

Appendix B

Technical Appendix for Air Quality and Greenhouse Gas Emissions

Angels Landing

Draft EIR – Appendix B

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Appendix B-1-Air Quality and Greenhouse Gas
Emissions Methodology

AIR QUALITY AND GREENHOUSE GAS EMISSIONS METHODOLOGY

Angels Landing

Prepared by:

Eyestone Environmental, LLC

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Angels Landing Project

Air Quality and Greenhouse Gas Emissions Methodology

1. Introduction

Eyestone Environmental has been retained to conduct a comprehensive greenhouse gas (GHG) and criteria air pollutant emissions assessment for the Angels Landing Project (the “Project”). Emissions during both construction and operation of the Project were quantified. This assessment describes the methodology used to estimate the GHG and air pollutant emissions from existing and Project conditions and describes the methodology used to quantify GHG and air pollutant emission reductions from project design features and mitigation measures.

2. Air Pollutant and Greenhouse Gas Emissions Methodology

The Project would result in direct emissions of criteria pollutants and direct and indirect GHG emissions generated by different types of emissions sources, including:¹

- Direct Emissions:
 - Construction: emissions associated with demolition of existing uses, shoring, excavation, grading, and construction-related equipment and vehicular activity;
 - Area source: emissions associated with consumer products, architectural coatings, and landscape equipment;
 - Energy source (building operations): emissions associated with space heating and cooling, and water heating;

¹ Direct sources of emissions include Project-related vehicular trips and onsite combustion of fossil fuels (e.g., natural gas, propane, gasoline, and diesel). Whereas, indirect sources of emissions include offsite emissions associated with purchased electricity and embodied energy (e.g., energy used to convey, treat, and distribute water and wastewater)

- Mobile source: emissions associated with vehicles accessing the project site; and
- Stationary source: emissions associated with stationary equipment (e.g., emergency generators).
- Indirect Emissions:
 - Energy source (building operations): emissions associated with energy consumption, and lighting;
 - Solid Waste: emissions associated with the decomposition of the waste, which generates methane based on the total amount of degradable organic carbon; and
 - Water/Wastewater: emissions associated with energy used to pump, convey, deliver, and treat water.

a. Emission Inventories

Project-related construction and operation emissions were calculated using SCAQMD's recommended California Emissions Estimator Model (CalEEMod). CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions associated with both construction and operations from a variety of land use projects. CalEEMod was developed in collaboration with the air districts of California. Data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) have been provided by the various California air districts to account for local requirements and conditions. The model is considered by the SCAQMD to be an accurate and comprehensive tool for quantifying criteria pollutant and GHG impacts from land use projects throughout California.²

CalEEMod utilizes widely accepted models for emission estimates combined with appropriate default data that can be used if site-specific information is not available. These models and default estimates use sources such as the USEPA AP-42 emission factors, CARB's on-road emission model (EMission FACtor model (EMFAC)) and off-road equipment emission model (Off-road Emissions Inventory Program model (OFFROAD)).

² See www.caleemod.com.

(1) Construction

Construction activities would generate emissions from off-road equipment usage, on-road vehicle travel (truck hauling, vendor deliveries, and workers commuting), architectural coating, and paving. Each of these source types is discussed in more detail below. The Project's construction emissions were calculated using the SCAQMD recommended CalEEMod (Version 2016.3.2). Please refer to CalEEMod construction output files for a complete listing of construction details modeled. CalEEMod default values were used for equipment and vehicle emission factors, equipment load factors and vehicle trip lengths. It should be noted that the maximum daily emissions were predicted values for the worst-case day and do not represent the emissions that would occur for every day of Project construction. The maximum daily emissions were compared to the SCAQMD daily regional numeric indicators. Annual emissions were calculated based on the total number of hours each piece of equipment was used and the total number of vehicular trips (i.e., worker, vendor, and haul) over the duration of construction. In accordance with the SCAQMD's guidance, GHG emissions from construction were amortized over the lifetime of the Project. The SCAQMD defines the lifetime of a project as 30 years.³ Therefore, total construction GHG emissions were divided by 30 to determine an annual construction emissions estimate comparable to operational emissions.

(a) Emissions from Construction Equipment

The emission calculations associated with construction equipment are from off-road equipment engine use based on the equipment list and phase length. Since the majority of the off-road construction equipment used for construction projects are diesel fueled, CalEEMod assumes all of the equipment operates on diesel fuel. Construction equipment emissions vary with engine model years in which newer equipment will emit fewer pollutants. As a conservative assumption, the CalEEMod model uses an emission rate for equipment which represents an average model year for available equipment within the Air Basin. CalEEMod calculates the exhaust emissions based on CARB OFFROAD methodology using the equation presented below.

Construction Off-Road Equipment:

$$\text{Emissions Diesel [lbs]} = \left(\sum_i (\text{EF}_i \times \text{Pop}_i \times \text{AvgHP}_i \times \text{Load}_i \times \text{Activity}_i) \right)$$

Where: EF_i = Emission factor from OFFROAD (lbs/hr)
 Pop_i = Population (quantity of same equipment)

³ SCAQMD, *Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans*, 2008.

AvgHP_i = Maximum rated average horsepower (hp)

Load_i = Load Factor (dimensionless)

Activity_i = Hours of operation (hours)

i = Summation index

Fugitive dust emissions from use of off-road equipment were also calculated using CalEEMod based on the types of equipment used during grading activities and based on the amount of import/export from loading or unloading dirt into haul trucks. These methods have been adapted from USEPA's AP-42 method for Western Coal Mining. As recommended by SCAQMD, the fugitive dust emissions from the grading phase are calculated using the methodology described in USEPA AP-42. PM₁₀ and PM_{2.5} emissions from fugitive dust will be controlled by watering the construction site three times a day consistent with SCAQMD Rule 403 and were estimated to be reduced by 61 percent.

(b) Emissions from On-Road Trips

Construction generates on-road vehicle exhaust, evaporative, and dust emissions from personal vehicles for worker commuting, vendor deliveries, and trucks for soil and material hauling. These emissions are based on the number of trips and VMT along with emission factors from EMFAC. The emissions from mobile sources were calculated with the trip rates, trip lengths and emission factors for running from EMFAC as follows:

Construction On-Road Equipment:

$\text{Emissions pollutant (lbs)} = \text{VMT} * \text{EF running, pollutant}$

Where: VMT = vehicle miles traveled (miles)

$\text{EF running, pollutant} = \text{emission factor for running emissions (lbs/VMT)}$

Evaporative emissions, starting and idling emissions in CalEEMod were calculated by multiplying the number of trips times the respective emission factor for each pollutant.

(c) Emissions from Architectural Coating

VOC off-gassing emissions result from evaporation of solvents contained in surface coatings. CalEEMod calculates the VOC evaporative emissions from application of residential and non-residential surface coatings using the following equation:

Construction Architectural Coating Emissions:

$$\text{Emissions Architectural Coatings (lbs)} = \text{EF}_{\text{AC}} \times F \times A_{\text{paint}}$$

Where: EF_{AC} = Emission Factor (lb/sf)

A_{paint} = Building Surface Area (sf)

The CalEEMod tool assumes the total surface for painting equals 2.7 times the floor square footage for residential and 2 times that for nonresidential square footage. All of the land use information provided by a metric other than square footage will be converted to square footage using the default conversions or user defined equivalence.

F = fraction of surface area [%].

The default values based on SCAQMD methods used in their coating rules are 75 percent for the interior surfaces and 25 percent for the exterior shell. Parking areas are based on 6-percent coverage.

The emission factor (EF) is based on the VOC content of the surface coatings and is calculated estimated using the equation below:

$$\text{EF}_{\text{AC}} = C_{\text{VOC}} / 454 (\text{g/lb}) \times 3.785 (\text{L/gal}) / 180 (\text{sf})$$

Where: EF = emission factor (lb/sf)

C = VOC content (g/L or gram per liter)

The emission factors for coating categories were calculated using the equation above based on default VOC content from provided by the air districts or CARB's statewide limits in CalEEMod. Architectural coating VOC emission factors are also consistent with SCAQMD Rule 1113 as discussed above.

(d) Emissions from Paving

CalEEMod estimates VOC off-gassing emissions associated with asphalt paving of parking lots using the following equation:

$$\text{Emissions}_{\text{AP}} (\text{lbs}) = \text{EF}_{\text{AP}} \times A_{\text{parking}}$$

Where: EF = emission factor (lb/acre)

A = area of the parking lot (acre)

Note: The Sacramento Metropolitan Air Quality Management District (SMAQMD) default emission factor is 2.62 lb/acre.

(2) Operation

Similar to construction, the SCAQMD-recommended CalEEMod was used to calculate potential emissions generated by the Project, including area source, energy sources (electricity and natural gas), mobile source, stationary sources (emergency generator), solid waste generation and disposal, and water usage/wastewater generation.

(3) Area Source Emissions

Area source emissions were calculated using the CalEEMod emissions inventory model, which includes consumer products, architectural coatings, and landscape maintenance equipment. Pollutant emissions generated by the Project were calculated using CalEEMod defaults, based upon the land uses that will be included in each project.

Consumer products are chemically formulated products used by household and institutional consumers, including, but not limited to, detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products; but does not include other paint products, furniture coatings, or architectural coatings. SCAQMD did an evaluation of consumer product use compared to the total square footage of buildings using data from CARB consumer product Emission Inventory. To calculate the VOC emissions from consumer product use, the following equation was used in CalEEMod:

Emissions Consumer Products (lbs) = $EF_{CP} \times \text{Building Area}$

Where:

EF_{CP} = pounds of VOC per building square foot

The factor is 1.98×10^{-5} lbs/sf for SCAQMD areas.

Building Area = the total square footage of all buildings including residential square footage

VOC off-gassing emissions result from evaporation of solvents contained in surface coatings such as in paints and primers. The operational emission methodology from architecture coating is the same as the construction methodology discussed above. All land

use buildings are assumed to be repainted at a rate of 10 percent of area per year. This is based on the assumptions used by SCAQMD.

