

APPENDIX O ALTERNATIVES



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Project No: 21-11189

LA Railroad 93, LLC

1415 Constitution Road SE

Atlanta, Georgia 30316

Contact: Jeff Weber (jeff@jwebergroup.com)

Subject: Air Quality and Greenhouse Gas Emissions Quantifications for the Existing Zoning Project Alternative.

Dear Mr. Weber:

Rincon Consultants (Rincon) has prepared this letter report to summarize the results of the air quality and greenhouse gas (GHG) emissions calculations for the Existing Zoning Project Alternative in support of the Shadowbox Studios Environmental Impact Report.

Existing Zoning Project Alternative Description

The Existing Zoning Alternative utilizes the existing zoning for the 93.5-acre site. The following area calculations are based on the dedication of approximately 1.8 acres for public right-of-way for 12th, 13th and Arch Streets as anticipated in the EIR Project. The initial roadway circulation plan for the Existing Zoning Alternative anticipates a three-leg intersection at 13th and Arch Streets, as opposed to the EIR Project four-leg intersection. After deduction of the public right-of-way the existing zoning for the remaining Shadowbox property is a combination of approximately 40.6 acres of Mixed Us – Neighborhood (MX-N) area on the southerly half of the property nearest to 13th Street and approximately 51.1 acres of Non-Urban – 5 (NU-5) area on the northerly half of the property. The baseline density of the Existing Zoning Alternative would be 775 dwelling units prior to density bonus provisions proposed herein. Including density bonuses for affordable housing, a total of 924 multi-family dwelling units, 50 single-family small-lot dwelling units, and 50,000 square feet of commercial development are proposed in the Existing Zoning Alternative. Figure 1, provided as Attachment 1, shows the area designations, acreages, and unit numbers for each portion of the site under the Existing Zoning Project Alternative. Based on CalEEMod default projections, the project would result in 2,786 new residents, 2,643 from the multi-family component and 143 from the single-family component.

Methodology

Criteria pollutant and GHG emissions for Existing Zoning Alternative construction and operation were calculated using the California Emissions Estimator Model (CalEEMod), Version 2020.4.0.¹ The input data

¹ CalEEMod version 2022.1 is publicly available for use. However, as the original modeling for the Shadowbox Project was completed prior to the release of CalEEMod version 2022.1, the Existing Zoning Alternative was modeled using the previous version of CalEEMod, consistent with the model used for the proposed Shadowbox modeling.



and subsequent construction and operation emission estimates for the proposed project are summarized below and provided in detail in Attachment 2. CalEEMod output files for the project are included in Attachment 3 to this report.

Construction Emissions

The Existing Zoning Alternative construction would primarily generate temporary criteria pollutant and GHG emissions from construction equipment operation onsite, construction worker vehicle trips to and from the site, and the import of materials to the site. The analysis assessed maximum daily emissions from individual construction activities, including site preparation, grading, building construction, paving, and architectural coating. There would be no demolition phase since the existing site is vacant. Construction emissions were modeled in CalEEMod to start in May 2023 based on a 2023 start date for the proposed Shadowbox Studios project. The default construction phasing timeline was used for the site's development under the Existing Zoning Alternative. Construction was estimated to be completed in January 2027. Construction emissions associated with proposed project's development were quantified by estimating the types and quantity of equipment used on site during each of the construction phases, as provided by the model defaults. Consistent with the proposed Shadowbox Studios project, as a project design feature, off-road diesel-powered construction equipment would meet or exceed the CARB and USEPA Tier 3 off-road emissions standards and be equipped with Level 3 diesel particulate filters at a minimum. Equipment may also be alternatively (non-diesel) fueled to reduce diesel exhaust emissions. The CalEEMod equipment, greater than 50 horsepower, was changed to be equipped with CARB and USEPA rated Tier 3 engines with Level 3 diesel particulate filters. CalEEMod also estimates off-site emissions from worker, vendor, and hauling truck trips. The number of worker and vendor trips used are the CalEEMod default assumptions. The default trip lengths were used for vendor trips. To include onsite emissions, the default worker trip lengths were increased by approximately 0.8 miles (from 14.7 to 15.5 miles), which is the length of the project site. This accounts for onsite travel during construction.

The quantity, duration, and the intensity of construction activity influences the amount of construction emissions and their related pollutant concentrations that occur at any one time. The emission forecasts modeled for this report reflect conservative assumptions where a relatively large amount of construction is occurring relatively intensive. If construction is delayed or occurs over a longer period, criteria pollutant emissions could be reduced because of (1) a more modern and cleaner-burning construction equipment fleet mix than assumed in the CalEEMod, and/or (2) a less intensive buildout schedule (total annual emissions occurring over a greater number of days).

Architectural coatings assumed compliance with South Coast Air Quality Management District's (SCAQMD) Rule 1113 which requires architectural coatings (flat paints and building envelope coatings) have a maximum volatile organic compound (VOC) content of 50 g/L.

The SCAQMD recommends amortizing construction-related GHG emissions over a 30-year to represent average annual emissions over the anticipated lifetime of a project (SCAQMD 2008b).² This guidance is used in this analysis. Total construction GHG emissions resulting from a project were amortized over 30

² South Coast Air Quality Management District (SCAQMD). 2008. Attachment E – Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold. [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/ghgattachmente.pdf](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf) (accessed March 2023).



years and added to operational GHG emissions to account for their contribution to GHG emissions over the lifetime of the project.

Operational Emissions

In CalEEMod, operational sources of criteria pollutant emissions include area, energy, and mobile sources. GHG emissions include water and solid waste sources in addition to area, energy, and mobile sources.

Area Sources

Emissions associated with area sources, including hearth emissions, consumer products, landscape maintenance, and architectural coating were calculated in CalEEMod and utilize standard emission rates from CARB, USEPA, and emission factor values provided by the local air district (CAPCOA 2021).³ CalEEMod defaults were used for consumer products and landscaping emissions. Architectural coating emissions for building maintenance and upkeep were modeled consistent with SCAQMD's Rule 1113 which requires architectural coatings (flat paints and building envelope coatings) have a maximum volatile organic compound (VOC) content of 50 g/L. SCAQMD has banned the use of wood burning stoves and fireplaces; therefore, the default CalEEMod hearth settings were adjusted to remove all wood burning stoves. Additionally, woodburning fireplaces were re-assigned to natural gas or no fireplace based on the default percentage of each.

Energy Sources

Emissions from energy use include electricity and natural gas use. The emissions factors for natural gas combustion are based on USEPA's AP-42 (*Compilation of Air Pollutant Emissions Factors*) and California Climate Action Registry General Reporting Protocol (California Climate Action Registry 2009). Electricity emissions only apply to GHG emissions (as the electricity generation is an indirect emission generated off-site and therefore not relevant for local and regional air quality conditions). Emissions from electricity are calculated by multiplying the energy use times the carbon intensity of the utility district per kilowatt hour (kWh) (CAPCOA 2021).⁴ The project would be served by Southern California Edison (SCE). Therefore, SCE's specific energy intensity factors (i.e., the amount of CO₂, CH₄, and N₂O per kWh) are used in the calculations of GHG emissions. The annual electricity and natural gas consumption were based on CalEEMod defaults for the landuse types planned in the Existing Zoning Alternative.

Mobile Sources

Mobile emissions are estimated by multiplying the project trip rate, average trip length, and the vehicle emission factors. The traffic consultant, Gibson Transportation Consulting, Inc., provided project-specific trip generations for the Existing Zoning Alternative (Gibson 2023).⁵ According to the trip generation provided, the Existing Zoning Alternative would result in 8,551 trips per day with 6,228 associated with the multi-family housing, 472 associated with the single-family housing, and 1,851 associated with the commercial land use. CalEEMod defaults were adjusted to ensure 8,551 daily trips. CalEEMod default

³ California Air Pollution Control Officers Association (CAPCOA). 2021. California Emissions Estimator Model User's Guide Version 2020.4.0. May. http://www.aqmd.gov/docs/default-source/caleemod/user-guide-2021/01_user-39-s-guide2020-4-0.pdf?sfvrsn=6 (accessed March 2023).

⁴ IBID

⁵ Gibson 2023. LA-1 Shadowbox Studios Land Use Alternatives Trip Generation Comparisons. February.



trip lengths and fleet mix were used. CalEEMod was adjusted to 100 percent primary trips for ease of replicating the 8,551 daily trips in CalEEMod. Additionally, once operational, employees and guests of the proposed film studio would travel onsite using electric golf carts and vans with drivers may be used by the production staff. The project-specific trip generation rates provided are included in Attachment 2.

Water and Wastewater Sources

Water and wastewater generations defaults in CalEEMod are based on the default electricity intensity from the CEC's 2006 Refining Estimates of Water-Related Energy Use in California using the average values for northern and southern California. Water consumption and wastewater generation used CalEEMod defaults with the exception of the wastewater treatment type. Wastewater treatment assumes 100 percent of water is treated aerobically as identified in the city of Santa Clarita Wastewater treatment process (Los Angeles County Sanitation District, 2023).⁶

Solid Waste Sources

Operational emissions from waste generation were also calculated using CalEEMod Defaults which are based on the IPCC's methods for quantifying GHG emissions from solid waste using the degradable organic content of waste (CAPCOA 2021).⁷ Waste disposal rates by land use and overall composition of municipal solid waste in California was primarily based on data provided by the California Department of Resources Recycling and Recovery. The default assumptions were used in this analysis.

Air Quality - Emissions Analysis

Construction Emissions – Criteria Pollutants

Existing Zoning construction would involve site preparation, grading, building construction, paving, and architectural coating activities that have the potential to generate air pollutant emissions. Table 1 summarizes the estimated maximum daily emissions of VOC, NO_x, CO, SO₂, PM₁₀, and PM_{2.5}. Emissions would not exceed the SCAQMD regional threshold. These emissions include compliance with the project design feature requiring Tier 3 rated engines and Level 3 DPF filters as well as SCAQMD fugitive dust control measures and architectural coating requirements. No mitigation would be required.

Table 2 summarizes maximum daily onsite emissions associated with construction of the Existing Zoning Alternative. Similar to the regional emissions, the onsite construction emissions of NO_x, CO, PM₁₀, and PM_{2.5} emissions would not exceed SCAQMD LST screening levels during any phase of construction. No mitigation is required.

⁶ Los Angeles County Sanitation District. 2023. Wastewater Treatment Process. <https://www.lacsd.org/services/wastewater-sewage/facilities/wastewater-treatment-process> (accessed March 2023).

⁷ California Air Pollution Control Officers Association (CAPCOA). 2021. California Emissions Estimator Model User's Guide Version 2020.4.0. May. http://www.aqmd.gov/docs/default-source/caleemod/user-guide-2021/01_user-39-s-guide2020-4-0.pdf?sfvrsn=6 (accessed March 2023).



Table 1 Construction Criteria Pollutant Emissions

Year	Maximum Emissions (lbs./day)					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Summer Emissions						
2023	5	33	69	<1	11	5
2024	4	22	49	<1	11	3
2025	25	23	54	<1	13	4
2026	25	23	52	<1	13	4
2027	21	2	7	<1	2	1
Maximum Summer Emissions	25	33	69	<1	13	5
Winter Emissions						
2023	5	34	66	<1	11	5
2024	4	22	46	<1	11	3
2025	25	23	51	<1	13	4
2026	25	23	49	<1	13	4
2027	22	2	6	<1	2	1
Maximum Winter Emissions	25	34	66	<1	13	5
Maximum Construction Emissions	25	34	69	<1	13	5
SCAQMD Regional Thresholds	75	100	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No

lbs/day = pounds per day; VOC = volatile organic compounds; NO_x = nitrogen oxide; CO = carbon monoxide; SO_x = sulfur oxide; PM₁₀ = particulate matter with a diameter no more than 10 microns; PM_{2.5} = particulate matter with a diameter no more than 2.5 microns
Source: Attachment 3 “Overall Construction-mitigated” emissions. Highest of Summer and Winter emissions results are shown for all emissions. The mitigated emissions account for project design features and compliance with specific regulatory standards.

Table 2 Onsite Construction Emissions

	Maximum Onsite Emissions (lbs./day) ¹			
	NO _x /NO ₂	CO	PM ₁₀	PM _{2.5}
Construction Emissions	30	37	9	5
SRA 13 Applicable LST ²	236	1,644	12	6
Threshold Exceeded?	No	No	No	No

SRA = source receptor area; lbs/day = pounds per day; NO_x/NO₂ = nitrogen oxides; CO = carbon monoxide; PM₁₀ = particulate matter 10 micrometers in diameter or less; PM_{2.5} = fine particulate matter 2.5 micrometers in diameter or less

¹Some numbers may not add up precisely due to rounding considerations. Maximum on-site emissions are the highest emissions that would occur on the project site from on-site sources, such as heavy construction equipment and architectural coatings. The emissions also account for construction worker vehicle trips and haul truck trips traveling the project length, which is approximately 0.8 mile.

²The applicable LST for SRA 13 are the thresholds for a five-acre site at a distance of 82 feet (25 meters) for all pollutants except for NO_x. The LST for a five-acre site at a distance of 164 feet (50 meters) was used for NO_x as it is more conservative.

Source: See CalEEMod worksheets in Appendix C.



Operational Emissions – Criteria Pollutants

The Existing Zoning Alternative would generate criteria pollutants during operation. Table 3 summarizes the Existing Zoning Alternative’s operational emissions by emission source (area, energy, and mobile). As shown, the emissions generated by operation of the proposed project would exceed the SCAQMD’s threshold for all criteria pollutant other than SO₂. The exceedances under the Existing Zoning Alternative are attributed predominantly to natural gas combustion from natural gas fireplaces. Table 4 shows reduced emissions if the project is developed without fireplaces or with the incorporation of electric fireplaces only. As shown, emissions would be reduced to below regulatory requirements for all criteria pollutants with the elimination of natural gas fireplaces.

Table 3 Operational Criteria Pollutant Emissions

Emission Source	Maximum Daily Emissions (lbs./day)					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Summer Emissions						
Area	684	113	6,055	20	975	975
Energy	<1	3	1	<1	<1	<1
Mobile	24	25	249	1	68	18
Project Summer Emissions	709	141	6,305	20	1,044	994
Winter Emissions						
Area	684	113	6,055	20	975	975
Energy	<1	3	1	<1	<1	<1
Mobile	24	27	241	1	68	18
Project Winter Emissions	708	143	6,297	20	1,044	994
Project Emissions	709	143	6,305	20	1,044	994
SCAQMD Regional Thresholds	55	55	550	150	150	55
Threshold Exceeded?	Yes	Yes	Yes	No	Yes	Yes

lbs/day = pounds per day; VOC = volatile organic compounds; NO_x = nitrogen oxide; CO = carbon monoxide; SO_x = sulfur oxide; PM₁₀ = particulate matter with a diameter no more than 10 microns; PM_{2.5} = particulate matter with a diameter no more than 2.5 microns

Notes: Some numbers may not add up precisely due to rounding considerations.

Source: Attachment 3. “Overall Operation-Unmitigated” emissions. Highest of Summer and Winter emissions results are shown for all emissions.



Table 4 Reduced Operational Criteria Pollutant Emissions

Emission Source	Maximum Daily Emissions (lbs./day)					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Summer Emissions						
Area	25	1	80	<1	<1	<1
Energy	<1	3	1	<1	<1	<1
Mobile	24	25	249	1	68	18
Project Summer Emissions	50	30	331	1	69	19
Winter Emissions						
Area	25	1	80	<1	<1	<1
Energy	<1	3	1	<1	<1	<1
Mobile	24	27	241	1	68	18
Project Winter Emissions	49	31	323	1	69	19
Project Emissions	50	31	331	1	69	19
SCAQMD Regional Thresholds	55	55	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No

lbs/day = pounds per day; VOC = volatile organic compounds; NO_x = nitrogen oxide; CO = carbon monoxide; SO_x = sulfur oxide; PM₁₀ = particulate matter with a diameter no more than 10 microns; PM_{2.5} = particulate matter with a diameter no more than 2.5 microns
Notes: Some numbers may not add up precisely due to rounding considerations.

Source: Table 2.2 “Overall Operation-Unmitigated” emissions. Highest of Summer and Winter emissions results are shown for all emissions. See CalEEMod worksheets in Appendix A.

Table 5 summarizes maximum daily onsite emissions associated with operation of the Existing Zoning Alternative. The operational onsite emissions of NO_x, CO, PM₁₀, and PM_{2.5} would exceed SCAQMD LST screening levels during operation for all pollutants other than NO_x. Similar to the regional pollutant exceedances, the source of the exceedance is primarily from natural gas fireplaces. As shown in Table 6, with the elimination of natural gas fireplaces, emissions for all criteria pollutants are reduced to below SCAQMD’s screening levels.

Table 5 Onsite Operational Emissions

	Maximum Onsite Emissions (lbs./day) ¹			
	NO _x /NO ₂	CO	PM ₁₀	PM _{2.5}
Construction Emissions	116	6,056	975	975
SRA 13 Applicable LST ²	236	1,644	3	2
Threshold Exceeded?	No	Yes	Yes	Yes

SRA = source receptor area; lbs/day = pounds per day; NO_x/NO₂ = nitrogen oxides; CO = carbon monoxide; PM₁₀ = particulate matter 10 micrometers in diameter or less; PM_{2.5} = fine particulate matter 2.5 micrometers in diameter or less

¹Some numbers may not add up precisely due to rounding considerations. Maximum on-site emissions are the highest emissions that would occur on the project site from on-site sources, such as heavy construction equipment and architectural coatings. The emissions also account for construction worker vehicle trips and haul truck trips traveling the project length, which is approximately 0.8 mile.

²The applicable LST for SRA 13 are the thresholds for a five-acre site at a distance of 82 feet (25 meters) for all pollutants except for NO_x. The LST for a five-acre site at a distance of 164 feet (50 meters) was used for NO_x as it is more conservative.

Source: See CalEEMod worksheets in Appendix C.



Table 6 Reduced Onsite Operational Emissions

	Maximum Onsite Emissions (lbs./day) ¹			
	NO _x /NO ₂	CO	PM ₁₀	PM _{2.5}
Construction Emissions	4	82	<1	<1
SRA 13 Applicable LST ²	236	1,644	3	2
Threshold Exceeded?	No	No	No	No

SRA = source receptor area; lbs./day = pounds per day; NO_x/NO₂ = nitrogen oxides; CO = carbon monoxide; PM₁₀ = particulate matter 10 micrometers in diameter or less; PM_{2.5} = fine particulate matter 2.5 micrometers in diameter or less

¹Some numbers may not add up precisely due to rounding considerations. Maximum on-site emissions are the highest emissions that would occur on the project site from on-site sources, such as heavy construction equipment and architectural coatings. The emissions also account for construction worker vehicle trips and haul truck trips traveling the project length, which is approximately 0.8 mile.

²The applicable LST for SRA 13 are the thresholds for a five-acre site at a distance of 82 feet (25 meters) for all pollutants except for NO_x. The LST for a five-acre site at a distance of 164 feet (50 meters) was used for NO_x as it is more conservative.

Source: See CalEEMod worksheets in Appendix C.

Greenhouse Gas - Emissions Analysis

The Existing Zoning Alternative would generate temporary GHG emissions primarily from the operation of construction equipment onsite as well as from vehicles transporting construction workers to and from the project site and heavy trucks to transport building materials. As shown in Table 7, construction associated with the Existing Zoning Alternative would generate 5,205 MT CO₂e. Amortized over a 30-year period per SCAQMD guidance, construction associated with the full buildout of the project would generate 173 MT CO₂e per year.

Table 7 Construction GHG Emissions

Construction Year	Emissions MT CO ₂ e
2023	721
2024	1,663
2025	1,659
2026	1,158
2027	4
Total	5,205
Amortized Over 30 Years	173

MT CO₂e = metric tons of carbon dioxide equivalent

Notes: Some numbers may not add up precisely due to rounding considerations.

