



KPC EHS Consultants, LLC

Technical Memorandum

Kevin P. Carr, MS.

Date: February 2, 2023

Re: City of Victorville – Luna Road Retail Center - Air Quality/GHG Assessment

1.0 Purpose

The purpose of this memorandum is to document the results of the air quality (AQ) and greenhouse gas (GHG) emissions assessment as it relates to the potential environmental impacts associated with the construction and operation of the proposed neighborhood retail center project on 3.57 acres.

2.0 Project Location & Description

- 2.1 Project Location:** The proposed project site is located in the City of Victorville, San Bernardino, California on the southwest corner of Luna Road and U.S. Hwy 395, and is referred to as APN: 3096-361-09.
- 2.2 Description:** The Applicant is proposing a neighborhood retail center on 3.57 acres consisting of a 3,400 square foot (SF) convenience store with 8 pump gas station, a 1,000 SF quick service food, a 4,800 SF express carwash, a 1,500 SF restaurant with drive through, 8,700 SF of retail, and 87 parking spaces.

3.0 Air Quality & Greenhouse Gas (GHG) Assessment

- 3.1 Determination of Significance:** The criteria used to determine the significance related to potential Project related air quality and greenhouse gas emission impacts is based on the California Environmental Quality Act (CEQA) Environmental Checklist, Appendix G Thresholds:

3.1.1 Air Quality / GHG Impacts:

Would the Project: Conflict with or obstruct implementation of the applicable air quality plan?

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

Would the Project: Expose sensitive receptors to substantial pollutant concentrations?

Would the Project: Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Would the Project: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Would the Project: Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

3.1.2 Air Quality / GHG Thresholds:

The Mojave Desert Air Quality Management District (MDAQMD) has developed regional significance thresholds for regulated pollutants as well as GHG emissions. The MDAQMD's CEQA Guidelines provide significance thresholds as indicted in Table 3.1 below.

Table 3.1 – Emissions Significance Thresholds

Criteria Pollutant / Emission	Annual Threshold (Tons)	Daily Threshold (pounds)
Carbon Monoxide (CO)	100	548
Oxides of Nitrogen (NO _x)	25	137
Reactive Organic Gases (ROG)	25	137
Sulfur Oxides (SO _x)	25	137
Particulate Matter 10 microns (PM ₁₀)	15	82
Particulate Matter 2.5 microns (PM _{2.5})	12	65
Carbon Dioxide Equivalent (CO ₂ e) for GHG.	100,000	548,000

3.2 Construction Emissions: Construction emissions for the Project were estimated by using the California Emissions Estimator Model (CalEEMod) 2020.4.0, which is a statewide land use emissions computer model designed to provide a uniform platform for government agencies to quantify potential criteria pollutant emissions associated with both construction and operations emissions. CalEEMod is authorized for use to assess project emissions by the Mojave Desert Air Quality Management District (MDAQMD). Construction emissions are summarized in Table 3.2.

Construction emissions were based on CalEEMod Land Uses for Fast Food Restaurant w/Drive Thru, Automobile Care Center, Convenience Market w/ Gas Pumps, Regional Shopping Center, and Parking Lot. Construction was estimated for a 226-day construction schedule, with default values used for the schedule, each construction phase including site preparation, grading, building construction, paving, and architectural coating as well as defaults for off-road construction equipment. Peak emissions represent the highest value from the summer or winter modeling as a worse-case scenario. MDAQMD significance thresholds were used for determining the project's impacts.

Table 3.2 - Summary of Peak Construction Emissions (No Mitigation)

Year	Emissions (lbs/day)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Construction 2022	1.75	17.00	13.54	0.03	7.91	4.13
Construction 2023	10.86	12.01	13.36	0.03	0.75	0.56
Maximum Daily Emissions	10.86	17.00	13.54	0.03	7.91	4.13
MDAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	NO	NO	NO	NO	NO	NO

Source: CalEEMod 2020.4.0 Datasheets.

3.3 Operational Emissions: Operational emissions for the Project were estimated by using the California Emissions Estimator Model (CalEEMod) which is a statewide land use emissions computer model designed to provide a uniform platform for government agencies to quantify potential criteria pollutant emissions associated with both construction and operations emissions. CalEEMod is authorized for use to assess project emissions by the Mojave Desert Air Quality Management District (MDAQMD). Operations emissions include stationary (residence emissions), mobile (transportation emissions), and area (on-going architectural coatings, consumer product use, landscaping maintenance emissions). Default values were used with the exception of selecting “no wood burning hearths”. MDAQMD significance thresholds were used for determining the project’s impacts. Operation emissions are summarized in Table 3.3.

Table 3.3 - Summary of Peak Operational Emissions

Maximum Daily Emissions	Emissions (lbs/day)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Maximum Daily Emissions	10.82	7.64	47.10	0.07	6.72	1.85
MDAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	NO	NO	NO	NO	NO	NO

Source: CalEEMod 2020.4.0 Datasheets.

3.4 Greenhouse Gas Emissions (GHG): GHG emissions for the Project were estimated by using the California Emissions Estimator Model (CalEEMod) which is a statewide land use emissions computer model designed to provide a uniform platform for government agencies to quantify potential criteria pollutant emissions associated with both construction and operations emissions. CalEEMod is authorized for use to assess project emissions by the Mojave Desert Air Quality Management District (MDAQMD). MDAQMD significance thresholds were used for determining the project’s impacts. The CalEEMod program outputs annual CO₂e emissions in Metric Tons per year (MTCO₂e/Year), however the MDAQMD threshold is in tons per year (Tons/Year), therefore the emissions results in the tables are included as both MTCO₂e/Year and CO₂e Tons/Year. Construction and operation emissions are presented in Table 3.4 and summarized in Table 3.5.

Table 3.4 - Project Greenhouse Gas Emissions

Source	GHG Emissions MT/yr			
	N ₂ O	CO ₂	CH ₄	CO ₂ e
Area	0.000	0.002	< 0.001	0.002
Energy	0.001	82.83	0.005	83.28
Mobile Sources	0.083	1,050.39	0.12	1,078.12
Solid Waste	0.000	7.04	0.42	17.44
Water/Wastewater	0.001	5.16	0.046	6.64
30-year Amortized Construction GHG				7.56
TOTAL	<i>Tons/Year / Metric Tons / Year</i>			1,315 / 1,193
MDAQMD Threshold	<i>100,000 Tons/Year / 90,718.5 MT/Year¹</i>			100,000/90,718.5
Exceed Threshold?				NO

Source: CalEEMod Datasheets, Appendix A

Table 3.5 - Project Greenhouse Gas Emissions Summary

GHG Emissions Source	Daily Emissions	Daily Threshold	Annual Emissions Tons / Metric Tons	Annual Threshold Tons/Metric Tons	Exceeds Threshold?
Construction 2022	2,375.68	548,000	93.29 / 84.63	100,000 / 90,718.5	NO
Construction 2023	2,365.22	548,000	156.7 / 142.16	100,000 / 90,718.5	NO
Operations	7,929.99	548,000	1,315 / 1,193	100,000 / 90,718.5	NO

Source: CalEEMod Datasheets, Appendix A

3.5 Objectionable Odors: Potential odor sources associated with the Project may result from construction equipment exhaust and the application of asphalt and architectural coatings during construction activities and the temporary storage of typical solid waste (refuse) associated with the proposed Project’s long-term operational uses.

The construction odor emissions would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction and is thus considered less than significant. It is expected that Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the City’s solid waste regulations. Therefore, odors associated with the proposed Project construction and operations would be less than significant and no mitigation is required.

3.6 Sensitive Receptors: A sensitive receptor is a person in the population who is particularly susceptible to health effects due to exposure to an air contaminant. The following are land uses (sensitive sites) where sensitive receptors are typically located:

- Schools, playgrounds, and childcare centers
- Long-term health care facilities
- Rehabilitation centers
- Convalescent centers
- Hospitals
- Retirement homes
- Residences

¹ CalEEMod GHG Emissions for GHG CO₂e is calculated in Metric Tons (MT) per year.

The sensitive receptors in the area of the Project site include residential to the north, west, east, and southwest, as well as the Vista Verde Elementary School to the north and Morgan Kincaid Preparatory School to the east.

Table 3.6 – Receptor Locations

Receptor	Distance from Project Site Boundary (feet)	Distance from Project Site Center (feet)
Vista Verde Elementary School	1,050	1,300
Morgan Kincaid Preparatory School	2,855	3,005
Residential - North	100	250
Residential - East	770	920
Residential – West	70	220
Residential - Southwest	800	950

Source: Google Earth, January 31, 2023

The nearest sensitive receptors are residential uses located to the Project site to the west and north of the Project. The properties immediately to the south are vacant and zoned for future commercial uses, US 395 immediately to the east with commercial adjacent to the east side of US 395, and as such the Project would be compatible with surrounding land uses.

According to the MDAQMD CEQA and Federal Conformity Guidelines, the following project types proposed for sites within the specified distance to an existing or planned (zoned) sensitive receptor land use must be evaluated:

- Any industrial project within 1,000 feet;
- A distribution center (40 or more trucks per day) within 1,000 feet;
- A major transportation project (50,000 or more vehicles per day) within 1,000 feet;
- A dry cleaner using perchloroethylene within 500 feet; and,
- A gasoline dispensing facility within 300 feet.

The Project includes a gasoline dispensing facility (gasoline service station), which is within 300 feet of residential land uses. Emissions resulting from the gasoline service station have the potential to result in toxic air contaminants (TACs) from components within the gasoline such as benzene, hexane, MTBE, toluene, and xylene. Emissions from gasoline service stations have the potential to contribute to health risk to sensitive receptors near the project site. The MDAQMD currently does not have a procedure for determining screening-level health risk estimates for gasoline dispensing operations and therefore relies on SCAQMD methodology. For purposes of this evaluation, cancer risk estimates can be made consistent with the methodology presented in SCAQMD's *Risk Assessment Procedures for Rules 1401, 1401.1 & 212* which provides screening-level risk estimates for gasoline dispensing operations. To determine the potential risk from the operation of the gasoline service station the 2022 CARB & CAPCOA Gasoline Service Station Industrywide Risk

Assessment Look-up Tool Version 1.0 and SCAQMD’s Risk Tool V1.105 were used to calculate the risk values.

Inputs for the Risk Tool were based on the following information:

- According to the Association for Convenience & Fuel Retailing (NACS) the average daily throughput for convenience stores with gasoline service stations is 2,600 gallons per day, which equates to approximately 1,000,000 gallons per year.
- The closest meteorological station used in the Risk Tool that reflects the climate of Victorville is the Desert Hot Springs Airport.
- The distance to the closest residential receptor is approximately 50 meters north from the canopy gasoline service station.
- The distance to the closest commercial receptor is approximately 20 meters west from the canopy gasoline service station.

Based on the results of the Risk Tools (Appendix B), it is projected that no sensitive receptors locate in the residential areas in the project vicinity will be exposed to a cancer risk of greater than 1.44 and 1.553 in one million and the workers on site in the commercial uses would be exposed to a 0.36 and 0.315 in one million which is less than the applicable threshold of 10 in one million. It should be noted that this screening-level risk estimate is very conservative and overstates rather than understate potential impacts.

Table 3.7 - Gasoline Dispensing Health Risk

Risk Value	CARB & CAPCOA Look-up Tool	SCAQMD Screening Tool
Residential Risk	1.44	1.553
Worker/Commercial Risk	0.36	0.315

3.7 Cumulative Impacts: The project area is designated as a non-attainment area for ozone and a non-attainment area for PM_{2.5} and PM₁₀. The Project would comply with the mandatory requirements of MDAQMD’s Rule 403 (fugitive dust control) during construction, as well as all other adopted AQMP emissions control measures. The project also is required to comply with California Code of Regulations Title 13, Division 3, and specifically its Chapter 1, Article 4.5, Section 2025, “Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants, from In- Use Heavy-Duty Diesel-Fueled Vehicles” and its Chapter 10, Article 1, Section 2485, “Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling.” Per MDAQMD rules and mandates, and California Code of Regulation requirements, as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements are imposed on all projects in the South Coast Air Basin.