The combustion of fossil fuels to operate landscape equipment such as lawnmowers and trimmers, results in pollutant emissions. The emissions occur on-site and are considered a direct source of pollutant emissions. The emissions for landscaping equipment are based on the size of the land uses, the pollutant emission factors for fuel combustion. Pollutant emissions from landscaping equipment are generally calculated in CalEEMod as follows:

Landscaping Equipment:

$$\text{Landscaping Equipment Emissions [lbs]} = (\sum_i (\text{Units} \times \text{EF}_{\text{LE}} \times \text{A}_{\text{LE}})_i)$$

Where: Units = Number of land use units (same land use type) [1,000 sf]

EF_{LE} = Emission factor [grams (g)/1,000 sfday]

i = Summation index

Note: For residential land uses, emission factors are specified in units of dwelling units (DU) instead of 1,000 sf.

(4) Energy Emissions (Electricity and Natural Gas)

Pollutant emissions are emitted as a result of activities in buildings when electricity and natural gas are used as energy sources. Combustion of any type of fuel emits pollutant emissions directly into the atmosphere; when this occurs in a building, it is a direct emission source associated with that building. Pollutant emissions are also emitted during the generation of electricity from fossil fuels. When electricity is used in a building, the electricity generation typically takes place off-site at the power plant; electricity use in a building generally causes emissions in an indirect manner.

Energy demand emissions were calculated using the CalEEMod emissions inventory model. Energy use in buildings is divided into energy consumed by the built environment and energy consumed by uses that are independent of the construction of the building such as in plug-in appliances. CalEEMod calculates energy use from systems covered by Title 24 Building Energy Efficiency Standards (e.g., heating, ventilation, and air conditioning [HVAC] system, water heating system, and lighting system); energy use from lighting; and energy use from office equipment, appliances, plug-ins, and other sources not covered by Title 24 or lighting.

CalEEMod energy demand is based on the California Energy Commission (CEC) sponsored California Commercial End Use Survey (CEUS) study.⁴ The data is specific for climate zones and, therefore, Zone 11 was selected for the Project Site based on the ZIP Code tool. CalEEMod currently assumes 2016 Title 24 Energy Efficiency Standards when calculating project energy usage. In order to account for 2019 Title 24 Energy Efficiency Standards, energy consumption was conservatively assumed to be 10 percent more efficient than the 2016 Building Energy Efficiency Standards requirements.

(a) Electricity

Because power plants are existing stationary sources permitted by air districts and/or the USEPA, criteria pollutant emissions are generally associated with the power plants themselves, and not individual buildings or electricity users. Additionally, criteria pollutant emissions from power plants are subject to local, state, and federal control measures, which can be considered to be the maximum feasible level of mitigation for stack emissions. In contrast, GHG emissions from power plants are not subject to stationary source permitting requirements to the same degree as criteria pollutants. As such, GHGs emitted by power plants may be indirectly attributed to individual buildings and electricity users, who have the greatest ability to decrease usage by applying mitigation measures to individual electricity “end uses.” CalEEMod therefore calculates GHG emissions (but not criteria pollutant emissions) from regional power plants associated with building electricity use.

Emissions associated with electricity demand are based on the size of the residential, commercial and retail land uses, the electrical demand factors for the land uses, the emission factors for the electricity utility provider, and the GWP values for the GHGs emitted. Annual electricity GHG emissions in units of MTCO₂e are calculated as follows:

⁴ CEC, *Commercial End-Use Survey*, March 2006.

Electricity:

$$\text{Annual Emissions [MTCO}_2\text{e]} = (\sum_i (\text{Units} \times D_E \times EF_E \times \text{GWP})_i) \div 2,204.62$$

Where: Units = Number of land use units (same land use type) [1,000 sf]
D_E = Electrical demand factor [megawatt-hour (MWh)/1,000 sf/yr]
EF_E = GHG emission factor [pounds per megawatt-hour (MWh)]
GWP = Global warming potential [CO₂ = 1, CH₄ = 21, N₂O = 310]
2,204.62 = Conversion factor [pounds/MT]
i = Summation index

Note: For residential land uses, emission factors are specified in units of dwelling units (DU) instead of 1,000 sf.

GHG emissions from electricity use are directly dependent on the electricity utility provider. The Los Angeles Department of Water and Power (LADWP) provides electric service to the Project Site. Thus, GHG intensity factors for LADWP were selected in CalEEMod. Intensity factors for GHGs due to electrical generation to serve the electrical demands of the existing condition were obtained from the LADWP 2017 Power Integrated Resource Plan, which provides a CO₂ intensity of 801 pounds of CO₂ per MWh for 2019. By 2030, at least 50 percent of electricity shall be obtained from renewable sources. The 2016 Power Integrated Resource Plan estimates that the LADWP CO₂ intensity would be 500 pounds of CO₂ per MWh by Year 2026.⁵ As year-by-year data is currently not available, the CO₂ intensity factor for the Project buildout was determined based on straight line extrapolation based on current and Year 2026 data points (801 pounds of CO₂ per MWh for Year 2019 and 500 pounds of CO₂ per MWh for Year 2026).

(b) Natural Gas

The direct source emissions associated with natural gas combustion are based on the size of the land uses and the natural gas combustion factors for the land uses in units of million British thermal units (MMBtu). Natural gas emissions are calculated in CalEEMod as follows:

⁵ 2016 Final Power Integrated Resource Plan, Figure 4-7. LADWP. December 2016.

Natural Gas:

$$\text{Natural Gas Emissions (lbs)} = (\sum_i (\text{Units} \times D_{\text{NG}} \times EF_{\text{NG}})_i)$$

Where: Units = Number of land use units (same land use type) [1,000 sf]
D_{NG} = Natural Gas combustion factor [MMBtu/1,000 sf]
EF_{NG} = Natural Gas combustion factor [pounds/MMBtu]
/ = Summation index

Note: For residential land uses, emission factors are specified in units of dwelling units (DU) instead of 1,000 sf.

(5) Mobile Source Emissions

Mobile-source emissions were calculated using the CalEEMod emissions inventory model. CalEEMod calculates the emissions associated with on-road mobile sources associated with residents, employees, visitors, and delivery vehicles visiting the Project Site based on the number of daily trips generated and vehicle miles traveled (VMT). The Traffic Study prepared by Gibson Transportation Consulting had calculated Project VMT which was entered into CalEEMod in calculating Project mobile source emissions.

Modeling was also conducted using the Los Angeles County vehicle fleet mix for all vehicle types as provided in EMFAC2014.

Mobile source emissions were generally calculated in CalEEMod as follows:

Mobile:

$$\text{Mobile Emissions [lbs]} = (\sum_i (\text{Units} \times \text{ADT} \times D_{\text{TRIP}} \times EF_i))$$

Where: Units = Number of vehicles (same vehicle model year and class)
ADT = Average daily trip rate [trips/day]
D_{TRIP} = Trip distance [miles/trip]
EF = Pollutant emission factor [pounds per mile]
i = Summation index

Note: For residential land uses, emission factors are specified in units of dwelling units (DU) instead of 1,000 sf.

Mobile source operational emissions were calculated based on the Project VMT estimates provided by Gibson Transportation Consulting.⁶ As discussed in Section IV.G, Transportation, of this Draft EIR, to calculate peak daily trip estimates, the Los Angeles Department of Transportation (LADOT) VMT Calculator was used.

Previously, trip generation for land uses was calculated based on survey data collected by the Institute of Transportation Engineers (ITE). However, these ITE trip generation rates were based on data collected at suburban, single-use, free standing sites, which may not be representative of urban mixed-use environments. Beginning in 2019, the USEPA has sponsored a study to collect travel survey data from mixed-use developments in order provide a more representative trip generation rate for multi-use sites. Results of the USEPA survey indicate that trip generation and VMT are affected by factors such as resident and job density, availability of transit, and accessibility of biking and walking paths. Based on these factors, the USEPA has developed equations known as the EPA Mixed-Use Development (MXD) model to calculate trip reductions for multi-use developments.⁷ The LADOT VMT Calculator incorporates the USEPA MXD model and accounts for project features such as increased density and proximity to transit, which would reduce VMT and associated fuel usage in comparison to free-standing sites.

The Project design includes characteristics that would reduce trips and VMT as compared to a standard project within the air basin as measured by the air quality model (CalEEMod). While these Project characteristics primarily reduce greenhouse gas emissions, they would also reduce criteria air pollutants discussed herein. These relative reductions in vehicle trips and VMT from a standard project within the air basin help quantify the criteria air pollutant emissions reductions achieved by locating the Project in any infill, HQT area that promotes alternative modes of transportation. A ratio of ITE trip generation rates for weekend and weekday scenarios was used to estimate Project VMT during weekend conditions.

(6) Stationary Source (Emergency Generator Emissions)

Emissions of GHGs associated with use of emergency generators were calculated using CalEEMod, in which emission factors are based on Table 3.4-1 (Gaseous Emission Factors for Large Stationary Diesel Engines) from EPA's AP-42: Compilation of Air Pollutant Emission Factors. The emissions are based on the horsepower rating of the

⁶ *Transportation Impact Study for the Angels Landing Project, Gibson Transportation Consulting. January 2020.*

⁷ *Environmental Protection Agency, Mixed-Use Trip Generation Model. www.epa.gov/smartgrowth/mixed-use-trip-generation-model. Accessed December 16, 2019.*

diesel generator and the number of hours operated per year for testing purposes. Annual emergency generator GHG emissions in units of MTCO₂e were calculated as follows:

Emergency Generator:

$$\text{Emissions [lbs]} = (\text{Total HP} \times \text{LF} \times \text{HR} \times \text{EF})$$

Where: Total HP = Total horsepower of emergency generators (Hp)

LF = Load Factor (CalEEMod default of 0.73)

HR = Hours Operated per Year

EF = AP-42 Emission Factor of 1.16 lb/hp-hr)

(7) Solid Waste Emissions

The generation of municipal solid waste (MSW) from day-to-day operational activities generally consists of product packaging, grass clippings, furniture, clothing, bottles, food scraps, newspapers, plastic, and other items routinely disposed of in trash bins. A portion of the MSW is diverted to waste recycling and reclamation facilities. Waste that is not diverted is usually sent to local landfills for disposal. MSW that is disposed in landfills results in GHG emissions of CO₂ and CH₄ from the decomposition of the waste that occurs over the span of many years.

