003	46.1465
Unmitigated	38.4781	0.2366	5.8800e-003	46.1465

7.2 Water by Land Use

Unmitigated

Land Use	Mgal	Total CO2	CH4	N2O	CO2e
		MT/yr			
City Park	0 / 5.45698	10.7520	9.1000e-004	1.1000e-004	10.8074
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	7.16694 / 4.51829	27.7262	0.2357	5.7700e-003	35.3391
Total		38.4781	0.2366	5.8800e-003	46.1465

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, 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

Land Use	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
	Mgal	MT/yr			
City Park	0 / 5,456,998	10,7520	9.1000e-004	1.1000e-004	10,8074
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	7,166,941 / 4,518,294	27,7262	0.2357	5,7700e-003	35,3391
Total		38,4781	0,2366	5,8800e-003	46,1465

8.0 Waste Detail

8.1 Mitigation Measures Waste

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, 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
	MTYr			
Mitigated	26,2955	1,5540	0,0000	65,1459
Unmitigated	26,2955	1,5540	0,0000	65,1459

8.2 Waste by Land Use

Unmitigated

Land Use	Waste Disposed tons	Total CO2	CH4	N2O	CO2e
		MTYr			
City Park	0.39	0.0792	4.6800e-003	0.0000	0.1961
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	129.15	26,2163	1,5493	0,0000	64,9497
Total		26,2955	1,5540	0,0000	65,1459

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, 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

Land Use	Waste Disposed tons	Total CO2	CH4	N2O	CO2e
		MTYr			
City Park	0.39	0.0792	4.8800e-003	0.0000	0.1961
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	129.15	26.2163	1.5493	0.0000	64.9497
Total		26.2955	1.5540	0.0000	65.1459

9.0 Operational Offroad

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

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

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Annual

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

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

11.0 Vegetation

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Summer

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

Air Quality Study - TTM 20454 Housing Development, Victorville, CA

Mojave Desert AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	5.18	Acre	5.18	225,640.80	0
Other Non-Asphalt Surfaces	1.67	Acre	1.67	72,745.20	0
City Park	4.58	Acre	4.58	199,504.80	0
Single Family Housing	110.00	Dwelling Unit	18.79	275,000.00	315

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	30
Climate Zone	10	Operational Year			2026
Utility Company	Southern California Edison				

CO2 Intensity (lb/MW/hr)	390.98	CH4 Intensity (lb/MW/hr)	0.033	N2O Intensity (lb/MW/hr)	0.004
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1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Information provided on site plan.

Construction Phase - An estimated start date of January 2023 was provided by client.

Architectural Coating - VOC limits from MDAQMD Rule 1113. For the building, assumes 90% flat paint (50 g/L) and 10% non-flat (100 g/L). For parking lot coatings, assumed to be compliant with the Traffic Marking Coating category VOC limit of 100 g/L.

Vehicle Trips - All areas modeled as City Park are within the housing development and no vehicle trips are expected.

Woodstoves - Based on adjacent neighborhoods, it was assumed that woodstoves would not be installed and gas fireplaces would be installed in every home.

Area Coating - VOC limits from MDAQMD Rule 1113. For the building, assumes 90% flat paint (50 g/L) and 10% non-flat (100 g/L). For parking lot coatings, assumed to be compliant with the Traffic Marking Coating category VOC limit of 100 g/L.

Construction Off-road Equipment Mitigation - Assumes that construction site will be watered 3 times per day to be in compliance with MDAQMD Rule 403.

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Summer

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

Area Mitigation - VOC limits from MDAQMD Rule 1113. For the building, assumes 90% flat paint (50 g/L) and 10% non-flat (100 g/L). For parking lot coatings, assumed to be compliant with the Traffic Marking Coating category VOC limit of 100 g/L.