Source: Attachment 3 CalEEMod worksheets

Combined Annual Emissions

Operation of the full buildout allowed by the Existing Zoning Alternative would generate GHG emissions associated with area sources (e.g., hearth, landscape maintenance), energy and water usage, vehicle trips, and wastewater and solid waste generation. Annual operational emissions resulting from full buildout of the Existing Zoning Alternative without the incorporation of additional Renewable Portfolio Standard attainment beyond CalEEMod Defaults, incorporation of AB 341 and incorporation of Title 24 requirements for the incorporation of electric vehicle (EV) charging stations and solar are summarized in



Table 8. The GHG emissions combine the amortized construction emissions. The Existing Zoning Alternative would generate approximately 12,292 MT CO₂e. Elimination of natural gas fireplaces would also reduce GHG emissions. The reduced Existing Zoning Alternative emissions are also shown in Table 8. Elimination of the natural gas fireplaces could reduce emissions up to 283 MT CO₂e annually, however the reduced emissions does not take into account electricity use if natural gas fireplaces are replaced with electric fireplaces instead of being eliminated altogether.

Table 8 Existing Zoning Alternative Annual GHG Emissions

Emission Source	Annual Emissions (MT CO₂e)	Reduced Annual Emissions (MT CO₂e)
Construction¹	173	173
Operational	12,118	11,835
Area	300	17
Energy	1,555	1,555
Mobile	9,707	9,707
Solid Waste	270	270
Water	286	286
Total	12,292	12,009

MT CO₂e = metric tons of carbon dioxide equivalent; values may not add directly due to rounding.

Notes: Some numbers may not add up precisely due to rounding considerations.

¹ Amortized construction related GHG emissions over 30 years

Source: Attachment 3 CalEEMod worksheets



Conclusion

As detailed in the analysis above, construction of the Existing Zoning Alternative would not result in exceedances of regulatory thresholds at the regional or local level. Operational emissions would exceed regulatory thresholds at both the local and regional level if natural gas fireplaces are part of the project design. GHG emissions from the operation of the Existing Zoning Alternative would range from 12,009 to 12,292 MT CO₂e depending on if natural gas fireplaces are used, replaced with electric, or eliminated altogether.

Sincerely,
Rincon Consultants, Inc.

A handwritten signature in blue ink, appearing to read "Heather Dubois".

Heather Dubois
Senior Air Quality Analyst

A handwritten signature in black ink, appearing to read "Greg Ainsworth".

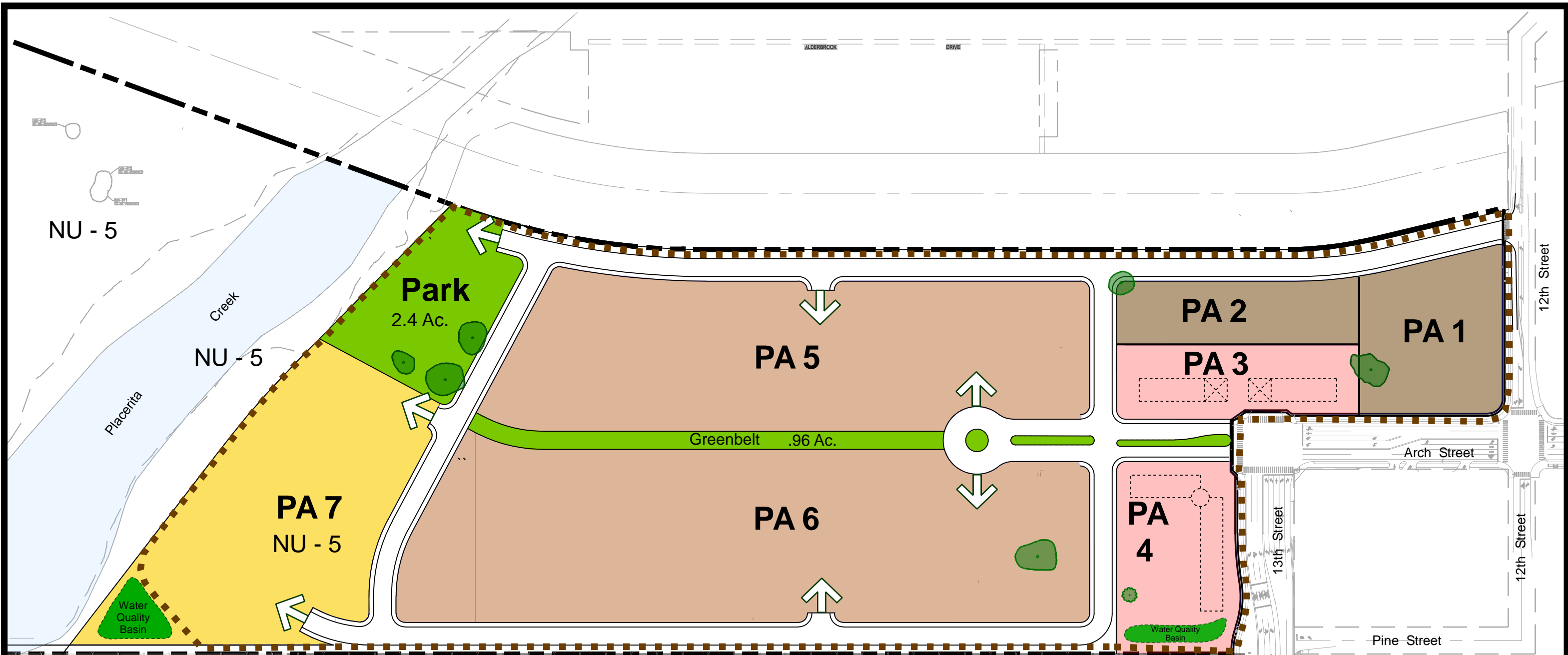
Greg Ainsworth
Director

Attachments

- Attachment 1 – Figure 1 – Shadowbox Residential Alternative.
- Attachment 2 – Project Assumptions and Emissions Summaries
- Attachment 3 - CalEEMod Output

Attachment 1

Figure 1 – Shadowbox Residential Alternative

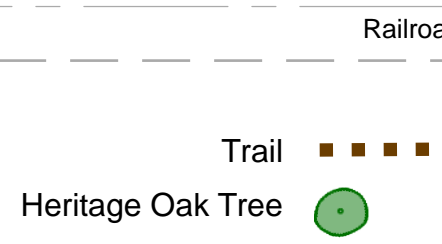


Zoning Summary - Net Development Area Acreage

	ZONING	USE	NET ACRES	DU (or SF)
PA 1	MX-N (City Housing)	Residential*	2.5	100
PA 2	MX-N (Residential)	Residential	1.7	50
PA 3-4	MX-N (Comm/Res)	Residential*	4.2	99
PA 3-4	MX-N (Comm/Res)	Commercial	N/A	50,000 SF
PA 5	MX-N (Residential)	Residential	9.5	245
PA 6	MX-N (Residential)	Residential	12.9	430
PA 7	MX-N (Res Cluster)	Residential	6.2	50
		TOTAL	37.0	974 DU

*Low Income Apartments

50,000 SF Commercial



Railroad Avenue

OVERALL ACREAGE SUMMARY

Gross Area	93.5 Acres
Public Roads	1.8 Acres
Net Area	91.7 Acres
MX-N Zone Area	40.6 Acres
NU-5 Zone Area	51.1 Acres

LAND USE SUMMARY

MX-N (18U/Ac) = 725 Units Zoning Capacity
 Density Bonus* (27.5%) = 199 Units
 NU-5 Cluster (1U/gross Ac) = 50 Units
 Total Residential 974 Units
 MX-N Comm/Office 50,000 Sq. Ft.
 *Bonus based on 15% Low Income Apartments



Residential Alternative
 Santa Clarita, Ca

Attachment 2

Project Assumptions and Emissions Summaries

**Blackhall - Existing Zoning Alternative
General Assumptions**

Proposed Land Use¹

Area	CalEEMod Designation	Units	Sqft	ksf	acres
PA-1	Residential - Apartment Mid Rise	100	Default	Default	2.5
PA-2	Residential - Apartment Mid Rise	50	Default	Default	1.7
PA-3/4	Residential - Apartment Mid Rise	99	Default	Default	4.20
PA-3/4	Retail - Stripmall	NA	50,000	50	
PA-6	Residential - Apartment Mid Rise	245	Default	Default	9.5
PA-6	Residential - Apartment Mid Rise	430	Default	Default	12.9
PA-7	Residential - Single Family	50	Default	Default	6.2
Park	Recreational - City Park	NA	NA	NA	2.4
Circulation	Parking - Parking Lot	NA	NA	NA	1.8
Commercial	Parking - Parking Lot ²	NA	NA	NA	3.05

Totals	CalEEMod Designation	Units	Sqft	ksf	acres
	Residential - Apartment Mid Rise	924	Default	Default	28.7
	Retail - Stripmall	NA	50,000	50	2.1
	Residential - Single Family	50	Default	Default	6.2
	Recreational - City Park	NA	NA	NA	2.4
	Parking - Parking Lot	NA	NA	NA	4.85

Note: Commercial modeled as shopping center consistent with Traffic Memo (Gibson 2023).

¹ Taken from Shadowbox_EIR_MXN Alt_775Baseline_02_20_2023.pdf

² Acreage based on PA-3 and PA-4 total acreage minus the commercial default lot acreage.

Strip Mall 1.15

³ Gibson. 2023. LA-1 Shadowbox studios Land Use Alternatives Trip Generation Comparisons. February

Population

CalEEMod Default Information

Residential - Apartment Mid Rise	2,643
Residential - Single Family	143
Total	2,786

Blackhall - Existing Zoning Alternative Construction Assumptions

Construction Phasing

Construction phasing based on CalEEMod defaults with the exception of the removal of the demolition phase as the site is vacant and demolition would not be required, the overlap of Paving and Building Construction phases, the overlap of Building Construction and architectural coating, and the extension of architectural coating to 42% of BC length to account for phased development.

Off-road equipment

CalEEMod defaults used

Dust from Material Movement

Consistent with the proposed project, soils assumed balanced onsite and no import or export is anticipated. Total graded acres are CalEEMod default values.

Trips and VMT

CalEEMod defaults used except for worker trip length which was extended 0.8 miles to account for onsite travel, consistent with the proposed project modeling. Trip length increased from 14.7 to 15.50 miles.

On-Road Fugitive Dust

CalEEMod defaults used

Architectural Coating

SCAQMD Rule 1113, Building Envelope Coating = 50 g/L and Flats = 50 g/L
Parking lot area left as default.

Blackhall - Existing Zoning Alternative Operational Assumptions

Mobile

Vehicle Trips¹

	Daily Trips	Trip Rate
Residential - Apartment Mid Rise	6,228	6.74
Residential - Single Family	472	9.43
Retail-Stripmall ²	1,851	37.04
Total	8,551	

Notes:

- 1 Gibson 2023. LA-1 Shadowbox Studios Land Use Alternatives Trip Generation Comparisons. February.
- 2 Trip rate adjusted from 37.01 to 37.04 to ensure daily trips equals at least 8,551.
- 3 Assumes 100% primary trips
- 4 Default trip lengths used.
- 5 Fleet Mix - CalEEMod Defaults Used
- 6 Road Dust - CalEEMod Defaults Used
- 7 Vehicle Emissions - CalEEMod Defaults Used

Area

Hearth

CalEEMod Defaults Used, with the exception of for fireplaces. Fireplace assumptions revised to take into account SCAQMD ban on wood burning fireplaces and stoves.

	CalEEMod Defaults			
	Wood	Gas	None	% None
Residential - Apartment Mid Rise	46.2	785.4	92.4	0.105263
Residential - Single Family	2.5	42.5	5	0.105263
	Revised			
Residential - Apartment Mid Rise	0	826.7	97.3	
Residential - Single Family	0	44.7	5.3	

Consumer Products

CalEEMod Defaults Used

Area Architectural Coatings

SCAQMD Rule 1113, Building Envelope Coating = 50 g/L and Flats = 50 g/L;
Parking left as Default

Landscaping Emissions

CalEEMod Defaults Used

Energy Use

CalEEMod Defaults Used

Blackhall - Existing Zoning Alternative Operational Assumptions

Water and Wastewater

CalEEmod Defaults Used with the exception noted.

City of Santa Clarita wastewater treated at the Saugus or Valencia Water Reclamation Plant. 100% aerobic treatments.

<https://www.lacsd.org/services/wastewater-sewage/facilities/wastewater-treatment-process>

Solid Waste

CalEEmod Defaults Used

Stationary Sources

No Stationary Sources Assumed

Off-Road Operational Sources

No off-road operational Sources assumed.

**TABLE 2
RESIDENTIAL ALTERNATIVE ANALYSIS
TRIP GENERATION ESTIMATES**

Land Use	ITE Land Use	Size	Weekday						
			Daily	Morning Peak Hour			Afternoon Peak Hour		
				In	Out	Total	In	Out	Total
<u>Trip Generation Rates [a]</u>									
Multifamily Housing (Low-Rise)	220	per du	6.74	24%	76%	0.40	63%	37%	0.51
Single-Family Detached Housing	210	per du	9.43	26%	74%	0.70	63%	37%	0.94
Shopping Center	820	per ksf	37.01	62%	38%	0.84	48%	52%	3.40
<u>Proposed Project</u>									
Multifamily Housing (Low-Rise)	220	924 du	6,228	89	281	370	297	174	471
Single-Family Detached Housing	210	50 du	472	9	26	35	30	17	47
Shopping Center	820	50,000 ksf	1,851	26	16	42	82	88	170
Total - Net New Project Trips			8,551	124	323	447	409	279	688

Notes

du: dwelling unit, ksf: 1,000 square feet

[a] Source: *Trip Generation, 11th Edition*, Institute of Transportation Engineers, 2021.

Table Source: Gibson 2023

Blackhall - Existing Zoning Alternative Air Quality - Construction Report Tables

Construction - Regional Emissions

Year	Maximum Emissions (lbs/day)					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Summer Emissions						
2023	5	33	69	<1	11	5
2024	4	22	49	<1	11	3
2025	25	23	54	<1	13	4
2026	25	23	52	<1	13	4
2027	21	2	7	<1	2	1
Maximum Summer Emissions	25	33	69	<1	13	5
Winter Emissions						
2023	5	34	66	<1	11	5
2024	4	22	46	<1	11	3
2025	25	23	51	<1	13	4
2026	25	23	49	<1	13	4
2027	22	2	6	<1	2	1
Maximum Winter Emissions	25	34	66	<1	13	5
Maximum Construction Emissions	25	34	69	<1	13	5
SCAQMD Regional Thresholds	75	100	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No

Construction - Localized Emissions

	Maximum Onsite Emissions (lbs/day)			
	NO _x /NO ₂	CO	PM ₁₀	PM _{2.5}
Construction Emissions	30	37	9	5
SRA 13 Applicable LST	236.0	1644.0	12.0	6.0
Threshold Exceeded?	No	No	No	No

Blackhall - Existing Zoning Alternative Construction CalEEMod Summaries

Note: Mitigated scenario from CalEEMod represents unmitigated emissions due to incorporation of PDF (Tier 3 with Level 3 DPF) and SCAQMD Fugitive Dust Requirements.

Maximum

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Year										
2023	4.7436	33.5705	68.8222	0.167	11.0324	0.3574	11.3898	4.6024	0.3515	4.7454
2024	3.6918	22.0091	48.8155	0.1397	10.8556	0.255	11.1106	2.9027	0.2494	3.1521
2025	25.0739	23.4388	53.9385	0.1553	12.812	0.2703	13.0822	3.4216	0.264	3.6855
2026	24.9007	23.2143	51.9644	0.1518	12.812	0.2671	13.079	3.4216	0.261	3.6826
2027	21.5128	1.627	6.5238	0.0181	1.9564	0.0231	1.9795	0.5188	0.0224	0.5413
Maximum	25.0739	33.5705	68.8222	0.167	12.812	0.3574	13.0822	4.6024	0.3515	4.7454

Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Year										
2023	4.7436	33.5705	65.8835	0.1619	11.0324	0.3574	11.3898	4.6024	0.3515	4.7454
2024	3.6918	22.0091	46.1433	0.1349	10.8556	0.255	11.1106	2.9027	0.2494	3.1521
2025	25.0739	23.4388	50.9616	0.1497	12.812	0.2703	13.0822	3.4216	0.264	3.6855
2026	24.9007	23.2143	49.185	0.1464	12.812	0.2671	13.079	3.4216	0.261	3.6826
2027	21.5128	1.627	6.0772	0.0172	1.9564	0.0231	1.9795	0.5188	0.0224	0.5413
Maximum	25.0739	33.5705	65.8835	0.1619	12.812	0.3574	13.0822	4.6024	0.3515	4.7454

Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Year										
2023	4.5882	33.0979	68.8222	0.167	11.0324	0.3572	11.3896	4.6024	0.3513	4.7454
2024	3.5416	21.5575	48.8155	0.1397	10.8556	0.2549	11.1105	2.9027	0.2492	3.1519
2025	24.8946	22.9768	53.9385	0.1553	12.812	0.2701	13.0821	3.4216	0.2638	3.6854
2026	24.723	22.7699	51.9644	0.1518	12.812	0.2669	13.0789	3.4216	0.2609	3.6824
2027	21.4823	1.6042	6.5238	0.0181	1.9564	0.0231	1.9795	0.5188	0.0224	0.5413
Maximum	24.8946	33.0979	68.8222	0.167	12.812	0.3572	13.0821	4.6024	0.3513	4.7454

**Blackhall - Existing Zoning Alternative
Construction CalEEMod Summaries - OnSite Only**

Maximum

	NOx	CO	PM10 Total	PM2.5 Total
	lb/day			
Maximum	30	37	9	5

Winter

Year	Phase	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
		lb/day									
2023	Site Preparation	0.9312	19.0656	22.96	0.0381	8.8457	0.1419	8.9876	4.5461	0.1419	4.688
2023	Grading	1.5231	29.9782	36.7226	0.0621	4.1416	0.1949	4.3365	1.6442	0.1949	1.8391
2023	Building Construction	0.8225	13.9563	18.0549	0.0269		0.1753	0.1753		0.1753	0.1753
2024	Building Construction	0.8039	13.9165	18.0406	0.027		0.1677	0.1677		0.1677	0.1677
2025	Building Construction	0.7878	13.8778	18.0286	0.027		0.1611	0.1611		0.1611	0.1611
2026	Building Construction	0.7878	13.8778	18.0286	0.027		0.1611	0.1611		0.1611	0.1611
2023	Paving	0.792	11.2952	17.2957	0.0228		0.0914	0.0914		0.0914	0.0914
2025	Architectural Coating	21.0574	1.357	1.8324	2.97E-03		0.0143	0.0143		0.0143	0.0143
2026	Architectural Coating	21.0574	1.357	1.8324	2.97E-03		0.0143	0.0143		0.0143	0.0143
2027	Architectural Coating	21.0574	1.357	1.8324	2.97E-03		0.0143	0.0143		0.0143	0.0143
	MAX	21.8452	29.9782	36.7226	0.0621	8.8457	0.2667	8.9876	4.5461	0.2667	4.688