In determining whether or not the project would result in a cumulatively considerable net

increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors), the non-attainment pollutants of concern for this impact are ozone, PM_{2.5} and PM₁₀. In developing the thresholds of significance for air pollutants disclosed above the MDAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions.

As shown in Tables 3.2 through 3.5 above, the project does not exceed the identified significance thresholds, as such, emissions would not be cumulatively considerable.

3.8 Conformity and Consistency: The following analysis is consistent with the preferred analysis approach recommended by the MDAQMD *California Environmental Quality Act (CEQA) and Federal Conformity Guidelines*.

3.8.1 Conformity with Air Quality Management Plans: The Project is located within the Mojave Desert Air Basin and under the jurisdiction of the Mojave Desert Air Quality Management District. Under the Federal Clean Air Act the Mojave Desert Air Quality Management District has adopted a variety of attainment plans (i.e., "Air Quality Management Plans") for a variety of non-attainment pollutants. A complete list of the various air quality management plans is available from the Mojave Desert Air Quality Management District located at 14306 Park Avenue, Victorville, CA 92392 or on their website at: <https://www.mdaqmd.gov/rules/overview>

The Mojave Desert Air Quality Management District is responsible for maintaining and ensuring compliance with the various Air Quality Management Plans. Conformity is determined based on the following criteria:

- A project is non-conforming if it conflicts with or delays implementation of any applicable attainment or maintenance plan. A project may also be non-conforming if it 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).
- A project is conforming if it complies with all applicable Mojave Desert Air Quality Management 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).

3.8.2 Consistency with Emission Thresholds: As shown in Tables 3.2 through and 3.5, the Project would not exceed Mojave Desert Air Quality Management District significance thresholds for any criteria pollutant during construction or during long-

term operation. Accordingly, the Project's air quality emissions are less than significant.

3.8.3 Consistency with Control Measures: The construction contractors are required to comply with rules, regulations, and control measures to control fugitive dust from grading (Rule 403) and the application of architectural coatings during building construction (Rule 1113).

3.8.4 Consistency with Growth Forecasts: The Project site is currently designated as C-1 – Neighborhood Service Commercial, with a zoning of Specific Plan SP2-91, General Commercial. The commercial land use designation was the land use designation that was utilized by the MDAQMD to generate the growth forecasts for the air quality plans referenced above and would be consistent with the growth assumptions used in the MDAQMD plans.

4.0 Conclusion

Based on the assessment in Section 3.0 all estimated Project emissions for construction and operations are below the MDAQMD significance threshold levels and as such impacts to the environment for Air Quality, Greenhouse Gases, and Gasoline Dispensing Health Risks are less than significant. Additionally, the proposed Project will not conflict with any air quality or GHG plans.



KPC EHS Consultants, LLC

APPENDIX A

Luna Road Commercial - Mojave Desert AQMD Air District, Summer

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

Luna Road Commercial
Mojave Desert AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	91.00	Space	0.82	36,400.00	0
Fast Food Restaurant with Drive Thru	1.50	1000sqft	0.03	1,500.00	0
Automobile Care Center	4.80	1000sqft	0.11	4,800.00	0
Convenience Market with Gas Pumps	8.00	Pump	0.03	3,400.00	0
Regional Shopping Center	9.70	1000sqft	0.22	9,700.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	30
Climate Zone	10			Operational Year	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - Land use per siteplan
- Construction Phase - No demolition phase;
- Trips and VMT -
- Grading - Acres graded and import per earthwork volume analysis
- Architectural Coating - VOC per MDAQMD Rules
- Woodstoves - No wood fireplaces
- Area Coating - VOC per MDAQMD Rules

Luna Road Commercial - Mojave Desert AQMD Air District, Summer

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

Construction Off-road Equipment Mitigation - Construction mitigation for fugitive dust

Area Mitigation - No fireplaces

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	50
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	20
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblLandUse	LandUseSquareFeet	1,129.40	3,400.00

2.0 Emissions Summary

Luna Road Commercial - Mojave Desert AQMD Air District, Summer

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

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	1.7488	17.0058	13.5447	0.0255	7.1647	0.7427	7.9074	3.4465	0.6833	4.1298	0.0000	2,357.6374	2,357.6374	0.6477	0.0308	2,375.6780
2023	10.8619	12.0577	13.3631	0.0254	0.2336	0.5184	0.7520	0.0633	0.5006	0.5639	0.0000	2,347.7854	2,347.7854	0.4141	0.0296	2,365.2200
Maximum	10.8619	17.0058	13.5447	0.0255	7.1647	0.7427	7.9074	3.4465	0.6833	4.1298	0.0000	2,357.6374	2,357.6374	0.6477	0.0308	2,375.6780

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	1.7488	17.0058	13.5447	0.0255	2.8301	0.7427	3.5728	1.3539	0.6833	2.0372	0.0000	2,357.6374	2,357.6374	0.6477	0.0308	2,375.6780
2023	10.8619	12.0577	13.3631	0.0254	0.1949	0.5184	0.7133	0.0539	0.5006	0.5544	0.0000	2,347.7854	2,347.7854	0.4141	0.0296	2,365.2200
Maximum	10.8619	17.0058	13.5447	0.0255	2.8301	0.7427	3.5728	1.3539	0.6833	2.0372	0.0000	2,357.6374	2,357.6374	0.6477	0.0308	2,375.6780

Luna Road Commercial - Mojave Desert AQMD Air District, Summer

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.4528	1.1000e-004	0.0117	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0252	0.0252	7.0000e-005		0.0268
Energy	0.0175	0.1593	0.1338	9.6000e-004		0.0121	0.0121		0.0121	0.0121		191.1343	191.1343	3.6600e-003	3.5000e-003	192.2701
Mobile	10.3513	7.4851	46.9580	0.0731	6.6381	0.0677	6.7058	1.7695	0.0634	1.8329		7,561.3759	7,561.3759	0.6835	0.5343	7,737.6927
Total	10.8216	7.6445	47.1035	0.0741	6.6381	0.0798	6.7179	1.7695	0.0755	1.8451		7,752.5353	7,752.5353	0.6872	0.5378	7,929.9895

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.4217	1.1000e-004	0.0117	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0252	0.0252	7.0000e-005		0.0268
Energy	0.0175	0.1593	0.1338	9.6000e-004		0.0121	0.0121		0.0121	0.0121		191.1343	191.1343	3.6600e-003	3.5000e-003	192.2701
Mobile	10.3513	7.4851	46.9580	0.0731	6.6381	0.0677	6.7058	1.7695	0.0634	1.8329		7,561.3759	7,561.3759	0.6835	0.5343	7,737.6927
Total	10.7906	7.6445	47.1035	0.0741	6.6381	0.0798	6.7179	1.7695	0.0755	1.8451		7,752.5353	7,752.5353	0.6872	0.5378	7,929.9895

Luna Road Commercial - Mojave Desert AQMD Air District, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.29	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	9/12/2022	9/13/2022	5	2	
2	Grading	Grading	9/14/2022	9/19/2022	5	4	
3	Building Construction	Building Construction	9/20/2022	6/26/2023	5	200	
4	Paving	Paving	6/27/2023	7/10/2023	5	10	
5	Architectural Coating	Architectural Coating	7/11/2023	7/24/2023	5	10	

Acres of Grading (Site Preparation Phase): 1.88

Acres of Grading (Grading Phase): 4

Acres of Paving: 0.82

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 26,294; Non-Residential Outdoor: 8,765; Striped Parking Area: 2,184 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37

Luna Road Commercial - Mojave Desert AQMD Air District, Summer

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

Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	21.00	9.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

Luna Road Commercial - Mojave Desert AQMD Air District, Summer

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

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2662	0.0000	6.2662	3.0041	0.0000	3.0041			0.0000			0.0000
Off-Road	1.3122	14.6277	7.0939	0.0172		0.6225	0.6225		0.5727	0.5727		1,666.1738	1,666.1738	0.5389		1,679.6457
Total	1.3122	14.6277	7.0939	0.0172	6.2662	0.6225	6.8887	3.0041	0.5727	3.5768		1,666.1738	1,666.1738	0.5389		1,679.6457

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0317	0.0177	0.2480	6.1000e-004	0.0657	3.3000e-004	0.0661	0.0174	3.0000e-004	0.0177		62.3015	62.3015	1.8500e-003	1.7100e-003	62.8565
Total	0.0317	0.0177	0.2480	6.1000e-004	0.0657	3.3000e-004	0.0661	0.0174	3.0000e-004	0.0177		62.3015	62.3015	1.8500e-003	1.7100e-003	62.8565

Luna Road Commercial - Mojave Desert AQMD Air District, Summer

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

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4438	0.0000	2.4438	1.1716	0.0000	1.1716			0.0000			0.0000
Off-Road	1.3122	14.6277	7.0939	0.0172		0.6225	0.6225		0.5727	0.5727	0.0000	1,666.1738	1,666.1738	0.5389		1,679.6457
Total	1.3122	14.6277	7.0939	0.0172	2.4438	0.6225	3.0663	1.1716	0.5727	1.7443	0.0000	1,666.1738	1,666.1738	0.5389		1,679.6457

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0317	0.0177	0.2480	6.1000e-004	0.0543	3.3000e-004	0.0546	0.0146	3.0000e-004	0.0149		62.3015	62.3015	1.8500e-003	1.7100e-003	62.8565
Total	0.0317	0.0177	0.2480	6.1000e-004	0.0543	3.3000e-004	0.0546	0.0146	3.0000e-004	0.0149		62.3015	62.3015	1.8500e-003	1.7100e-003	62.8565

Luna Road Commercial - Mojave Desert AQMD Air District, Summer

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

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	1.5403	16.9836	9.2202	0.0206	7.0826	0.7423	7.8249	3.4247	0.6829	4.1076		1,995.4825	1,995.4825	0.6454		2,011.6169

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0396	0.0221	0.3100	7.7000e-004	0.0822	4.1000e-004	0.0826	0.0218	3.8000e-004	0.0222		77.8768	77.8768	2.3100e-003	2.1300e-003	78.5706
Total	0.0396	0.0221	0.3100	7.7000e-004	0.0822	4.1000e-004	0.0826	0.0218	3.8000e-004	0.0222		77.8768	77.8768	2.3100e-003	2.1300e-003	78.5706

Luna Road Commercial - Mojave Desert AQMD Air District, Summer

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

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.7622	0.0000	2.7622	1.3357	0.0000	1.3357			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	1.5403	16.9836	9.2202	0.0206	2.7622	0.7423	3.5045	1.3357	0.6829	2.0186	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0396	0.0221	0.3100	7.7000e-004	0.0679	4.1000e-004	0.0683	0.0183	3.8000e-004	0.0187		77.8768	77.8768	2.3100e-003	2.1300e-003	78.5706
Total	0.0396	0.0221	0.3100	7.7000e-004	0.0679	4.1000e-004	0.0683	0.0183	3.8000e-004	0.0187		77.8768	77.8768	2.3100e-003	2.1300e-003	78.5706

Luna Road Commercial - Mojave Desert AQMD Air District, Summer

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

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581
Total	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0170	0.3677	0.1672	1.8300e-003	0.0610	5.1400e-003	0.0662	0.0176	4.9100e-003	0.0225		192.5532	192.5532	9.9000e-004	0.0263	200.4218
Worker	0.0832	0.0465	0.6511	1.6100e-003	0.1725	8.7000e-004	0.1734	0.0458	8.0000e-004	0.0466		163.5413	163.5413	4.8500e-003	4.4800e-003	164.9982
Total	0.1002	0.4142	0.8182	3.4400e-003	0.2336	6.0100e-003	0.2396	0.0633	5.7100e-003	0.0691		356.0946	356.0946	5.8400e-003	0.0308	365.4200

Luna Road Commercial - Mojave Desert AQMD Air District, Summer

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

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689	0.0000	2,001.5429	2,001.5429	0.3486		2,010.2581
Total	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689	0.0000	2,001.5429	2,001.5429	0.3486		2,010.2581