Emissions of GHGs associated with solid waste disposal were calculated using the CalEEMod emissions inventory model. The emissions are based on the size of the retail and restaurant land uses, the waste disposal rate for the land uses, the waste diversion rate, the GHG emission factors for solid waste decomposition, and the GWP values for the GHGs emitted. Annual waste disposal GHG emissions in units of MTCO₂e were calculated in CalEEMod as follows:

Solid Waste:

$$\text{Annual Emissions [MTCO}_2\text{e]} = (\sum_i (\text{Units} \times D_{\text{MSW}} \times EF_{\text{MSW}} \times \text{GWP})_i) \div 1.1023$$

Where: Units = Number of land use units (same land use type) [1,000 sf]

D_{MSW} = Waste disposal rate [tons/1,000 sf/yr]

EF_{MSW} = GHG emission factor [tons/ton waste]

GWP = Global warming potential [CO_2 = 1, CH_4 = 21, N_2O = 310]

1.1023 = Conversion factor [tons/MT]

i = Summation index

Note: For residential land uses, emission factors are specified in units of dwelling units (DU) instead of 1,000 sf.

CalEEMod allows the input of several variables to quantify solid waste emissions. The model requires the amount of waste disposed, which is the product of the waste disposal rate times the land use units. CalEEMod default annual solid waste disposal rates used. The GHG emission factors, particularly for CH_4 , depend on characteristics of the landfill, such as the presence of a landfill gas capture system and subsequent flaring or energy recovery. The default values, as provided in CalEEMod, for landfill gas capture (e.g., no capture, flaring, energy recovery), which are statewide averages, were used in this assessment. The Project includes a 76.4-percent recycling/diversion rate currently achieved within the City.⁸

(8) Water Usage and Wastewater Generation Emissions

GHG emissions are related to the energy used to convey, treat, and distribute water and wastewater. Thus, these emissions are generally indirect emissions from the production of electricity to power these systems. Three processes are necessary to supply potable water and include: (1) supply and conveyance of the water from the source; (2) treatment of the water to potable standards; and (3) distribution of the water to individual users. After use, energy is used as the wastewater is treated and reused as reclaimed water.

Emissions related to water usage and wastewater generation were calculated using the CalEEMod emissions inventory model. The emissions are based on the size of the

⁸ City of Los Angeles, *Sustainable City pLAN, Waste & Landfills*, <http://plan.lamayor.org/portfolio/waste-landfills-3rd>, accessed February 21, 2019.

land uses, the water demand factors, the electrical intensity factors for water supply, treatment, and distribution and for wastewater treatment, the GHG emission factors for the electricity utility provider, and the GWP values for the GHGs emitted. CalEEMod default annual water demand and wastewater rates were used. GHG emissions due to electricity are calculated in CalEEMod as follows for indoor and outdoor water demand:

Water Supply, Treatment, and Distribution; Wastewater Treatment (electricity):

$$\text{Annual Emissions [MTCO}_2\text{e]} = (\sum_i (\text{Units} \times D_w \times (\text{El}_w \div 1,000) \times \text{EF}_w \times \text{GWP})_i) \div 2,204.62$$

Where:	Units	= Number of land use units (same land use type) [1,000 sf]
	D_w	= Water demand factor [million gallons (Mgal)/1,000 sf/yr]
	El_w	= Electricity intensity factor [kilowatt-hours (kWh)/Mgal]
	1,000	= Conversion factor [kWh/MWh]
	EF_w	= GHG emission factor [pounds/MWh]
	GWP	= Global warming potential [$\text{CO}_2 = 1$, $\text{CH}_4 = 21$, $\text{N}_2\text{O} = 310$]
	2,205	= Conversion factor [pounds/MT]
	i	= Summation index

Note: For residential land uses, emission factors are specified in units of dwelling units (DU) instead of 1,000 sf.

CalEEMod provides options to account for the use of water saving features such as the use of low-flow water fixtures (e.g., low-flow faucets, low-flow toilets). The same electricity GHG emissions factors discussed above were used for water and wastewater energy usage. In addition, the calculation of Project GHG emissions from water/wastewater usage accounts for a 20 percent reduction in water/wastewater emissions with implementation of Project Design Features WAT-PDF-1 provided in Section IV.I.1, Utilities and Service Systems—Water Supply and Infrastructure, of this Draft EIR.

b. Post-2030 Analysis

Recent studies show that the State's existing and proposed regulatory framework will put the State on a pathway to reduce its GHG emissions level to 40 percent below 1990 levels by 2030, and to 80 percent below 1990 levels by 2050 if additional appropriate

reduction measures are adopted.⁹ Even though these studies did not provide an exact regulatory and technological roadmap to achieve the 2030 and 2050 goals, they demonstrated that various combinations of policies could allow the Statewide emissions level to remain very low through 2050.

Subsequent to the findings of these studies, SB 32 was passed on September 8, 2016, which would require the State board to ensure that Statewide GHG emissions are reduced to 40 percent below the 1990 level by 2030. The new plan outlined in SB 32 involves increasing renewable energy use, imposing tighter limits on the carbon content of gasoline and diesel fuel, putting more electric cars on the road, improving energy efficiency, and curbing emissions from key industries. An evaluation was provided to determine whether the Project's design features advanced these goals by reducing VMT, increasing the use of electric vehicles, improving energy efficiency and reducing water usage.

Further, an evaluation of the Project's consistency with SCAG's RTP/SCS was provided to demonstrate that the Project will be consistent with post-2020 GHG reduction goals. In March 2018, CARB adopted updated targets requiring a 19-percent decrease in per capita passenger vehicle GHG emissions for the SCAG region by 2035. The 2020-2045 RTP/SCS is expected to fulfill and exceed SB 375 compliance with respect to meeting the State's GHG emission reduction goals.

⁹ Energy and Environmental Economics (E3). "Summary of the California State Agencies' PATHWAYS Project: Long-term Greenhouse Gas Reduction Scenarios" (April 2015); Greenblatt, Jeffrey, Energy Policy, "Modeling California Impacts on Greenhouse Gas Emissions" (Vol. 78, pp. 158–172). The California Air Resources Board, California Energy Commission, California Public Utilities Commission, and the California Independent System Operator engaged E3 to evaluate the feasibility and cost of a range of potential 2030 targets along the way to the state's goal of reducing GHG emissions to 80 percent below 1990 levels by 2050. With input from the agencies, E3 developed scenarios that explore the potential pace at which emission reductions can be achieved, as well as the mix of technologies and practices deployed. E3 conducted the analysis using its California PATHWAYS model. Enhanced specifically for this study, the model encompasses the entire California economy with detailed representations of the buildings, industry, transportation and electricity sectors.

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Angels Landing
Air Quality Emissions Summary

AQ SUMMARY OF EMISSIONS															
Construction Emissions (Unmitigated)							Construction Emissions (With Mitigation Measures) ^a								
Regional (Daily) Unmitigated	ROG	NO _x	CO	SO2	PM ₁₀	PM _{2.5}	Regional (Daily) w/MMs	ROG	NO _x	CO	SO2	PM ₁₀	PM _{2.5}		
	2022	8	164	73	0	32		10	2022	3	82	63	<1	1	<1
	2023	8	124	78	0	15		5	2023	3	82	72	<1	<1	<1
	2024	7	46	68	0	12		4	2024	7	46	68	<1	12	4
	2025	42	44	71	0	13		5	2025	42	44	71	<1	13	5
	2026	42	52	77	<1	14		5	2026	42	52	77	<1	14	5
	MAX	42	164	78	<1	32		10	MAX	42	82	77	<1	14	5
	Threshold	75	100	550	150	150		55	Threshold	75	100	550	150	150	55
	Difference	(33)	64	(472)	(150)	(118)		(45)	Difference	(33)	(18)	(473)	(150)	(136)	(50)
Impact	No	Yes	No	No	No	No	Impact	No	No	No	No	No	No		
							Percent Reduction: 0% -50% 0% -14% -57% -49%								
Localized (Daily) Unmitigated	ROG	NO _x	CO	SO2	PM ₁₀	PM _{2.5}	Localized (Daily) w/MMs	ROG	NO _x	CO	SO2	PM ₁₀	PM _{2.5}		
	2022	5	50	39	<1	3		2	2022	2	12	56	<1	<1	<1
	2023	5	46	47	<1	3		2	2023	2	12	65	<1	<1	<1
	2024	4	31	40	<1	1		1	2024	7	46	68	<1	12	4
	2025	38	29	40	<1	1		1	2025	42	44	71	<1	13	5
	2026	38	36	48	<1	2		1	2026	42	52	77	<1	14	5
	MAX		50	48	<1	3		2	MAX		52	77		14	5
	Threshold		61	1061		8		5	Threshold		61	1061		8	5
	Difference		(11)	(1,013)		(5)		(3)	Difference		(9)	(984)		6	0
Impact		No	No		No	No	Impact		No	No		Yes	Yes		
							Percent Reduction: 4% 61% 320% 110%								
Operation Emissions (With Project Design Features)															
Regional Buildout (Buildout Year)	ROG	NO _x	CO	SO2	PM ₁₀	PM _{2.5}									
	Area	29	3	37	<1	<1								<1	
	Energy	<1	6	5	<1	<1								<1	
	Mobile	9	39	98	<1	37								10	
	Emergency Generator	<1	<1	1	<1	<1								<1	
	Total	39	49	141	<1	38								11	
Project Localized (Buildout Less Baseline (Buildout Year))	Threshold	55	55	550	150	150	55								
	Difference	(16)	(6)	(409)	(150)	(112)	(44)								
	Impact	No	No	No	No	No	No								
	Onsite Total	9	43		<1	<1									
	Threshold	61	1061		2	2									
	Difference	(52)	(1018)		(2)	(1)									
Impact	No	No		No	No										

^a Please refer to CalEEMod output "Angels Landing-Construction Onsite Only Mitigated for Excavation and Utilities" which takes into account EPA Tier 4 mitigation
Please refer to Heavy Duty Diesel Truck Emissions Calculations for mitigation requiring Year 2007 and newer trucks.