Summer

Year	Phase	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
		lb/day									
2023	Site Preparation	0.9312	19.0656	22.96	0.0381	8.8457	0.1419	8.9876	4.5461	0.1419	4.688
2023	Grading	1.5231	29.9782	36.7226	0.0621	4.1416	0.1949	4.3365	1.6442	0.1949	1.8391
2023	Building Construction	0.8225	13.9563	18.0549	0.0269		0.1753	0.1753		0.1753	0.1753
2024	Building Construction	0.8039	13.9165	18.0406	0.027		0.1677	0.1677		0.1677	0.1677
2025	Building Construction	0.7878	13.8778	18.0286	0.027		0.1611	0.1611		0.1611	0.1611
2026	Building Construction	0.7878	13.8778	18.0286	0.027		0.1611	0.1611		0.1611	0.1611
2023	Paving	0.792	11.2952	17.2957	0.0228		0.0914	0.0914		0.0914	0.0914
2025	Architectural Coating	21.0574	1.357	1.8324	2.97E-03		0.0143	0.0143		0.0143	0.0143
2026	Architectural Coating	21.0574	1.357	1.8324	2.97E-03		0.0143	0.0143		0.0143	0.0143
2027	Architectural Coating	21.0574	1.357	1.8324	2.97E-03		0.0143	0.0143		0.0143	0.0143
	MAX	21.8452	29.9782	36.7226	0.0621	8.8457	0.2667	8.9876	4.5461	0.2667	4.688

Blackhall - Existing Zoning Alternative
Air Quality - Unmitigated Operational Report Tables

Operational - Unmitigated Regional Emissions

Emission Source	Maximum Daily Emissions (lbs/day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Summer Emissions						
Area	684	113	6,055	20	975	975
Energy	<1	3	1	<1	<1	<1
Mobile	24	25	249	1	68	18
Maximum Summer Emissions	709	141	6,305	20	1,044	994
Winter Emissions						
Area	684	113	6,055	20	975	975
Energy	<1	3	1	<1	<1	<1
Mobile	24	27	241	1	68	18
Project Winter Emissions	708	143	6,297	20	1,044	994
Project Emissions	709	143	6,305	20	1,044	994
SCAQMD Regional Thresholds	55	55	550	150	150	55
Threshold Exceeded?	Yes	Yes	Yes	No	Yes	Yes

Operational - Unmitigated Localized Emissions

	Maximum Onsite Emissions (lbs/day)			
	NO _x /NO ₂	CO	PM ₁₀	PM _{2.5}
Operation Emissions	116	6,056	975	975
SRA 13 Applicable LST ²	236	1,644	3	2
Threshold Exceeded?	No	Yes	Yes	Yes

**Blackhall - Existing Zoning Alternative
Operational - Unmitigated CalEEMod Summaries**

Maximum

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Area	684.2548	112.7408	6054.6687	19.5687	0	975.2246	975.2246	0	975.2246	975.2246
Energy	0.3968	3.3921	1.4525	0.0216	0	0.2742	0.2742	0	0.2742	0.2742
Mobile	24.3767	27.1576	249.2058	0.5893	67.799	0.3996	68.1987	18.0682	0.372	18.4402
Total	709.0283	143.2905	6305.3271	20.1796	67.799	975.8984	1043.6974	18.0682	975.8707	993.9389

Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Area	684.2548	112.7408	6,054.67	19.5687		975.2246	975.2246		975.2246	975.2246
Energy	0.3968	3.3921	1.4525	0.0216		0.2742	0.2742		0.2742	0.2742
Mobile	23.5385	27.1576	240.7919	0.562	67.799	0.3996	68.1987	18.0682	0.372	18.4402
Total	708.1901	143.2905	6,296.91	20.1523	67.799	975.8984	1,043.70	18.0682	975.8707	993.9389

Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Area	684.2548	112.7408	6,054.67	19.5687		975.2246	975.2246		975.2246	975.2246
Energy	0.3968	3.3921	1.4525	0.0216		0.2742	0.2742		0.2742	0.2742
Mobile	24.3767	25.2863	249.2058	0.5893	67.799	0.3995	68.1985	18.0682	0.3718	18.44
Total	709.0283	141.4192	6,305.33	20.1796	67.799	975.8982	1,043.70	18.0682	975.8706	993.9387

**Blackhall - Existing Zoning Alternative
Air Quality - Mitigated Operational Report Tables**

Operational - Unmitigated Regional Emissions

Emission Source	Maximum Daily Emissions (lbs/day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Summer Emissions						
Area	25	1	80	<1	<1	<1
Energy	<1	3	1	<1	<1	<1
Mobile	24	25	249	1	68	18
Maximum Summer Emissions	50	30	331	1	69	19
Winter Emissions						
Area	25	1	80	<1	<1	<1
Energy	<1	3	1	<1	<1	<1
Mobile	24	27	241	1	68	18
Project Winter Emissions	49	31	323	1	69	19
Project Emissions	50	31	331	1	69	19
SCAQMD Regional Thresholds	55	55	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No

Operational - Unmitigated Localized Emissions

	Maximum Onsite Emissions (lbs/day)			
	NO _x /NO ₂	CO	PM ₁₀	PM _{2.5}
Operation Emissions	4	82	<1	<1
SRA 13 Applicable LST ²	236	1,644	3	2
Threshold Exceeded?	No	No	No	No

**Blackhall - Existing Zoning Alternative
Operational - Mitigated CalEEMod Summaries**

Maximum

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Area	25.3762	0.9248	80.2859	0.00424	0	0.4455	0.4455	0	0.4455	0.4455
Energy	0.3968	3.3921	1.4525	0.0216	0	0.2742	0.2742	0	0.2742	0.2742
Mobile	24.3767	27.1576	249.2058	0.5893	67.799	0.3996	68.1987	18.0682	0.372	18.4402
Total	50.1497	31.4744	330.9443	0.6152	67.799	1.1193	68.9183	18.0682	1.0916	19.1598

Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Area	25.3762	0.9248	80.2859	4.24E-03		0.4455	0.4455		0.4455	0.4455
Energy	0.3968	3.3921	1.4525	0.0216		0.2742	0.2742		0.2742	0.2742
Mobile	23.5385	27.1576	240.7919	0.562	67.799	0.3996	68.1987	18.0682	0.372	18.4402
Total	49.3115	31.4744	322.5303	0.5878	67.799	1.1193	68.9183	18.0682	1.0916	19.1598

Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Area	25.3762	0.9248	80.2859	4.24E-03		0.4455	0.4455		0.4455	0.4455
Energy	0.3968	3.3921	1.4525	0.0216		0.2742	0.2742		0.2742	0.2742
Mobile	24.3767	25.2863	249.2058	0.5893	67.799	0.3995	68.1985	18.0682	0.3718	18.44
Total	50.1497	29.6032	330.9443	0.6152	67.799	1.1191	68.9181	18.0682	1.0915	19.1596

**Blackhall - Existing Zoning Alternative
Greenhouse Gas - Report Tables**

Construction GHG Emissions

Construction Year	Emissions MT CO₂e
2023	721
2024	1,663
2025	1,659
2026	1,158
2027	4
Total	5,205
Amortized Over 30 Years	173

Unmitigated Operational GHG Emissions

Emission Source	Annual Emissions (MT CO₂e)
Construction¹	173
Operational	12,118
Area	300
Energy	1,555
Mobile	9,707
Solid Waste	270
Water	286
Total	12,292

Mitigated Operational GHG Emissions

Emission Source	Annual Emissions (MT CO₂e)
Construction¹	173
Operational	11,835
Area	17
Energy	1,555
Mobile	9,707
Solid Waste	270
Water	286
Total	12,009
	283

**Blackhall - Existing Zoning Alternative
Construction CalEEMod Summaries**

Annual

	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	MT/yr					
2023	0	711.9274	711.9274	0.1261	0.0191	720.7603
2024	0	1,637.49	1,637.49	0.107	0.078	1,663.41
2025	0	1,633.63	1,633.63	0.1052	0.0761	1,658.93
2026	0	1,141.96	1,141.96	0.0666	0.0478	1,157.86
2027	0	3.954	3.954	1.00E-04	7.00E-05	3.9786
Total	0	5128.9578	5128.9578	0.405	0.22107	5204.9309

**Blackhall - Existing Zoning Alternative
Operational - Unmitigated CalEEMod Summaries**

Annual

	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	MT/yr					
Area	65.1834	225.6645	290.8479	0.3245	3.84E-03	300.1023
Energy	0	1,546.13	1,546.13	0.0838	0.0216	1,554.66
Mobile	0	9,568.62	9,568.62	0.601	0.415	9,707.30
Waste	108.8803	0	108.8803	6.4346	0	269.7463
Water	23.7626	244.0291	267.7917	0.1024	0.0542	286.4947
Total	197.8263	11,584.44	11,782.27	7.5463	0.4946	12,118.31

**Blackhall - Existing Zoning Alternative
Operational - Mitigated CalEEMod Summaries**

Annual

	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	MT/yr					
Area	0	16.409	16.409	0.0157	0	16.8019
Energy	0	1,546.13	1,546.13	0.0838	0.0216	1,554.66
Mobile	0	9,568.62	9,568.62	0.601	0.415	9,707.30
Waste	108.8803	0	108.8803	6.4346	0	269.7463
Water	23.7626	244.0291	267.7917	0.1024	0.0542	286.4947
Total	132.6429	11,375.19	11,507.83	7.2375	0.4908	11,835.01

Attachments:

Revised Report Pg 41.pdf; Fossil Fuel Consumption.pdf

From: Heather Dubois <hdubois@rinconconsultants.com>**Sent:** Monday, April 3, 2023 1:15 PM**To:** Erika Iverson <EIVERSON@santa-clarita.com>; Dennis Hardgrave <dennis@devplan.net>**Subject:** RE: [EXT] FW: Typo

Good afternoon,

Attached is the updated report page to slip into your files. I've also PDF'ed the quantifications for the fossil fuel use from the Existing zoning Alternatives for energy.

For Natural Gas and Electricity, the consumption is pulled directly from CalEEMod outputs, and just enumerated below. If you need more clarity, please let me know. The assumptions that went into energy analysis are the same as those used for the AQ/GHG analysis.

**Natural Gas
Consumption**

	<u>KBTU/year</u>
Apartment	12,073,500
Park	0
Parking lot	0
SFR	1,274,600
Strip mall	81,500
Total	13,429,600

Electrical Consumption

	<u>kWH/year</u>
Apartment	3,556,800
Park	0
Parking lot	73,943
SFR	392,897
Strip mall	653,500
Total	4,677,140

Heather Dubois, Senior Air Quality Specialist

Rincon Consultants, Inc.

Environmental Scientists | Planners | Engineers

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rinconconsultants.com**CYBERSECURITY
AWARENESS MONTH**

Shadowbox Studios - Existing Zoning Alternative

Operational Fuel Use

Last Updated: 4/3/23

Populate one of the following tables (Leave the other blank):

Annual VMT	OR	Daily Vehicle Trips
Annual VMT: 32,174,170		Daily Vehicle Trips: Average Trip Distance:

Fleet Class	Fleet Mix	Fuel Economy (MPG) [1]	
Light Duty Auto (LDA)	0.540015	Passenger Vehicles	25.3
Light Duty Truck 1 (LDT1)	0.063309	Light-Med Duty Trucks	18.2
Light Duty Truck 2 (LDT2)	0.186717	Heavy Trucks/Other	7.6
Medium Duty Vehicle (MDV)	0.127205	Motorcycles	44
Light Heavy Duty 1 (LHD1)	0.023780		
Light Heavy Duty 2 (LHD2)	0.006682		
Medium Heavy Duty (MHD)	0.012512		
Heavy Heavy Duty (HHD)	0.009167		
Other Bus (OBUS)	0.000820		
Urban Bus (UBUS)	0.000485		
Motorcycle (MCY)	0.025014		
School Bus (SBUS)	0.000756		
Motorhome (MH)	0.003538		

Fleet Mix

Vehicle Type	Percent	Fuel Type	Annual VMT:		Fuel Consumption
			VMT	Vehicle Trips: VMT	(Gallons)
Passenger Vehicles	54.00%	Gasoline	17,374,534	0.00	686,740
Light-Medium Duty Trucks	37.72%	Gasoline	12,137,094	0.00	666,873
Heavy Trucks/Other	5.77%	Diesel	1,857,737	0.00	244,439
Motorcycle	2.50%	Gasoline	804,805	0.00	18,291

Total Gasoline Consumption (gallons)	1,371,905
Total Diesel Consumption (gallons)	244,439

Sources:

[1] United States Department of Transportation, Bureau of Transportation Statistics. 2021. National Transportation Statistics. Available at: <https://www.bts.gov/topics/national-transportation-statistics>.

Attachment 3

CalEEMod Output

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

Shadowbox - Existing Zoning Alternative

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	924.00	Dwelling Unit	28.70	924,000.00	2643
Single Family Housing	50.00	Dwelling Unit	6.20	90,000.00	143
Strip Mall	50.00	1000sqft	2.10	50,000.00	0
City Park	2.40	Acre	2.40	104,544.00	0
Parking Lot	4.85	Acre	4.85	211,266.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2027
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 - Operational year based on CalEEMod Default constructoin schedule.

Land Use - See Assumptions. Inputs based on project specifics except for population which is CalEEMod defaults. No building assumed for the park.

Construction Phase - Construction phasing based on CalEEMod defaults with the exception detailed in the assumptions.

Grading - Consistent with the proposed project, soils assumed balanced onsite and no import or export is anticipated. Total graded acres are CalEEMod default values.

Architectural Coating - SCAQMD Rule 1113, Building Envelope Coating = 50 g/L and Flats = 50 g/L; Parking lot left as default.

Vehicle Trips - Based on Traffic Memo - Gibson 2023. See Assumptions for full details.

Woodstoves - Default assumptions revised to take into account SCAQMD ban on wood burning fireplaces and stoves.

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

Area Coating - SCAQMD Rule 1113, Building Envelope Coating = 50 g/L and Flats = 50 g/L; Parking left as default.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403, watering and vehicle speed from Table 1 BACT applicable to all construction activity. Consistent with proposed project all equipment would be at least Tier 3 EPA engines with level 3 DPF filters for equipment greater than 50 hp.

Trips and VMT - CalEEMod defaults used except for worker trip length which was extended 0.8 miles to account for onsite travel, consistent with the proposed project modeling. Trip length increased from 14.7 to 15.50 miles.

Water And Wastewater - City of Santa Clarita wastewater treated at the Saugus or Valencia Water Reclamation Plan. 100% aerobic treatments <https://www.lacsd.org/services/wastewater-sewage/santa-clarita-valley-water-reclamation-plants>.

Area Mitigation - SCAQMD Rule 1113, Building Envelope Coating = 50 g/L and Flats = 50 g/L; Parking left as Default

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	55.00	316.00
tblConstructionPhase	PhaseEndDate	10/22/2026	12/21/2023
tblConstructionPhase	PhaseStartDate	10/23/2026	10/23/2025
tblConstructionPhase	PhaseStartDate	8/7/2026	10/6/2023
tblFireplaces	NumberGas	785.40	826.70
tblFireplaces	NumberGas	42.50	44.70
tblFireplaces	NumberNoFireplace	92.40	97.30
tblFireplaces	NumberNoFireplace	5.00	5.30
tblFireplaces	NumberWood	46.20	0.00

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

tblFireplaces	NumberWood	2.50	0.00
tblLandUse	LotAcreage	24.32	28.70
tblLandUse	LotAcreage	16.23	6.20
tblLandUse	LotAcreage	1.15	2.10
tblTripsAndVMT	WorkerTripLength	14.70	15.50
tblTripsAndVMT	WorkerTripLength	14.70	15.50
tblTripsAndVMT	WorkerTripLength	14.70	15.50
tblTripsAndVMT	WorkerTripLength	14.70	15.50
tblTripsAndVMT	WorkerTripLength	14.70	15.50
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	4.91	6.74
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	9.54	9.43
tblVehicleTrips	ST_TR	42.04	37.04
tblVehicleTrips	SU_TR	4.09	6.74
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	8.55	9.43
tblVehicleTrips	SU_TR	20.43	37.04
tblVehicleTrips	WD_TR	5.44	6.74
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	9.44	9.43

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

tblVehicleTrips	WD_TR	44.32	37.04
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00

2.0 Emissions Summary

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	5.8103	34.5603	64.2998	0.1670	19.8692	1.4258	21.1364	10.1587	1.3117	11.3245	0.0000	16,806.85 67	16,806.85 67	1.9492	0.6647	17,045.90 62
2024	4.2093	21.0848	46.9417	0.1397	10.8556	0.7005	11.5561	2.9027	0.6584	3.5612	0.0000	14,143.63 38	14,143.63 38	0.8985	0.6416	14,357.28 33
2025	25.5856	21.3573	51.9713	0.1553	12.8120	0.6738	13.4858	3.4216	0.6362	4.0578	0.0000	15,703.69 90	15,703.69 90	0.9261	0.6558	15,922.28 86
2026	25.4140	21.1503	49.9972	0.1518	12.8120	0.6706	13.4826	3.4216	0.6333	4.0549	0.0000	15,345.83 30	15,345.83 30	0.9077	0.6362	15,558.10 55
2027	21.5938	1.3927	6.5005	0.0181	1.9564	0.0604	2.0168	0.5188	0.0597	0.5785	0.0000	1,809.944 6	1,809.944 6	0.0431	0.0304	1,820.090 3
Maximum	25.5856	34.5603	64.2998	0.1670	19.8692	1.4258	21.1364	10.1587	1.3117	11.3245	0.0000	16,806.85 67	16,806.85 67	1.9492	0.6647	17,045.90 62

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive 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	684.2548	112.7408	6,054.6687	19.5687		975.2246	975.2246		975.2246	975.2246	143,704.8950	18,597.8789	162,302.7740	672.2835	0.3383	179,210.6761
Energy	0.3968	3.3921	1.4525	0.0216		0.2742	0.2742		0.2742	0.2742		4,328.6489	4,328.6489	0.0830	0.0794	4,354.3719
Mobile	24.3767	25.2863	249.2058	0.5893	67.7990	0.3995	68.1985	18.0682	0.3718	18.4400		60,094.7630	60,094.7630	3.5696	2.4091	60,901.9031
Total	709.0283	141.4192	6,305.3271	20.1796	67.7990	975.8982	1,043.6972	18.0682	975.8706	993.9387	143,704.8950	83,021.2908	226,726.1859	675.9360	2.8267	244,466.9511

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	25.3762	0.9248	80.2859	4.2400e-003		0.4455	0.4455		0.4455	0.4455	0.0000	144.7025	144.7025	0.1386	0.0000	148.1672
Energy	0.3968	3.3921	1.4525	0.0216		0.2742	0.2742		0.2742	0.2742		4,328.6489	4,328.6489	0.0830	0.0794	4,354.3719
Mobile	24.3767	25.2863	249.2058	0.5893	67.7990	0.3995	68.1985	18.0682	0.3718	18.4400		60,094.7630	60,094.7630	3.5696	2.4091	60,901.9031
Total	50.1497	29.6032	330.9443	0.6152	67.7990	1.1191	68.9181	18.0682	1.0915	19.1596	0.0000	64,568.1143	64,568.1143	3.7912	2.4884	65,404.4422

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	92.93	79.07	94.75	96.95	0.00	99.89	93.40	0.00	99.89	98.07	100.00	22.23	71.52	99.44	11.97	73.25

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	5/12/2023	6/22/2023	5	30	
2	Grading	Grading	6/23/2023	10/5/2023	5	75	
3	Building Construction	Building Construction	10/6/2023	8/6/2026	5	740	
4	Paving	Paving	10/6/2023	12/21/2023	5	55	
5	Architectural Coating	Architectural Coating	10/23/2025	1/7/2027	5	316	

Acres of Grading (Site Preparation Phase): 45

Acres of Grading (Grading Phase): 225

Acres of Paving: 4.85

Residential Indoor: 2,053,350; Residential Outdoor: 684,450; Non-Residential Indoor: 75,000; Non-Residential Outdoor: 25,000; Striped Parking Area: 12,676 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