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0170	0.3677	0.1672	1.8300e-003	0.0524	5.1400e-003	0.0575	0.0155	4.9100e-003	0.0204		192.5532	192.5532	9.9000e-004	0.0263	200.4218
Worker	0.0832	0.0465	0.6511	1.6100e-003	0.1425	8.7000e-004	0.1434	0.0384	8.0000e-004	0.0392		163.5413	163.5413	4.8500e-003	4.4800e-003	164.9982
Total	0.1002	0.4142	0.8182	3.4400e-003	0.1949	6.0100e-003	0.2009	0.0539	5.7100e-003	0.0596		356.0946	356.0946	5.8400e-003	0.0308	365.4200

Luna Road Commercial - Mojave Desert AQMD Air District, Summer

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

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968		2,001.7877	2,001.7877	0.3399		2,010.2858
Total	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968		2,001.7877	2,001.7877	0.3399		2,010.2858

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0139	0.3063	0.1567	1.7800e-003	0.0610	3.1100e-003	0.0642	0.0176	2.9800e-003	0.0206		186.8178	186.8178	8.3000e-004	0.0254	194.4149
Worker	0.0767	0.0410	0.5954	1.5600e-003	0.1725	8.2000e-004	0.1733	0.0458	7.5000e-004	0.0465		159.1799	159.1799	4.3500e-003	4.1300e-003	160.5194
Total	0.0906	0.3473	0.7521	3.3400e-003	0.2336	3.9300e-003	0.2375	0.0633	3.7300e-003	0.0671		345.9977	345.9977	5.1800e-003	0.0296	354.9343

Luna Road Commercial - Mojave Desert AQMD Air District, Summer

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

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968	0.0000	2,001.7877	2,001.7877	0.3399		2,010.2858
Total	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968	0.0000	2,001.7877	2,001.7877	0.3399		2,010.2858

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0139	0.3063	0.1567	1.7800e-003	0.0524	3.1100e-003	0.0555	0.0155	2.9800e-003	0.0184		186.8178	186.8178	8.3000e-004	0.0254	194.4149
Worker	0.0767	0.0410	0.5954	1.5600e-003	0.1425	8.2000e-004	0.1433	0.0384	7.5000e-004	0.0392		159.1799	159.1799	4.3500e-003	4.1300e-003	160.5194
Total	0.0906	0.3473	0.7521	3.3400e-003	0.1949	3.9300e-003	0.1988	0.0539	3.7300e-003	0.0576		345.9977	345.9977	5.1800e-003	0.0296	354.9343

Luna Road Commercial - Mojave Desert AQMD Air District, Summer

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

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6446	6.2357	8.8024	0.0136		0.3084	0.3084		0.2846	0.2846		1,297.6880	1,297.6880	0.4114		1,307.9725
Paving	0.2148					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8594	6.2357	8.8024	0.0136		0.3084	0.3084		0.2846	0.2846		1,297.6880	1,297.6880	0.4114		1,307.9725

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0475	0.0254	0.3686	9.6000e-004	0.1068	5.1000e-004	0.1073	0.0283	4.7000e-004	0.0288		98.5399	98.5399	2.6900e-003	2.5600e-003	99.3691
Total	0.0475	0.0254	0.3686	9.6000e-004	0.1068	5.1000e-004	0.1073	0.0283	4.7000e-004	0.0288		98.5399	98.5399	2.6900e-003	2.5600e-003	99.3691

Luna Road Commercial - Mojave Desert AQMD Air District, Summer

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

3.5 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6446	6.2357	8.8024	0.0136		0.3084	0.3084		0.2846	0.2846	0.0000	1,297.6880	1,297.6880	0.4114		1,307.9725
Paving	0.2148					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8594	6.2357	8.8024	0.0136		0.3084	0.3084		0.2846	0.2846	0.0000	1,297.6880	1,297.6880	0.4114		1,307.9725

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0475	0.0254	0.3686	9.6000e-004	0.0882	5.1000e-004	0.0887	0.0238	4.7000e-004	0.0242		98.5399	98.5399	2.6900e-003	2.5600e-003	99.3691
Total	0.0475	0.0254	0.3686	9.6000e-004	0.0882	5.1000e-004	0.0887	0.0238	4.7000e-004	0.0242		98.5399	98.5399	2.6900e-003	2.5600e-003	99.3691

Luna Road Commercial - Mojave Desert AQMD Air District, Summer

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

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.6556					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	10.8473	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0146	7.8000e-003	0.1134	3.0000e-004	0.0329	1.6000e-004	0.0330	8.7200e-003	1.4000e-004	8.8600e-003		30.3200	30.3200	8.3000e-004	7.9000e-004	30.5751
Total	0.0146	7.8000e-003	0.1134	3.0000e-004	0.0329	1.6000e-004	0.0330	8.7200e-003	1.4000e-004	8.8600e-003		30.3200	30.3200	8.3000e-004	7.9000e-004	30.5751

Luna Road Commercial - Mojave Desert AQMD Air District, Summer

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

3.6 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.6556					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	10.8473	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0146	7.8000e-003	0.1134	3.0000e-004	0.0272	1.6000e-004	0.0273	7.3100e-003	1.4000e-004	7.4600e-003		30.3200	30.3200	8.3000e-004	7.9000e-004	30.5751
Total	0.0146	7.8000e-003	0.1134	3.0000e-004	0.0272	1.6000e-004	0.0273	7.3100e-003	1.4000e-004	7.4600e-003		30.3200	30.3200	8.3000e-004	7.9000e-004	30.5751

Luna Road Commercial - Mojave Desert AQMD Air District, Summer

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	10.3513	7.4851	46.9580	0.0731	6.6381	0.0677	6.7058	1.7695	0.0634	1.8329		7,561.3759	7,561.3759	0.6835	0.5343	7,737.6927
Unmitigated	10.3513	7.4851	46.9580	0.0731	6.6381	0.0677	6.7058	1.7695	0.0634	1.8329		7,561.3759	7,561.3759	0.6835	0.5343	7,737.6927

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	113.86	113.86	57.02	105,334	105,334
Convenience Market with Gas Pumps	2,580.00	2,580.00	2580.00	1,383,923	1,383,923
Fast Food Restaurant with Drive Thru	706.43	924.18	708.87	689,422	689,422
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	366.18	447.36	204.67	621,899	621,899
Total	3,766.46	4,065.40	3,550.56	2,800,578	2,800,578

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
Automobile Care Center	9.50	7.30	7.30	33.00	48.00	19.00	21	51	28
Convenience Market with Gas	9.50	7.30	7.30	0.80	80.20	19.00	14	21	65

Luna Road Commercial - Mojave Desert AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Fast Food Restaurant with Drive	9.50	7.30	7.30	2.20	78.80	19.00	29	21	50
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.530590	0.056931	0.174803	0.137616	0.029294	0.007692	0.006155	0.022126	0.000483	0.000158	0.027801	0.000928	0.005423
Convenience Market with Gas Pumps	0.530590	0.056931	0.174803	0.137616	0.029294	0.007692	0.006155	0.022126	0.000483	0.000158	0.027801	0.000928	0.005423
Fast Food Restaurant with Drive Thru	0.530590	0.056931	0.174803	0.137616	0.029294	0.007692	0.006155	0.022126	0.000483	0.000158	0.027801	0.000928	0.005423
Parking Lot	0.530590	0.056931	0.174803	0.137616	0.029294	0.007692	0.006155	0.022126	0.000483	0.000158	0.027801	0.000928	0.005423
Regional Shopping Center	0.530590	0.056931	0.174803	0.137616	0.029294	0.007692	0.006155	0.022126	0.000483	0.000158	0.027801	0.000928	0.005423

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Luna Road Commercial - Mojave Desert AQMD Air District, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0175	0.1593	0.1338	9.6000e-004		0.0121	0.0121		0.0121	0.0121		191.1343	191.1343	3.6600e-003	3.5000e-003	192.2701
NaturalGas Unmitigated	0.0175	0.1593	0.1338	9.6000e-004		0.0121	0.0121		0.0121	0.0121		191.1343	191.1343	3.6600e-003	3.5000e-003	192.2701

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Automobile Care Center	425.162	4.5900e-003	0.0417	0.0350	2.5000e-004		3.1700e-003	3.1700e-003		3.1700e-003	3.1700e-003		50.0190	50.0190	9.6000e-004	9.2000e-004	50.3163
Convenience Market with Gas Pumps	20.4932	2.2000e-004	2.0100e-003	1.6900e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004		2.4110	2.4110	5.0000e-005	4.0000e-005	2.4253
Fast Food Restaurant with Drive Thru	1120.52	0.0121	0.1099	0.0923	6.6000e-004		8.3500e-003	8.3500e-003		8.3500e-003	8.3500e-003		131.8260	131.8260	2.5300e-003	2.4200e-003	132.6093
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	58.4658	6.3000e-004	5.7300e-003	4.8100e-003	3.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		6.8783	6.8783	1.3000e-004	1.3000e-004	6.9192
Total		0.0175	0.1593	0.1338	9.5000e-004		0.0121	0.0121		0.0121	0.0121		191.1343	191.1343	3.6700e-003	3.5100e-003	192.2701

Luna Road Commercial - Mojave Desert AQMD Air District, Summer

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

5.2 Energy by Land Use - Natural Gas

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Automobile Care Center	0.425162	4.5900e-003	0.0417	0.0350	2.5000e-004		3.1700e-003	3.1700e-003		3.1700e-003	3.1700e-003		50.0190	50.0190	9.6000e-004	9.2000e-004	50.3163
Convenience Market with Gas Pumps	0.0204932	2.2000e-004	2.0100e-003	1.6900e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004		2.4110	2.4110	5.0000e-005	4.0000e-005	2.4253
Fast Food Restaurant with Drive Thru	1.12052	0.0121	0.1099	0.0923	6.6000e-004		8.3500e-003	8.3500e-003		8.3500e-003	8.3500e-003		131.8260	131.8260	2.5300e-003	2.4200e-003	132.6093
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.0584658	6.3000e-004	5.7300e-003	4.8100e-003	3.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		6.8783	6.8783	1.3000e-004	1.3000e-004	6.9192
Total		0.0175	0.1593	0.1338	9.5000e-004		0.0121	0.0121		0.0121	0.0121		191.1343	191.1343	3.6700e-003	3.5100e-003	192.2701

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

Use Low VOC Cleaning Supplies

Luna Road Commercial - Mojave Desert AQMD Air District, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4217	1.1000e-004	0.0117	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0252	0.0252	7.0000e-005		0.0268
Unmitigated	0.4528	1.1000e-004	0.0117	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0252	0.0252	7.0000e-005		0.0268

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0237					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4281					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0800e-003	1.1000e-004	0.0117	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0252	0.0252	7.0000e-005		0.0268
Total	0.4528	1.1000e-004	0.0117	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0252	0.0252	7.0000e-005		0.0268

Luna Road Commercial - Mojave Desert AQMD Air District, Summer

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0237					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3970					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0800e-003	1.1000e-004	0.0117	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0252	0.0252	7.0000e-005		0.0268
Total	0.4217	1.1000e-004	0.0117	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0252	0.0252	7.0000e-005		0.0268

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

Luna Road Commercial - Mojave Desert AQMD Air District, Summer

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

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

11.0 Vegetation

Luna Road Commercial - Mojave Desert AQMD Air District, Winter

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

Luna Road Commercial
Mojave Desert AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	91.00	Space	0.82	36,400.00	0
Fast Food Restaurant with Drive Thru	1.50	1000sqft	0.03	1,500.00	0
Automobile Care Center	4.80	1000sqft	0.11	4,800.00	0
Convenience Market with Gas Pumps	8.00	Pump	0.03	3,400.00	0
Regional Shopping Center	9.70	1000sqft	0.22	9,700.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	30
Climate Zone	10			Operational Year	2024
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

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
 Land Use - Land use per siteplan
 Construction Phase - No demolition phase;
 Trips and VMT -
 Grading - Acres graded and import per earthwork volume analysis
 Architectural Coating - VOC per MDAQMD Rules
 Woodstoves - No wood fireplaces
 Area Coating - VOC per MDAQMD Rules