Step 1. Determine Allowable Increase using 98th percentile NO2 and Max NO2 data

Central LA NO2 Monitoring Data

SRA	City	Design Value	98th percentile, ppb			
		2014-2016	2013	2014	2015	2016
1	Central LA	65		67	62	65
SRA	City	Design Value	Max Hourly, ppb			
		2006-2008	2013	2014	2015	2016
1	Central LA	120		82	79	65

Threshold (ppb) Allowable Increase (ppb)
100 35

Threshold (ppb) Allowable Increase (ppb)
180 60

Max Hourly vs. 98th Percentile Ratio (Allowable Increase)	59%
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Step 2. Use ratio in Step 1 to determine LST lookup value. Extrapolate/Interpolate LST look-up value for project area

LST Threshold (SRA 1, 25 meter receptor)

Project Size (acres)	NO2 (lbs/day)	98th Percentile NO2 (lbs/day)	CO (lbs/day)	PM10 (lbs/day)	PM2.5 (lbs/day)	PM10 Ops (lbs/day)	PM2.5 Ops (lbs/day)
1	74	43	680	5	3	2	1
2	108	63	1048	8	5	2	2
5	161	94	1861	16	8	4	2
2.2	105	61	1061	8	5	2	2

<----Interpolated Value

Angels Landing

Air Quality Analysis Assumptions

Construction Details		Start Date	End Date	Duration (Months)	Days	Max Daily Employee Trips	Max Daily Hauls (x2 for Trips)	Total Hauls (x2 for Trips) for CalEEMod Input	Total Hauls Based on Quantity Hauled (x2 for Trips)	Max Daily Deliveries (x2 for Trips)
Construction Details		9/1/2022	6/1/2026	45	978					
Demolition		9/1/2022	9/30/2022	1	22	30	40	880	250	
Site Preparation		10/1/2022	10/31/2022	1	21	20	20	420	20	
Grading/Excavation		11/1/2022	6/30/2023	8	174	45	210	36,540	27,833	
Drainage/Utilities/Trenching		6/1/2023	6/30/2023	1	22	8	Incuded in Grading/Excavation			5
Mat Foundation		7/1/2023	7/11/2023	0	7	50				199
Building Construction (Subterranean Parking up to Podium Level)		7/12/2023	9/30/2023	3	58	100				50
Building Construction		10/1/2023	6/30/2026	33	717	850				92
Paving/Landscape		1/1/2026	6/30/2026	6	129	13				10
Architectural Coatings		6/1/2025	6/30/2026	13	282	132				
Site Acreage										
		5.50								
Demolition Quantities										
Square Footage		7,500								
Tons of Debris		250								
Import/Export Quantities during Grading		(CY)								
Import										
Export (70 feet excavation)		334,000								
One-way Distance to Landfill (miles)										
Irwindale Landfill		24								
Mat Footing (Concrete)										
Concrete (total cy)		15,300								
Seven Pours (cy)		2,186								
Number of Deliveries (11 cy per load)		199								
Foundation (Concrete)		(CY)								
Concrete		136,656								

Note: Total hauls for Peak Daily CalEEMod input require peak daily haul trips x days of

Note: Total hauls for Peak Daily CalEEMod input require peak daily haul trips x days of

Equipment									
	Demo	Site Preparation	Grading/Excavation	Drainage/Utilities/Trenching	Mat Foundation	Building Construction (to Podium Level)	Building Construction	Paving/Landscape	Architectural Coatings
Air Compressor	1	1			2	2	3	1	
Aerial Lift									
Bore/Drill Rig			2						
Cement and Mortar Mixers									
Concrete/Industrial Saws	1								
Cranes (Tower)									
Cranes (Mobile)			1		1	1	1		
Crawler Tractors	1	1	2						
Crushing/Proc. Equipment	1								
Dumpers / Tenders	1	1	1	1	2	2	2		
Excavators	1	1	3	1					
Forklifts									
Generator Sets	1		1		2	2	2		
Graders									
Off-Highway Tractors									
Water Truck									
Pavers									
Paving Equipment									
Pumps			1				2		
Plate Compactors		2	2		1	1	4		
Rollers								1	
Rough Terrain Forklifts			1	1	2	2	4		
Rubber Tired Dozers	3								
Rubber Tired Loaders			2						
Scrapers									
Signal Boards								1	
Skid Steer Loaders		1	1						
Surfacing Equipment								2	
Sweeper / Scrubbers		1	1						
Tractors/Loaders/Backhoes	3	1	1		3	3	1		
Trenchers				1			1		
Welders					1	1	1		
Other ()									
Total Pieces	13	9	19	4	14	14	21	5	0

Angels Landing-Construction Regional - Los Angeles-South Coast County, Winter

Angels Landing-Construction Regional Los Angeles-South Coast County, Winter

Note: Construction regional emissions shown in this CalEEMod output does not take into account mitigation measures including EPA Tier 4 emissions compliant equipment and use of 2007 and newer trucks

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	750.00	Space	0.00	300,000.00	0
High Turnover (Sit Down Restaurant)	41.63	1000sqft	0.00	41,625.00	0
Hotel	515.00	Room	0.00	470,117.00	0
Condo/Townhouse High Rise	432.00	Dwelling Unit	5.50	726,942.00	1236
Strip Mall	30.47	1000sqft	0.00	30,466.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2026
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot Acreage: Updated to reflect Project acreage.

Hotel: Square footage revised to reflect Project Description (Table II-1).

Construction Phase - Construction Schedule Updated to Reflect Project Specific Schedule

Off-road Equipment - Site Specific Architectural Coating List of Equipment

- Off-road Equipment - Site Specific Building Construction List of Equipment
- Off-road Equipment - Site Specific Building Construction (Up to Podium Level) List of Equipment
- Off-road Equipment - Site Specific Demolition List of Equipment
- Off-road Equipment - Site Specific Grading/Excavation List of Equipment
- Off-road Equipment - Site Specific Mat Foundation List of Equipment
- Off-road Equipment - Site Specific Paving/Landscape List of Equipment
- Off-road Equipment - Site Specific Site Preparation List of Equipment
- Off-road Equipment - Site Specific Trenching Construction List of Equipment
- Trips and VMT - Site Specific Trip Data
- Demolition -
- Grading -
- Construction Off-road Equipment Mitigation - Mitigation for Grading/Excavation, Utilities, and Mat Foundation.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstructionPhase	NumDays	10.00	21.00
tblConstructionPhase	NumDays	20.00	174.00
tblConstructionPhase	NumDays	230.00	7.00
tblConstructionPhase	NumDays	230.00	58.00
tblConstructionPhase	NumDays	230.00	717.00
tblConstructionPhase	NumDays	20.00	282.00

tblConstructionPhase	NumDays	20.00	129.00
tblGrading	MaterialExported	0.00	334,000.00
tblLandUse	LandUseSquareFeet	41,630.00	41,625.00
tblLandUse	LandUseSquareFeet	747,780.00	470,117.00
tblLandUse	LandUseSquareFeet	432,000.00	726,942.00
tblLandUse	LandUseSquareFeet	30,470.00	30,466.00
tblLandUse	LotAcreage	6.75	0.00
tblLandUse	LotAcreage	0.96	0.00
tblLandUse	LotAcreage	17.17	0.00
tblLandUse	LotAcreage	6.75	5.50
tblLandUse	LotAcreage	0.70	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00

[illegible]

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
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tblOffRoadEquipment	PhaseName		Demolition
tblOffRoadEquipment	PhaseName		Demolition
tblOffRoadEquipment	PhaseName		Demolition
tblOffRoadEquipment	PhaseName		Demolition
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tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
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tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Trenching/Utilities/Drainage

tblOffRoadEquipment	PhaseName		Trenching/Utilities/Drainage
tblOffRoadEquipment	PhaseName		Trenching/Utilities/Drainage
tblOffRoadEquipment	PhaseName		Mat Foundation
tblOffRoadEquipment	PhaseName		Mat Foundation
tblOffRoadEquipment	PhaseName		Mat Foundation
tblOffRoadEquipment	PhaseName		Building Construction (Up to Podium)
tblOffRoadEquipment	PhaseName		Building Construction (Up to Podium)
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tblOffRoadEquipment	PhaseName		Building Construction
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tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	HaulingTripLength	20.00	24.00
tblTripsAndVMT	HaulingTripLength	20.00	24.00
tblTripsAndVMT	HaulingTripLength	20.00	24.00
tblTripsAndVMT	HaulingTripNumber	25.00	1,760.00
tblTripsAndVMT	HaulingTripNumber	0.00	840.00
tblTripsAndVMT	HaulingTripNumber	41,750.00	73,080.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	184.00	398.00

tblTripsAndVMT	VendorTripNumber	184.00	100.00
tblTripsAndVMT	VendorTripNumber	0.00	20.00
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	HHDT
tblTripsAndVMT	WorkerTripNumber	662.00	50.00
tblTripsAndVMT	WorkerTripNumber	662.00	100.00
tblTripsAndVMT	WorkerTripNumber	662.00	850.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	8.4525	164.2604	72.5515	0.4719	30.2793	2.4929	32.4982	7.5284	2.3429	9.6088						50,201.8818
2023	7.7171	123.8499	77.6514	0.4706	13.0010	2.1378	15.1389	3.2919	1.9950	5.2869						50,006.8852
2024	7.3289	45.8705	69.1564	0.1950	10.6791	1.4682	12.1473	2.8589	1.4142	4.2731						19,438.1915
2025	41.6992	44.0155	70.7090	0.2038	12.1546	1.3032	13.4578	3.2502	1.2538	4.5040						20,320.9617
2026	42.3977	52.1399	77.4631	0.2271	12.4280	1.5999	14.0279	3.3256	1.5334	4.8591						22,603.7330
Maximum	42.3977	164.2604	77.6514	0.4719	30.2793	2.4929	32.4982	7.5284	2.3429	9.6088						50,201.8818

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
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Year	lb/day										lb/day					
2022	5.4040	127.5181	86.1107	0.4719	29.5000	0.5344	30.0344	7.4385	0.5184	7.9569						50,201.8818
2023	4.9014	86.3891	92.4197	0.4706	12.2217	0.3446	12.5663	3.2020	0.3376	3.5396						50,006.8852
2024																
2025																
2026																
Maximum	39.4487	127.5181	92.4197	0.4719	29.5000	0.5344	30.0344	7.4385	0.5184	7.9569						50,201.8818

	ROG	NOx	CO	SO2	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	12.87	35.89	-11.41	0.00	1.98	82.28	9.96	0.89	81.83	24.20	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2022	9/30/2022	5	22	
2	Site Preparation	Site Preparation	10/1/2022	10/31/2022	5	21	
3	Grading	Grading	11/1/2022	6/30/2023	5	174	
4	Trenching/Utilities/Drainage	Trenching	6/1/2023	6/30/2023	5	22	
5	Mat Foundation	Building Construction	7/1/2023	7/11/2023	5	7	
6	Building Construction (Up to Podium)	Building Construction	7/12/2023	9/30/2023	5	58	
7	Building Construction	Building Construction	10/1/2023	6/30/2026	5	717	
8	Architectural Coating	Architectural Coating	6/1/2025	6/30/2026	5	282	
9	Paving/Landscape	Paving	1/1/2026	6/30/2026	5	129	