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
Architectural Coating	1	166.00	0.00	0.00	15.50	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	832.00	164.00	0.00	15.50	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	15.50	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	15.50	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	15.50	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive 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					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	2.6595	27.5242	18.2443	0.0381	19.6570	1.2660	20.9230	10.1025	1.1647	11.2672		3,687.308 1	3,687.308 1	1.1926		3,717.121 9

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	0.0593	0.0402	0.6615	1.8600e-003	0.2121	1.1900e-003	0.2133	0.0563	1.0900e-003	0.0574		187.6326	187.6326	4.4500e-003	4.2300e-003	189.0056
Total	0.0593	0.0402	0.6615	1.8600e-003	0.2121	1.1900e-003	0.2133	0.0563	1.0900e-003	0.0574		187.6326	187.6326	4.4500e-003	4.2300e-003	189.0056

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

3.2 Site Preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive 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					8.8457	0.0000	8.8457	4.5461	0.0000	4.5461			0.0000			0.0000
Off-Road	0.9312	19.0656	22.9600	0.0381		0.1419	0.1419		0.1419	0.1419	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	0.9312	19.0656	22.9600	0.0381	8.8457	0.1419	8.9876	4.5461	0.1419	4.6880	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9

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	0.0593	0.0402	0.6615	1.8600e-003	0.2121	1.1900e-003	0.2133	0.0563	1.0900e-003	0.0574		187.6326	187.6326	4.4500e-003	4.2300e-003	189.0056
Total	0.0593	0.0402	0.6615	1.8600e-003	0.2121	1.1900e-003	0.2133	0.0563	1.0900e-003	0.0574		187.6326	187.6326	4.4500e-003	4.2300e-003	189.0056

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive 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					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	9.2036	1.4245	10.6281	3.6538	1.3105	4.9643		6,011.4777	6,011.4777	1.9442		6,060.0836

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive 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	0.0659	0.0447	0.7350	2.0600e-003	0.2357	1.3200e-003	0.2370	0.0625	1.2100e-003	0.0637		208.4807	208.4807	4.9400e-003	4.7000e-003	210.0062
Total	0.0659	0.0447	0.7350	2.0600e-003	0.2357	1.3200e-003	0.2370	0.0625	1.2100e-003	0.0637		208.4807	208.4807	4.9400e-003	4.7000e-003	210.0062

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

3.3 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive 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					4.1416	0.0000	4.1416	1.6442	0.0000	1.6442			0.0000			0.0000
Off-Road	1.5231	29.9782	36.7226	0.0621		0.1949	0.1949		0.1949	0.1949	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	1.5231	29.9782	36.7226	0.0621	4.1416	0.1949	4.3365	1.6442	0.1949	1.8391	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836

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	0.0659	0.0447	0.7350	2.0600e-003	0.2357	1.3200e-003	0.2370	0.0625	1.2100e-003	0.0637		208.4807	208.4807	4.9400e-003	4.7000e-003	210.0062
Total	0.0659	0.0447	0.7350	2.0600e-003	0.2357	1.3200e-003	0.2370	0.0625	1.2100e-003	0.0637		208.4807	208.4807	4.9400e-003	4.7000e-003	210.0062

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive 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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

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	0.1814	5.9532	2.3438	0.0299	1.0501	0.0347	1.0848	0.3023	0.0332	0.3355		3,214.9071	3,214.9071	0.1081	0.4654	3,356.3033
Worker	2.7429	1.8597	30.5766	0.0858	9.8055	0.0548	9.8603	2.6004	0.0505	2.6509		8,672.7951	8,672.7951	0.2055	0.1957	8,736.2586
Total	2.9243	7.8129	32.9204	0.1157	10.8556	0.0895	10.9451	2.9027	0.0836	2.9864		11,887.7022	11,887.7022	0.3136	0.6611	12,092.5619

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive 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	0.8225	13.9563	18.0549	0.0269		0.1753	0.1753		0.1753	0.1753	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	0.8225	13.9563	18.0549	0.0269		0.1753	0.1753		0.1753	0.1753	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

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	0.1814	5.9532	2.3438	0.0299	1.0501	0.0347	1.0848	0.3023	0.0332	0.3355		3,214.9071	3,214.9071	0.1081	0.4654	3,356.3033
Worker	2.7429	1.8597	30.5766	0.0858	9.8055	0.0548	9.8603	2.6004	0.0505	2.6509		8,672.7951	8,672.7951	0.2055	0.1957	8,736.2586
Total	2.9243	7.8129	32.9204	0.1157	10.8556	0.0895	10.9451	2.9027	0.0836	2.9864		11,887.7022	11,887.7022	0.3136	0.6611	12,092.5619

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive 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	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive 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	0.1771	5.9803	2.3052	0.0294	1.0501	0.0348	1.0849	0.3023	0.0332	0.3356		3,168.6578	3,168.6578	0.1081	0.4594	3,308.2604
Worker	2.5606	1.6608	28.4697	0.0833	9.8055	0.0525	9.8579	2.6004	0.0483	2.6487		8,419.2771	8,419.2771	0.1861	0.1822	8,478.2152
Total	2.7377	7.6410	30.7749	0.1127	10.8556	0.0872	10.9428	2.9027	0.0815	2.9843		11,587.9349	11,587.9349	0.2942	0.6416	11,786.4756

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive 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	0.8039	13.9165	18.0406	0.0270		0.1677	0.1677		0.1677	0.1677	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	0.8039	13.9165	18.0406	0.0270		0.1677	0.1677		0.1677	0.1677	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077

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	0.1771	5.9803	2.3052	0.0294	1.0501	0.0348	1.0849	0.3023	0.0332	0.3356		3,168.6578	3,168.6578	0.1081	0.4594	3,308.2604
Worker	2.5606	1.6608	28.4697	0.0833	9.8055	0.0525	9.8579	2.6004	0.0483	2.6487		8,419.2771	8,419.2771	0.1861	0.1822	8,478.2152
Total	2.7377	7.6410	30.7749	0.1127	10.8556	0.0872	10.9428	2.9027	0.0815	2.9843		11,587.9349	11,587.9349	0.2942	0.6416	11,786.4756

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive 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	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1

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	0.1732	5.9520	2.2705	0.0288	1.0501	0.0349	1.0850	0.3023	0.0334	0.3357		3,110.903 8	3,110.903 8	0.1084	0.4515	3,248.173 9
Worker	2.3978	1.4923	26.5164	0.0805	9.8055	0.0499	9.8554	2.6004	0.0460	2.6464		8,132.318 8	8,132.318 8	0.1679	0.1703	8,187.267 4
Total	2.5710	7.4443	28.7869	0.1093	10.8556	0.0848	10.9404	2.9027	0.0793	2.9820		11,243.22 26	11,243.22 26	0.2763	0.6219	11,435.44 13

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

3.4 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive 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	0.7878	13.8778	18.0286	0.0270		0.1611	0.1611		0.1611	0.1611	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	0.7878	13.8778	18.0286	0.0270		0.1611	0.1611		0.1611	0.1611	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1

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	0.1732	5.9520	2.2705	0.0288	1.0501	0.0349	1.0850	0.3023	0.0334	0.3357		3,110.903 8	3,110.903 8	0.1084	0.4515	3,248.173 9
Worker	2.3978	1.4923	26.5164	0.0805	9.8055	0.0499	9.8554	2.6004	0.0460	2.6464		8,132.318 8	8,132.318 8	0.1679	0.1703	8,187.267 4
Total	2.5710	7.4443	28.7869	0.1093	10.8556	0.0848	10.9404	2.9027	0.0793	2.9820		11,243.22 26	11,243.22 26	0.2763	0.6219	11,435.44 13

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

3.4 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1

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	0.1697	5.9098	2.2430	0.0283	1.0501	0.0348	1.0849	0.3023	0.0333	0.3356		3,052.561 1	3,052.561 1	0.1086	0.4435	3,187.442 7
Worker	2.2577	1.3549	24.8936	0.0780	9.8055	0.0473	9.8528	2.6004	0.0436	2.6440		7,882.616 0	7,882.616 0	0.1524	0.1606	7,934.289 6
Total	2.4274	7.2648	27.1366	0.1063	10.8556	0.0821	10.9377	2.9027	0.0768	2.9796		10,935.17 71	10,935.17 71	0.2610	0.6041	11,121.73 22

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

3.4 Building Construction - 2026

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	0.7878	13.8778	18.0286	0.0270		0.1611	0.1611		0.1611	0.1611	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	0.7878	13.8778	18.0286	0.0270		0.1611	0.1611		0.1611	0.1611	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1

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	0.1697	5.9098	2.2430	0.0283	1.0501	0.0348	1.0849	0.3023	0.0333	0.3356		3,052.561 1	3,052.561 1	0.1086	0.4435	3,187.442 7
Worker	2.2577	1.3549	24.8936	0.0780	9.8055	0.0473	9.8528	2.6004	0.0436	2.6440		7,882.616 0	7,882.616 0	0.1524	0.1606	7,934.289 6
Total	2.4274	7.2648	27.1366	0.1063	10.8556	0.0821	10.9377	2.9027	0.0768	2.9796		10,935.17 71	10,935.17 71	0.2610	0.6041	11,121.73 22

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

3.5 Paving - 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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.2310					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.2638	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336

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	0.0495	0.0335	0.5513	1.5500e-003	0.1768	9.9000e-004	0.1778	0.0469	9.1000e-004	0.0478		156.3605	156.3605	3.7100e-003	3.5300e-003	157.5047
Total	0.0495	0.0335	0.5513	1.5500e-003	0.1768	9.9000e-004	0.1778	0.0469	9.1000e-004	0.0478		156.3605	156.3605	3.7100e-003	3.5300e-003	157.5047

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

3.5 Paving - 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	0.5609	11.2952	17.2957	0.0228		0.0914	0.0914		0.0914	0.0914	0.0000	2,207.584 1	2,207.584 1	0.7140		2,225.433 6
Paving	0.2310					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7920	11.2952	17.2957	0.0228		0.0914	0.0914		0.0914	0.0914	0.0000	2,207.584 1	2,207.584 1	0.7140		2,225.433 6

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	0.0495	0.0335	0.5513	1.5500e-003	0.1768	9.9000e-004	0.1778	0.0469	9.1000e-004	0.0478		156.3605	156.3605	3.7100e-003	3.5300e-003	157.5047
Total	0.0495	0.0335	0.5513	1.5500e-003	0.1768	9.9000e-004	0.1778	0.0469	9.1000e-004	0.0478		156.3605	156.3605	3.7100e-003	3.5300e-003	157.5047

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive 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	20.9980					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	21.1688	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive 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	0.4784	0.2978	5.2905	0.0161	1.9564	9.9600e-003	1.9663	0.5188	9.1700e-003	0.5280		1,622.5540	1,622.5540	0.0335	0.0340	1,633.5173
Total	0.4784	0.2978	5.2905	0.0161	1.9564	9.9600e-003	1.9663	0.5188	9.1700e-003	0.5280		1,622.5540	1,622.5540	0.0335	0.0340	1,633.5173

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

3.6 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive 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	20.9980					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0143	0.0143		0.0143	0.0143	0.0000	281.4481	281.4481	0.0154		281.8319
Total	21.0574	1.3570	1.8324	2.9700e-003		0.0143	0.0143		0.0143	0.0143	0.0000	281.4481	281.4481	0.0154		281.8319

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	0.4784	0.2978	5.2905	0.0161	1.9564	9.9600e-003	1.9663	0.5188	9.1700e-003	0.5280		1,622.5540	1,622.5540	0.0335	0.0340	1,633.5173
Total	0.4784	0.2978	5.2905	0.0161	1.9564	9.9600e-003	1.9663	0.5188	9.1700e-003	0.5280		1,622.5540	1,622.5540	0.0335	0.0340	1,633.5173

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

3.6 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.9980					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	21.1688	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive 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	0.4505	0.2703	4.9668	0.0156	1.9564	9.4500e-003	1.9658	0.5188	8.6900e-003	0.5275		1,572.7335	1,572.7335	0.0304	0.0321	1,583.0434
Total	0.4505	0.2703	4.9668	0.0156	1.9564	9.4500e-003	1.9658	0.5188	8.6900e-003	0.5275		1,572.7335	1,572.7335	0.0304	0.0321	1,583.0434

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

3.6 Architectural Coating - 2026

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	20.9980					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0143	0.0143		0.0143	0.0143	0.0000	281.4481	281.4481	0.0154		281.8319
Total	21.0574	1.3570	1.8324	2.9700e-003		0.0143	0.0143		0.0143	0.0143	0.0000	281.4481	281.4481	0.0154		281.8319

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	0.4505	0.2703	4.9668	0.0156	1.9564	9.4500e-003	1.9658	0.5188	8.6900e-003	0.5275		1,572.7335	1,572.7335	0.0304	0.0321	1,583.0434
Total	0.4505	0.2703	4.9668	0.0156	1.9564	9.4500e-003	1.9658	0.5188	8.6900e-003	0.5275		1,572.7335	1,572.7335	0.0304	0.0321	1,583.0434

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

3.6 Architectural Coating - 2027

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	20.9980					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	21.1688	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive 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	0.4249	0.2472	4.6914	0.0151	1.9564	8.8700e-003	1.9652	0.5188	8.1600e-003	0.5270		1,528.4965	1,528.4965	0.0278	0.0304	1,538.2584
Total	0.4249	0.2472	4.6914	0.0151	1.9564	8.8700e-003	1.9652	0.5188	8.1600e-003	0.5270		1,528.4965	1,528.4965	0.0278	0.0304	1,538.2584

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

3.6 Architectural Coating - 2027

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	20.9980					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0143	0.0143		0.0143	0.0143	0.0000	281.4481	281.4481	0.0154		281.8319
Total	21.0574	1.3570	1.8324	2.9700e-003		0.0143	0.0143		0.0143	0.0143	0.0000	281.4481	281.4481	0.0154		281.8319

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	0.4249	0.2472	4.6914	0.0151	1.9564	8.8700e-003	1.9652	0.5188	8.1600e-003	0.5270		1,528.4965	1,528.4965	0.0278	0.0304	1,538.2584
Total	0.4249	0.2472	4.6914	0.0151	1.9564	8.8700e-003	1.9652	0.5188	8.1600e-003	0.5270		1,528.4965	1,528.4965	0.0278	0.0304	1,538.2584

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive 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	24.3767	25.2863	249.2058	0.5893	67.7990	0.3995	68.1985	18.0682	0.3718	18.4400		60,094.76 30	60,094.76 30	3.5696	2.4091	60,901.90 31
Unmitigated	24.3767	25.2863	249.2058	0.5893	67.7990	0.3995	68.1985	18.0682	0.3718	18.4400		60,094.76 30	60,094.76 30	3.5696	2.4091	60,901.90 31

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	6,227.76	6,227.76	6227.76	23,971,156	23,971,156
City Park	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Single Family Housing	471.50	471.50	471.50	1,814,842	1,814,842
Strip Mall	1,852.00	1,852.00	1852.00	6,388,172	6,388,172
Total	8,551.26	8,551.26	8,551.26	32,174,170	32,174,170

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	100	0	0
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	100	0	0
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.540015	0.063309	0.186717	0.127205	0.023780	0.006682	0.012512	0.009167	0.000820	0.000485	0.025014	0.000756	0.003538
City Park	0.540015	0.063309	0.186717	0.127205	0.023780	0.006682	0.012512	0.009167	0.000820	0.000485	0.025014	0.000756	0.003538
Parking Lot	0.540015	0.063309	0.186717	0.127205	0.023780	0.006682	0.012512	0.009167	0.000820	0.000485	0.025014	0.000756	0.003538
Single Family Housing	0.540015	0.063309	0.186717	0.127205	0.023780	0.006682	0.012512	0.009167	0.000820	0.000485	0.025014	0.000756	0.003538
Strip Mall	0.540015	0.063309	0.186717	0.127205	0.023780	0.006682	0.012512	0.009167	0.000820	0.000485	0.025014	0.000756	0.003538

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.3968	3.3921	1.4525	0.0216		0.2742	0.2742		0.2742	0.2742		4,328.6489	4,328.6489	0.0830	0.0794	4,354.3719
NaturalGas Unmitigated	0.3968	3.3921	1.4525	0.0216		0.2742	0.2742		0.2742	0.2742		4,328.6489	4,328.6489	0.0830	0.0794	4,354.3719

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					
Apartments Mid Rise	33078.2	0.3567	3.0484	1.2972	0.0195		0.2465	0.2465		0.2465	0.2465		3,891.5485	3,891.5485	0.0746	0.0714	3,914.6740
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Single Family Housing	3492.07	0.0377	0.3218	0.1369	2.0500e-003		0.0260	0.0260		0.0260	0.0260		410.8313	410.8313	7.8700e-003	7.5300e-003	413.2726
Strip Mall	223.288	2.4100e-003	0.0219	0.0184	1.3000e-004		1.6600e-003	1.6600e-003		1.6600e-003	1.6600e-003		26.2691	26.2691	5.0000e-004	4.8000e-004	26.4252
Total		0.3968	3.3921	1.4525	0.0216		0.2741	0.2741		0.2741	0.2741		4,328.6489	4,328.6489	0.0830	0.0794	4,354.3719

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	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					
Apartments Mid Rise	33.0782	0.3567	3.0484	1.2972	0.0195		0.2465	0.2465		0.2465	0.2465		3,891.5485	3,891.5485	0.0746	0.0714	3,914.6740
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Single Family Housing	3.49207	0.0377	0.3218	0.1369	2.0500e-003		0.0260	0.0260		0.0260	0.0260		410.8313	410.8313	7.8700e-003	7.5300e-003	413.2726
Strip Mall	0.223288	2.4100e-003	0.0219	0.0184	1.3000e-004		1.6600e-003	1.6600e-003		1.6600e-003	1.6600e-003		26.2691	26.2691	5.0000e-004	4.8000e-004	26.4252
Total		0.3968	3.3921	1.4525	0.0216		0.2741	0.2741		0.2741	0.2741		4,328.6489	4,328.6489	0.0830	0.0794	4,354.3719

6.0 Area Detail

6.1 Mitigation Measures Area

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

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	25.3762	0.9248	80.2859	4.2400e-003		0.4455	0.4455		0.4455	0.4455	0.0000	144.7025	144.7025	0.1386	0.0000	148.1672
Unmitigated	684.2548	112.7408	6,054.6687	19.5687		975.2246	975.2246		975.2246	975.2246	143,704.8950	18,597.8789	162,302.7740	672.2835	0.3383	179,210.6761

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	1.8179					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	21.1474					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	658.8786	111.8160	5,974.3828	19.5645		974.7791	974.7791		974.7791	974.7791	143,704.8950	18,453.1765	162,158.0715	672.1449	0.3383	179,062.5089
Landscaping	2.4109	0.9248	80.2859	4.2400e-003		0.4455	0.4455		0.4455	0.4455		144.7025	144.7025	0.1386		148.1672
Total	684.2548	112.7408	6,054.6687	19.5687		975.2246	975.2246		975.2246	975.2246	143,704.8950	18,597.8789	162,302.7740	672.2835	0.3383	179,210.6761

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	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	1.8179					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	21.1474					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.4109	0.9248	80.2859	4.2400e-003		0.4455	0.4455		0.4455	0.4455		144.7025	144.7025	0.1386		148.1672
Total	25.3762	0.9248	80.2859	4.2400e-003		0.4455	0.4455		0.4455	0.4455	0.0000	144.7025	144.7025	0.1386	0.0000	148.1672

7.0 Water Detail

7.1 Mitigation Measures Water

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Summer

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

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

Shadowbox - Existing Zoning Alternative

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	924.00	Dwelling Unit	28.70	924,000.00	2643
Single Family Housing	50.00	Dwelling Unit	6.20	90,000.00	143
Strip Mall	50.00	1000sqft	2.10	50,000.00	0
City Park	2.40	Acre	2.40	104,544.00	0
Parking Lot	4.85	Acre	4.85	211,266.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2027
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 - Operational year based on CalEEMod Default constructoin schedule.