Table Name	Column Name	Default Value	New Value
tb/ArchitecturalCoating	EF_Nonresidential_Exterior	250.00	55.00
tb/ArchitecturalCoating	EF_Nonresidential_Interior	250.00	55.00
tb/ArchitecturalCoating	EF_Parking	250.00	100.00
tb/ArchitecturalCoating	EF_Residential_Exterior	250.00	55.00
tb/ArchitecturalCoating	EF_Residential_Interior	250.00	55.00
tb/AreaCoating	Area_EF_Nonresidential_Exterior	250	55
tb/AreaCoating	Area_EF_Nonresidential_Interior	250	55
tb/AreaCoating	Area_EF_Parking	250	100
tb/AreaCoating	Area_EF_Residential_Exterior	250	55
tb/AreaCoating	Area_EF_Residential_Interior	250	55
tb/Fireplaces	FireplaceWoodMass	3,078.40	0.00
tb/Fireplaces	NumberGas	60.50	110.00
tb/Fireplaces	NumberNoFireplace	11.00	0.00
tb/Fireplaces	NumberWood	38.50	0.00
tb/LandUse	LandUseSquareFeet	198,000.00	275,000.00
tb/LandUse	LotAcreage	35.71	18.79
tb/VehicleTrips	CC_TL	7.30	0.00
tb/VehicleTrips	CC_TTP	48.00	0.00
tb/VehicleTrips	CNW_TL	7.30	0.00
tb/VehicleTrips	CNW_TTP	19.00	0.00
tb/VehicleTrips	CW_TL	9.50	0.00
tb/VehicleTrips	CW_TTP	33.00	0.00
tb/VehicleTrips	DV_TP	28.00	0.00
tb/VehicleTrips	PB_TP	6.00	0.00
tb/VehicleTrips	PR_TP	66.00	0.00
tb/VehicleTrips	ST_TR	1.96	0.00

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Summer

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

tbVehicleTrips	SU_TR	2.19	0.00
tbVehicleTrips	WD_TR	0.78	0.00
tbWoodstoves	NumberCatalytic	5.50	0.00
tbWoodstoves	NumberNoncatalytic	5.50	0.00
tbWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Summer

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

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
2023	3.3947	34.5546	28.6167	0.0637	19.8049	1.4253	21.0716	10.1417	1.3112	11.3071	0.0000	6,349,700 ⁹	6,349,700 ⁹	1.9484	0.3117	6,459,282 ¹
2024	2.4508	17.0030	24.2458	0.0627	2.6763	0.6544	3.3307	0.7242	0.6159	1.3401	0.0000	6,245,685 ⁶	6,245,685 ⁶	0.6590	0.3020	6,352,162 ¹
2025	56.7791	15.9504	23.6444	0.0618	2.6763	0.5681	3.2443	0.7242	0.5347	1.2589	0.0000	6,145,616 ⁹	6,145,616 ⁹	0.7162	0.2930	6,249,212 ⁰
Maximum	56.7791	34.5546	28.6167	0.0637	19.8049	1.4253	21.0716	10.1417	1.3112	11.3071	0.0000	6,349,700⁹	6,349,700⁹	1.9484	0.3117	6,459,282¹

Mitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
2023	3.3947	34.5546	28.6167	0.0637	7.8141	1.4253	9.0808	3.9792	1.3112	5.1446	0.0000	6,349,700 ⁹	6,349,700 ⁹	1.9484	0.3117	6,459,282 ¹
2024	2.4508	17.0030	24.2458	0.0627	2.6763	0.6544	3.3307	0.7242	0.6159	1.3401	0.0000	6,245,685 ⁶	6,245,685 ⁶	0.6590	0.3020	6,352,162 ¹
2025	56.7791	15.9504	23.6444	0.0618	2.6763	0.5681	3.2443	0.7242	0.5347	1.2589	0.0000	6,145,616 ⁹	6,145,616 ⁹	0.7162	0.2930	6,249,212 ⁰
Maximum	56.7791	34.5546	28.6167	0.0637	7.8141	1.4253	9.0808	3.9792	1.3112	5.1446	0.0000	6,349,700⁹	6,349,700⁹	1.9484	0.3117	6,459,282¹

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Summer

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

2.2 Overall Operational

Unmitigated Operational

Category	ROG	NOX	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Area	7.0281	1.9292	9.8442	0.0121		0.1978	0.1978		0.1978	0.1978	0.0000	2,345,755 0	2,345,755 0	0.0603	0.0427	2,359,988 9
Energy	0.0919	0.7856	0.3343	5.0100e-003		0.0635	0.0635		0.0635	0.0635		1,002,921 3	1,002,921 3	0.0192	0.0184	1,008,881 2
Mobile	3.2965	3.8106	27.4729	0.0596	6.2889	0.0485	6.3374	1.6762	0.0456	1.7218		6,069,217 5	6,069,217 5	0.3062	0.2927	6,164,109 4
Total	10.4166	6.5254	37.6514	0.0768	6.2889	0.3099	6.5988	1.6762	0.3070	1.9831	0.0000	9,417,893 8	9,417,893 8	0.3857	0.3538	9,532,979 5