Luna Road Commercial - Mojave Desert AQMD Air District, Winter

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

Construction Off-road Equipment Mitigation - Construction mitigation for fugitive dust

Area Mitigation - No fireplaces

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	50
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	20
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblLandUse	LandUseSquareFeet	1,129.40	3,400.00

2.0 Emissions Summary

Luna Road Commercial - Mojave Desert AQMD Air District, Winter

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

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	1.7397	17.0064	13.4188	0.0253	7.1647	0.7427	7.9074	3.4465	0.6833	4.1298	0.0000	2,339.6648	2,339.6648	0.6477	0.0310	2,357.7540
2023	10.8605	12.0785	13.2492	0.0252	0.2336	0.5184	0.7520	0.0633	0.5006	0.5639	0.0000	2,330.5650	2,330.5650	0.4141	0.0297	2,348.0551
Maximum	10.8605	17.0064	13.4188	0.0253	7.1647	0.7427	7.9074	3.4465	0.6833	4.1298	0.0000	2,339.6648	2,339.6648	0.6477	0.0310	2,357.7540

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	1.7397	17.0064	13.4188	0.0253	2.8301	0.7427	3.5728	1.3539	0.6833	2.0372	0.0000	2,339.6648	2,339.6648	0.6477	0.0310	2,357.7540
2023	10.8605	12.0785	13.2492	0.0252	0.1949	0.5184	0.7133	0.0539	0.5006	0.5544	0.0000	2,330.5650	2,330.5650	0.4141	0.0297	2,348.0551
Maximum	10.8605	17.0064	13.4188	0.0253	2.8301	0.7427	3.5728	1.3539	0.6833	2.0372	0.0000	2,339.6648	2,339.6648	0.6477	0.0310	2,357.7540

Luna Road Commercial - Mojave Desert AQMD Air District, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	59.11	0.00	50.50	59.89	0.00	44.79	0.00	0.00	0.00	0.00	0.00	0.00

Luna Road Commercial - Mojave Desert AQMD Air District, Winter

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.4528	1.1000e-004	0.0117	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0252	0.0252	7.0000e-005		0.0268
Energy	0.0175	0.1593	0.1338	9.6000e-004		0.0121	0.0121		0.0121	0.0121		191.1343	191.1343	3.6600e-003	3.5000e-003	192.2701
Mobile	7.9386	7.9597	44.9775	0.0675	6.6381	0.0679	6.7060	1.7695	0.0636	1.8331		6,987.250 1	6,987.250 1	0.7463	0.5475	7,169.049 2
Total	8.4089	8.1191	45.1230	0.0685	6.6381	0.0800	6.7181	1.7695	0.0757	1.8452		7,178.409 5	7,178.409 5	0.7500	0.5510	7,361.346 1

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.4217	1.1000e-004	0.0117	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0252	0.0252	7.0000e-005		0.0268
Energy	0.0175	0.1593	0.1338	9.6000e-004		0.0121	0.0121		0.0121	0.0121		191.1343	191.1343	3.6600e-003	3.5000e-003	192.2701
Mobile	7.9386	7.9597	44.9775	0.0675	6.6381	0.0679	6.7060	1.7695	0.0636	1.8331		6,987.250 1	6,987.250 1	0.7463	0.5475	7,169.049 2
Total	8.3779	8.1191	45.1230	0.0685	6.6381	0.0800	6.7181	1.7695	0.0757	1.8452		7,178.409 5	7,178.409 5	0.7500	0.5510	7,361.346 1

Luna Road Commercial - Mojave Desert AQMD Air District, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.37	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	9/12/2022	9/13/2022	5	2	
2	Grading	Grading	9/14/2022	9/19/2022	5	4	
3	Building Construction	Building Construction	9/20/2022	6/26/2023	5	200	
4	Paving	Paving	6/27/2023	7/10/2023	5	10	
5	Architectural Coating	Architectural Coating	7/11/2023	7/24/2023	5	10	

Acres of Grading (Site Preparation Phase): 1.88

Acres of Grading (Grading Phase): 4

Acres of Paving: 0.82

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 26,294; Non-Residential Outdoor: 8,765; Striped Parking Area: 2,184 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37

Luna Road Commercial - Mojave Desert AQMD Air District, Winter

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

Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	21.00	9.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

Luna Road Commercial - Mojave Desert AQMD Air District, Winter

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

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2662	0.0000	6.2662	3.0041	0.0000	3.0041			0.0000			0.0000
Off-Road	1.3122	14.6277	7.0939	0.0172		0.6225	0.6225		0.5727	0.5727		1,666.1738	1,666.1738	0.5389		1,679.6457
Total	1.3122	14.6277	7.0939	0.0172	6.2662	0.6225	6.8887	3.0041	0.5727	3.5768		1,666.1738	1,666.1738	0.5389		1,679.6457

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0285	0.0182	0.1977	5.4000e-004	0.0657	3.3000e-004	0.0661	0.0174	3.0000e-004	0.0177		55.3362	55.3362	1.8800e-003	1.7400e-003	55.9006
Total	0.0285	0.0182	0.1977	5.4000e-004	0.0657	3.3000e-004	0.0661	0.0174	3.0000e-004	0.0177		55.3362	55.3362	1.8800e-003	1.7400e-003	55.9006

Luna Road Commercial - Mojave Desert AQMD Air District, Winter

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

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4438	0.0000	2.4438	1.1716	0.0000	1.1716			0.0000			0.0000
Off-Road	1.3122	14.6277	7.0939	0.0172		0.6225	0.6225		0.5727	0.5727	0.0000	1,666.1738	1,666.1738	0.5389		1,679.6457
Total	1.3122	14.6277	7.0939	0.0172	2.4438	0.6225	3.0663	1.1716	0.5727	1.7443	0.0000	1,666.1738	1,666.1738	0.5389		1,679.6457

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0285	0.0182	0.1977	5.4000e-004	0.0543	3.3000e-004	0.0546	0.0146	3.0000e-004	0.0149		55.3362	55.3362	1.8800e-003	1.7400e-003	55.9006
Total	0.0285	0.0182	0.1977	5.4000e-004	0.0543	3.3000e-004	0.0546	0.0146	3.0000e-004	0.0149		55.3362	55.3362	1.8800e-003	1.7400e-003	55.9006

Luna Road Commercial - Mojave Desert AQMD Air District, Winter

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

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	1.5403	16.9836	9.2202	0.0206	7.0826	0.7423	7.8249	3.4247	0.6829	4.1076		1,995.4825	1,995.4825	0.6454		2,011.6169

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0357	0.0228	0.2471	6.8000e-004	0.0822	4.1000e-004	0.0826	0.0218	3.8000e-004	0.0222		69.1703	69.1703	2.3500e-003	2.1700e-003	69.8757
Total	0.0357	0.0228	0.2471	6.8000e-004	0.0822	4.1000e-004	0.0826	0.0218	3.8000e-004	0.0222		69.1703	69.1703	2.3500e-003	2.1700e-003	69.8757

Luna Road Commercial - Mojave Desert AQMD Air District, Winter

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

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.7622	0.0000	2.7622	1.3357	0.0000	1.3357			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	1.5403	16.9836	9.2202	0.0206	2.7622	0.7423	3.5045	1.3357	0.6829	2.0186	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0357	0.0228	0.2471	6.8000e-004	0.0679	4.1000e-004	0.0683	0.0183	3.8000e-004	0.0187		69.1703	69.1703	2.3500e-003	2.1700e-003	69.8757
Total	0.0357	0.0228	0.2471	6.8000e-004	0.0679	4.1000e-004	0.0683	0.0183	3.8000e-004	0.0187		69.1703	69.1703	2.3500e-003	2.1700e-003	69.8757

Luna Road Commercial - Mojave Desert AQMD Air District, Winter

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

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581
Total	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0162	0.3888	0.1734	1.8300e-003	0.0610	5.1500e-003	0.0662	0.0176	4.9300e-003	0.0225		192.8644	192.8644	9.5000e-004	0.0264	200.7569
Worker	0.0749	0.0478	0.5189	1.4300e-003	0.1725	8.7000e-004	0.1734	0.0458	8.0000e-004	0.0466		145.2576	145.2576	4.9300e-003	4.5600e-003	146.7390
Total	0.0910	0.4367	0.6924	3.2600e-003	0.2336	6.0200e-003	0.2396	0.0633	5.7300e-003	0.0691		338.1220	338.1220	5.8800e-003	0.0310	347.4959

Luna Road Commercial - Mojave Desert AQMD Air District, Winter

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

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689	0.0000	2,001.5429	2,001.5429	0.3486		2,010.2581
Total	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689	0.0000	2,001.5429	2,001.5429	0.3486		2,010.2581

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0162	0.3888	0.1734	1.8300e-003	0.0524	5.1500e-003	0.0575	0.0155	4.9300e-003	0.0204		192.8644	192.8644	9.5000e-004	0.0264	200.7569
Worker	0.0749	0.0478	0.5189	1.4300e-003	0.1425	8.7000e-004	0.1434	0.0384	8.0000e-004	0.0392		145.2576	145.2576	4.9300e-003	4.5600e-003	146.7390
Total	0.0910	0.4367	0.6924	3.2600e-003	0.1949	6.0200e-003	0.2009	0.0539	5.7300e-003	0.0596		338.1220	338.1220	5.8800e-003	0.0310	347.4959

Luna Road Commercial - Mojave Desert AQMD Air District, Winter

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

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968		2,001.7877	2,001.7877	0.3399		2,010.2858
Total	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968		2,001.7877	2,001.7877	0.3399		2,010.2858

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0130	0.3261	0.1622	1.7800e-003	0.0610	3.1200e-003	0.0642	0.0176	2.9900e-003	0.0206		187.3425	187.3425	7.9000e-004	0.0255	194.9722
Worker	0.0692	0.0421	0.4760	1.3800e-003	0.1725	8.2000e-004	0.1733	0.0458	7.5000e-004	0.0465		141.4348	141.4348	4.4400e-003	4.2000e-003	142.7971
Total	0.0822	0.3682	0.6382	3.1600e-003	0.2336	3.9400e-003	0.2375	0.0633	3.7400e-003	0.0671		328.7773	328.7773	5.2300e-003	0.0297	337.7693

Luna Road Commercial - Mojave Desert AQMD Air District, Winter

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

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968	0.0000	2,001.7877	2,001.7877	0.3399		2,010.2858
Total	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968	0.0000	2,001.7877	2,001.7877	0.3399		2,010.2858

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0130	0.3261	0.1622	1.7800e-003	0.0524	3.1200e-003	0.0555	0.0155	2.9900e-003	0.0184		187.3425	187.3425	7.9000e-004	0.0255	194.9722
Worker	0.0692	0.0421	0.4760	1.3800e-003	0.1425	8.2000e-004	0.1433	0.0384	7.5000e-004	0.0392		141.4348	141.4348	4.4400e-003	4.2000e-003	142.7971
Total	0.0822	0.3682	0.6382	3.1600e-003	0.1949	3.9400e-003	0.1988	0.0539	3.7400e-003	0.0576		328.7773	328.7773	5.2300e-003	0.0297	337.7693

Luna Road Commercial - Mojave Desert AQMD Air District, Winter

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

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6446	6.2357	8.8024	0.0136		0.3084	0.3084		0.2846	0.2846		1,297.6880	1,297.6880	0.4114		1,307.9725
Paving	0.2148					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8594	6.2357	8.8024	0.0136		0.3084	0.3084		0.2846	0.2846		1,297.6880	1,297.6880	0.4114		1,307.9725

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0428	0.0261	0.2947	8.6000e-004	0.1068	5.1000e-004	0.1073	0.0283	4.7000e-004	0.0288		87.5549	87.5549	2.7500e-003	2.6000e-003	88.3982
Total	0.0428	0.0261	0.2947	8.6000e-004	0.1068	5.1000e-004	0.1073	0.0283	4.7000e-004	0.0288		87.5549	87.5549	2.7500e-003	2.6000e-003	88.3982