Land Use - See Assumptions. Inputs based on project specifics except for population which is CalEEMod defaults. No building assumed for the park.

Construction Phase - Construction phasing based on CalEEMod defaults with the exception detailed in the assumptions.

Grading - Consistent with the proposed project, soils assumed balanced onsite and no import or export is anticipated. Total graded acres are CalEEMod default values.

Architectural Coating - SCAQMD Rule 1113, Building Envelope Coating = 50 g/L and Flats = 50 g/L; Parking lot left as default.

Vehicle Trips - Based on Traffic Memo - Gibson 2023. See Assumptions for full details.

Woodstoves - Default assumptions revised to take into account SCAQMD ban on wood burning fireplaces and stoves.

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

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

Area Coating - SCAQMD Rule 1113, Building Envelope Coating = 50 g/L and Flats = 50 g/L; Parking left as default.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403, watering and vehicle speed from Table 1 BACT applicable to all construction activity. Consistent with proposed project all equipment would be at least Tier 3 EPA engines with level 3 DPF filters for equipment greater than 50 hp.

Trips and VMT - CalEEMod defaults used except for worker trip length which was extended 0.8 miles to account for onsite travel, consistent with the proposed project modeling. Trip length increased from 14.7 to 15.50 miles.

Water And Wastewater - City of Santa Clarita wastewater treated at the Saugus or Valencia Water Reclamation Plan. 100% aerobic treatments <https://www.lacsd.org/services/wastewater-sewage/santa-clarita-valley-water-reclamation-plants>.

Area Mitigation - SCAQMD Rule 1113, Building Envelope Coating = 50 g/L and Flats = 50 g/L; Parking left as Default

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

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

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	55.00	316.00
tblConstructionPhase	PhaseEndDate	10/22/2026	12/21/2023
tblConstructionPhase	PhaseStartDate	10/23/2026	10/23/2025
tblConstructionPhase	PhaseStartDate	8/7/2026	10/6/2023
tblFireplaces	NumberGas	785.40	826.70
tblFireplaces	NumberGas	42.50	44.70
tblFireplaces	NumberNoFireplace	92.40	97.30
tblFireplaces	NumberNoFireplace	5.00	5.30
tblFireplaces	NumberWood	46.20	0.00

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

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

tblFireplaces	NumberWood	2.50	0.00
tblLandUse	LotAcreage	24.32	28.70
tblLandUse	LotAcreage	16.23	6.20
tblLandUse	LotAcreage	1.15	2.10
tblTripsAndVMT	WorkerTripLength	14.70	15.50
tblTripsAndVMT	WorkerTripLength	14.70	15.50
tblTripsAndVMT	WorkerTripLength	14.70	15.50
tblTripsAndVMT	WorkerTripLength	14.70	15.50
tblTripsAndVMT	WorkerTripLength	14.70	15.50
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	4.91	6.74
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	9.54	9.43
tblVehicleTrips	ST_TR	42.04	37.04
tblVehicleTrips	SU_TR	4.09	6.74
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	8.55	9.43
tblVehicleTrips	SU_TR	20.43	37.04
tblVehicleTrips	WD_TR	5.44	6.74
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	9.44	9.43

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

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

tblVehicleTrips	WD_TR	44.32	37.04
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00

2.0 Emissions Summary

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

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

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	5.9657	34.5645	61.3612	0.1619	19.8692	1.4258	21.1364	10.1587	1.3117	11.3245	0.0000	16,299.90 19	16,299.90 19	1.9492	0.6780	16,542.97 13
2024	4.3595	21.5364	44.2695	0.1349	10.8556	0.7007	11.5563	2.9027	0.6586	3.5613	0.0000	13,660.81 50	13,660.81 50	0.9002	0.6538	13,878.14 16
2025	25.7649	21.8192	48.9944	0.1497	12.8120	0.6740	13.4860	3.4216	0.6364	4.0580	0.0000	15,144.10 80	15,144.10 80	0.9283	0.6693	15,366.75 51
2026	25.5917	21.5948	47.2178	0.1464	12.8120	0.6708	13.4827	3.4216	0.6334	4.0550	0.0000	14,804.04 90	14,804.04 90	0.9099	0.6488	15,020.14 54
2027	21.6242	1.4155	6.0539	0.0172	1.9564	0.0604	2.0168	0.5188	0.0597	0.5785	0.0000	1,721.467 4	1,721.467 4	0.0436	0.0322	1,732.162 3
Maximum	25.7649	34.5645	61.3612	0.1619	19.8692	1.4258	21.1364	10.1587	1.3117	11.3245	0.0000	16,299.90 19	16,299.90 19	1.9492	0.6780	16,542.97 13

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	684.2548	112.7408	6,054.6687	19.5687		975.2246	975.2246		975.2246	975.2246	143,704.8950	18,597.8789	162,302.7740	672.2835	0.3383	179,210.6761
Energy	0.3968	3.3921	1.4525	0.0216		0.2742	0.2742		0.2742	0.2742		4,328.6489	4,328.6489	0.0830	0.0794	4,354.3719
Mobile	23.5385	27.1576	240.7919	0.5620	67.7990	0.3996	68.1987	18.0682	0.3720	18.4402		57,344.5474	57,344.5474	3.6556	2.4982	58,180.3897
Total	708.1901	143.2905	6,296.9131	20.1523	67.7990	975.8984	1,043.6974	18.0682	975.8707	993.9389	143,704.8950	80,271.0752	223,975.9703	676.0220	2.9158	241,745.4377

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	25.3762	0.9248	80.2859	4.2400e-003		0.4455	0.4455		0.4455	0.4455	0.0000	144.7025	144.7025	0.1386	0.0000	148.1672
Energy	0.3968	3.3921	1.4525	0.0216		0.2742	0.2742		0.2742	0.2742		4,328.6489	4,328.6489	0.0830	0.0794	4,354.3719
Mobile	23.5385	27.1576	240.7919	0.5620	67.7990	0.3996	68.1987	18.0682	0.3720	18.4402		57,344.5474	57,344.5474	3.6556	2.4982	58,180.3897
Total	49.3115	31.4744	322.5303	0.5878	67.7990	1.1193	68.9183	18.0682	1.0916	19.1598	0.0000	61,817.8988	61,817.8988	3.8771	2.5775	62,682.9288

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	93.04	78.03	94.88	97.08	0.00	99.89	93.40	0.00	99.89	98.07	100.00	22.99	72.40	99.43	11.60	74.07

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	5/12/2023	6/22/2023	5	30	
2	Grading	Grading	6/23/2023	10/5/2023	5	75	
3	Building Construction	Building Construction	10/6/2023	8/6/2026	5	740	
4	Paving	Paving	10/6/2023	12/21/2023	5	55	
5	Architectural Coating	Architectural Coating	10/23/2025	1/7/2027	5	316	

Acres of Grading (Site Preparation Phase): 45

Acres of Grading (Grading Phase): 225

Acres of Paving: 4.85

Residential Indoor: 2,053,350; Residential Outdoor: 684,450; Non-Residential Indoor: 75,000; Non-Residential Outdoor: 25,000; Striped Parking Area: 12,676 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

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

Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

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
Architectural Coating	1	166.00	0.00	0.00	15.50	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	832.00	164.00	0.00	15.50	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	15.50	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	15.50	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	15.50	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

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

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive 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					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	2.6595	27.5242	18.2443	0.0381	19.6570	1.2660	20.9230	10.1025	1.1647	11.2672		3,687.308 1	3,687.308 1	1.1926		3,717.121 9

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	0.0628	0.0440	0.5975	1.7500e-003	0.2121	1.1900e-003	0.2133	0.0563	1.0900e-003	0.0574		176.7355	176.7355	4.4900e-003	4.4900e-003	178.1863
Total	0.0628	0.0440	0.5975	1.7500e-003	0.2121	1.1900e-003	0.2133	0.0563	1.0900e-003	0.0574		176.7355	176.7355	4.4900e-003	4.4900e-003	178.1863

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

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

3.2 Site Preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive 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					8.8457	0.0000	8.8457	4.5461	0.0000	4.5461			0.0000			0.0000
Off-Road	0.9312	19.0656	22.9600	0.0381		0.1419	0.1419		0.1419	0.1419	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	0.9312	19.0656	22.9600	0.0381	8.8457	0.1419	8.9876	4.5461	0.1419	4.6880	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9

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	0.0628	0.0440	0.5975	1.7500e-003	0.2121	1.1900e-003	0.2133	0.0563	1.0900e-003	0.0574		176.7355	176.7355	4.4900e-003	4.4900e-003	178.1863
Total	0.0628	0.0440	0.5975	1.7500e-003	0.2121	1.1900e-003	0.2133	0.0563	1.0900e-003	0.0574		176.7355	176.7355	4.4900e-003	4.4900e-003	178.1863

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

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

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive 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					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	9.2036	1.4245	10.6281	3.6538	1.3105	4.9643		6,011.4777	6,011.4777	1.9442		6,060.0836

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive 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	0.0698	0.0489	0.6638	1.9400e-003	0.2357	1.3200e-003	0.2370	0.0625	1.2100e-003	0.0637		196.3728	196.3728	4.9900e-003	4.9900e-003	197.9848
Total	0.0698	0.0489	0.6638	1.9400e-003	0.2357	1.3200e-003	0.2370	0.0625	1.2100e-003	0.0637		196.3728	196.3728	4.9900e-003	4.9900e-003	197.9848

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

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

3.3 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive 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					4.1416	0.0000	4.1416	1.6442	0.0000	1.6442			0.0000			0.0000
Off-Road	1.5231	29.9782	36.7226	0.0621		0.1949	0.1949		0.1949	0.1949	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	1.5231	29.9782	36.7226	0.0621	4.1416	0.1949	4.3365	1.6442	0.1949	1.8391	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836

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	0.0698	0.0489	0.6638	1.9400e-003	0.2357	1.3200e-003	0.2370	0.0625	1.2100e-003	0.0637		196.3728	196.3728	4.9900e-003	4.9900e-003	197.9848
Total	0.0698	0.0489	0.6638	1.9400e-003	0.2357	1.3200e-003	0.2370	0.0625	1.2100e-003	0.0637		196.3728	196.3728	4.9900e-003	4.9900e-003	197.9848

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

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

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive 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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

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	0.1736	6.2485	2.4194	0.0299	1.0501	0.0349	1.0850	0.3023	0.0333	0.3357		3,220.7197	3,220.7197	0.1076	0.4667	3,362.4750
Worker	2.9032	2.0338	27.6158	0.0808	9.8055	0.0548	9.8603	2.6004	0.0505	2.6509		8,169.1085	8,169.1085	0.2077	0.2076	8,236.1681
Total	3.0768	8.2823	30.0351	0.1107	10.8556	0.0897	10.9453	2.9027	0.0838	2.9866		11,389.8283	11,389.8283	0.3153	0.6743	11,598.6430

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

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

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive 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	0.8225	13.9563	18.0549	0.0269		0.1753	0.1753		0.1753	0.1753	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	0.8225	13.9563	18.0549	0.0269		0.1753	0.1753		0.1753	0.1753	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

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	0.1736	6.2485	2.4194	0.0299	1.0501	0.0349	1.0850	0.3023	0.0333	0.3357		3,220.7197	3,220.7197	0.1076	0.4667	3,362.4750
Worker	2.9032	2.0338	27.6158	0.0808	9.8055	0.0548	9.8603	2.6004	0.0505	2.6509		8,169.1085	8,169.1085	0.2077	0.2076	8,236.1681
Total	3.0768	8.2823	30.0351	0.1107	10.8556	0.0897	10.9453	2.9027	0.0838	2.9866		11,389.8283	11,389.8283	0.3153	0.6743	11,598.6430

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

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

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive 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	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive 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	0.1691	6.2770	2.3798	0.0295	1.0501	0.0349	1.0851	0.3023	0.0334	0.3358		3,174.4810	3,174.4810	0.1076	0.4606	3,314.4332
Worker	2.7189	1.8156	25.7229	0.0785	9.8055	0.0525	9.8579	2.6004	0.0483	2.6487		7,930.6351	7,930.6351	0.1883	0.1932	7,992.9008
Total	2.8880	8.0926	28.1027	0.1079	10.8556	0.0874	10.9430	2.9027	0.0817	2.9844		11,105.1161	11,105.1161	0.2959	0.6538	11,307.3340

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

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

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive 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	0.8039	13.9165	18.0406	0.0270		0.1677	0.1677		0.1677	0.1677	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	0.8039	13.9165	18.0406	0.0270		0.1677	0.1677		0.1677	0.1677	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077

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	0.1691	6.2770	2.3798	0.0295	1.0501	0.0349	1.0851	0.3023	0.0334	0.3358		3,174.4810	3,174.4810	0.1076	0.4606	3,314.4332
Worker	2.7189	1.8156	25.7229	0.0785	9.8055	0.0525	9.8579	2.6004	0.0483	2.6487		7,930.6351	7,930.6351	0.1883	0.1932	7,992.9008
Total	2.8880	8.0926	28.1027	0.1079	10.8556	0.0874	10.9430	2.9027	0.0817	2.9844		11,105.1161	11,105.1161	0.2959	0.6538	11,307.3340

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

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

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive 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	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1

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	0.1651	6.2476	2.3442	0.0289	1.0501	0.0350	1.0852	0.3023	0.0335	0.3358		3,116.707 0	3,116.707 0	0.1079	0.4527	3,254.317 8
Worker	2.5540	1.6310	23.9733	0.0758	9.8055	0.0499	9.8554	2.6004	0.0460	2.6464		7,660.968 2	7,660.968 2	0.1701	0.1805	7,719.015 4
Total	2.7191	7.8786	26.3174	0.1047	10.8556	0.0850	10.9406	2.9027	0.0795	2.9822		10,777.67 52	10,777.67 52	0.2780	0.6333	10,973.33 31

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

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

3.4 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive 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	0.7878	13.8778	18.0286	0.0270		0.1611	0.1611		0.1611	0.1611	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	0.7878	13.8778	18.0286	0.0270		0.1611	0.1611		0.1611	0.1611	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1

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	0.1651	6.2476	2.3442	0.0289	1.0501	0.0350	1.0852	0.3023	0.0335	0.3358		3,116.707 0	3,116.707 0	0.1079	0.4527	3,254.317 8
Worker	2.5540	1.6310	23.9733	0.0758	9.8055	0.0499	9.8554	2.6004	0.0460	2.6464		7,660.968 2	7,660.968 2	0.1701	0.1805	7,719.015 4
Total	2.7191	7.8786	26.3174	0.1047	10.8556	0.0850	10.9406	2.9027	0.0795	2.9822		10,777.67 52	10,777.67 52	0.2780	0.6333	10,973.33 31

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

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

3.4 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1

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	0.1615	6.2038	2.3157	0.0283	1.0501	0.0349	1.0851	0.3023	0.0334	0.3358		3,058.330 3	3,058.330 3	0.1081	0.4447	3,193.544 5
Worker	2.4126	1.4804	22.5160	0.0735	9.8055	0.0473	9.8528	2.6004	0.0436	2.6440		7,426.138 8	7,426.138 8	0.1547	0.1702	7,480.722 9
Total	2.5741	7.6842	24.8317	0.1018	10.8556	0.0823	10.9379	2.9027	0.0770	2.9797		10,484.46 91	10,484.46 91	0.2628	0.6149	10,674.26 74

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

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

3.4 Building Construction - 2026

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	0.7878	13.8778	18.0286	0.0270		0.1611	0.1611		0.1611	0.1611	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	0.7878	13.8778	18.0286	0.0270		0.1611	0.1611		0.1611	0.1611	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1

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	0.1615	6.2038	2.3157	0.0283	1.0501	0.0349	1.0851	0.3023	0.0334	0.3358		3,058.330 3	3,058.330 3	0.1081	0.4447	3,193.544 5
Worker	2.4126	1.4804	22.5160	0.0735	9.8055	0.0473	9.8528	2.6004	0.0436	2.6440		7,426.138 8	7,426.138 8	0.1547	0.1702	7,480.722 9
Total	2.5741	7.6842	24.8317	0.1018	10.8556	0.0823	10.9379	2.9027	0.0770	2.9797		10,484.46 91	10,484.46 91	0.2628	0.6149	10,674.26 74

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.2310					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.2638	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336

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	0.0523	0.0367	0.4979	1.4600e-003	0.1768	9.9000e-004	0.1778	0.0469	9.1000e-004	0.0478		147.2796	147.2796	3.7500e-003	3.7400e-003	148.4886
Total	0.0523	0.0367	0.4979	1.4600e-003	0.1768	9.9000e-004	0.1778	0.0469	9.1000e-004	0.0478		147.2796	147.2796	3.7500e-003	3.7400e-003	148.4886

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	0.5609	11.2952	17.2957	0.0228		0.0914	0.0914		0.0914	0.0914	0.0000	2,207.584 1	2,207.584 1	0.7140		2,225.433 6
Paving	0.2310					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7920	11.2952	17.2957	0.0228		0.0914	0.0914		0.0914	0.0914	0.0000	2,207.584 1	2,207.584 1	0.7140		2,225.433 6

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	0.0523	0.0367	0.4979	1.4600e-003	0.1768	9.9000e-004	0.1778	0.0469	9.1000e-004	0.0478		147.2796	147.2796	3.7500e-003	3.7400e-003	148.4886
Total	0.0523	0.0367	0.4979	1.4600e-003	0.1768	9.9000e-004	0.1778	0.0469	9.1000e-004	0.0478		147.2796	147.2796	3.7500e-003	3.7400e-003	148.4886

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

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

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive 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	20.9980					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	21.1688	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive 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	0.5096	0.3254	4.7831	0.0151	1.9564	9.9600e-003	1.9663	0.5188	9.1700e-003	0.5280		1,528.5105	1,528.5105	0.0340	0.0360	1,540.0920
Total	0.5096	0.3254	4.7831	0.0151	1.9564	9.9600e-003	1.9663	0.5188	9.1700e-003	0.5280		1,528.5105	1,528.5105	0.0340	0.0360	1,540.0920

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

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

3.6 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive 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	20.9980					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0143	0.0143		0.0143	0.0143	0.0000	281.4481	281.4481	0.0154		281.8319
Total	21.0574	1.3570	1.8324	2.9700e-003		0.0143	0.0143		0.0143	0.0143	0.0000	281.4481	281.4481	0.0154		281.8319

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	0.5096	0.3254	4.7831	0.0151	1.9564	9.9600e-003	1.9663	0.5188	9.1700e-003	0.5280		1,528.5105	1,528.5105	0.0340	0.0360	1,540.0920
Total	0.5096	0.3254	4.7831	0.0151	1.9564	9.9600e-003	1.9663	0.5188	9.1700e-003	0.5280		1,528.5105	1,528.5105	0.0340	0.0360	1,540.0920

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

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

3.6 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.9980					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	21.1688	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive 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	0.4814	0.2954	4.4924	0.0147	1.9564	9.4500e-003	1.9658	0.5188	8.6900e-003	0.5275		1,481.6575	1,481.6575	0.0309	0.0340	1,492.5481
Total	0.4814	0.2954	4.4924	0.0147	1.9564	9.4500e-003	1.9658	0.5188	8.6900e-003	0.5275		1,481.6575	1,481.6575	0.0309	0.0340	1,492.5481

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

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

3.6 Architectural Coating - 2026

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	20.9980					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0143	0.0143		0.0143	0.0143	0.0000	281.4481	281.4481	0.0154		281.8319
Total	21.0574	1.3570	1.8324	2.9700e-003		0.0143	0.0143		0.0143	0.0143	0.0000	281.4481	281.4481	0.0154		281.8319