Mitigated Operational

Category	ROG	NOX	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Area	7.0281	1.9292	9.8442	0.0121		0.1978	0.1978		0.1978	0.1978	0.0000	2,345,755 0	2,345,755 0	0.0603	0.0427	2,359,988 9
Energy	0.0919	0.7856	0.3343	5.0100e-003		0.0635	0.0635		0.0635	0.0635		1,002,921 3	1,002,921 3	0.0192	0.0184	1,008,881 2
Mobile	3.2965	3.8106	27.4729	0.0596	6.2889	0.0485	6.3374	1.6762	0.0456	1.7218		6,069,217 5	6,069,217 5	0.3062	0.2927	6,164,109 4
Total	10.4166	6.5254	37.6514	0.0768	6.2889	0.3099	6.5988	1.6762	0.3070	1.9831	0.0000	9,417,893 8	9,417,893 8	0.3857	0.3538	9,532,979 5

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Summer

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

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/2/2023	1/27/2023	5	20		
2	Grading	Grading	1/28/2023	3/31/2023	5	45		
3	Building Construction	Building Construction	4/1/2023	2/28/2025	5	500		
4	Paving	Paving	3/1/2025	4/18/2025	5	35		
5	Architectural Coating	Architectural Coating	4/19/2025	6/6/2025	5	35		

Acres of Grading (Site Preparation Phase) : 30

Acres of Grading (Grading Phase) : 135

Acres of Paving: 6.85

Residential Indoor: 556,875; Residential Outdoor: 185,625; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 17,903 (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

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Summer

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

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

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	249,00	93,00	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	50,00	0,00	0,00	10,80	7,30	20,00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Summer

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

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		1	3,687.308	1.1926		3,717.121
Total	2.6595	27.5242	18.2443	0.0381	19.6570	1.2660	20.9230	10.1025	1.1647	11.2672		1	3,687.308	1.1926		3,717.121

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
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
Worker	0.0657	0.0351	0.5089	1.3300e-003	0.1479	7.0000e-004	0.1486	0.0392	6.4000e-004	0.0399		1	134,7499	3.7300e-003	3.5400e-003	135,8980
Total	0.0657	0.0351	0.5089	1.3300e-003	0.1479	7.0000e-004	0.1486	0.0392	6.4000e-004	0.0399		1	134,7499	3.7300e-003	3.5400e-003	135,8980

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Summer

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

3.2 Site Preparation - 2023

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Fugitive Dust					7.6662	0.0000	7.6662	3.9400	0.0000	3.9400			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.3081	3,687.3081	1.1926		3,717.1219
Total	2.6595	27.5242	18.2443	0.0381	7.6662	1.2660	8.9323	3.9400	1.1647	5.1047	0.0000	3,687.3081	3,687.3081	1.1926		3,717.1219

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
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
Worker	0.0657	0.0351	0.5089	1.3300e-003	0.1479	7.0000e-004	0.1486	0.0392	6.4000e-004	0.0399		134,7499	134,7499	3.7300e-003	3.5400e-003	135,8980
Total	0.0657	0.0351	0.5089	1.3300e-003	0.1479	7.0000e-004	0.1486	0.0392	6.4000e-004	0.0399		134,7499	134,7499	3.7300e-003	3.5400e-003	135,8980

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Summer

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

3.3 Grading - 2023

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	9.2036	1.4245	10.6281	3.6538	1.3105	4.9643		6,011.4777	6,011.4777	1.9442		6,060.0836

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0730	0.0390	0.5655	1.4800e-003	0.1643	7.8000e-004	0.1651	0.0436	7.1000e-004	0.0443		149.7221	149.7221	4.1500e-003	3.9300e-003	150.9978
Total	0.0730	0.0390	0.5655	1.4800e-003	0.1643	7.8000e-004	0.1651	0.0436	7.1000e-004	0.0443		149.7221	149.7221	4.1500e-003	3.9300e-003	150.9978