Acres of Grading (Site Preparation Phase): 10.5

Acres of Grading (Grading Phase): 174

Acres of Paving: 0

Residential Indoor: 1,472,058; Residential Outdoor: 490,686; Non-Residential Indoor: 813,312; Non-Residential Outdoor: 271,104; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Air Compressors	1	8.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Crawler Tractors	1	8.00	212	0.43
Demolition	Crushing/Proc. Equipment	1	8.00	85	0.78
Demolition	Excavators	1	8.00	158	0.38
Demolition	Generator Sets	1	8.00	84	0.74
Demolition	Rubber Tired Dozers	3	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Air Compressors	1	8.00	78	0.48
Site Preparation	Crawler Tractors	1	8.00	212	0.43
Site Preparation	Excavators	1	8.00	158	0.38
Site Preparation	Plate Compactors	2	8.00	8	0.43
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Skid Steer Loaders	1	8.00	65	0.37
Site Preparation	Sweepers/Scrubbers	1	8.00	64	0.46
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Bore/Drill Rigs	2	8.00	221	0.50
Grading	Cranes	1	8.00	231	0.29
Grading	Crawler Tractors	2	8.00	212	0.43
Grading	Excavators	3	8.00	158	0.38
Grading	Generator Sets	1	8.00	84	0.74
Grading	Graders	0	8.00	187	0.41
Grading	Plate Compactors	2	8.00	8	0.43
Grading	Pumps	1	8.00	84	0.74
Grading	Rough Terrain Forklifts	1	8.00	100	0.40

Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Rubber Tired Loaders	2	8.00	203	0.36
Grading	Skid Steer Loaders	1	8.00	65	0.37
Grading	Sweepers/Scrubbers	1	8.00	64	0.46
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching/Utilities/Drainage	Excavators	1	8.00	158	0.38
Trenching/Utilities/Drainage	Rough Terrain Forklifts	1	8.00	100	0.40
Trenching/Utilities/Drainage	Trenchers	1	8.00	78	0.50
Mat Foundation	Air Compressors	2	8.00	78	0.48
Mat Foundation	Cranes	1	8.00	231	0.29
Mat Foundation	Forklifts	0	8.00	89	0.20
Mat Foundation	Generator Sets	2	8.00	84	0.74
Mat Foundation	Plate Compactors	1	8.00	8	0.43
Mat Foundation	Rough Terrain Forklifts	2	8.00	100	0.40
Mat Foundation	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Mat Foundation	Welders	1	8.00	46	0.45
Building Construction (Up to Podium)	Air Compressors	2	8.00	78	0.48
Building Construction (Up to Podium)	Cranes	1	8.00	231	0.29
Building Construction (Up to Podium)	Forklifts	0	8.00	89	0.20
Building Construction (Up to Podium)	Generator Sets	2	8.00	84	0.74
Building Construction (Up to Podium)	Plate Compactors	1	8.00	8	0.43
Building Construction (Up to Podium)	Rough Terrain Forklifts	2	8.00	100	0.40
Building Construction (Up to Podium)	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction (Up to Podium)	Welders	1	8.00	46	0.45
Building Construction	Air Compressors	3	8.00	78	0.48
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Plate Compactors	4	8.00	8	0.43
Building Construction	Pumps	2	8.00	84	0.74

Building Construction	Rough Terrain Forklifts	4	8.00	100	0.40
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Trenchers	1	8.00	78	0.50
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	0	6.00	78	0.48
Paving/Landscape	Air Compressors	1	8.00	78	0.48
Paving/Landscape	Pavers	0	8.00	130	0.42
Paving/Landscape	Paving Equipment	0	8.00	132	0.36
Paving/Landscape	Rollers	1	8.00	80	0.38
Paving/Landscape	Signal Boards	1	8.00	6	0.82
Paving/Landscape	Surfacing Equipment	2	8.00	263	0.30

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	12	30.00	0.00	1,760.00	14.70	6.90	24.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	8	20.00	0.00	840.00	14.70	6.90	24.00	LD_Mix	HDT_Mix	HHDT
Grading	18	45.00	0.00	73,080.00	14.70	6.90	24.00	LD_Mix	HDT_Mix	HHDT
Trenching/Utilities/Drainage	3	8.00	10.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Mat Foundation	12	50.00	398.00	0.00	14.70	6.90	20.00	LD_Mix	HHDT	HHDT
Building Construction (Up to Podium)	12	100.00	100.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	19	850.00	184.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	132.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving/Landscape	5	13.00	20.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2432	0.0000	0.2432	0.0368	0.0000	0.0368						0.0000
Off-Road	5.1396	50.0251	37.1197	0.0718		2.4212	2.4212		2.2744	2.2744						6,940.1527
Total	5.1396	50.0251	37.1197	0.0718	0.2432	2.4212	2.6644	0.0368	2.2744	2.3112						6,940.1527

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	0.7532	22.8052	6.0826	0.0712	1.6783	0.0691	1.7474	0.4600	0.0661	0.5262						7,744.7766
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.1344	0.0884	1.0175	3.1100e-003	0.3353	2.6200e-003	0.3380	0.0889	2.4200e-003	0.0914						310.5845
Total	0.8875	22.8935	7.1002	0.0743	2.0137	0.0717	2.0854	0.5490	0.0685	0.6175						8,055.3611

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
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Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573						0.0000
Off-Road	1.4750	14.5725	13.9511	0.0257		0.6862	0.6862		0.6416	0.6416						2,468.0933
Total	1.4750	14.5725	13.9511	0.0257	0.5303	0.6862	1.2165	0.0573	0.6416	0.6989						2,468.0933

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	0.3766	11.4026	3.0413	0.0356	0.8392	0.0346	0.8737	0.2300	0.0331	0.2631						3,872.3883
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609						207.0563
Total	0.4662	11.4615	3.7197	0.0377	1.0627	0.0363	1.0990	0.2893	0.0347	0.3240						4,079.4446

3.4 Grading - 2022
 Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2776	0.0000	1.2776	0.1474	0.0000	0.1474						0.0000

Off-Road	4.2967	44.4008	39.0914	0.0936		1.8522	1.8522		1.7298	1.7298						9,075.9277
Total	4.2967	44.4008	39.0914	0.0936	1.2776	1.8522	3.1298	0.1474	1.7298	1.8772						9,075.9277

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	3.9542	119.7271	31.9339	0.3736	28.4987	0.3628	28.8615	7.2476	0.3471	7.5946						40,660.0774
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.2015	0.1325	1.5263	4.6700e-003	0.5030	3.9400e-003	0.5069	0.1334	3.6300e-003	0.1370						465.8767
Total	4.1557	119.8596	33.4602	0.3783	29.0017	0.3667	29.3684	7.3810	0.3507	7.7317						41,125.9541

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					0.4983	0.0000	0.4983	0.0575	0.0000	0.0575						0.0000
Off-Road	1.2483	7.6585	52.6505	0.0936		0.1677	0.1677		0.1677	0.1677						9,075.9277
Total	1.2483	7.6585	52.6505	0.0936	0.4983	0.1677	0.6660	0.0575	0.1677	0.2252						9,075.9277

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	3.9542	119.7271	31.9339	0.3736	28.4987	0.3628	28.8615	7.2476	0.3471	7.5946						40,660.0774
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.2015	0.1325	1.5263	4.6700e-003	0.5030	3.9400e-003	0.5069	0.1334	3.6300e-003	0.1370						465.8767
Total	4.1557	119.8596	33.4602	0.3783	29.0017	0.3667	29.3684	7.3810	0.3507	7.7317						41,125.9541

3.4 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					1.2776	0.0000	1.2776	0.1474	0.0000	0.1474						0.0000
Off-Road	3.9952	39.5757	38.8185	0.0937		1.6355	1.6355		1.5273	1.5273						9,078.5113
Total	3.9952	39.5757	38.8185	0.0937	1.2776	1.6355	2.9131	0.1474	1.5273	1.6747						9,078.5113

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
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Category	lb/day										lb/day					
Hauling	2.5895	77.2544	28.8073	0.3572	11.0670	0.1519	11.2189	2.9689	0.1453	3.1143						38,972.1672
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.1899	0.1199	1.4030	4.5000e-003	0.5030	3.8300e-003	0.5068	0.1334	3.5200e-003	0.1369						448.8128
Total	2.7793	77.3743	30.2103	0.3617	11.5700	0.1557	11.7257	3.1023	0.1488	3.2512						39,420.9800

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					0.4983	0.0000	0.4983	0.0575	0.0000	0.0575						0.0000
Off-Road	1.2483	7.6585	52.6505	0.0937		0.1677	0.1677		0.1677	0.1677						9,078.5113
Total	1.2483	7.6585	52.6505	0.0937	0.4983	0.1677	0.6660	0.0575	0.1677	0.2252						9,078.5113

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	2.5895	77.2544	28.8073	0.3572	11.0670	0.1519	11.2189	2.9689	0.1453	3.1143						38,972.1672
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000

Worker	0.1899	0.1199	1.4030	4.5000e-003	0.5030	3.8300e-003	0.5068	0.1334	3.5200e-003	0.1369						448.8128
Total	2.7793	77.3743	30.2103	0.3617	11.5700	0.1557	11.7257	3.1023	0.1488	3.2512						39,420.9800

3.5 Trenching/Utilities/Drainage - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6411	6.1812	8.1371	0.0120		0.3451	0.3451		0.3175	0.3175						1,170.4971
Total	0.6411	6.1812	8.1371	0.0120		0.3451	0.3451		0.3175	0.3175						1,170.4971

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
Vendor	0.0223	0.6974	0.2362	2.4000e-003	0.0640	8.5000e-004	0.0649	0.0184	8.1000e-004	0.0193						257.1078
Worker	0.0338	0.0213	0.2494	8.0000e-004	0.0894	6.8000e-004	0.0901	0.0237	6.3000e-004	0.0243						79.7890
Total	0.0560	0.7187	0.4856	3.2000e-003	0.1534	1.5300e-003	0.1550	0.0421	1.4400e-003	0.0436						336.8968

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	0.1471	0.6376	9.0733	0.0120		0.0196	0.0196		0.0196	0.0196						1,170.4971
Total	0.1471	0.6376	9.0733	0.0120		0.0196	0.0196		0.0196	0.0196						1,170.4971