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	0.4814	0.2954	4.4924	0.0147	1.9564	9.4500e-003	1.9658	0.5188	8.6900e-003	0.5275		1,481.6575	1,481.6575	0.0309	0.0340	1,492.5481
Total	0.4814	0.2954	4.4924	0.0147	1.9564	9.4500e-003	1.9658	0.5188	8.6900e-003	0.5275		1,481.6575	1,481.6575	0.0309	0.0340	1,492.5481

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

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

3.6 Architectural Coating - 2027

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	20.9980					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	21.1688	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive 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	0.4554	0.2700	4.2448	0.0143	1.9564	8.8700e-003	1.9652	0.5188	8.1600e-003	0.5270		1,440.0193	1,440.0193	0.0282	0.0322	1,450.3305
Total	0.4554	0.2700	4.2448	0.0143	1.9564	8.8700e-003	1.9652	0.5188	8.1600e-003	0.5270		1,440.0193	1,440.0193	0.0282	0.0322	1,450.3305

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

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

3.6 Architectural Coating - 2027

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	20.9980					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0143	0.0143		0.0143	0.0143	0.0000	281.4481	281.4481	0.0154		281.8319
Total	21.0574	1.3570	1.8324	2.9700e-003		0.0143	0.0143		0.0143	0.0143	0.0000	281.4481	281.4481	0.0154		281.8319

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	0.4554	0.2700	4.2448	0.0143	1.9564	8.8700e-003	1.9652	0.5188	8.1600e-003	0.5270		1,440.0193	1,440.0193	0.0282	0.0322	1,450.3305
Total	0.4554	0.2700	4.2448	0.0143	1.9564	8.8700e-003	1.9652	0.5188	8.1600e-003	0.5270		1,440.0193	1,440.0193	0.0282	0.0322	1,450.3305

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	23.5385	27.1576	240.7919	0.5620	67.7990	0.3996	68.1987	18.0682	0.3720	18.4402		57,344.54 74	57,344.54 74	3.6556	2.4982	58,180.38 97
Unmitigated	23.5385	27.1576	240.7919	0.5620	67.7990	0.3996	68.1987	18.0682	0.3720	18.4402		57,344.54 74	57,344.54 74	3.6556	2.4982	58,180.38 97

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	6,227.76	6,227.76	6227.76	23,971,156	23,971,156
City Park	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Single Family Housing	471.50	471.50	471.50	1,814,842	1,814,842
Strip Mall	1,852.00	1,852.00	1852.00	6,388,172	6,388,172
Total	8,551.26	8,551.26	8,551.26	32,174,170	32,174,170

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	100	0	0
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

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

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	100	0	0
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.540015	0.063309	0.186717	0.127205	0.023780	0.006682	0.012512	0.009167	0.000820	0.000485	0.025014	0.000756	0.003538
City Park	0.540015	0.063309	0.186717	0.127205	0.023780	0.006682	0.012512	0.009167	0.000820	0.000485	0.025014	0.000756	0.003538
Parking Lot	0.540015	0.063309	0.186717	0.127205	0.023780	0.006682	0.012512	0.009167	0.000820	0.000485	0.025014	0.000756	0.003538
Single Family Housing	0.540015	0.063309	0.186717	0.127205	0.023780	0.006682	0.012512	0.009167	0.000820	0.000485	0.025014	0.000756	0.003538
Strip Mall	0.540015	0.063309	0.186717	0.127205	0.023780	0.006682	0.012512	0.009167	0.000820	0.000485	0.025014	0.000756	0.003538

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.3968	3.3921	1.4525	0.0216		0.2742	0.2742		0.2742	0.2742		4,328.6489	4,328.6489	0.0830	0.0794	4,354.3719
NaturalGas Unmitigated	0.3968	3.3921	1.4525	0.0216		0.2742	0.2742		0.2742	0.2742		4,328.6489	4,328.6489	0.0830	0.0794	4,354.3719

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					
Apartments Mid Rise	33078.2	0.3567	3.0484	1.2972	0.0195		0.2465	0.2465		0.2465	0.2465		3,891.5485	3,891.5485	0.0746	0.0714	3,914.6740
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Single Family Housing	3492.07	0.0377	0.3218	0.1369	2.0500e-003		0.0260	0.0260		0.0260	0.0260		410.8313	410.8313	7.8700e-003	7.5300e-003	413.2726
Strip Mall	223.288	2.4100e-003	0.0219	0.0184	1.3000e-004		1.6600e-003	1.6600e-003		1.6600e-003	1.6600e-003		26.2691	26.2691	5.0000e-004	4.8000e-004	26.4252
Total		0.3968	3.3921	1.4525	0.0216		0.2741	0.2741		0.2741	0.2741		4,328.6489	4,328.6489	0.0830	0.0794	4,354.3719

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	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					
Apartments Mid Rise	33.0782	0.3567	3.0484	1.2972	0.0195		0.2465	0.2465		0.2465	0.2465		3,891.5485	3,891.5485	0.0746	0.0714	3,914.6740
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Single Family Housing	3.49207	0.0377	0.3218	0.1369	2.0500e-003		0.0260	0.0260		0.0260	0.0260		410.8313	410.8313	7.8700e-003	7.5300e-003	413.2726
Strip Mall	0.223288	2.4100e-003	0.0219	0.0184	1.3000e-004		1.6600e-003	1.6600e-003		1.6600e-003	1.6600e-003		26.2691	26.2691	5.0000e-004	4.8000e-004	26.4252
Total		0.3968	3.3921	1.4525	0.0216		0.2741	0.2741		0.2741	0.2741		4,328.6489	4,328.6489	0.0830	0.0794	4,354.3719

6.0 Area Detail

6.1 Mitigation Measures Area

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

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	25.3762	0.9248	80.2859	4.2400e-003		0.4455	0.4455		0.4455	0.4455	0.0000	144.7025	144.7025	0.1386	0.0000	148.1672
Unmitigated	684.2548	112.7408	6,054.6687	19.5687		975.2246	975.2246		975.2246	975.2246	143,704.8950	18,597.8789	162,302.7740	672.2835	0.3383	179,210.6761

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	1.8179					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	21.1474					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	658.8786	111.8160	5,974.3828	19.5645		974.7791	974.7791		974.7791	974.7791	143,704.8950	18,453.1765	162,158.0715	672.1449	0.3383	179,062.5089
Landscaping	2.4109	0.9248	80.2859	4.2400e-003		0.4455	0.4455		0.4455	0.4455		144.7025	144.7025	0.1386		148.1672
Total	684.2548	112.7408	6,054.6687	19.5687		975.2246	975.2246		975.2246	975.2246	143,704.8950	18,597.8789	162,302.7740	672.2835	0.3383	179,210.6761

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.8179					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	21.1474					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.4109	0.9248	80.2859	4.2400e-003		0.4455	0.4455		0.4455	0.4455		144.7025	144.7025	0.1386		148.1672
Total	25.3762	0.9248	80.2859	4.2400e-003		0.4455	0.4455		0.4455	0.4455	0.0000	144.7025	144.7025	0.1386	0.0000	148.1672

7.0 Water Detail

7.1 Mitigation Measures Water

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Winter

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

Shadowbox - Existing Zoning Alternative

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	924.00	Dwelling Unit	28.70	924,000.00	2643
Single Family Housing	50.00	Dwelling Unit	6.20	90,000.00	143
Strip Mall	50.00	1000sqft	2.10	50,000.00	0
City Park	2.40	Acre	2.40	104,544.00	0
Parking Lot	4.85	Acre	4.85	211,266.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2027
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 - Operational year based on CalEEMod Default constructoin schedule.

Land Use - See Assumptions. Inputs based on project specifics except for population which is CalEEMod defaults. No building assumed for the park.

Construction Phase - Construction phasing based on CalEEMod defaults with the exception detailed in the assumptions.

Grading - Consistent with the proposed project, soils assumed balanced onsite and no import or export is anticipated. Total graded acres are CalEEMod default values.

Architectural Coating - SCAQMD Rule 1113, Building Envelope Coating = 50 g/L and Flats = 50 g/L; Parking lot left as default.

Vehicle Trips - Based on Traffic Memo - Gibson 2023. See Assumptions for full details.

Woodstoves - Default assumptions revised to take into account SCAQMD ban on wood burning fireplaces and stoves.

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

Area Coating - SCAQMD Rule 1113, Building Envelope Coating = 50 g/L and Flats = 50 g/L; Parking left as default.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403, watering and vehicle speed from Table 1 BACT applicable to all construction activity. Consistent with proposed project all equipment would be at least Tier 3 EPA engines with level 3 DPF filters for equipment greater than 50 hp.

Trips and VMT - CalEEMod defaults used except for worker trip length which was extended 0.8 miles to account for onsite travel, consistent with the proposed project modeling. Trip length increased from 14.7 to 15.50 miles.

Water And Wastewater - City of Santa Clarita wastewater treated at the Saugus or Valencia Water Reclamation Plan. 100% aerobic treatments <https://www.lacsd.org/services/wastewater-sewage/santa-clarita-valley-water-reclamation-plants>.

Area Mitigation - SCAQMD Rule 1113, Building Envelope Coating = 50 g/L and Flats = 50 g/L; Parking left as Default

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	55.00	316.00
tblConstructionPhase	PhaseEndDate	10/22/2026	12/21/2023
tblConstructionPhase	PhaseStartDate	10/23/2026	10/23/2025
tblConstructionPhase	PhaseStartDate	8/7/2026	10/6/2023
tblFireplaces	NumberGas	785.40	826.70
tblFireplaces	NumberGas	42.50	44.70
tblFireplaces	NumberNoFireplace	92.40	97.30
tblFireplaces	NumberNoFireplace	5.00	5.30
tblFireplaces	NumberWood	46.20	0.00

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

tblFireplaces	NumberWood	2.50	0.00
tblLandUse	LotAcreage	24.32	28.70
tblLandUse	LotAcreage	16.23	6.20
tblLandUse	LotAcreage	1.15	2.10
tblTripsAndVMT	WorkerTripLength	14.70	15.50
tblTripsAndVMT	WorkerTripLength	14.70	15.50
tblTripsAndVMT	WorkerTripLength	14.70	15.50
tblTripsAndVMT	WorkerTripLength	14.70	15.50
tblTripsAndVMT	WorkerTripLength	14.70	15.50
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	4.91	6.74
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	9.54	9.43
tblVehicleTrips	ST_TR	42.04	37.04
tblVehicleTrips	SU_TR	4.09	6.74
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	8.55	9.43
tblVehicleTrips	SU_TR	20.43	37.04
tblVehicleTrips	WD_TR	5.44	6.74
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	9.44	9.43

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

tblVehicleTrips	WD_TR	44.32	37.04
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00

2.0 Emissions Summary

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.3390	2.6838	3.2097	7.9000e-003	0.9817	0.1106	1.0923	0.3800	0.1023	0.4823	0.0000	711.9278	711.9278	0.1261	0.0191	720.7607
2024	0.5438	2.8266	5.8894	0.0178	1.3963	0.0918	1.4881	0.3739	0.0863	0.4602	0.0000	1,637.4877	1,637.4877	0.1070	0.0780	1,663.4079
2025	1.0481	2.6971	5.7846	0.0178	1.4390	0.0815	1.5204	0.3853	0.0766	0.4619	0.0000	1,633.6275	1,633.6275	0.1052	0.0761	1,658.9293
2026	3.1126	1.7633	4.0765	0.0125	1.0820	0.0555	1.1375	0.2892	0.0526	0.3418	0.0000	1,141.9622	1,141.9622	0.0666	0.0478	1,157.8559
2027	0.0540	3.5500e-003	0.0154	4.0000e-005	4.8000e-003	1.5000e-004	4.9500e-003	1.2700e-003	1.5000e-004	1.4200e-003	0.0000	3.9540	3.9540	1.0000e-004	7.0000e-005	3.9786
Maximum	3.1126	2.8266	5.8894	0.0178	1.4390	0.1106	1.5204	0.3853	0.1023	0.4823	0.0000	1,637.4877	1,637.4877	0.1261	0.0780	1,663.4079

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.2098	2.4041	3.7354	7.9000e-003	0.6297	0.0201	0.6498	0.2213	0.0199	0.2413	0.0000	711.9274	711.9274	0.1261	0.0191	720.7603
2024	0.4564	2.8885	6.1348	0.0178	1.3963	0.0334	1.4297	0.3739	0.0327	0.4066	0.0000	1,637.4873	1,637.4873	0.1070	0.0780	1,663.4075
2025	0.9697	2.8861	6.0388	0.0178	1.4390	0.0327	1.4717	0.3853	0.0320	0.4172	0.0000	1,633.6271	1,633.6271	0.1052	0.0761	1,658.9289
2026	3.0528	1.9008	4.2312	0.0125	1.0820	0.0221	1.1040	0.2892	0.0216	0.3108	0.0000	1,141.9620	1,141.9620	0.0666	0.0478	1,157.8556
2027	0.0537	4.0800e-003	0.0155	4.0000e-005	4.8000e-003	6.0000e-005	4.8600e-003	1.2700e-003	6.0000e-005	1.3300e-003	0.0000	3.9540	3.9540	1.0000e-004	7.0000e-005	3.9786
Maximum	3.0528	2.8885	6.1348	0.0178	1.4390	0.0334	1.4717	0.3853	0.0327	0.4172	0.0000	1,637.4873	1,637.4873	0.1261	0.0780	1,663.4075

	ROG	NOx	CO	SO2	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	6.97	-1.09	-6.22	0.00	7.18	68.08	11.12	11.10	66.60	21.20	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-3-2023	6-2-2023	0.2379	0.1579
2	6-3-2023	9-2-2023	1.1921	0.9564
3	9-3-2023	12-2-2023	1.2522	1.1662
4	12-3-2023	3-2-2024	0.9347	0.9224
5	3-3-2024	6-2-2024	0.8373	0.8309
6	6-3-2024	9-2-2024	0.8311	0.8247
7	9-3-2024	12-2-2024	0.8356	0.8293

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

8	12-3-2024	3-2-2025	0.8005	0.8166
9	3-3-2025	6-2-2025	0.7898	0.8170
10	6-3-2025	9-2-2025	0.7837	0.8109
11	9-3-2025	12-2-2025	1.1273	1.1557
12	12-3-2025	3-2-2026	1.5208	1.5507
13	3-3-2026	6-2-2026	1.5364	1.5669
14	6-3-2026	9-2-2026	1.3031	1.3256
15	9-3-2026	12-2-2026	0.7499	0.7532
16	12-3-2026	3-2-2027	0.2968	0.2980
		Highest	1.5364	1.5669

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	4.8423	0.3450	13.0968	0.0114		0.5571	0.5571		0.5571	0.5571	65.1834	225.6645	290.8479	0.3245	3.8400e-003	300.1023
Energy	0.0724	0.6191	0.2651	3.9500e-003		0.0500	0.0500		0.0500	0.0500	0.0000	1,546.1262	1,546.1262	0.0838	0.0216	1,554.6641
Mobile	4.2294	5.0058	44.3111	0.1034	12.1136	0.0726	12.1863	3.2330	0.0676	3.3006	0.0000	9,568.6210	9,568.6210	0.6010	0.4150	9,707.3047
Waste						0.0000	0.0000		0.0000	0.0000	108.8803	0.0000	108.8803	6.4346	0.0000	269.7463
Water						0.0000	0.0000		0.0000	0.0000	23.7626	244.0291	267.7917	0.1024	0.0542	286.4947
Total	9.1441	5.9698	57.6730	0.1188	12.1136	0.6798	12.7934	3.2330	0.6747	3.9077	197.8263	11,584.4408	11,782.2671	7.5463	0.4946	12,118.3121

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive 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	4.4925	0.1156	10.0357	5.3000e-004		0.0557	0.0557		0.0557	0.0557	0.0000	16.4090	16.4090	0.0157	0.0000	16.8019
Energy	0.0724	0.6191	0.2651	3.9500e-003		0.0500	0.0500		0.0500	0.0500	0.0000	1,546.1262	1,546.1262	0.0838	0.0216	1,554.6641
Mobile	4.2294	5.0058	44.3111	0.1034	12.1136	0.0726	12.1863	3.2330	0.0676	3.3006	0.0000	9,568.6210	9,568.6210	0.6010	0.4150	9,707.3047
Waste						0.0000	0.0000		0.0000	0.0000	108.8803	0.0000	108.8803	6.4346	0.0000	269.7463
Water						0.0000	0.0000		0.0000	0.0000	23.7626	244.0291	267.7917	0.1024	0.0542	286.4947
Total	8.7944	5.7405	54.6119	0.1079	12.1136	0.1783	12.2920	3.2330	0.1733	3.4063	132.6429	11,375.1853	11,507.8282	7.2375	0.4908	11,835.0117

	ROG	NOx	CO	SO2	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	3.82	3.84	5.31	9.17	0.00	73.76	3.92	0.00	74.31	12.83	32.95	1.81	2.33	4.09	0.78	2.34

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	5/12/2023	6/22/2023	5	30	
2	Grading	Grading	6/23/2023	10/5/2023	5	75	
3	Building Construction	Building Construction	10/6/2023	8/6/2026	5	740	

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

4	Paving	Paving	10/6/2023	12/21/2023	5	55
5	Architectural Coating	Architectural Coating	10/23/2025	1/7/2027	5	316

Acres of Grading (Site Preparation Phase): 45

Acres of Grading (Grading Phase): 225

Acres of Paving: 4.85

Residential Indoor: 2,053,350; Residential Outdoor: 684,450; Non-Residential Indoor: 75,000; Non-Residential Outdoor: 25,000; Striped Parking Area: 12,676 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	166.00	0.00	0.00	15.50	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	832.00	164.00	0.00	15.50	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	15.50	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	15.50	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	15.50	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2949	0.0000	0.2949	0.1515	0.0000	0.1515	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0399	0.4129	0.2737	5.7000e-004		0.0190	0.0190		0.0175	0.0175	0.0000	50.1760	50.1760	0.0162	0.0000	50.5817
Total	0.0399	0.4129	0.2737	5.7000e-004	0.2949	0.0190	0.3139	0.1515	0.0175	0.1690	0.0000	50.1760	50.1760	0.0162	0.0000	50.5817

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

3.2 Site Preparation - 2023

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	8.7000e-004	6.8000e-004	9.2200e-003	3.0000e-005	3.1200e-003	2.0000e-005	3.1400e-003	8.3000e-004	2.0000e-005	8.5000e-004	0.0000	2.4418	2.4418	6.0000e-005	6.0000e-005	2.4619
Total	8.7000e-004	6.8000e-004	9.2200e-003	3.0000e-005	3.1200e-003	2.0000e-005	3.1400e-003	8.3000e-004	2.0000e-005	8.5000e-004	0.0000	2.4418	2.4418	6.0000e-005	6.0000e-005	2.4619

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1327	0.0000	0.1327	0.0682	0.0000	0.0682	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0140	0.2860	0.3444	5.7000e-004		2.1300e-003	2.1300e-003		2.1300e-003	2.1300e-003	0.0000	50.1760	50.1760	0.0162	0.0000	50.5817
Total	0.0140	0.2860	0.3444	5.7000e-004	0.1327	2.1300e-003	0.1348	0.0682	2.1300e-003	0.0703	0.0000	50.1760	50.1760	0.0162	0.0000	50.5817

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

3.2 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive 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	8.7000e-004	6.8000e-004	9.2200e-003	3.0000e-005	3.1200e-003	2.0000e-005	3.1400e-003	8.3000e-004	2.0000e-005	8.5000e-004	0.0000	2.4418	2.4418	6.0000e-005	6.0000e-005	2.4619
Total	8.7000e-004	6.8000e-004	9.2200e-003	3.0000e-005	3.1200e-003	2.0000e-005	3.1400e-003	8.3000e-004	2.0000e-005	8.5000e-004	0.0000	2.4418	2.4418	6.0000e-005	6.0000e-005	2.4619