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Summer

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

3.3 Grading - 2023

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Fugitive Dust					3.5894	0.0000	3.5894	1.4250	0.0000	1.4250			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	3.5894	1.4245	5.0139	1.4250	1.3105	2.7355	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
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
Worker	0.0730	0.0390	0.5655	1.4800e-003	0.1643	7.8000e-004	0.1651	0.0436	7.1000e-004	0.0443			149.7221	4.1500e-003	3.9300e-003	150.9978
Total	0.0730	0.0390	0.5655	1.4800e-003	0.1643	7.8000e-004	0.1651	0.0436	7.1000e-004	0.0443			149.7221	4.1500e-003	3.9300e-003	150.9978

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Summer

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

3.4 Building Construction - 2023

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555,209	2,555,209	0.6079		2,570,406
												9	9			1
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555,209	2,555,209	0.6079		2,570,406

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1434	3.1656	1.6193	0.0184	0.6308	0.0322	0.6630	0.1817	0.0308	0.2124		1,930,450	1,930,450	8.5500e-003	0.2627	2,008,953
Worker	0.9089	0.4854	7.0404	0.0184	2.0455	9.6500e-003	2.0551	0.5426	8.8900e-003	0.5514		1,864,040	1,864,040	0.0516	0.0490	1,879,922
Total	1.0523	3.6510	8.6597	0.0368	2.6763	0.0418	2.7181	0.7242	0.0397	0.7639		3,794,491	3,794,491	0.0602	0.3117	3,888,876

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Summer

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

3.4 Building Construction - 2023

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555,209	2,555,209	0.6079		2,570,406
												9	9			1
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555,209	2,555,209	0.6079		2,570,406
												9	9			1

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1434	3.1656	1.6193	0.0184	0.6308	0.0322	0.6630	0.1817	0.0308	0.2124	1,930,450	1,930,450	8,550,003	0.5500e-003	0.2627	2,008,953
Worker	0.9089	0.4854	7.0404	0.0184	2.0455	9.6500e-003	2.0551	0.5426	8.8900e-003	0.5514	1,864,040	1,864,040	0.0516	0.0490	0.0490	1,879,922
											2	2	2			4
Total	1.0523	3.6510	8.6597	0.0368	2.6763	0.0418	2.7181	0.7242	0.0397	0.7639		3,794,491	3,794,491	0.0602	0.3117	3,888,876
												0	0			1

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Summer

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

3.4 Building Construction - 2024

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555,698 ⁹	2,555,698 ⁹	0.6044		2,570,807 ⁷
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555,698⁹	2,555,698⁹	0.6044		2,570,807⁷

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1384	3.1291	1.5613	0.0180	0.6308	0.0320	0.6628	0.1817	0.0306	0.2123		1,888,394 ⁹	1,888,394 ⁹	8.1400e-003	0.2567	1,965,085 ⁸
Worker	0.8409	0.4301	6.5176	0.0178	2.0455	9.1000e-003	2.0546	0.5426	8.3800e-003	0.5509		1,801,591 ⁸	1,801,591 ⁸	0.0465	0.0454	1,816,268 ⁶
Total	0.9793	3.5593	8.0790	0.0358	2.6763	0.0411	2.7174	0.7242	0.0390	0.7632		3,689,986⁷	3,689,986⁷	0.0546	0.3020	3,781,354⁵

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Summer

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

3.4 Building Construction - 2024

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555,698 ⁹	2,555,698 ⁹	0.6044		2,570,807 ⁷
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555,698⁹	2,555,698⁹	0.6044		2,570,807⁷

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1384	3.1291	1.5613	0.0180	0.6308	0.0320	0.6628	0.1817	0.0306	0.2123		1,888,394 ⁹	1,888,394 ⁹	8.1400e-003	0.2567	1,965,085 ⁸
Worker	0.8409	0.4301	6.5176	0.0178	2.0455	9.1000e-003	2.0546	0.5426	8.3800e-003	0.5509		1,801,591 ⁸	1,801,591 ⁸	0.0465	0.0454	1,816,268 ⁶
Total	0.9793	3.5593	8.0790	0.0358	2.6763	0.0411	2.7174	0.7242	0.0390	0.7632		3,689,986⁷	3,689,986⁷	0.0546	0.3020	3,781,354⁵

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Summer

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

3.4 Building Construction - 2025

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1351	3.0964	1.5227	0.0176	0.6308	0.0319	0.6627	0.1817	0.0305	0.2122		1,849.5630	1,849.5630	7.8800e-003	0.2508	1,924.4950
Worker	0.7810	0.3843	6.0371	0.0172	2.0455	8.6300e-003	2.0541	0.5426	7.9400e-003	0.5505		1,739.5795	1,739.5795	0.0419	0.0423	1,753.2189
Total	0.9161	3.4807	7.5597	0.0348	2.6763	0.0405	2.7168	0.7242	0.0384	0.7626		3,589.1425	3,589.1425	0.0498	0.2930	3,677.7140