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
Vendor	0.0223	0.6974	0.2362	2.4000e-003	0.0640	8.5000e-004	0.0649	0.0184	8.1000e-004	0.0193						257.1078
Worker	0.0338	0.0213	0.2494	8.0000e-004	0.0894	6.8000e-004	0.0901	0.0237	6.3000e-004	0.0243						79.7890
Total	0.0560	0.7187	0.4856	3.2000e-003	0.1534	1.5300e-003	0.1550	0.0421	1.4400e-003	0.0436						336.8968

3.6 Mat Foundation - 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
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Category	lb/day										lb/day					
Off-Road	2.4344	21.7990	27.1597	0.0461		0.9870	0.9870		0.9488	0.9488						4,390.0898
Total	2.4344	21.7990	27.1597	0.0461		0.9870	0.9870		0.9488	0.9488						4,390.0898

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
Vendor	1.0407	41.9113	11.4227	0.1219	2.4067	0.0495	2.4562	0.6602	0.0473	0.7076						13,294.8519
Worker	0.2110	0.1332	1.5588	5.0000e-003	0.5589	4.2500e-003	0.5631	0.1482	3.9100e-003	0.1521						498.6809
Total	1.2517	42.0445	12.9815	0.1269	2.9656	0.0537	3.0193	0.8085	0.0512	0.8597						13,793.5328

3.7 Building Construction (Up to Podium) - 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	2.4344	21.7990	27.1597	0.0461		0.9870	0.9870		0.9488	0.9488						4,390.0898
Total	2.4344	21.7990	27.1597	0.0461		0.9870	0.9870		0.9488	0.9488						4,390.0898

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
Vendor	0.2226	6.9739	2.3616	0.0240	0.6402	8.5100e-003	0.6488	0.1843	8.1300e-003	0.1925						2,571.0781
Worker	0.4219	0.2664	3.1177	0.0100	1.1178	8.5000e-003	1.1263	0.2964	7.8300e-003	0.3043						997.3618
Total	0.6445	7.2403	5.4793	0.0340	1.7580	0.0170	1.7750	0.4808	0.0160	0.4967						3,568.4399

3.8 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	3.7214	32.7565	40.3605	0.0688		1.5430	1.5430		1.4918	1.4918						6,511.9367
Total	3.7214	32.7565	40.3605	0.0688		1.5430	1.5430		1.4918	1.4918						6,511.9367

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
Vendor	0.4095	12.8319	4.3454	0.0441	1.1781	0.0157	1.1937	0.3392	0.0150	0.3542						4,730.7837
Worker	3.5863	2.2644	26.5002	0.0850	9.5010	0.0723	9.5733	2.5197	0.0665	2.5862						8,477.5756
Total	3.9958	15.0963	30.8455	0.1291	10.6791	0.0879	10.7670	2.8589	0.0815	2.9404						13,208.3592

3.8 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	3.5264	31.0202	40.2721	0.0688		1.3816	1.3816		1.3340	1.3340						6,511.5052
Total	3.5264	31.0202	40.2721	0.0688		1.3816	1.3816		1.3340	1.3340						6,511.5052

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
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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
Vendor	0.3994	12.7859	4.2136	0.0439	1.1781	0.0154	1.1935	0.3392	0.0147	0.3539						4,712.3599
Worker	3.4031	2.0645	24.6706	0.0823	9.5010	0.0712	9.5722	2.5197	0.0656	2.5853						8,214.3265
Total	3.8025	14.8503	28.8842	0.1263	10.6791	0.0866	10.7657	2.8589	0.0803	2.9392						12,926.6863

3.8 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	3.3155	29.1562	40.1569	0.0688		1.2075	1.2075		1.1652	1.1652						6,511.6216
Total	3.3155	29.1562	40.1569	0.0688		1.2075	1.2075		1.1652	1.1652						6,511.6216

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
Vendor	0.3892	12.6776	4.1060	0.0436	1.1781	0.0151	1.1932	0.3392	0.0144	0.3536						4,687.0277

Worker	3.2416	1.8885	22.8912	0.0791	9.5010	0.0697	9.5707	2.5197	0.0642	2.5839						7,896.0953
Total	3.6308	14.5661	26.9973	0.1228	10.6791	0.0848	10.7639	2.8589	0.0786	2.9375						12,583.1230

3.8 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	3.3155	29.1562	40.1569	0.0688		1.2075	1.2075		1.1652	1.1652						6,511.6216
Total	3.3155	29.1562	40.1569	0.0688		1.2075	1.2075		1.1652	1.1652						6,511.6216

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
Vendor	0.3803	12.5598	4.0230	0.0434	1.1781	0.0148	1.1929	0.3392	0.0141	0.3533						4,662.7216
Worker	3.1037	1.7396	21.3855	0.0764	9.5010	0.0674	9.5684	2.5197	0.0620	2.5817						7,621.6425
Total	3.4840	14.2994	25.4085	0.1198	10.6791	0.0821	10.7613	2.8589	0.0761	2.9350						12,284.3641

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	0.9057	5.0487	43.8213	0.0688		0.1355	0.1355		0.1355	0.1355						6,511.6216
Total	0.9057	5.0487	43.8213	0.0688		0.1355	0.1355		0.1355	0.1355						6,511.6216

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
Vendor	0.3803	12.5598	4.0230	0.0434	1.1781	0.0148	1.1929	0.3392	0.0141	0.3533						4,662.7216
Worker	3.1037	1.7396	21.3855	0.0764	9.5010	0.0674	9.5684	2.5197	0.0620	2.5817						7,621.6425
Total	3.4840	14.2994	25.4085	0.1198	10.6791	0.0821	10.7613	2.8589	0.0761	2.9350						12,284.3641

3.9 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	34.2495					0.0000	0.0000		0.0000	0.0000						0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Total	34.2495	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.5034	0.2933	3.5549	0.0123	1.4755	0.0108	1.4863	0.3913	9.9700e-003	0.4013						1,226.2172
Total	0.5034	0.2933	3.5549	0.0123	1.4755	0.0108	1.4863	0.3913	9.9700e-003	0.4013						1,226.2172

3.9 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	34.2495					0.0000	0.0000		0.0000	0.0000						0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Total	34.2495	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.4820	0.2701	3.3210	0.0119	1.4755	0.0105	1.4859	0.3913	9.6300e-003	0.4009						1,183.5963
Total	0.4820	0.2701	3.3210	0.0119	1.4755	0.0105	1.4859	0.3913	9.6300e-003	0.4009						1,183.5963

3.10 Paving/Landscape - 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	0.7780	7.0224	7.8123	0.0208		0.2972	0.2972		0.2800	0.2800						2,000.7673
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						0.0000

Total	0.7780	7.0224	7.8123	0.0208		0.2972	0.2972		0.2800	0.2800						2,000.7673
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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
Vendor	0.0413	1.3652	0.4373	4.7200e-003	0.1281	1.6000e-003	0.1297	0.0369	1.5300e-003	0.0384						506.8176
Worker	0.0475	0.0266	0.3271	1.1700e-003	0.1453	1.0300e-003	0.1463	0.0385	9.5000e-004	0.0395						116.5663
Total	0.0888	1.3918	0.7644	5.8900e-003	0.2734	2.6300e-003	0.2760	0.0754	2.4800e-003	0.0779						623.3839

Angels Landing-Construction Onsite Only Mitigated for Excavation and Utilities - Los Angeles-South Coast County, Winter

Angels Landing-Construction Onsite Only Mitigated for Excavation and Utilities**Los Angeles-South Coast County, Winter**

Note: Construction emissions shown in this CalEEMod output includes the mitigation measure requiring EPA Tier 4 emissions compliant equipment. However, this run does not include use of 2007 and newer trucks

1.0 Project Characteristics**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	750.00	Space	0.00	300,000.00	0
High Turnover (Sit Down Restaurant)	41.63	1000sqft	0.00	41,625.00	0
Hotel	515.00	Room	0.00	470,117.00	0
Condo/Townhouse High Rise	432.00	Dwelling Unit	5.50	726,942.00	1236
Strip Mall	30.47	1000sqft	0.00	30,466.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2026
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot Acreage: Updated to reflect Project acreage.

Hotel: Square footage revised to reflect Project Description (Table II-1).

Construction Phase - Construction Schedule Updated to Reflect Project Specific Schedule

Off-road Equipment - Site Specific Architectural Coating List of Equipment

Off-road Equipment - Site Specific Grading/Excavation List of Equipment

Off-road Equipment - Site Specific Trenching Construction List of Equipment

Trips and VMT - Site Specific Trip Data

Construction Off-road Equipment Mitigation - Mitigation for Grading/Excavation, Utilities, and Mat Foundation.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
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	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	174.00

tblConstructionPhase	PhaseEndDate	9/28/2022	6/30/2023
tblConstructionPhase	PhaseEndDate	9/28/2022	6/30/2022
tblConstructionPhase	PhaseStartDate	9/1/2022	11/1/2022
tblConstructionPhase	PhaseStartDate	9/29/2022	6/1/2022
tblGrading	MaterialExported	0.00	334,000.00
tblLandUse	LandUseSquareFeet	41,630.00	41,625.00
tblLandUse	LandUseSquareFeet	747,780.00	470,117.00
tblLandUse	LandUseSquareFeet	432,000.00	726,942.00
tblLandUse	LandUseSquareFeet	30,470.00	30,466.00
tblLandUse	LotAcreage	6.75	0.00
tblLandUse	LotAcreage	0.96	0.00
tblLandUse	LotAcreage	17.17	0.00
tblLandUse	LotAcreage	6.75	5.50
tblLandUse	LotAcreage	0.70	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblTripsAndVMT	HaulingTripNumber	41,750.00	0.00
tblTripsAndVMT	WorkerTripNumber	45.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00

2.0 Emissions Summary

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
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Year	lb/day										lb/day					
2022	4.2967	44.4008	39.0914	0.0936	1.2776	1.8522	3.1298	0.1474	1.7298	1.8772						9,075.9277
2023	3.9952	39.5757	38.8185	0.0937	1.2776	1.6355	2.9131	0.1474	1.5273	1.6747						9,078.5113
Maximum	4.2967	44.4008	39.0914	0.0937	1.2776	1.8522	3.1298	0.1474	1.7298	1.8772						9,078.5113