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3451	0.0000	0.3451	0.1370	0.0000	0.1370	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1246	1.2943	1.0519	2.3300e-003		0.0534	0.0534		0.0491	0.0491	0.0000	204.5070	204.5070	0.0661	0.0000	206.1606
Total	0.1246	1.2943	1.0519	2.3300e-003	0.3451	0.0534	0.3986	0.1370	0.0491	0.1862	0.0000	204.5070	204.5070	0.0661	0.0000	206.1606

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

3.3 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive 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	2.4200e-003	1.8800e-003	0.0256	7.0000e-005	8.6800e-003	5.0000e-005	8.7300e-003	2.3000e-003	5.0000e-005	2.3500e-003	0.0000	6.7828	6.7828	1.7000e-004	1.7000e-004	6.8385
Total	2.4200e-003	1.8800e-003	0.0256	7.0000e-005	8.6800e-003	5.0000e-005	8.7300e-003	2.3000e-003	5.0000e-005	2.3500e-003	0.0000	6.7828	6.7828	1.7000e-004	1.7000e-004	6.8385

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1553	0.0000	0.1553	0.0617	0.0000	0.0617	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0571	1.1242	1.3771	2.3300e-003		7.3100e-003	7.3100e-003		7.3100e-003	7.3100e-003	0.0000	204.5068	204.5068	0.0661	0.0000	206.1603
Total	0.0571	1.1242	1.3771	2.3300e-003	0.1553	7.3100e-003	0.1626	0.0617	7.3100e-003	0.0690	0.0000	204.5068	204.5068	0.0661	0.0000	206.1603

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

3.3 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive 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	2.4200e-003	1.8800e-003	0.0256	7.0000e-005	8.6800e-003	5.0000e-005	8.7300e-003	2.3000e-003	5.0000e-005	2.3500e-003	0.0000	6.7828	6.7828	1.7000e-004	1.7000e-004	6.8385
Total	2.4200e-003	1.8800e-003	0.0256	7.0000e-005	8.6800e-003	5.0000e-005	8.7300e-003	2.3000e-003	5.0000e-005	2.3500e-003	0.0000	6.7828	6.7828	1.7000e-004	1.7000e-004	6.8385

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	0.0480	0.4387	0.4954	8.2000e-004		0.0213	0.0213		0.0201	0.0201	0.0000	70.7005	70.7005	0.0168	0.0000	71.1209
Total	0.0480	0.4387	0.4954	8.2000e-004		0.0213	0.0213		0.0201	0.0201	0.0000	70.7005	70.7005	0.0168	0.0000	71.1209

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.4100e-003	0.1906	0.0726	9.1000e-004	0.0315	1.0600e-003	0.0326	9.1000e-003	1.0100e-003	0.0101	0.0000	89.0214	89.0214	2.9800e-003	0.0129	92.9398
Worker	0.0818	0.0635	0.8662	2.5000e-003	0.2936	1.6700e-003	0.2952	0.0780	1.5400e-003	0.0795	0.0000	229.4939	229.4939	5.7500e-003	5.8400e-003	231.3771
Total	0.0872	0.2540	0.9387	3.4100e-003	0.3251	2.7300e-003	0.3278	0.0871	2.5500e-003	0.0896	0.0000	318.5153	318.5153	8.7300e-003	0.0187	324.3169

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	0.0251	0.4257	0.5507	8.2000e-004		5.3500e-003	5.3500e-003		5.3500e-003	5.3500e-003	0.0000	70.7004	70.7004	0.0168	0.0000	71.1208
Total	0.0251	0.4257	0.5507	8.2000e-004		5.3500e-003	5.3500e-003		5.3500e-003	5.3500e-003	0.0000	70.7004	70.7004	0.0168	0.0000	71.1208

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.4100e-003	0.1906	0.0726	9.1000e-004	0.0315	1.0600e-003	0.0326	9.1000e-003	1.0100e-003	0.0101	0.0000	89.0214	89.0214	2.9800e-003	0.0129	92.9398
Worker	0.0818	0.0635	0.8662	2.5000e-003	0.2936	1.6700e-003	0.2952	0.0780	1.5400e-003	0.0795	0.0000	229.4939	229.4939	5.7500e-003	5.8400e-003	231.3771
Total	0.0872	0.2540	0.9387	3.4100e-003	0.3251	2.7300e-003	0.3278	0.0871	2.5500e-003	0.0896	0.0000	318.5153	318.5153	8.7300e-003	0.0187	324.3169

3.4 Building Construction - 2024

Unmitigated Construction On-Site

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

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive 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	0.0227	0.8222	0.3065	3.8500e-003	0.1355	4.5600e-003	0.1401	0.0391	4.3600e-003	0.0435	0.0000	376.8584	376.8584	0.0128	0.0547	393.4736
Worker	0.3284	0.2433	3.4650	0.0104	1.2608	6.8700e-003	1.2677	0.3348	6.3300e-003	0.3412	0.0000	956.9069	956.9069	0.0224	0.0233	964.4164
Total	0.3511	1.0655	3.7715	0.0143	1.3963	0.0114	1.4077	0.3739	0.0107	0.3846	0.0000	1,333.7653	1,333.7653	0.0352	0.0780	1,357.8900

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	0.1053	1.8231	2.3633	3.5300e-003		0.0220	0.0220		0.0220	0.0220	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	0.1053	1.8231	2.3633	3.5300e-003		0.0220	0.0220		0.0220	0.0220	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive 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	0.0227	0.8222	0.3065	3.8500e-003	0.1355	4.5600e-003	0.1401	0.0391	4.3600e-003	0.0435	0.0000	376.8584	376.8584	0.0128	0.0547	393.4736
Worker	0.3284	0.2433	3.4650	0.0104	1.2608	6.8700e-003	1.2677	0.3348	6.3300e-003	0.3412	0.0000	956.9069	956.9069	0.0224	0.0233	964.4164
Total	0.3511	1.0655	3.7715	0.0143	1.3963	0.0114	1.4077	0.3739	0.0107	0.3846	0.0000	1,333.7653	1,333.7653	0.0352	0.0780	1,357.8900

3.4 Building Construction - 2025

Unmitigated Construction On-Site

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

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

3.4 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive 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	0.0221	0.8152	0.3007	3.7700e-003	0.1350	4.5600e-003	0.1395	0.0390	4.3600e-003	0.0433	0.0000	368.5817	368.5817	0.0128	0.0535	384.8561
Worker	0.3067	0.2177	3.2166	0.0100	1.2560	6.5200e-003	1.2625	0.3336	6.0000e-003	0.3396	0.0000	920.8124	920.8124	0.0202	0.0217	927.7859
Total	0.3287	1.0328	3.5173	0.0138	1.3910	0.0111	1.4020	0.3725	0.0104	0.3829	0.0000	1,289.3941	1,289.3941	0.0330	0.0753	1,312.6420

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	0.1028	1.8111	2.3527	3.5200e-003		0.0210	0.0210		0.0210	0.0210	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	0.1028	1.8111	2.3527	3.5200e-003		0.0210	0.0210		0.0210	0.0210	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

3.4 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive 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	0.0221	0.8152	0.3007	3.7700e-003	0.1350	4.5600e-003	0.1395	0.0390	4.3600e-003	0.0433	0.0000	368.5817	368.5817	0.0128	0.0535	384.8561
Worker	0.3067	0.2177	3.2166	0.0100	1.2560	6.5200e-003	1.2625	0.3336	6.0000e-003	0.3396	0.0000	920.8124	920.8124	0.0202	0.0217	927.7859
Total	0.3287	1.0328	3.5173	0.0138	1.3910	0.0111	1.4020	0.3725	0.0104	0.3829	0.0000	1,289.3941	1,289.3941	0.0330	0.0753	1,312.6420

3.4 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1067	0.9726	1.2546	2.1000e-003		0.0412	0.0412		0.0387	0.0387	0.0000	180.8972	180.8972	0.0425	0.0000	181.9603
Total	0.1067	0.9726	1.2546	2.1000e-003		0.0412	0.0412		0.0387	0.0387	0.0000	180.8972	180.8972	0.0425	0.0000	181.9603

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

3.4 Building Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0129	0.4837	0.1776	2.2100e-003	0.0807	2.7200e-003	0.0834	0.0233	2.6000e-003	0.0259	0.0000	216.1723	216.1723	7.6700e-003	0.0314	225.7300
Worker	0.1728	0.1181	1.8055	5.8200e-003	0.7507	3.6900e-003	0.7544	0.1994	3.4000e-003	0.2028	0.0000	533.4884	533.4884	0.0110	0.0122	537.4076
Total	0.1857	0.6018	1.9831	8.0300e-003	0.8314	6.4100e-003	0.8378	0.2227	6.0000e-003	0.2286	0.0000	749.6608	749.6608	0.0186	0.0437	763.1376

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	0.0615	1.0825	1.4062	2.1000e-003		0.0126	0.0126		0.0126	0.0126	0.0000	180.8970	180.8970	0.0425	0.0000	181.9600
Total	0.0615	1.0825	1.4062	2.1000e-003		0.0126	0.0126		0.0126	0.0126	0.0000	180.8970	180.8970	0.0425	0.0000	181.9600

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

3.4 Building Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0129	0.4837	0.1776	2.2100e-003	0.0807	2.7200e-003	0.0834	0.0233	2.6000e-003	0.0259	0.0000	216.1723	216.1723	7.6700e-003	0.0314	225.7300
Worker	0.1728	0.1181	1.8055	5.8200e-003	0.7507	3.6900e-003	0.7544	0.1994	3.4000e-003	0.2028	0.0000	533.4884	533.4884	0.0110	0.0122	537.4076
Total	0.1857	0.6018	1.9831	8.0300e-003	0.8314	6.4100e-003	0.8378	0.2227	6.0000e-003	0.2286	0.0000	749.6608	749.6608	0.0186	0.0437	763.1376

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	0.0284	0.2803	0.4011	6.3000e-004		0.0140	0.0140		0.0129	0.0129	0.0000	55.0739	55.0739	0.0178	0.0000	55.5192
Paving	6.3500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0348	0.2803	0.4011	6.3000e-004		0.0140	0.0140		0.0129	0.0129	0.0000	55.0739	55.0739	0.0178	0.0000	55.5192

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

3.5 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3300e-003	1.0300e-003	0.0141	4.0000e-005	4.7700e-003	3.0000e-005	4.8000e-003	1.2700e-003	3.0000e-005	1.2900e-003	0.0000	3.7305	3.7305	9.0000e-005	9.0000e-005	3.7612
Total	1.3300e-003	1.0300e-003	0.0141	4.0000e-005	4.7700e-003	3.0000e-005	4.8000e-003	1.2700e-003	3.0000e-005	1.2900e-003	0.0000	3.7305	3.7305	9.0000e-005	9.0000e-005	3.7612

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	0.0154	0.3106	0.4756	6.3000e-004		2.5100e-003	2.5100e-003		2.5100e-003	2.5100e-003	0.0000	55.0738	55.0738	0.0178	0.0000	55.5191
Paving	6.3500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0218	0.3106	0.4756	6.3000e-004		2.5100e-003	2.5100e-003		2.5100e-003	2.5100e-003	0.0000	55.0738	55.0738	0.0178	0.0000	55.5191

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

3.5 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3300e-003	1.0300e-003	0.0141	4.0000e-005	4.7700e-003	3.0000e-005	4.8000e-003	1.2700e-003	3.0000e-005	1.2900e-003	0.0000	3.7305	3.7305	9.0000e-005	9.0000e-005	3.7612
Total	1.3300e-003	1.0300e-003	0.0141	4.0000e-005	4.7700e-003	3.0000e-005	4.8000e-003	1.2700e-003	3.0000e-005	1.2900e-003	0.0000	3.7305	3.7305	9.0000e-005	9.0000e-005	3.7612

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5250					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.2700e-003	0.0286	0.0452	7.0000e-005		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	6.3831	6.3831	3.5000e-004	0.0000	6.3918
Total	0.5292	0.0286	0.0452	7.0000e-005		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	6.3831	6.3831	3.5000e-004	0.0000	6.3918

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

3.6 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0117	8.3200e-003	0.1229	3.8000e-004	0.0480	2.5000e-004	0.0483	0.0128	2.3000e-004	0.0130	0.0000	35.1954	35.1954	7.7000e-004	8.3000e-004	35.4619
Total	0.0117	8.3200e-003	0.1229	3.8000e-004	0.0480	2.5000e-004	0.0483	0.0128	2.3000e-004	0.0130	0.0000	35.1954	35.1954	7.7000e-004	8.3000e-004	35.4619

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	0.5250					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4900e-003	0.0339	0.0458	7.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	6.3831	6.3831	3.5000e-004	0.0000	6.3918
Total	0.5264	0.0339	0.0458	7.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	6.3831	6.3831	3.5000e-004	0.0000	6.3918

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

3.6 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0117	8.3200e-003	0.1229	3.8000e-004	0.0480	2.5000e-004	0.0483	0.0128	2.3000e-004	0.0130	0.0000	35.1954	35.1954	7.7000e-004	8.3000e-004	35.4619
Total	0.0117	8.3200e-003	0.1229	3.8000e-004	0.0480	2.5000e-004	0.0483	0.0128	2.3000e-004	0.0130	0.0000	35.1954	35.1954	7.7000e-004	8.3000e-004	35.4619

3.6 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.7402					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3200	33.3200	1.8200e-003	0.0000	33.3654
Total	2.7625	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3200	33.3200	1.8200e-003	0.0000	33.3654

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

3.6 Architectural Coating - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0577	0.0394	0.6027	1.9400e-003	0.2506	1.2300e-003	0.2518	0.0666	1.1300e-003	0.0677	0.0000	178.0843	178.0843	3.6500e-003	4.0800e-003	179.3926
Total	0.0577	0.0394	0.6027	1.9400e-003	0.2506	1.2300e-003	0.2518	0.0666	1.1300e-003	0.0677	0.0000	178.0843	178.0843	3.6500e-003	4.0800e-003	179.3926

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	2.7402					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.7600e-003	0.1771	0.2391	3.9000e-004		1.8600e-003	1.8600e-003		1.8600e-003	1.8600e-003	0.0000	33.3199	33.3199	1.8200e-003	0.0000	33.3654
Total	2.7480	0.1771	0.2391	3.9000e-004		1.8600e-003	1.8600e-003		1.8600e-003	1.8600e-003	0.0000	33.3199	33.3199	1.8200e-003	0.0000	33.3654

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

3.6 Architectural Coating - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0577	0.0394	0.6027	1.9400e-003	0.2506	1.2300e-003	0.2518	0.0666	1.1300e-003	0.0677	0.0000	178.0843	178.0843	3.6500e-003	4.0800e-003	179.3926
Total	0.0577	0.0394	0.6027	1.9400e-003	0.2506	1.2300e-003	0.2518	0.0666	1.1300e-003	0.0677	0.0000	178.0843	178.0843	3.6500e-003	4.0800e-003	179.3926

3.6 Architectural Coating - 2027

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	0.0525					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	2.8600e-003	4.5200e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.6383	0.6383	3.0000e-005	0.0000	0.6392
Total	0.0529	2.8600e-003	4.5200e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.6383	0.6383	3.0000e-005	0.0000	0.6392

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

3.6 Architectural Coating - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0400e-003	6.9000e-004	0.0109	4.0000e-005	4.8000e-003	2.0000e-005	4.8200e-003	1.2700e-003	2.0000e-005	1.3000e-003	0.0000	3.3157	3.3157	6.0000e-005	7.0000e-005	3.3394
Total	1.0400e-003	6.9000e-004	0.0109	4.0000e-005	4.8000e-003	2.0000e-005	4.8200e-003	1.2700e-003	2.0000e-005	1.3000e-003	0.0000	3.3157	3.3157	6.0000e-005	7.0000e-005	3.3394

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	0.0525					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5000e-004	3.3900e-003	4.5800e-003	1.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.6383	0.6383	3.0000e-005	0.0000	0.6392
Total	0.0526	3.3900e-003	4.5800e-003	1.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.6383	0.6383	3.0000e-005	0.0000	0.6392

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

3.6 Architectural Coating - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0400e-003	6.9000e-004	0.0109	4.0000e-005	4.8000e-003	2.0000e-005	4.8200e-003	1.2700e-003	2.0000e-005	1.3000e-003	0.0000	3.3157	3.3157	6.0000e-005	7.0000e-005	3.3394
Total	1.0400e-003	6.9000e-004	0.0109	4.0000e-005	4.8000e-003	2.0000e-005	4.8200e-003	1.2700e-003	2.0000e-005	1.3000e-003	0.0000	3.3157	3.3157	6.0000e-005	7.0000e-005	3.3394

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.2294	5.0058	44.3111	0.1034	12.1136	0.0726	12.1863	3.2330	0.0676	3.3006	0.0000	9,568.6210	9,568.6210	0.6010	0.4150	9,707.3047
Unmitigated	4.2294	5.0058	44.3111	0.1034	12.1136	0.0726	12.1863	3.2330	0.0676	3.3006	0.0000	9,568.6210	9,568.6210	0.6010	0.4150	9,707.3047

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	6,227.76	6,227.76	6,227.76	23,971,156	23,971,156
City Park	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Single Family Housing	471.50	471.50	471.50	1,814,842	1,814,842
Strip Mall	1,852.00	1,852.00	1,852.00	6,388,172	6,388,172
Total	8,551.26	8,551.26	8,551.26	32,174,170	32,174,170

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	100	0	0
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	100	0	0
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	100	0	0

4.4 Fleet Mix

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.540015	0.063309	0.186717	0.127205	0.023780	0.006682	0.012512	0.009167	0.000820	0.000485	0.025014	0.000756	0.003538
City Park	0.540015	0.063309	0.186717	0.127205	0.023780	0.006682	0.012512	0.009167	0.000820	0.000485	0.025014	0.000756	0.003538
Parking Lot	0.540015	0.063309	0.186717	0.127205	0.023780	0.006682	0.012512	0.009167	0.000820	0.000485	0.025014	0.000756	0.003538
Single Family Housing	0.540015	0.063309	0.186717	0.127205	0.023780	0.006682	0.012512	0.009167	0.000820	0.000485	0.025014	0.000756	0.003538
Strip Mall	0.540015	0.063309	0.186717	0.127205	0.023780	0.006682	0.012512	0.009167	0.000820	0.000485	0.025014	0.000756	0.003538

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	829.4699	829.4699	0.0700	8.4900e-003	833.7490
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	829.4699	829.4699	0.0700	8.4900e-003	833.7490
NaturalGas Mitigated	0.0724	0.6191	0.2651	3.9500e-003		0.0500	0.0500		0.0500	0.0500	0.0000	716.6564	716.6564	0.0137	0.0131	720.9151
NaturalGas Unmitigated	0.0724	0.6191	0.2651	3.9500e-003		0.0500	0.0500		0.0500	0.0500	0.0000	716.6564	716.6564	0.0137	0.0131	720.9151

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	1.20735e+007	0.0651	0.5563	0.2367	3.5500e-003		0.0450	0.0450		0.0450	0.0450	0.0000	644.2895	644.2895	0.0124	0.0118	648.1182
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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
Single Family Housing	1.2746e+006	6.8700e-003	0.0587	0.0250	3.7000e-004		4.7500e-003	4.7500e-003		4.7500e-003	4.7500e-003	0.0000	68.0177	68.0177	1.3000e-003	1.2500e-003	68.4219
Strip Mall	81500	4.4000e-004	4.0000e-003	3.3600e-003	2.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	4.3492	4.3492	8.0000e-005	8.0000e-005	4.3750
Total		0.0724	0.6191	0.2651	3.9400e-003		0.0500	0.0500		0.0500	0.0500	0.0000	716.6564	716.6564	0.0137	0.0131	720.9151