Luna Road Commercial - Mojave Desert AQMD Air District, Winter

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

3.5 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6446	6.2357	8.8024	0.0136		0.3084	0.3084		0.2846	0.2846	0.0000	1,297.6880	1,297.6880	0.4114		1,307.9725
Paving	0.2148					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8594	6.2357	8.8024	0.0136		0.3084	0.3084		0.2846	0.2846	0.0000	1,297.6880	1,297.6880	0.4114		1,307.9725

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0428	0.0261	0.2947	8.6000e-004	0.0882	5.1000e-004	0.0887	0.0238	4.7000e-004	0.0242		87.5549	87.5549	2.7500e-003	2.6000e-003	88.3982
Total	0.0428	0.0261	0.2947	8.6000e-004	0.0882	5.1000e-004	0.0887	0.0238	4.7000e-004	0.0242		87.5549	87.5549	2.7500e-003	2.6000e-003	88.3982

Luna Road Commercial - Mojave Desert AQMD Air District, Winter

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

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.6556					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	10.8473	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0132	8.0200e-003	0.0907	2.6000e-004	0.0329	1.6000e-004	0.0330	8.7200e-003	1.4000e-004	8.8600e-003		26.9400	26.9400	8.5000e-004	8.0000e-004	27.1995
Total	0.0132	8.0200e-003	0.0907	2.6000e-004	0.0329	1.6000e-004	0.0330	8.7200e-003	1.4000e-004	8.8600e-003		26.9400	26.9400	8.5000e-004	8.0000e-004	27.1995

Luna Road Commercial - Mojave Desert AQMD Air District, Winter

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

3.6 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.6556					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	10.8473	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0132	8.0200e-003	0.0907	2.6000e-004	0.0272	1.6000e-004	0.0273	7.3100e-003	1.4000e-004	7.4600e-003		26.9400	26.9400	8.5000e-004	8.0000e-004	27.1995
Total	0.0132	8.0200e-003	0.0907	2.6000e-004	0.0272	1.6000e-004	0.0273	7.3100e-003	1.4000e-004	7.4600e-003		26.9400	26.9400	8.5000e-004	8.0000e-004	27.1995

Luna Road Commercial - Mojave Desert AQMD Air District, Winter

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.9386	7.9597	44.9775	0.0675	6.6381	0.0679	6.7060	1.7695	0.0636	1.8331		6,987.250 1	6,987.250 1	0.7463	0.5475	7,169.049 2
Unmitigated	7.9386	7.9597	44.9775	0.0675	6.6381	0.0679	6.7060	1.7695	0.0636	1.8331		6,987.250 1	6,987.250 1	0.7463	0.5475	7,169.049 2

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	113.86	113.86	57.02	105,334	105,334
Convenience Market with Gas Pumps	2,580.00	2,580.00	2580.00	1,383,923	1,383,923
Fast Food Restaurant with Drive Thru	706.43	924.18	708.87	689,422	689,422
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	366.18	447.36	204.67	621,899	621,899
Total	3,766.46	4,065.40	3,550.56	2,800,578	2,800,578

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
Automobile Care Center	9.50	7.30	7.30	33.00	48.00	19.00	21	51	28
Convenience Market with Gas	9.50	7.30	7.30	0.80	80.20	19.00	14	21	65

Luna Road Commercial - Mojave Desert AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Fast Food Restaurant with Drive	9.50	7.30	7.30	2.20	78.80	19.00	29	21	50
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.530590	0.056931	0.174803	0.137616	0.029294	0.007692	0.006155	0.022126	0.000483	0.000158	0.027801	0.000928	0.005423
Convenience Market with Gas Pumps	0.530590	0.056931	0.174803	0.137616	0.029294	0.007692	0.006155	0.022126	0.000483	0.000158	0.027801	0.000928	0.005423
Fast Food Restaurant with Drive Thru	0.530590	0.056931	0.174803	0.137616	0.029294	0.007692	0.006155	0.022126	0.000483	0.000158	0.027801	0.000928	0.005423
Parking Lot	0.530590	0.056931	0.174803	0.137616	0.029294	0.007692	0.006155	0.022126	0.000483	0.000158	0.027801	0.000928	0.005423
Regional Shopping Center	0.530590	0.056931	0.174803	0.137616	0.029294	0.007692	0.006155	0.022126	0.000483	0.000158	0.027801	0.000928	0.005423

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Luna Road Commercial - Mojave Desert AQMD Air District, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0175	0.1593	0.1338	9.6000e-004		0.0121	0.0121		0.0121	0.0121		191.1343	191.1343	3.6600e-003	3.5000e-003	192.2701
NaturalGas Unmitigated	0.0175	0.1593	0.1338	9.6000e-004		0.0121	0.0121		0.0121	0.0121		191.1343	191.1343	3.6600e-003	3.5000e-003	192.2701

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Automobile Care Center	425.162	4.5900e-003	0.0417	0.0350	2.5000e-004		3.1700e-003	3.1700e-003		3.1700e-003	3.1700e-003		50.0190	50.0190	9.6000e-004	9.2000e-004	50.3163
Convenience Market with Gas Pumps	20.4932	2.2000e-004	2.0100e-003	1.6900e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004		2.4110	2.4110	5.0000e-005	4.0000e-005	2.4253
Fast Food Restaurant with Drive Thru	1120.52	0.0121	0.1099	0.0923	6.6000e-004		8.3500e-003	8.3500e-003		8.3500e-003	8.3500e-003		131.8260	131.8260	2.5300e-003	2.4200e-003	132.6093
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	58.4658	6.3000e-004	5.7300e-003	4.8100e-003	3.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		6.8783	6.8783	1.3000e-004	1.3000e-004	6.9192
Total		0.0175	0.1593	0.1338	9.5000e-004		0.0121	0.0121		0.0121	0.0121		191.1343	191.1343	3.6700e-003	3.5100e-003	192.2701

Luna Road Commercial - Mojave Desert AQMD Air District, Winter

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

5.2 Energy by Land Use - Natural Gas

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Automobile Care Center	0.425162	4.5900e-003	0.0417	0.0350	2.5000e-004		3.1700e-003	3.1700e-003		3.1700e-003	3.1700e-003		50.0190	50.0190	9.6000e-004	9.2000e-004	50.3163
Convenience Market with Gas Pumps	0.0204932	2.2000e-004	2.0100e-003	1.6900e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004		2.4110	2.4110	5.0000e-005	4.0000e-005	2.4253
Fast Food Restaurant with Drive Thru	1.12052	0.0121	0.1099	0.0923	6.6000e-004		8.3500e-003	8.3500e-003		8.3500e-003	8.3500e-003		131.8260	131.8260	2.5300e-003	2.4200e-003	132.6093
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.0584658	6.3000e-004	5.7300e-003	4.8100e-003	3.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		6.8783	6.8783	1.3000e-004	1.3000e-004	6.9192
Total		0.0175	0.1593	0.1338	9.5000e-004		0.0121	0.0121		0.0121	0.0121		191.1343	191.1343	3.6700e-003	3.5100e-003	192.2701

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

Use Low VOC Cleaning Supplies

Luna Road Commercial - Mojave Desert AQMD Air District, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4217	1.1000e-004	0.0117	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0252	0.0252	7.0000e-005		0.0268
Unmitigated	0.4528	1.1000e-004	0.0117	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0252	0.0252	7.0000e-005		0.0268

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0237					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4281					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0800e-003	1.1000e-004	0.0117	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0252	0.0252	7.0000e-005		0.0268
Total	0.4528	1.1000e-004	0.0117	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0252	0.0252	7.0000e-005		0.0268

Luna Road Commercial - Mojave Desert AQMD Air District, Winter

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0237					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3970					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0800e-003	1.1000e-004	0.0117	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0252	0.0252	7.0000e-005		0.0268
Total	0.4217	1.1000e-004	0.0117	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0252	0.0252	7.0000e-005		0.0268

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

Luna Road Commercial - Mojave Desert AQMD Air District, Winter

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

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

11.0 Vegetation

Luna Road Commercial - Mojave Desert AQMD Air District, Annual

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

Luna Road Commercial
Mojave Desert AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	91.00	Space	0.82	36,400.00	0
Fast Food Restaurant with Drive Thru	1.50	1000sqft	0.03	1,500.00	0
Automobile Care Center	4.80	1000sqft	0.11	4,800.00	0
Convenience Market with Gas Pumps	8.00	Pump	0.03	3,400.00	0
Regional Shopping Center	9.70	1000sqft	0.22	9,700.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	30
Climate Zone	10	Operational Year	2024		
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - Land use per siteplan
- Construction Phase - No demolition phase;
- Trips and VMT -
- Grading - Acres graded and import per earthwork volume analysis
- Architectural Coating - VOC per MDAQMD Rules
- Woodstoves - No wood fireplaces
- Area Coating - VOC per MDAQMD Rules

Luna Road Commercial - Mojave Desert AQMD Air District, Annual

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

Construction Off-road Equipment Mitigation - Construction mitigation for fugitive dust

Area Mitigation - No fireplaces

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	50
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	20
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblLandUse	LandUseSquareFeet	1,129.40	3,400.00

2.0 Emissions Summary

Luna Road Commercial - Mojave Desert AQMD Air District, Annual

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0687	0.5275	0.5240	1.0000e-003	0.0292	0.0241	0.0533	0.0122	0.0232	0.0354	0.0000	83.9774	83.9774	0.0136	1.0500e-003	84.6299
2023	0.1597	0.7988	0.8918	1.6800e-003	0.0152	0.0346	0.0497	4.1100e-003	0.0333	0.0374	0.0000	141.1053	141.1053	0.0217	1.7200e-003	142.1613
Maximum	0.1597	0.7988	0.8918	1.6800e-003	0.0292	0.0346	0.0533	0.0122	0.0333	0.0374	0.0000	141.1053	141.1053	0.0217	1.7200e-003	142.1613

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0687	0.5275	0.5240	1.0000e-003	0.0153	0.0241	0.0394	5.8600e-003	0.0232	0.0291	0.0000	83.9773	83.9773	0.0136	1.0500e-003	84.6298
2023	0.1597	0.7988	0.8918	1.6800e-003	0.0126	0.0346	0.0472	3.5000e-003	0.0333	0.0368	0.0000	141.1051	141.1051	0.0217	1.7200e-003	142.1611
Maximum	0.1597	0.7988	0.8918	1.6800e-003	0.0153	0.0346	0.0472	5.8600e-003	0.0333	0.0368	0.0000	141.1051	141.1051	0.0217	1.7200e-003	142.1611

Luna Road Commercial - Mojave Desert AQMD Air District, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	37.04	0.00	15.94	42.68	0.00	9.58	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	9-12-2022	12-11-2022	0.4863	0.4863
2	12-12-2022	3-11-2023	0.4470	0.4470
3	3-12-2023	6-11-2023	0.4493	0.4493
4	6-12-2023	9-11-2023	0.1699	0.1699
		Highest	0.4863	0.4863

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0825	1.0000e-005	1.0600e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0500e-003	2.0500e-003	1.0000e-005	0.0000	2.1900e-003
Energy	3.2000e-003	0.0291	0.0244	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	82.8317	82.8317	4.9300e-003	1.1000e-003	83.2838
Mobile	1.3031	1.3287	7.8422	0.0112	1.0567	0.0111	1.0678	0.2821	0.0104	0.2925	0.0000	1,050.3894	1,050.3894	0.1158	0.0833	1,078.1185
Waste						0.0000	0.0000		0.0000	0.0000	9.3843	0.0000	9.3843	0.5546	0.0000	23.2491
Water						0.0000	0.0000		0.0000	0.0000	0.5516	5.6221	6.1737	0.0571	1.4000e-003	8.0177
Total	1.3888	1.3578	7.8677	0.0114	1.0567	0.0133	1.0700	0.2821	0.0126	0.2947	9.9359	1,138.8452	1,148.7811	0.7325	0.0858	1,192.6713