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	1.2483	7.6585	52.6505	0.0936	0.4983	0.1677	0.6660	0.0575	0.1677	0.2252						9,075.9277
2023	1.2483	7.6585	52.6505	0.0937	0.4983	0.1677	0.6660	0.0575	0.1677	0.2252						9,078.5113
Maximum	1.2483	7.6585	52.6505	0.0937	0.4983	0.1677	0.6660	0.0575	0.1677	0.2252						9,078.5113

	ROG	NOx	CO	SO2	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	69.89	81.76	-35.16	0.00	61.00	90.38	77.96	61.00	89.70	87.32	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	11/1/2022	6/30/2023	5	174	
2	Trenching/Utilities/Drainage	Trenching	6/1/2022	6/30/2022	5	22	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 174

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Bore/Drill Rigs	2	8.00	221	0.50
Grading	Cranes	1	8.00	231	0.29
Grading	Crawler Tractors	2	8.00	212	0.43
Grading	Excavators	3	8.00	158	0.38
Grading	Generator Sets	1	8.00	84	0.74
Grading	Graders	0	8.00	187	0.41
Grading	Plate Compactors	2	8.00	8	0.43
Grading	Pumps	1	8.00	84	0.74
Grading	Rough Terrain Forklifts	1	8.00	100	0.40
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Rubber Tired Loaders	2	8.00	203	0.36
Grading	Skid Steer Loaders	1	8.00	65	0.37
Grading	Sweepers/Scrubbers	1	8.00	64	0.46
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching/Utilities/Drainage	Excavators	1	8.00	158	0.38
Trenching/Utilities/Drainage	Rough Terrain Forklifts	1	8.00	100	0.40
Trenching/Utilities/Drainage	Trenchers	1	8.00	78	0.50

Trips and VMT (Calculated with Spreadsheet for Mitigation Measure AIR-2)

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
Grading	18	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Trenching/Utilities/Drai	3	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
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3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2776	0.0000	1.2776	0.1474	0.0000	0.1474						0.0000
Off-Road	4.2967	44.4008	39.0914	0.0936		1.8522	1.8522		1.7298	1.7298						9,075.9277
Total	4.2967	44.4008	39.0914	0.0936	1.2776	1.8522	3.1298	0.1474	1.7298	1.8772						9,075.9277

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					0.4983	0.0000	0.4983	0.0575	0.0000	0.0575						0.0000
Off-Road	1.2483	7.6585	52.6505	0.0936		0.1677	0.1677		0.1677	0.1677						9,075.9277
Total	1.2483	7.6585	52.6505	0.0936	0.4983	0.1677	0.6660	0.0575	0.1677	0.2252						9,075.9277

3.2 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					1.2776	0.0000	1.2776	0.1474	0.0000	0.1474						0.0000
Off-Road	3.9952	39.5757	38.8185	0.0937		1.6355	1.6355		1.5273	1.5273						9,078.5113
Total	3.9952	39.5757	38.8185	0.0937	1.2776	1.6355	2.9131	0.1474	1.5273	1.6747						9,078.5113

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					0.4983	0.0000	0.4983	0.0575	0.0000	0.0575						0.0000
Off-Road	1.2483	7.6585	52.6505	0.0937		0.1677	0.1677		0.1677	0.1677						9,078.5113
Total	1.2483	7.6585	52.6505	0.0937	0.4983	0.1677	0.6660	0.0575	0.1677	0.2252						9,078.5113

3.3 Trenching/Utilities/Drainage - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
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Category	lb/day										lb/day					
Off-Road	0.6781	6.6370	8.1425	0.0120		0.3770	0.3770		0.3469	0.3469						1,170.1042
Total	0.6781	6.6370	8.1425	0.0120		0.3770	0.3770		0.3469	0.3469						1,170.1042

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	0.1471	0.6376	9.0733	0.0120		0.0196	0.0196		0.0196	0.0196						1,170.1042
Total	0.1471	0.6376	9.0733	0.0120		0.0196	0.0196		0.0196	0.0196						1,170.1042

Angels Landing-Construction Localized - Los Angeles-South Coast County, Winter

Angels Landing-Construction Localized Los Angeles-South Coast County, Winter

Note: Construction emissions shown in this CalEEMod output does not take into account mitigation measures including EPA Tier 4 emissions compliant equipment and use of 2007 and newer trucks

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	750.00	Space	0.00	300,000.00	0
High Turnover (Sit Down Restaurant)	41.63	1000sqft	0.00	41,625.00	0
Hotel	515.00	Room	0.00	470,117.00	0
Condo/Townhouse High Rise	432.00	Dwelling Unit	5.50	726,942.00	1236
Strip Mall	30.47	1000sqft	0.00	30,466.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2026
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot Acreage: Updated to reflect Project acreage.

Hotels: Severe features revised to reflect Project Description (Table 1.1)

Construction Phase - Construction Schedule Updated to Reflect Project Specific Schedule

Off-road Equipment - Site Specific Architectural Coating List of Equipment

Off-road Equipment - Site Specific Building Construction List of Equipment

Off-road Equipment - Site Specific Building Construction (Up to Podium Level) List of Equipment

Off-road Equipment - Site Specific Demolition List of Equipment

Off-road Equipment - Site Specific Grading/Excavation List of Equipment

Off-road Equipment - Site Specific Mat Foundation List of Equipment

Off-road Equipment - Site Specific Paving/Landscape List of Equipment

Off-road Equipment - Site Specific Site Preparation List of Equipment

Off-road Equipment - Site Specific Trenching Construction List of Equipment

Trips and VMT - Each haul would include 0.33 miles traveled on the project site

Demolition -

Grading -

Construction Off-road Equipment Mitigation - Mitigation for Grading/Excavation, Utilities, and Mat Foundation.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	10
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstructionPhase	NumDays	10.00	21.00
tblConstructionPhase	NumDays	20.00	174.00
tblConstructionPhase	NumDays	230.00	7.00
tblConstructionPhase	NumDays	230.00	58.00
tblConstructionPhase	NumDays	230.00	717.00
tblConstructionPhase	NumDays	20.00	282.00

tblConstructionPhase	NumDays	20.00	129.00
tblGrading	MaterialExported	0.00	334,000.00
tblLandUse	LandUseSquareFeet	41,630.00	41,625.00
tblLandUse	LandUseSquareFeet	747,780.00	470,117.00
tblLandUse	LandUseSquareFeet	432,000.00	726,942.00
tblLandUse	LandUseSquareFeet	30,470.00	30,466.00
tblLandUse	LotAcreage	6.75	0.00
tblLandUse	LotAcreage	0.96	0.00
tblLandUse	LotAcreage	17.17	0.00
tblLandUse	LotAcreage	6.75	5.50
tblLandUse	LotAcreage	0.70	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00

[illegible]

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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
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tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Trenching/Utilities/Drainage

tblOffRoadEquipment	PhaseName		Trenching/Utilities/Drainage
tblOffRoadEquipment	PhaseName		Trenching/Utilities/Drainage
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tblOffRoadEquipment	PhaseName		Building Construction (Up to Podium)
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tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	HaulingTripLength	20.00	293.00
tblTripsAndVMT	HaulingTripLength	20.00	147.00
tblTripsAndVMT	HaulingTripLength	20.00	12,168.00
tblTripsAndVMT	HaulingTripNumber	25.00	1.00
tblTripsAndVMT	HaulingTripNumber	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	41,750.00	1.00
tblTripsAndVMT	VendorTripLength	6.90	3.33
tblTripsAndVMT	VendorTripLength	6.90	133.00

tblTripsAndVMT	VendorTripLength	6.90	33.33
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tblTripsAndVMT	VendorVehicleClass	HDT_Mix	HHDT
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tblTripsAndVMT	WorkerTripNumber	45.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	662.00	0.00
tblTripsAndVMT	WorkerTripNumber	662.00	0.00
tblTripsAndVMT	WorkerTripNumber	662.00	0.00
tblTripsAndVMT	WorkerTripNumber	132.00	0.00
tblTripsAndVMT	WorkerTripNumber	13.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	5.1440	50.1391	39.2690	0.0960	1.4752	2.4217	3.3298	0.1976	2.2748	2.3148						9,329.1658
2023	4.6524	46.1375	47.1370	0.1080	1.3574	1.9816	3.3390	0.1688	1.8457	2.0146						10,506.9475

2024	3.5377	31.2588	40.3771	0.0705	0.0567	1.3822	1.4389	0.0163	1.3346	1.3509						6,699.6294
2025	37.5761	29.3913	40.2605	0.0705	0.0567	1.2082	1.2648	0.0163	1.1658	1.1821						6,698.9406
2026	38.3560	36.4772	48.0933	0.0915	0.0629	1.5054	1.5683	0.0181	1.4459	1.4639						8,723.5702
Maximum	38.3560	50.1391	48.0933	0.1080	1.4752	2.4217	3.3390	0.1976	2.2748	2.3148						10,506.9475

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	1.2708	8.2365	52.8282	0.0960	0.6959	0.1701	0.8660	0.1077	0.1700	0.2778						9,329.1658
2023	1.4115	8.6767	61.9052	0.1080	0.5781	0.1884	0.7665	0.0789	0.1883	0.2673						10,506.9475
2024																
2025																
2026																
Maximum	35.4069	8.6767	61.9052	0.1080	0.6959	0.1884	0.8660	0.1077	0.1883	0.2778						10,506.9475

	ROG	NOx	CO	SO2	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	16.91	82.49	-19.50	0.00	51.80	90.60	79.44	43.10	90.10	87.56	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2022	9/30/2022	5	22	

2	Site Preparation	Site Preparation	10/1/2022	10/31/2022	5	21
3	Grading	Grading	11/1/2022	6/30/2023	5	174
4	Trenching/Utilities/Drainage	Trenching	6/1/2023	6/30/2023	5	22
5	Mat Foundation	Building Construction	7/1/2023	7/11/2023	5	7
6	Building Construction (Up to Podium)	Building Construction	7/12/2023	9/30/2023	5	58
7	Building Construction	Building Construction	10/1/2023	6/30/2026	5	717
8	Architectural Coating	Architectural Coating	6/1/2025	6/30/2026	5	282
9	Paving/Landscape	Paving	1/1/2026	6/30/2026	5	129