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	1.20735e+007	0.0651	0.5563	0.2367	3.5500e-003		0.0450	0.0450		0.0450	0.0450	0.0000	644.2895	644.2895	0.0124	0.0118	648.1182
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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
Single Family Housing	1.2746e+006	6.8700e-003	0.0587	0.0250	3.7000e-004		4.7500e-003	4.7500e-003		4.7500e-003	4.7500e-003	0.0000	68.0177	68.0177	1.3000e-003	1.2500e-003	68.4219
Strip Mall	81500	4.4000e-004	4.0000e-003	3.3600e-003	2.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	4.3492	4.3492	8.0000e-005	8.0000e-005	4.3750
Total		0.0724	0.6191	0.2651	3.9400e-003		0.0500	0.0500		0.0500	0.0500	0.0000	716.6564	716.6564	0.0137	0.0131	720.9151

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	3.5568e+006	630.7825	0.0532	6.4500e-003	634.0366
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	73943.1	13.1135	1.1100e-003	1.3000e-004	13.1811
Single Family Housing	392897	69.6785	5.8800e-003	7.1000e-004	70.0380
Strip Mall	653500	115.8953	9.7800e-003	1.1900e-003	116.4932
Total		829.4699	0.0700	8.4800e-003	833.7490

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	3.5568e+006	630.7825	0.0532	6.4500e-003	634.0366
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	73943.1	13.1135	1.1100e-003	1.3000e-004	13.1811
Single Family Housing	392897	69.6785	5.8800e-003	7.1000e-004	70.0380
Strip Mall	653500	115.8953	9.7800e-003	1.1900e-003	116.4932
Total		829.4699	0.0700	8.4800e-003	833.7490

6.0 Area Detail

6.1 Mitigation Measures Area

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

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.4925	0.1156	10.0357	5.3000e-004		0.0557	0.0557		0.0557	0.0557	0.0000	16.4090	16.4090	0.0157	0.0000	16.8019
Unmitigated	4.8423	0.3450	13.0968	0.0114		0.5571	0.5571		0.5571	0.5571	65.1834	225.6645	290.8479	0.3245	3.8400e-003	300.1023

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.3318					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.8594					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.3497	0.2294	3.0610	0.0109		0.5014	0.5014		0.5014	0.5014	65.1834	209.2555	274.4390	0.3087	3.8400e-003	283.3004
Landscaping	0.3014	0.1156	10.0357	5.3000e-004		0.0557	0.0557		0.0557	0.0557	0.0000	16.4090	16.4090	0.0157	0.0000	16.8019
Total	4.8423	0.3450	13.0967	0.0114		0.5571	0.5571		0.5571	0.5571	65.1834	225.6645	290.8479	0.3245	3.8400e-003	300.1023

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.3318					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.8594					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.3014	0.1156	10.0357	5.3000e-004		0.0557	0.0557		0.0557	0.0557	0.0000	16.4090	16.4090	0.0157	0.0000	16.8019
Total	4.4925	0.1156	10.0357	5.3000e-004		0.0557	0.0557		0.0557	0.0557	0.0000	16.4090	16.4090	0.0157	0.0000	16.8019

7.0 Water Detail

7.1 Mitigation Measures Water

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	267.7917	0.1024	0.0542	286.4947
Unmitigated	267.7917	0.1024	0.0542	286.4947

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	60.2023 / 37.9536	235.1003	0.0914	0.0485	251.8393
City Park	0 / 2.85956	5.6342	4.8000e-004	6.0000e-005	5.6633
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	3.2577 / 2.05377	12.7219	4.9400e-003	2.6200e-003	13.6277
Strip Mall	3.70363 / 2.26996	14.3354	5.6100e-003	2.9800e-003	15.3645
Total		267.7917	0.1024	0.0542	286.4947

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	60.2023 / 37.9536	235.1003	0.0914	0.0485	251.8393
City Park	0 / 2.85956	5.6342	4.8000e-004	6.0000e-005	5.6633
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	3.2577 / 2.05377	12.7219	4.9400e-003	2.6200e-003	13.6277
Strip Mall	3.70363 / 2.26996	14.3354	5.6100e-003	2.9800e-003	15.3645
Total		267.7917	0.1024	0.0542	286.4947

8.0 Waste Detail

8.1 Mitigation Measures Waste

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	108.8803	6.4346	0.0000	269.7463
Unmitigated	108.8803	6.4346	0.0000	269.7463

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	425.04	86.2793	5.0990	0.0000	213.7533
City Park	0.21	0.0426	2.5200e-003	0.0000	0.1056
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	58.63	11.9014	0.7034	0.0000	29.4851
Strip Mall	52.5	10.6570	0.6298	0.0000	26.4023
Total		108.8803	6.4346	0.0000	269.7463

Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	425.04	86.2793	5.0990	0.0000	213.7533
City Park	0.21	0.0426	2.5200e-003	0.0000	0.1056
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	58.63	11.9014	0.7034	0.0000	29.4851
Strip Mall	52.5	10.6570	0.6298	0.0000	26.4023
Total		108.8803	6.4346	0.0000	269.7463

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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Shadowbox - Existing Zoning Alternative - South Coast AQMD Air District, Annual

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

User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Shadowbox Studios Proposed Project Jobs/Housing Balance Calculations

	2022 (Baseline)	2026 (Buildout)	Growth	Percent Increase
Population				
Los Angeles County	10,433,586	10,649,310	215,724	2.1%
Santa Clarita	226,600	232,200	5,600	2.5%
Housing				
Los Angeles County	3,484,517	3,594,862	110,345	3.2%
Santa Clarita	76,641	79,869	3,228	4.2%
Employment				
Los Angeles County	4,875,207	4,963,345	88,138	1.8%
Santa Clarita	94,097	96,028	1,931	2.1%

	Projected Growth	Project Percentage of Growth
Los Angeles County	88,138	2.6%
Santa Clarita	1,931	120.8%

Project Direct Employees 2,333
 Project Indirect Employees 3,500

Santa Clarita job/house (2026 no project) 1.20
 Santa Clarita job/housing (2026 + project) 1.23
 Santa Clarita job/housing (2026 + project + indirect) 1.28

County job/housing (2026) 1.38

**Shadowbox Studios
Alternative 2
Growth Projections Calculations**

	2022 (Baseline)	2026 (Buildout)	Growth	Percent Increase
Population				
Los Angeles County	10,433,586	10,649,310	215,724	2.1%
Santa Clarita	226,600	232,200	5,600	2.5%
Housing				
Los Angeles County	3,484,517	3,594,862	110,345	3.2%
Santa Clarita	76,641	79,869	3,228	4.2%
Employment				
Los Angeles County	4,875,207	4,963,345	88,138	1.8%
Santa Clarita	94,097	96,028	1,931	2.1%

	Projected Employment Growth	Project Percentage of Employment Growth	Projected Population Growth	Project Percentage of Population Growth	Projected Housing Growth	Project Percentage of Housing Growth
Los Angeles County	88,138	2.6%	215,724	1.3%	110,345	0.9%
Santa Clarita	1,931	120.8%	5,600	49.8%	3,228	30.2%

Housing People	974	2,786
Santa Clarita job/house (2026 no project)	1.20	
Santa Clarita job/housing (2026 + project)	1.20	
County job/housing (2026)	1.38	

**Shadowbox Studios
Alternative 3
Jobs/Housing Balance Calculations**

	2022 (Baseline)	2026 (Buildout)	Growth	Percent Increase
Population				
Los Angeles County	10,433,586	10,649,310	215,724	2.1%
Santa Clarita	226,600	232,200	5,600	2.5%
Housing				
Los Angeles County	3,484,517	3,594,862	110,345	3.2%
Santa Clarita	76,641	79,869	3,228	4.2%
Employment				
Los Angeles County	4,875,207	4,963,345	88,138	1.8%
Santa Clarita	94,097	96,028	1,931	2.1%

	Projected Growth	Project Percentage of Growth
Los Angeles County	88,138	2.0%
Santa Clarita	1,931	92.1%

Project Direct Employees 1,778
Project Indirect Employees

Santa Clarita job/house (2026 no project) 1.20
Santa Clarita job/housing (2026 + project) 1.22
Santa Clarita job/housing (2026 + project + indirect) 1.22

County job/housing (2026) 1.38



LA-1 SHADOWBOX STUDIOS

LAND USE ALTERNATIVES

TRIP GENERATION COMPARISONS

This analysis compares the trip generation totals for two land use alternatives to the proposed LA-1 Shadowbox Studios in Santa Clarita, California.

The first land use alternative tests the development of the Project site as residential rather than as a studio campus. The second alternative tests a smaller studio development on the same land parcels.

PROJECT DESCRIPTION

Existing Zoning Alternative -- Residential

The Existing Zoning Alternative would develop the land as a residential project. Figure 1 shows the location of the various parcels on the project site and the breakdown of dwelling units by parcel.

The Existing Zoning Alternative utilizes the existing zoning for the 93.5 acre site. The following area calculations are based on the dedication of approximately 1.8 acres for public right-of-way for 12th, 13th and Arch Streets as anticipated in the EIR Project. The initial roadway circulation plan for the Existing Zoning Alternative anticipates a three-leg intersection at 13th and Arch Streets, as opposed to the EIR Project four-leg intersection. After deduction of the public right-of-way the existing zoning for the remaining Shadowbox property is a combination of approximately 40.6 acres of Mixed Use – Neighborhood (MX-N) area on the southerly half of the property nearest to 13th Street and approximately 51.1 acres of Non-Urban – 5 (NU-5) area on the northerly half of the property. The baseline density of the Existing Zoning Alternative would be 775 dwelling units prior to density bonus provisions proposed herein. Including density bonuses for affordable housing, a total of 924 multi-family dwelling units, 50 single-family small-lot dwelling units, and 50,000 square feet of commercial development are proposed in the Existing Zoning Alternative.

The MX-N designation provides for a base density of up to 18 dwelling units per acre plus inclusion of commercial uses. The Existing Zoning Alternative would propose development at the 18 unit per acre level, for a total of 725 units. An additional 27.5% density bonus (199 units) is proposed on the MX-N portion of the site in accordance with State and Local Density Bonus Law, based on the provision of 15% of the units as Low Income Apartments within the MX-N area. The total unit count within the MX-N area would be 924 units, comprised of a mix of rental apartments and for-sale attached dwelling units (averaging approximately 23 units per acre overall). This density can be accomplished within the MX-N height limits and all other City of Santa Clarita zoning regulations applicable to the site. To meet the MX-N criteria for



commercial uses 50,000 square feet of commercial/mixed use buildings are proposed along the 13th and Arch Street frontages. This would retain a similar massing as the EIR Project. Perimeter landscaping would remain similar to the EIR Project.

The NU-5 portion includes approximately 9 acres of land southerly of Placerita Creek, Placerita Creek, and the remaining land extending to the northerly property line. The Existing Zoning Alternative proposes to provide the same Placerita Creek stabilization as the EIR Project. This Alternative would not construct a bridge across Placerita Creek or include any development of the area northerly of Placerita Creek. The NU-5 allowed density would be requested as a Clustered Density planning area, in order to develop the 9-acre area southerly of the creek as a NU-5 overall density cluster site. A total of 50 units of detached residential housing would be included in the NU-5 area southerly of the creek. The NU-5 area would also include a 2.4 acre Park and incorporate trails along the creek and throughout the development area. The area northerly of Placerita Creek would remain as natural open space and could be dedicated to the City of Santa Clarita for open space use.

The Existing Zoning Alternative would not be designated as Job Creation Overlay Zone (JCOZ) project within the zoning classification of Mixed Use – Neighborhood (MX-N). This Alternative provides transit-adjacent housing and various income-level housing opportunities. This Alternative would not propose use of the Metropolitan Water District property, except as may be required at 12th Street to install storm water collection pipelines to eliminate existing drainage deficiencies on 12th Street.

Reduced Studio Project Alternative

This land use Alternative would develop the site as a studio campus but with a reduction of the overall building area and a slightly different combination of studio-related land uses. Table 1 summarizes the proposed Reduced Studio Project Alternative.

The Reduced Studio Project Alternative has the same physical site footprint as the “EIR Project” on the 93.5 acre site. The Reduced Studio Project Alternative remains a state-of-the-art, purpose-built, full-service film and television studio campus capable of accommodating seven or more simultaneous productions at any given time. The Reduced Studio Project Alternative would provide sound stages, workshops and warehouses, production offices and other support facilities. The “Old Newhall” historical architectural character and elevations remain unchanged from the EIR Project. The basic layout of entry and exit gates remains unchanged, as do the public roadway configurations for Arch, 12th, and 13th Streets.

The Reduced campus building area would total approximately 980,000 square feet in multiple use types. The approximate square footage summary is estimated to be 400,000 square feet of sound stages; 396,000 square feet of workshops, warehouses and support uses; 140,000 square feet of production and administrative offices; and 44,000 square feet of flex/catering and other specialty services. The Reduced Studio Project Alternative would retain the “park once” strategy for employees and guests of the studio campus, thereby reducing daily trips generated. The Reduced Studio Project Alternative provides 2,102 parking spaces, meeting the



parking requirements of this plan. Additional spaces would be included to accommodate delivery vans, loading areas, and trailer parking as provided for in the EIR Project plan.

Overall building massing for the Reduced Studio Project Alternative would remain similar to, or only slightly reduced from, the EIR Project. The production support buildings along the railroad corridor would remain at the same height in order to provide an attractive perimeter façade as well as sound attenuation to the sound stages on the interior of the site. The Production Support Buildings would remain unchanged, and the building footprint would remain as-is or potentially extended further to the south, toward the parking structure and office building. The office building massing would remain similar to the EIR Project, with some reduction in total building square footage and potentially only two stories of offices over a ground-level parking area. All other structures would retain similar footprints and massing as the EIR Project.

The Reduced Studio Project Alternative would remain a Job Creation Overlay Zone (JCOZ) project within the zoning classification of Mixed Use – Neighborhood (MX-N) proposed to encompass the entire area southerly of Placerita Creek. The Reduced Studio Project Alternative also requires a General Plan Amendment and requires the same amount of grading as the “EIR Project” on lands owned by the Applicant as well as the Metropolitan Water District property north of Placerita Creek. Employment would be anticipated to be reduced by approximately ten to fifteen percent, thereby still meeting the economic impact objectives of the studio activities. The Reduced Studio Project Alternative retains the Placerita Creek Bridge, north parking lot and oak tree mitigation program anticipated by the EIR Project. The Reduced Studio Project Alternative also includes the potential for utilization of the Metropolitan Water District property as an excess parking field, consistent with the EIR Project site plan and CEQA analysis. Perimeter walls, fencing and perimeter landscaping would remain the same as the EIR Project.

TRIP GENERATION

Existing Zoning -- Residential Alternative Trip Generation

Table 2 shows the trip generation of the Existing Zoning Residential Alternative using the same reference manual as used in the Shadowbox Draft EIR¹.

The residential alternative with 924 medium density dwelling units, 50 single family homes and 50,000 square feet of retail commercial space would generate 8,551 trips per day with 447 of those trips occurring in the morning peak hour and 688 occurring in the afternoon peak hour.

Reduced Studio Trip Generation

Table 3A shows the trip generation of the studio land use alternative studied in the Draft EIR, indicating a daily trip generation of 6,993 trips with 569 morning peak hour trips and 649

¹ *Trip Generation, 11th Edition*, Institute of Transportation Engineers, Washington, D.C., 2021



afternoon peak hour trips. As expected for an employment center, the predominant traffic flow is inbound in the morning and outbound in the afternoon.

Table 3B shows the trip generation for the Reduced Studio Project land use alternative. The land use components of the Reduced Studio alternative are slightly different than the land use plan studied in the Draft EIR but, not surprisingly, the overall trip generation of the Reduced Studio Project is lower than the EIR Studio Plan. The Reduced Studio Project would generate 5,494 trips per day with 440 morning and 511 afternoon peak hour trips.

Trip Generation Comparisons

Tables 4 and 5 compare the trip generation of the two land use alternatives to the EIR Studio Plan.

Table 4 shows that the Existing Zoning Residential Land Use Alternative generates more daily traffic than the studio land use plan studied in the Draft EIR. The Residential plan generates more outbound traffic in the morning peak hour than the EIR Studio Plan, but the overall morning peak hour generation is lower than the EIR Studio Plan. Bear in mind that the outbound background traffic levels are higher in the morning as the residential land uses in the Canyon Area leave the area for work and school. So even though the total traffic levels are less than the EIR Studio Plan, the Existing Zoning Residential Land Use Alternative would actually add to the peak direction of traffic and thus have a potentially higher impact on the street system operations. A similar situation occurs in the afternoon peak hour as the Residential Alternative adds to the peak inbound direction of residential traffic returning to the Canyon.

Table 5 shows that the Reduced Studio Project Alternative generates fewer trips on a daily basis and during both peak hours than does the EIR Studio Plan. Once distributed to the street system, however, the smaller amount of traffic generated by the Reduced Studio Project is likely not enough smaller to change the roadway requirements or the overall effects of the EIR Studio Plan.

**TABLE 2
RESIDENTIAL ALTERNATIVE ANALYSIS
TRIP GENERATION ESTIMATES**

Land Use	ITE Land Use	Size	Weekday						
			Daily	Morning Peak Hour			Afternoon Peak Hour		
				In	Out	Total	In	Out	Total
<u>Trip Generation Rates [a]</u>									
Multifamily Housing (Low-Rise)	220	per du	6.74	24%	76%	0.40	63%	37%	0.51
Single-Family Detached Housing	210	per du	9.43	26%	74%	0.70	63%	37%	0.94
Shopping Center	820	per ksf	37.01	62%	38%	0.84	48%	52%	3.40
<u>Proposed Project</u>									
Multifamily Housing (Low-Rise)	220	924 du	6,228	89	281	370	297	174	471
Single-Family Detached Housing	210	50 du	472	9	26	35	30	17	47
Shopping Center	820	50,000 ksf	1,851	26	16	42	82	88	170
Total - Net New Project Trips			8,551	124	323	447	409	279	688

Notes

du: dwelling unit, ksf: 1,000 square feet

[a] Source: *Trip Generation, 11th Edition*, Institute of Transportation Engineers, 2021.

**TABLE 3B
REDUCED STUDIO PROJECT ALTERNATIVE -- TRIP GENERATION ESTIMATES**

TRIP GENERATION RATES									
Land Use	ITE Land Use	Size	Daily	Morning Peak Hour			Afternoon Peak Hour		
				In	Out	Total	In	Out	Total
Stage	[a]	per 1,000 sf	5.91	63%	37%	0.20	40%	60%	0.43
Support [b]	[a]	per 1,000 sf	4.14	65%	35%	0.61	45%	55%	0.57
Production Office	[a]	per 1,000 sf	9.34	62%	38%	0.66	45%	55%	0.63

TRIP GENERATION ESTIMATES									
Land Use	ITE Land Use	Size	Daily	Morning Peak Hour			Afternoon Peak Hour		
				In	Out	Total	In	Out	Total
<u>Proposed Project</u>									
Stage	[a]	400 ksf	2,364	50	30	80	69	103	172
Support [b]	[a]	440 ksf	1,822	174	94	268	113	138	251
Production Office	[a]	140 ksf	1,308	57	35	92	40	48	88
Gross Project Trips			5,494	281	159	440	222	289	511
TOTAL - NET NEW PROJECT TRIPS			5,494	281	159	440	222	289	511

Notes

ksf: 1,000 square feet

[a] Rate based on empirical rate from *Transportation Study for the NBC Universal Evolution Plan Environmental Impact Report*, Gibson Transportation Consulting, Inc. and Raju Associates, Inc., March 2010.

[b] Includes 44,000 sf of catering space