Luna Road Commercial - Mojave Desert AQMD Air District, Annual

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0769	1.0000e-005	1.0600e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0500e-003	2.0500e-003	1.0000e-005	0.0000	2.1900e-003
Energy	3.2000e-003	0.0291	0.0244	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	82.8317	82.8317	4.9300e-003	1.1000e-003	83.2838
Mobile	1.3031	1.3287	7.8422	0.0112	1.0567	0.0111	1.0678	0.2821	0.0104	0.2925	0.0000	1,050.3894	1,050.3894	0.1158	0.0833	1,078.1185
Waste						0.0000	0.0000		0.0000	0.0000	7.0382	0.0000	7.0382	0.4160	0.0000	17.4369
Water						0.0000	0.0000		0.0000	0.0000	0.4413	4.7210	5.1623	0.0457	1.1200e-003	6.6387
Total	1.3831	1.3578	7.8677	0.0114	1.0567	0.0133	1.0700	0.2821	0.0126	0.2947	7.4795	1,137.9442	1,145.4236	0.5824	0.0856	1,185.4800

	ROG	NOx	CO	SO2	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	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.72	0.08	0.29	20.49	0.33	0.60

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	9/12/2022	9/13/2022	5	2	
2	Grading	Grading	9/14/2022	9/19/2022	5	4	
3	Building Construction	Building Construction	9/20/2022	6/26/2023	5	200	

Luna Road Commercial - Mojave Desert AQMD Air District, Annual

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

4	Paving	Paving	6/27/2023	7/10/2023	5	10
5	Architectural Coating	Architectural Coating	7/11/2023	7/24/2023	5	10

Acres of Grading (Site Preparation Phase): 1.88

Acres of Grading (Grading Phase): 4

Acres of Paving: 0.82

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 26,294; Non-Residential Outdoor: 8,765; Striped Parking Area: 2,184 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Luna Road Commercial - Mojave Desert AQMD Air District, Annual

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

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	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	21.00	9.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.2700e-003	0.0000	6.2700e-003	3.0000e-003	0.0000	3.0000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	0.0146	7.0900e-003	2.0000e-005		6.2000e-004	6.2000e-004		5.7000e-004	5.7000e-004	0.0000	1.5115	1.5115	4.9000e-004	0.0000	1.5238
Total	1.3100e-003	0.0146	7.0900e-003	2.0000e-005	6.2700e-003	6.2000e-004	6.8900e-003	3.0000e-003	5.7000e-004	3.5700e-003	0.0000	1.5115	1.5115	4.9000e-004	0.0000	1.5238

Luna Road Commercial - Mojave Desert AQMD Air District, Annual

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

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.1000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0516	0.0516	0.0000	0.0000	0.0522
Total	3.0000e-005	2.0000e-005	2.1000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0516	0.0516	0.0000	0.0000	0.0522

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.4400e-003	0.0000	2.4400e-003	1.1700e-003	0.0000	1.1700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	0.0146	7.0900e-003	2.0000e-005		6.2000e-004	6.2000e-004		5.7000e-004	5.7000e-004	0.0000	1.5115	1.5115	4.9000e-004	0.0000	1.5238
Total	1.3100e-003	0.0146	7.0900e-003	2.0000e-005	2.4400e-003	6.2000e-004	3.0600e-003	1.1700e-003	5.7000e-004	1.7400e-003	0.0000	1.5115	1.5115	4.9000e-004	0.0000	1.5238

Luna Road Commercial - Mojave Desert AQMD Air District, Annual

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

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.1000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0516	0.0516	0.0000	0.0000	0.0522
Total	3.0000e-005	2.0000e-005	2.1000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0516	0.0516	0.0000	0.0000	0.0522

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0142	0.0000	0.0142	6.8500e-003	0.0000	6.8500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0800e-003	0.0340	0.0184	4.0000e-005		1.4800e-003	1.4800e-003		1.3700e-003	1.3700e-003	0.0000	3.6205	3.6205	1.1700e-003	0.0000	3.6498
Total	3.0800e-003	0.0340	0.0184	4.0000e-005	0.0142	1.4800e-003	0.0157	6.8500e-003	1.3700e-003	8.2200e-003	0.0000	3.6205	3.6205	1.1700e-003	0.0000	3.6498

Luna Road Commercial - Mojave Desert AQMD Air District, Annual

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

3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	7.0000e-005	5.0000e-005	5.3000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1291	0.1291	0.0000	0.0000	0.1304
Total	7.0000e-005	5.0000e-005	5.3000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1291	0.1291	0.0000	0.0000	0.1304

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.5200e-003	0.0000	5.5200e-003	2.6700e-003	0.0000	2.6700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0800e-003	0.0340	0.0184	4.0000e-005		1.4800e-003	1.4800e-003		1.3700e-003	1.3700e-003	0.0000	3.6205	3.6205	1.1700e-003	0.0000	3.6498
Total	3.0800e-003	0.0340	0.0184	4.0000e-005	5.5200e-003	1.4800e-003	7.0000e-003	2.6700e-003	1.3700e-003	4.0400e-003	0.0000	3.6205	3.6205	1.1700e-003	0.0000	3.6498

Luna Road Commercial - Mojave Desert AQMD Air District, Annual

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

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	7.0000e-005	5.0000e-005	5.3000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1291	0.1291	0.0000	0.0000	0.1304
Total	7.0000e-005	5.0000e-005	5.3000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1291	0.1291	0.0000	0.0000	0.1304

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0610	0.4626	0.4709	8.2000e-004		0.0218	0.0218		0.0211	0.0211	0.0000	67.1835	67.1835	0.0117	0.0000	67.4760
Total	0.0610	0.4626	0.4709	8.2000e-004		0.0218	0.0218		0.0211	0.0211	0.0000	67.1835	67.1835	0.0117	0.0000	67.4760

Luna Road Commercial - Mojave Desert AQMD Air District, Annual

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

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.1000e-004	0.0144	6.3000e-003	7.0000e-005	2.2300e-003	1.9000e-004	2.4200e-003	6.4000e-004	1.8000e-004	8.2000e-004	0.0000	6.4676	6.4676	3.0000e-005	8.9000e-004	6.7324
Worker	2.5800e-003	1.8800e-003	0.0206	5.0000e-005	6.2700e-003	3.0000e-005	6.3000e-003	1.6700e-003	3.0000e-005	1.6900e-003	0.0000	5.0136	5.0136	1.7000e-004	1.6000e-004	5.0654
Total	3.1900e-003	0.0162	0.0269	1.2000e-004	8.5000e-003	2.2000e-004	8.7200e-003	2.3100e-003	2.1000e-004	2.5100e-003	0.0000	11.4812	11.4812	2.0000e-004	1.0500e-003	11.7978

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0610	0.4626	0.4709	8.2000e-004		0.0218	0.0218		0.0211	0.0211	0.0000	67.1834	67.1834	0.0117	0.0000	67.4759
Total	0.0610	0.4626	0.4709	8.2000e-004		0.0218	0.0218		0.0211	0.0211	0.0000	67.1834	67.1834	0.0117	0.0000	67.4759

Luna Road Commercial - Mojave Desert AQMD Air District, Annual

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

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.1000e-004	0.0144	6.3000e-003	7.0000e-005	1.9100e-003	1.9000e-004	2.1000e-003	5.7000e-004	1.8000e-004	7.5000e-004	0.0000	6.4676	6.4676	3.0000e-005	8.9000e-004	6.7324
Worker	2.5800e-003	1.8800e-003	0.0206	5.0000e-005	5.1800e-003	3.0000e-005	5.2100e-003	1.4000e-003	3.0000e-005	1.4300e-003	0.0000	5.0136	5.0136	1.7000e-004	1.6000e-004	5.0654
Total	3.1900e-003	0.0162	0.0269	1.2000e-004	7.0900e-003	2.2000e-004	7.3100e-003	1.9700e-003	2.1000e-004	2.1800e-003	0.0000	11.4812	11.4812	2.0000e-004	1.0500e-003	11.7978

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0960	0.7378	0.7945	1.3900e-003		0.0324	0.0324		0.0313	0.0313	0.0000	114.4075	114.4075	0.0194	0.0000	114.8931
Total	0.0960	0.7378	0.7945	1.3900e-003		0.0324	0.0324		0.0313	0.0313	0.0000	114.4075	114.4075	0.0194	0.0000	114.8931

Luna Road Commercial - Mojave Desert AQMD Air District, Annual

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

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.4000e-004	0.0204	0.0101	1.1000e-004	3.7900e-003	2.0000e-004	3.9900e-003	1.0900e-003	1.9000e-004	1.2800e-003	0.0000	10.6898	10.6898	5.0000e-005	1.4600e-003	11.1252
Worker	4.0500e-003	2.8200e-003	0.0322	9.0000e-005	0.0107	5.0000e-005	0.0107	2.8400e-003	5.0000e-005	2.8800e-003	0.0000	8.3112	8.3112	2.6000e-004	2.5000e-004	8.3923
Total	4.8900e-003	0.0232	0.0422	2.0000e-004	0.0145	2.5000e-004	0.0147	3.9300e-003	2.4000e-004	4.1600e-003	0.0000	19.0010	19.0010	3.1000e-004	1.7100e-003	19.5175

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0960	0.7378	0.7945	1.3900e-003		0.0324	0.0324		0.0313	0.0313	0.0000	114.4073	114.4073	0.0194	0.0000	114.8930
Total	0.0960	0.7378	0.7945	1.3900e-003		0.0324	0.0324		0.0313	0.0313	0.0000	114.4073	114.4073	0.0194	0.0000	114.8930

Luna Road Commercial - Mojave Desert AQMD Air District, Annual

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

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.4000e-004	0.0204	0.0101	1.1000e-004	3.2500e-003	2.0000e-004	3.4500e-003	9.6000e-004	1.9000e-004	1.1500e-003	0.0000	10.6898	10.6898	5.0000e-005	1.4600e-003	11.1252
Worker	4.0500e-003	2.8200e-003	0.0322	9.0000e-005	8.8200e-003	5.0000e-005	8.8800e-003	2.3800e-003	5.0000e-005	2.4300e-003	0.0000	8.3112	8.3112	2.6000e-004	2.5000e-004	8.3923
Total	4.8900e-003	0.0232	0.0422	2.0000e-004	0.0121	2.5000e-004	0.0123	3.3400e-003	2.4000e-004	3.5800e-003	0.0000	19.0010	19.0010	3.1000e-004	1.7100e-003	19.5175

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.2200e-003	0.0312	0.0440	7.0000e-005		1.5400e-003	1.5400e-003		1.4200e-003	1.4200e-003	0.0000	5.8862	5.8862	1.8700e-003	0.0000	5.9329
Paving	1.0700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.2900e-003	0.0312	0.0440	7.0000e-005		1.5400e-003	1.5400e-003		1.4200e-003	1.4200e-003	0.0000	5.8862	5.8862	1.8700e-003	0.0000	5.9329

Luna Road Commercial - Mojave Desert AQMD Air District, Annual

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

3.5 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.4000e-004	1.5800e-003	0.0000	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4083	0.4083	1.0000e-005	1.0000e-005	0.4123
Total	2.0000e-004	1.4000e-004	1.5800e-003	0.0000	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4083	0.4083	1.0000e-005	1.0000e-005	0.4123

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.2200e-003	0.0312	0.0440	7.0000e-005		1.5400e-003	1.5400e-003		1.4200e-003	1.4200e-003	0.0000	5.8862	5.8862	1.8700e-003	0.0000	5.9329
Paving	1.0700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.2900e-003	0.0312	0.0440	7.0000e-005		1.5400e-003	1.5400e-003		1.4200e-003	1.4200e-003	0.0000	5.8862	5.8862	1.8700e-003	0.0000	5.9329

Luna Road Commercial - Mojave Desert AQMD Air District, Annual

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

3.5 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.4000e-004	1.5800e-003	0.0000	4.3000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4083	0.4083	1.0000e-005	1.0000e-005	0.4123
Total	2.0000e-004	1.4000e-004	1.5800e-003	0.0000	4.3000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4083	0.4083	1.0000e-005	1.0000e-005	0.4123

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0533					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785
Total	0.0542	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785