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Summer

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

3.4 Building Construction - 2025

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556,474	2,556,474	0.6010		2,571,498
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556,474	2,556,474	0.6010		2,571,498

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1351	3.0964	1.5227	0.0176	0.6308	0.0319	0.6627	0.1817	0.0305	0.2122		1,849,563	1,849,563	7.8800e-003	0.2508	1,924,495
Worker	0.7810	0.3843	6.0371	0.0172	2.0455	8.6300e-003	2.0541	0.5426	7.9400e-003	0.5505		1,739,579	1,739,579	0.0419	0.0423	1,753,218
Total	0.9161	3.4807	7.5597	0.0348	2.6763	0.0405	2.7168	0.7242	0.0384	0.7626		3,589,142	3,589,142	0.0498	0.2930	3,677,714

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Summer

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

3.5 Paving - 2025

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.745 2	2,206.745 2	0.7137		2,224.587 8
Paving	0.3878					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.3029	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.745 2	2,206.745 2	0.7137		2,224.587 8

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0471	0.0232	0.3637	1.0400e-003	0.1232	5.2000e-004	0.1237	0.0327	4.8000e-004	0.0332		104.7940	104.7940	2.5200e-003	2.5500e-003	105.6156
Total	0.0471	0.0232	0.3637	1.0400e-003	0.1232	5.2000e-004	0.1237	0.0327	4.8000e-004	0.0332		104.7940	104.7940	2.5200e-003	2.5500e-003	105.6156

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Summer

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

3.5 Paving - 2025

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.745 2	2,206.745 2	0.7137		2,224.587 8
Paving	0.3878					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.3029	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.745 2	2,206.745 2	0.7137		2,224.587 8

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0471	0.0232	0.3637	1.0400e-003	0.1232	5.2000e-004	0.1237	0.0327	4.8000e-004	0.0332		104.7940	104.7940	2.5200e-003	2.5500e-003	105.6156
Total	0.0471	0.0232	0.3637	1.0400e-003	0.1232	5.2000e-004	0.1237	0.0327	4.8000e-004	0.0332		104.7940	104.7940	2.5200e-003	2.5500e-003	105.6156

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Summer

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

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Archit. Coating	56.4514					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	56.6223	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1568	0.0772	1.2123	3.4600e-003	0.4107	1.7300e-003	0.4125	0.1090	1.5900e-003	0.1105		349.3132	349.3132	8.4100e-003	8.4800e-003	352.0520
Total	0.1568	0.0772	1.2123	3.4600e-003	0.4107	1.7300e-003	0.4125	0.1090	1.5900e-003	0.1105		349.3132	349.3132	8.4100e-003	8.4800e-003	352.0520

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Summer

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

3.6 Architectural Coating - 2025

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Archit. Coating	56.4514				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003	0.0515	0.0515	0.0515	0.0515	0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	56.6223	1.1455	1.8091	2.9700e-003	0.0515	0.0515	0.0515	0.0515	0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
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
Worker	0.1568	0.0772	1.2123	3.4600e-003	0.4107	1.7300e-003	0.4125	0.1090	1.5900e-003	0.1105		349.3132	349.3132	8.4100e-003	8.4800e-003	352.0520
Total	0.1568	0.0772	1.2123	3.4600e-003	0.4107	1.7300e-003	0.4125	0.1090	1.5900e-003	0.1105		349.3132	349.3132	8.4100e-003	8.4800e-003	352.0520

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Summer

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Mitigated	3.2965	3.8106	27.4729	0.0596	6.2889	0.0485	6.3374	1.6762	0.0456	1.7218	6,069.217	5	6,069.217	0.3062	0.2927	6,164.109
Unmitigated	3.2965	3.8106	27.4729	0.0596	6.2889	0.0485	6.3374	1.6762	0.0456	1.7218	6,069.217	5	6,069.217	0.3062	0.2927	6,164.109
	lb/day															

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
City Park	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	1,038.40	1,049.40	940.50	2,913,923	2,913,923
Total	1,038.40	1,049.40	940.50	2,913,923	2,913,923

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		
City Park	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0		
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0		
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0		

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Summer

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

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	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.536887	0.057340	0.175255	0.133113	0.027571	0.007441	0.006401	0.022397	0.000473	0.000155	0.027151	0.000934	0.004880
Other Asphalt Surfaces	0.536887	0.057340	0.175255	0.133113	0.027571	0.007441	0.006401	0.022397	0.000473	0.000155	0.027151	0.000934	0.004880
Other Non-Asphalt Surfaces	0.536887	0.057340	0.175255	0.133113	0.027571	0.007441	0.006401	0.022397	0.000473	0.000155	0.027151	0.000934	0.004880
Single Family Housing	0.536887	0.057340	0.175255	0.133113	0.027571	0.007441	0.006401	0.022397	0.000473	0.000155	0.027151	0.000934	0.004880

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
NaturalGas Mitigated	0.0919	0.7856	0.3343	5.0100e-003	0.0635	0.0635	0.0635	0.0635	0.0635	0.0635	1,002.921	1,002.921	1,002.921	0.0192	0.0184	1,008.881
NaturalGas Unmitigated	0.0919	0.7856	0.3343	5.0100e-003	0.0635	0.0635	0.0635	0.0635	0.0635	0.0635	1,002.921	1,002.921	1,002.921	0.0192	0.0184	1,008.881

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Summer

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

Land Use	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
	KBTU/yr	lb/day										lb/day					
City Park	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	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	8524.83	0.0919	0.7856	0.3343	5.0100e-003	0.0635	0.0635	0.0635	0.0635	0.0635	0.0635	1.002.9213	1.002.9213	1.002.9213	0.0192	0.0184	1.008.8812
Total		0.0919	0.7856	0.3343	5.0100e-003	0.0635	0.0635	0.0635	0.0635	0.0635	0.0635	1.002.9213	1.002.9213	1.002.9213	0.0192	0.0184	1.008.8812

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Summer

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

Mitigated

Land Use	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
	kBTU/yr	lb/day															
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	8.52483	0.0919	0.7856	0.3343	5.0100e-003		0.0635	0.0635		0.0635	0.0635		1.002.9213	1.002.9213	0.0192	0.0184	1.008.8812
Total		0.0919	0.7856	0.3343	5.0100e-003		0.0635	0.0635		0.0635	0.0635		1.002.9213	1.002.9213	0.0192	0.0184	1.008.8812

6.0 Area Detail

6.1 Mitigation Measures Area

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Summer

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

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Mitigated	7.0281	1.9292	9.8442	0.0121		0.1978	0.1978		0.1978	0.1978	0.0000	2,345,755 0	2,345,755 0	0.0603	0.0427	2,359,988 9
Unmitigated	7.0281	1.9292	9.8442	0.0121		0.1978	0.1978		0.1978	0.1978	0.0000	2,345,755 0	2,345,755 0	0.0603	0.0427	2,359,988 9
lb/day																

6.2 Area by SubCategory

Unmitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Architectural Coating	0.5413					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.0010					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.2135	1.8247	0.7765	0.0117		0.1475	0.1475		0.1475	0.1475	0.0000	2,329,411 8	2,329,411 8	0.0447	0.0427	2,343,254 3
Landscaping	0.2723	0.1045	9.0677			0.0503	0.0503		0.0503	0.0503		16,3433	16,3433	0.0157		16,7346
Total	7.0281	1.9292	9.8442	0.0121		0.1978	0.1978		0.1978	0.1978	0.0000	2,345,755 0	2,345,755 0	0.0603	0.0427	2,359,988 9
lb/day																

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Summer

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

6.2 Area by SubCategory

Mitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Architectural Coating	0.5413					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.0010					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.2135	1.8247	0.7765	0.0117		0.1475	0.1475		0.1475	0.1475	0.0000	2,329,411.8	2,329,411.8	0.0447	0.0427	2,343,254.3
Landscaping	0.2723	0.1045	9.0677	4.8000e-004		0.0503	0.0503		0.0503	0.0503		16,343.3	16,343.3	0.0157		16,734.6
Total	7.0281	1.9292	9.8442	0.0121		0.1978	0.1978		0.1978	0.1978	0.0000	2,345,755.0	2,345,755.0	0.0603	0.0427	2,359,988.9

7.0 Water Detail

7.1 Mitigation Measures Water

Air Quality Study - TTM 20454 Housing Development, Victorville, CA - Mojave Desert AQMD Air District, Summer

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

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