Luna Road Commercial - Mojave Desert AQMD Air District, Annual

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

3.6 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	4.9000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1256	0.1256	0.0000	0.0000	0.1269
Total	6.0000e-005	4.0000e-005	4.9000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1256	0.1256	0.0000	0.0000	0.1269

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0533					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785
Total	0.0542	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785

Luna Road Commercial - Mojave Desert AQMD Air District, Annual

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

3.6 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	4.9000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1256	0.1256	0.0000	0.0000	0.1269
Total	6.0000e-005	4.0000e-005	4.9000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1256	0.1256	0.0000	0.0000	0.1269

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Luna Road Commercial - Mojave Desert AQMD Air District, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.3031	1.3287	7.8422	0.0112	1.0567	0.0111	1.0678	0.2821	0.0104	0.2925	0.0000	1,050,389 4	1,050,389 4	0.1158	0.0833	1,078,118 5
Unmitigated	1.3031	1.3287	7.8422	0.0112	1.0567	0.0111	1.0678	0.2821	0.0104	0.2925	0.0000	1,050,389 4	1,050,389 4	0.1158	0.0833	1,078,118 5

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	113.86	113.86	57.02	105,334	105,334
Convenience Market with Gas Pumps	2,580.00	2,580.00	2580.00	1,383,923	1,383,923
Fast Food Restaurant with Drive Thru	706.43	924.18	708.87	689,422	689,422
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	366.18	447.36	204.67	621,899	621,899
Total	3,766.46	4,065.40	3,550.56	2,800,578	2,800,578

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
Automobile Care Center	9.50	7.30	7.30	33.00	48.00	19.00	21	51	28
Convenience Market with Gas	9.50	7.30	7.30	0.80	80.20	19.00	14	21	65
Fast Food Restaurant with Drive	9.50	7.30	7.30	2.20	78.80	19.00	29	21	50
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Luna Road Commercial - Mojave Desert AQMD Air District, Annual

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

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.530590	0.056931	0.174803	0.137616	0.029294	0.007692	0.006155	0.022126	0.000483	0.000158	0.027801	0.000928	0.005423
Convenience Market with Gas Pumps	0.530590	0.056931	0.174803	0.137616	0.029294	0.007692	0.006155	0.022126	0.000483	0.000158	0.027801	0.000928	0.005423
Fast Food Restaurant with Drive Thru	0.530590	0.056931	0.174803	0.137616	0.029294	0.007692	0.006155	0.022126	0.000483	0.000158	0.027801	0.000928	0.005423
Parking Lot	0.530590	0.056931	0.174803	0.137616	0.029294	0.007692	0.006155	0.022126	0.000483	0.000158	0.027801	0.000928	0.005423
Regional Shopping Center	0.530590	0.056931	0.174803	0.137616	0.029294	0.007692	0.006155	0.022126	0.000483	0.000158	0.027801	0.000928	0.005423

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	51.1872	51.1872	4.3200e-003	5.2000e-004	51.4513
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	51.1872	51.1872	4.3200e-003	5.2000e-004	51.4513
NaturalGas Mitigated	3.2000e-003	0.0291	0.0244	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	31.6444	31.6444	6.1000e-004	5.8000e-004	31.8325
NaturalGas Unmitigated	3.2000e-003	0.0291	0.0244	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	31.6444	31.6444	6.1000e-004	5.8000e-004	31.8325

Luna Road Commercial - Mojave Desert AQMD Air District, Annual

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Automobile Care Center	155184	8.4000e-004	7.6100e-003	6.3900e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	8.2812	8.2812	1.6000e-004	1.5000e-004	8.3304
Convenience Market with Gas Pumps	7480	4.0000e-005	3.7000e-004	3.1000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.3992	0.3992	1.0000e-005	1.0000e-005	0.4015
Fast Food Restaurant with Drive Thru	408990	2.2100e-003	0.0201	0.0168	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.8253	21.8253	4.2000e-004	4.0000e-004	21.9550
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	21340	1.2000e-004	1.0500e-003	8.8000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.1388	1.1388	2.0000e-005	2.0000e-005	1.1456
Total		3.2100e-003	0.0291	0.0244	1.8000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	31.6444	31.6444	6.1000e-004	5.8000e-004	31.8325

Luna Road Commercial - Mojave Desert AQMD Air District, Annual

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Automobile Care Center	155184	8.4000e-004	7.6100e-003	6.3900e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	8.2812	8.2812	1.6000e-004	1.5000e-004	8.3304
Convenience Market with Gas Pumps	7480	4.0000e-005	3.7000e-004	3.1000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.3992	0.3992	1.0000e-005	1.0000e-005	0.4015
Fast Food Restaurant with Drive Thru	408990	2.2100e-003	0.0201	0.0168	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.8253	21.8253	4.2000e-004	4.0000e-004	21.9550
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	21340	1.2000e-004	1.0500e-003	8.8000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.1388	1.1388	2.0000e-005	2.0000e-005	1.1456
Total		3.2100e-003	0.0291	0.0244	1.8000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	31.6444	31.6444	6.1000e-004	5.8000e-004	31.8325

Luna Road Commercial - Mojave Desert AQMD Air District, Annual

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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	47616	8.4445	7.1000e-004	9.0000e-005	8.4881
Convenience Market with Gas Pumps	41276	7.3201	6.2000e-004	7.0000e-005	7.3579
Fast Food Restaurant with Drive Thru	69240	12.2794	1.0400e-003	1.3000e-004	12.3428
Parking Lot	12740	2.2594	1.9000e-004	2.0000e-005	2.2710
Regional Shopping Center	117758	20.8839	1.7600e-003	2.1000e-004	20.9916
Total		51.1873	4.3200e-003	5.2000e-004	51.4513

Luna Road Commercial - Mojave Desert AQMD Air District, Annual

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

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	47616	8.4445	7.1000e-004	9.0000e-005	8.4881
Convenience Market with Gas Pumps	41276	7.3201	6.2000e-004	7.0000e-005	7.3579
Fast Food Restaurant with Drive Thru	69240	12.2794	1.0400e-003	1.3000e-004	12.3428
Parking Lot	12740	2.2594	1.9000e-004	2.0000e-005	2.2710
Regional Shopping Center	117758	20.8839	1.7600e-003	2.1000e-004	20.9916
Total		51.1873	4.3200e-003	5.2000e-004	51.4513

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

Use Low VOC Cleaning Supplies

Luna Road Commercial - Mojave Desert AQMD Air District, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0769	1.0000e-005	1.0600e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0500e-003	2.0500e-003	1.0000e-005	0.0000	2.1900e-003
Unmitigated	0.0825	1.0000e-005	1.0600e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0500e-003	2.0500e-003	1.0000e-005	0.0000	2.1900e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.3200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0781					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0600e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0500e-003	2.0500e-003	1.0000e-005	0.0000	2.1900e-003
Total	0.0825	1.0000e-005	1.0600e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0500e-003	2.0500e-003	1.0000e-005	0.0000	2.1900e-003

Luna Road Commercial - Mojave Desert AQMD Air District, Annual

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.3200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0725					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0600e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0500e-003	2.0500e-003	1.0000e-005	0.0000	2.1900e-003
Total	0.0769	1.0000e-005	1.0600e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0500e-003	2.0500e-003	1.0000e-005	0.0000	2.1900e-003

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

Luna Road Commercial - Mojave Desert AQMD Air District, Annual

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	5.1623	0.0457	1.1200e-003	6.6387
Unmitigated	6.1737	0.0571	1.4000e-003	8.0177

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	0.451589 / 0.276781	1.7314	0.0149	3.6000e-004	2.2110
Convenience Market with Gas Pumps	0.0836574 / 0.0512739	0.3208	2.7500e-003	7.0000e-005	0.4096
Fast Food Restaurant with Drive Thru	0.455301 / 0.0290617	1.2531	0.0149	3.6000e-004	1.7341
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.748132 / 0.458533	2.8684	0.0246	6.0000e-004	3.6630
Total		6.1737	0.0571	1.3900e-003	8.0177

Luna Road Commercial - Mojave Desert AQMD Air District, Annual

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

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	0.361271 / 0.259897	1.4610	0.0119	2.9000e-004	1.8450
Convenience Market with Gas Pumps	0.0669259 / 0.0481462	0.2706	2.2000e-003	5.0000e-005	0.3418
Fast Food Restaurant with Drive Thru	0.36424 / 0.027289	1.0104	0.0119	2.9000e-004	1.3953
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.598506 / 0.430562	2.4203	0.0197	4.8000e-004	3.0566
Total		5.1623	0.0457	1.1100e-003	6.6387

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Luna Road Commercial - Mojave Desert AQMD Air District, Annual

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

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	7.0382	0.4160	0.0000	17.4369
Unmitigated	9.3843	0.5546	0.0000	23.2491

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	18.34	3.7229	0.2200	0.0000	9.2232
Fast Food Restaurant with Drive Thru Parking Lot	17.28	3.5077	0.2073	0.0000	8.6901
	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	10.61	2.1537	0.1273	0.0000	5.3358
Total		9.3843	0.5546	0.0000	23.2491

Luna Road Commercial - Mojave Desert AQMD Air District, Annual

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

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	13.755	2.7921	0.1650	0.0000	6.9174
Fast Food Restaurant with Drive Thru	12.96	2.6308	0.1555	0.0000	6.5176
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	7.9575	1.6153	0.0955	0.0000	4.0018
Total		7.0382	0.4159	0.0000	17.4369

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Luna Road Commercial - Mojave Desert AQMD Air District, Annual

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

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

11.0 Vegetation

Luna Road Commercial

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

Mojave Desert AQMD Air District, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

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

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Cement and Mortar Mixers	Diesel	No Change	0	1	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Forklifts	Diesel	No Change	0	1	No Change	0.00
Generator Sets	Diesel	No Change	0	1	No Change	0.00
Graders	Diesel	No Change	0	2	No Change	0.00
Pavers	Diesel	No Change	0	1	No Change	0.00
Paving Equipment	Diesel	No Change	0	1	No Change	0.00
Rollers	Diesel	No Change	0	1	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	2	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	5	No Change	0.00
Welders	Diesel	No Change	0	3	No Change	0.00

Luna Road Commercial

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

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Unmitigated tons/yr							Unmitigated mt/yr					
Air Compressors	9.60000E-004	6.51000E-003	9.06000E-003	1.00000E-005	3.50000E-004	3.50000E-004	0.00000E+000	1.27663E+000	1.27663E+000	8.00000E-005	0.00000E+000	1.27854E+000
Cement and Mortar Mixers	2.20000E-004	1.38000E-003	1.16000E-003	0.00000E+000	5.00000E-005	5.00000E-005	0.00000E+000	1.71850E-001	1.71850E-001	2.00000E-005	0.00000E+000	1.72300E-001
Cranes	2.69500E-002	2.96400E-001	1.39190E-001	4.30000E-004	1.23500E-002	1.13600E-002	0.00000E+000	3.80217E+001	3.80217E+001	1.23000E-002	0.00000E+000	3.83291E+001
Forklifts	8.00000E-003	7.46200E-002	8.61100E-002	1.10000E-004	4.74000E-003	4.36000E-003	0.00000E+000	1.00719E+001	1.00719E+001	3.26000E-003	0.00000E+000	1.01533E+001
Generator Sets	3.14800E-002	2.79430E-001	3.67180E-001	6.60000E-004	1.35200E-002	1.35200E-002	0.00000E+000	5.65208E+001	5.65208E+001	2.56000E-003	0.00000E+000	5.65848E+001
Graders	1.24000E-003	1.57700E-002	5.17000E-003	2.00000E-005	5.00000E-004	4.60000E-004	0.00000E+000	1.74528E+000	1.74528E+000	5.60000E-004	0.00000E+000	1.75939E+000
Pavers	7.20000E-004	7.06000E-003	1.08100E-002	2.00000E-005	3.30000E-004	3.10000E-004	0.00000E+000	1.54862E+000	1.54862E+000	5.00000E-004	0.00000E+000	1.56114E+000
Paving Equipment	8.50000E-004	8.01000E-003	1.27800E-002	2.00000E-005	3.90000E-004	3.60000E-004	0.00000E+000	1.78927E+000	1.78927E+000	5.80000E-004	0.00000E+000	1.80374E+000
Rollers	6.70000E-004	7.04000E-003	8.10000E-003	1.00000E-005	3.90000E-004	3.60000E-004	0.00000E+000	1.00854E+000	1.00854E+000	3.30000E-004	0.00000E+000	1.01669E+000
Rubber Tired Dozers	2.41000E-003	2.52800E-002	1.03000E-002	2.00000E-005	1.20000E-003	1.10000E-003	0.00000E+000	2.15704E+000	2.15704E+000	7.00000E-004	0.00000E+000	2.17448E+000
Tractors/Loaders/Backhoes	1.32200E-002	1.34280E-001	1.88760E-001	2.60000E-004	6.87000E-003	6.32000E-003	0.00000E+000	2.31081E+001	2.31081E+001	7.47000E-003	0.00000E+000	2.32950E+001
Welders	7.88100E-002	4.30870E-001	5.05370E-001	7.70000E-004	1.75100E-002	1.75100E-002	0.00000E+000	5.64662E+001	5.64662E+001	6.38000E-003	0.00000E+000	5.66257E+001

Luna Road Commercial

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

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Mitigated tons/yr							Mitigated mt/yr					
Air Compressors	9.60000E-004	6.51000E-003	9.06000E-003	1.00000E-005	3.50000E-004	3.50000E-004	0.00000E+000	1.27663E+000	1.27663E+000	8.00000E-005	0.00000E+000	1.27853E+000
Cement and Mortar Mixers	2.20000E-004	1.38000E-003	1.16000E-003	0.00000E+000	5.00000E-005	5.00000E-005	0.00000E+000	1.71850E-001	1.71850E-001	2.00000E-005	0.00000E+000	1.72300E-001
Cranes	2.69500E-002	2.96400E-001	1.39190E-001	4.30000E-004	1.23500E-002	1.13600E-002	0.00000E+000	3.80217E+001	3.80217E+001	1.23000E-002	0.00000E+000	3.83291E+001
Forklifts	8.00000E-003	7.46200E-002	8.61100E-002	1.10000E-004	4.74000E-003	4.36000E-003	0.00000E+000	1.00718E+001	1.00718E+001	3.26000E-003	0.00000E+000	1.01533E+001
Generator Sets	3.14800E-002	2.79430E-001	3.67180E-001	6.60000E-004	1.35200E-002	1.35200E-002	0.00000E+000	5.65207E+001	5.65207E+001	2.56000E-003	0.00000E+000	5.65847E+001
Graders	1.24000E-003	1.57700E-002	5.17000E-003	2.00000E-005	5.00000E-004	4.60000E-004	0.00000E+000	1.74527E+000	1.74527E+000	5.60000E-004	0.00000E+000	1.75938E+000
Pavers	7.20000E-004	7.06000E-003	1.08100E-002	2.00000E-005	3.30000E-004	3.10000E-004	0.00000E+000	1.54862E+000	1.54862E+000	5.00000E-004	0.00000E+000	1.56114E+000
Paving Equipment	8.50000E-004	8.01000E-003	1.27800E-002	2.00000E-005	3.90000E-004	3.60000E-004	0.00000E+000	1.78927E+000	1.78927E+000	5.80000E-004	0.00000E+000	1.80374E+000
Rollers	6.70000E-004	7.04000E-003	8.10000E-003	1.00000E-005	3.90000E-004	3.60000E-004	0.00000E+000	1.00854E+000	1.00854E+000	3.30000E-004	0.00000E+000	1.01669E+000
Rubber Tired Dozers	2.41000E-003	2.52800E-002	1.03000E-002	2.00000E-005	1.20000E-003	1.10000E-003	0.00000E+000	2.15703E+000	2.15703E+000	7.00000E-004	0.00000E+000	2.17448E+000
Tractors/Loaders/Balckhoes	1.32200E-002	1.34280E-001	1.88760E-001	2.60000E-004	6.87000E-003	6.32000E-003	0.00000E+000	2.31081E+001	2.31081E+001	7.47000E-003	0.00000E+000	2.32949E+001
Welders	7.88100E-002	4.30860E-001	5.05360E-001	7.70000E-004	1.75100E-002	1.75100E-002	0.00000E+000	5.64661E+001	5.64661E+001	6.38000E-003	0.00000E+000	5.66256E+001

Luna Road Commercial

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

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	7.82142E-006
Cement and Mortar Mixers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.05203E-006	1.05203E-006	0.00000E+000	0.00000E+000	1.30449E-006
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	9.92866E-007	9.92866E-007	0.00000E+000	0.00000E+000	9.84903E-007
Generator Sets	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.23848E-006	1.23848E-006	0.00000E+000	0.00000E+000	1.23708E-006
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	5.72974E-006	5.72974E-006	0.00000E+000	0.00000E+000	5.68379E-006
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	4.63598E-006	4.63598E-006	0.00000E+000	0.00000E+000	0.00000E+000
Tractors/Loaders/Balckhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.29825E-006	1.29825E-006	0.00000E+000	0.00000E+000	1.28783E-006
Welders	0.00000E+000	2.32089E-005	1.97875E-005	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.23968E-006	1.23968E-006	0.00000E+000	0.00000E+000	1.23619E-006

Fugitive Dust Mitigation

Yes/No Mitigation Measure Mitigation Input Mitigation Input Mitigation Input

No	Soil Stabilizer for unpaved Roads	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
No	Replace Ground Cover of Area Disturbed	PM10 Reduction	0.00	PM2.5 Reduction	0.00		

Luna Road Commercial

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

Yes	Water Exposed Area	PM10 Reduction	61.00	PM2.5 Reduction	61.00	Frequency (per day)	3.00
No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph)	15.00		
Yes	Clean Paved Road	% PM Reduction	20.00				

Phase	Source	Unmitigated		Mitigated		Percent Reduction	
		PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.00	0.00	0.00	0.00	0.19	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.02	0.01	0.02	0.01	0.17	0.15
Grading	Fugitive Dust	0.01	0.01	0.01	0.00	0.61	0.61
Grading	Roads	0.00	0.00	0.00	0.00	0.19	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.17	0.14
Site Preparation	Fugitive Dust	0.01	0.00	0.00	0.00	0.61	0.61
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.17	0.50

Operational Percent Reduction Summary

Luna Road Commercial

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

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	7.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	20.00	16.03	16.38	19.97	20.14	17.20
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value 3
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.13	0.36		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

Luna Road Commercial

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

No	Neighborhood Enhancements	Improve Pedestrian Network			
No	Neighborhood Enhancements	Provide Traffic Calming Measures			
No	Neighborhood Enhancements	Implement NEV Network	0.00		
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00		
No	Parking Policy Pricing	Limit Parking Supply	0.00		
No	Parking Policy Pricing	Unbundle Parking Costs	0.00		
No	Parking Policy Pricing	On-street Market Pricing	0.00		
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00		
No	Transit Improvements	Provide BRT System	0.00		
No	Transit Improvements	Expand Transit Network	0.00		
No	Transit Improvements	Increase Transit Frequency	0.00		
	Transit Improvements	Transit Improvements Subtotal	0.00		
		Land Use and Site Enhancement Subtotal	0.00		
No	Commute	Implement Trip Reduction Program			
No	Commute	Transit Subsidy			
No	Commute	Implement Employee Parking "Cash Out"			
No	Commute	Workplace Parking Charge			
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00		
No	Commute	Market Commute Trip Reduction Option	0.00		
No	Commute	Employee Vanpool/Shuttle	0.00		2.00

Luna Road Commercial

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

No	Commuter	Provide Ride Sharing Program			
	Commuter	Commuter Subtotal	0.00		
No	School Trip	Implement School Bus Program	0.00		
		Total VMT Reduction	0.00		

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
Yes	No Hearth	
Yes	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	50.00
No	Use Low VOC Paint (Residential Exterior)	50.00
No	Use Low VOC Paint (Non-residential Interior)	50.00
No	Use Low VOC Paint (Non-residential Exterior)	50.00
No	Use Low VOC Paint (Parking)	50.00
No	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24		

Luna Road Commercial

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

No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy	0.00	0.00
No	Use Reclaimed Water	0.00	0.00
No	Use Grey Water	0.00	
Yes	Install low-flow bathroom faucet	32.00	
Yes	Install low-flow Kitchen faucet	18.00	
Yes	Install low-flow Toilet	20.00	
Yes	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
Yes	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

Solid Waste Mitigation

Luna Road Commercial

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

Mitigation Measures	Input Value
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	25.00

APPENDIX B

Gas Station Health Risk Screening

GASOLINE DISPENSING SERVICE STATION

(Procedure Version 8.1 & Package N, September 1, 2017) - Risk Tool V1.105

AN:	
Facility Name:	Luna and 395
Deem Complete Date:	1/31/23

Storage Tank Type	Underground	MET Station	Desert Hot Springs Airport
Annual Throughput	1 million gallons /year	Distance to Resident	50 meter
T-BACT	YES	Distance to Commercial	20 meter

MICR Calculation: MICR = MICR per 1 Million gallons/yr x Annual Throughput (Million gallons/yr)

HIA & HIC Calculation: Negligible compared to Cancer risk and is not calculated.

MICR Result

	Resident	Commercial
MICR	1.553	0.315
MICR ≤ 10	PASS	PASS

Interpolation for MICR from Nearest Distances

	Residential			Commercial		
	near	actual	far	near	actual	far
Distance (meter)	50	50	75	20	20	25
MICR (per 1 million gasoline gallon throughput per year)	1.553	1.5530	0.848	0.315	0.315	0.315

Look up from Table 12 - MICR for Underground Storage Tank

Station	Receptor	Downwind Distance (m)							
		25	50	75	100	200	300	500	1000
Desert Hot Springs Airport	Resident	3.820	1.553	0.848	0.540	0.163	0.082	0.035	0.010
	Commercial	0.315	0.128	0.070	0.045	0.013	0.007	0.003	0.001

Station list

	Resident	Commercial
Throughput cap for MICR = 10 (million gal/yr)	6.439	31.746

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

Required Value	User Defined Input	Instructions
Annual Throughput (gallons/year)	1,000,000	Enter your gas station's annual throughput in gallons of gasoline dispensed per year.
Hourly Dispensing Throughput (gallons/hour)	700	The tool will calculate the maximum hourly vehicle fueling throughput based on annual throughput as defined by Table 10 of the 2020 Gasoline Service Station Industrywide Risk Assessment Technical Guidance Document (Technical Guidance). If a different value is desired please enter it into cell L4.
Hourly Loading Throughput (gallons/hour)	8800	The tool will calculate the maximum hourly loading throughput based on annual throughput as defined by Table 10 of the Technical Guidance. If a different value is desired please enter it into cell L5.
Meteorological Data	Lancaster	Select appropriate meteorological data. Met sets provided include 2 rural (Redding and Lancaster) and 4 urban (Fresno, Ontario, San Diego, and San Jose) locations. Use whichever best correlates to your location. If you would like to use site-specific meteorological data please refer to the Variable Met Tool.
Distance to Nearest Resident (meters)	50	Enter the distance to the nearest residential receptor in meters as measured from the edge of the station canopy. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Distance to Nearest Business (meters)	20	Enter the distance to the nearest worker receptor in meters as measured from the edge of the station canopy. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Distance to Acute Receptor (meters)		Enter the distance where acute impacts are expected in meters as measured from the edge of the station canopy. This can be the distance to the property boundary, nearest resident, nearest worker, or any other user defined location. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Control Scenario	EVR Phase I & EVR Phase II	Select the appropriate control scenario for your gas station. Please refer to technical Guidance for an explanation of the different control scenarios. Almost all gas stations in California are equipped with EVR Phase I and EVR Phase II controls.
Include Building Downwash Adjustments	yes	Building downwash may over estimate risk results. High results should be investigated further through site-specific health risk assessment.
Risk Value	Results	1/31/2023 5:56 PM
Max Residential Cancer Risk (chances/million)	1.44	
Max Worker Cancer Risk (chances/million)	0.36	
Chronic HI	0.02	
Acute HI		