Acres of Grading (Site Preparation Phase): 10.5

Acres of Grading (Grading Phase): 174

Acres of Paving: 0

Residential Indoor: 1,472,058; Residential Outdoor: 490,686; Non-Residential Indoor: 813,312; Non-Residential Outdoor: 271,104; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Air Compressors	1	8.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Crawler Tractors	1	8.00	212	0.43
Demolition	Crushing/Proc. Equipment	1	8.00	85	0.78
Demolition	Excavators	1	8.00	158	0.38
Demolition	Generator Sets	1	8.00	84	0.74
Demolition	Rubber Tired Dozers	3	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Air Compressors	1	8.00	78	0.48
Site Preparation	Crawler Tractors	1	8.00	212	0.43
Site Preparation	Excavators	1	8.00	158	0.38
Site Preparation	Plate Compactors	2	8.00	8	0.43
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Skid Steer Loaders	1	8.00	65	0.37

Site Preparation	Sweepers/Scrubbers	1	8.00	64	0.46
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Bore/Drill Rigs	2	8.00	221	0.50
Grading	Cranes	1	8.00	231	0.29
Grading	Crawler Tractors	2	8.00	212	0.43
Grading	Excavators	3	8.00	158	0.38
Grading	Generator Sets	1	8.00	84	0.74
Grading	Graders	0	8.00	187	0.41
Grading	Plate Compactors	2	8.00	8	0.43
Grading	Pumps	1	8.00	84	0.74
Grading	Rough Terrain Forklifts	1	8.00	100	0.40
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Rubber Tired Loaders	2	8.00	203	0.36
Grading	Skid Steer Loaders	1	8.00	65	0.37
Grading	Sweepers/Scrubbers	1	8.00	64	0.46
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching/Utilities/Drainage	Excavators	1	8.00	158	0.38
Trenching/Utilities/Drainage	Rough Terrain Forklifts	1	8.00	100	0.40
Trenching/Utilities/Drainage	Trenchers	1	8.00	78	0.50
Mat Foundation	Air Compressors	2	8.00	78	0.48
Mat Foundation	Cranes	1	8.00	231	0.29
Mat Foundation	Forklifts	0	8.00	89	0.20
Mat Foundation	Generator Sets	2	8.00	84	0.74
Mat Foundation	Plate Compactors	1	8.00	8	0.43
Mat Foundation	Rough Terrain Forklifts	2	8.00	100	0.40
Mat Foundation	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Mat Foundation	Welders	1	8.00	46	0.45
Building Construction (Up to Podium)	Air Compressors	2	8.00	78	0.48
Building Construction (Up to Podium)	Cranes	1	8.00	231	0.29
Building Construction (Up to Podium)	Forklifts	0	8.00	89	0.20

Building Construction (Up to Podium)	Generator Sets	2	8.00	84	0.74
Building Construction (Up to Podium)	Plate Compactors	1	8.00	8	0.43
Building Construction (Up to Podium)	Rough Terrain Forklifts	2	8.00	100	0.40
Building Construction (Up to Podium)	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction (Up to Podium)	Welders	1	8.00	46	0.45
Building Construction	Air Compressors	3	8.00	78	0.48
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Plate Compactors	4	8.00	8	0.43
Building Construction	Pumps	2	8.00	84	0.74
Building Construction	Rough Terrain Forklifts	4	8.00	100	0.40
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Trenchers	1	8.00	78	0.50
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	0	6.00	78	0.48
Paving/Landscape	Air Compressors	1	8.00	78	0.48
Paving/Landscape	Pavers	0	8.00	130	0.42
Paving/Landscape	Paving Equipment	0	8.00	132	0.36
Paving/Landscape	Rollers	1	8.00	80	0.38
Paving/Landscape	Signal Boards	1	8.00	6	0.82
Paving/Landscape	Surfacing Equipment	2	8.00	263	0.30

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	12	0.00	0.00	1.00	14.70	6.90	293.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	8	0.00	0.00	1.00	14.70	6.90	147.00	LD_Mix	HDT_Mix	HHDT
Grading	18	0.00	0.00	1.00	14.70	6.90	12,168.00	LD_Mix	HDT_Mix	HHDT
Trenching/Utilities/Drainage	3	0.00	1.00	0.00	14.70	3.33	20.00	LD_Mix	HDT_Mix	HHDT

Mat Foundation	12	0.00	1.00	0.00	14.70	133.00	20.00	LD_Mix	HHDT	HHDT
Building Construction (Up to Podium)	12	0.00	1.00	0.00	14.70	33.33	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	19	0.00	1.00	0.00	14.70	61.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving/Landscape	5	0.00	1.00	0.00	14.70	6.66	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2432	0.0000	0.2432	0.0368	0.0000	0.0368						0.0000
Off-Road	5.1396	50.0251	37.1197	0.0718		2.4212	2.4212		2.2744	2.2744						6,940.1527
Total	5.1396	50.0251	37.1197	0.0718	0.2432	2.4212	2.6644	0.0368	2.2744	2.3112						6,940.1527

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	4.3700e-003	0.1139	0.0345	4.5000e-004	0.0116	4.6000e-004	0.0121	3.1900e-003	4.4000e-004	3.6300e-003						48.6685
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Total	4.3700e-003	0.1139	0.0345	4.5000e-004	0.0116	4.6000e-004	0.0121	3.1900e-003	4.4000e-004	3.6300e-003						48.6685

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573						0.0000
Off-Road	1.4750	14.5725	13.9511	0.0257		0.6862	0.6862		0.6416	0.6416						2,468.0933
Total	1.4750	14.5725	13.9511	0.0257	0.5303	0.6862	1.2165	0.0573	0.6416	0.6989						2,468.0933

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	2.3300e-003	0.0619	0.0185	2.4000e-004	6.1100e-003	2.4000e-004	6.3600e-003	1.6800e-003	2.3000e-004	1.9100e-003						25.8154
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000

Total	2.3300e-003	0.0619	0.0185	2.4000e-004	6.1100e-003	2.4000e-004	6.3600e-003	1.6800e-003	2.3000e-004	1.9100e-003						25.8154
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3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2776	0.0000	1.2776	0.1474	0.0000	0.1474						0.0000
Off-Road	4.2967	44.4008	39.0914	0.0936		1.8522	1.8522		1.7298	1.7298						9,075.9277
Total	4.2967	44.4008	39.0914	0.0936	1.2776	1.8522	3.1298	0.1474	1.7298	1.8772						9,075.9277

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	0.0225	0.5780	0.1776	2.3300e-003	0.1977	2.4000e-003	0.2001	0.0503	2.3000e-003	0.0526						253.2381
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Total	0.0225	0.5780	0.1776	2.3300e-003	0.1977	2.4000e-003	0.2001	0.0503	2.3000e-003	0.0526						253.2381

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					0.4983	0.0000	0.4983	0.0575	0.0000	0.0575						0.0000
Off-Road	1.2483	7.6585	52.6505	0.0936		0.1677	0.1677		0.1677	0.1677						9,075.9277
Total	1.2483	7.6585	52.6505	0.0936	0.4983	0.1677	0.6660	0.0575	0.1677	0.2252						9,075.9277

3.4 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					1.2776	0.0000	1.2776	0.1474	0.0000	0.1474						0.0000
Off-Road	3.9952	39.5757	38.8185	0.0937		1.6355	1.6355		1.5273	1.5273						9,078.5113
Total	3.9952	39.5757	38.8185	0.0937	1.2776	1.6355	2.9131	0.1474	1.5273	1.6747						9,078.5113

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	0.0145	0.3220	0.1632	2.2300e-003	0.0767	9.7000e-004	0.0777	0.0206	9.3000e-004	0.0215						242.9183
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Total	0.0145	0.3220	0.1632	2.2300e-003	0.0767	9.7000e-004	0.0777	0.0206	9.3000e-004	0.0215						242.9183

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					0.4983	0.0000	0.4983	0.0575	0.0000	0.0575						0.0000
Off-Road	1.2483	7.6585	52.6505	0.0937		0.1677	0.1677		0.1677	0.1677						9,078.5113
Total	1.2483	7.6585	52.6505	0.0937	0.4983	0.1677	0.6660	0.0575	0.1677	0.2252						9,078.5113

3.5 Trenching/Utilities/Drainage - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6411	6.1812	8.1371	0.0120		0.3451	0.3451		0.3175	0.3175						1,170.4971
Total	0.6411	6.1812	8.1371	0.0120		0.3451	0.3451		0.3175	0.3175						1,170.4971

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
Vendor	1.6300e-003	0.0586	0.0182	1.4000e-004	3.1000e-003	5.0000e-005	3.1500e-003	8.9000e-004	5.0000e-005	9.4000e-004						15.0208
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Total	1.6300e-003	0.0586	0.0182	1.4000e-004	3.1000e-003	5.0000e-005	3.1500e-003	8.9000e-004	5.0000e-005	9.4000e-004						15.0208

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	0.1471	0.6376	9.0733	0.0120		0.0196	0.0196		0.0196	0.0196						1,170.4971
Total	0.1471	0.6376	9.0733	0.0120		0.0196	0.0196		0.0196	0.0196						1,170.4971

3.6 Mat Foundation - 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
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Category	lb/day										lb/day					
Off-Road	2.4344	21.7990	27.1597	0.0461		0.9870	0.9870		0.9488	0.9488						4,390.0898
Total	2.4344	21.7990	27.1597	0.0461		0.9870	0.9870		0.9488	0.9488						4,390.0898

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
Vendor	0.0288	0.6852	0.3229	4.3200e-003	0.1162	1.8700e-003	0.1180	0.0318	1.7900e-003	0.0336						471.3378
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Total	0.0288	0.6852	0.3229	4.3200e-003	0.1162	1.8700e-003	0.1180	0.0318	1.7900e-003	0.0336						471.3378

3.7 Building Construction (Up to Podium) - 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	2.4344	21.7990	27.1597	0.0461		0.9870	0.9870		0.9488	0.9488						4,390.0898

Total	2.4344	21.7990	27.1597	0.0461		0.9870	0.9870		0.9488	0.9488						4,390.0898
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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
Vendor	6.6700e-003	0.1521	0.0637	9.8000e-004	0.0308	3.5000e-004	0.0312	8.8600e-003	3.4000e-004	9.2000e-003						104.8525
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Total	6.6700e-003	0.1521	0.0637	9.8000e-004	0.0308	3.5000e-004	0.0312	8.8600e-003	3.4000e-004	9.2000e-003						104.8525

3.8 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	3.7214	32.7565	40.3605	0.0688		1.5430	1.5430		1.4918	1.4918						6,511.9367
Total	3.7214	32.7565	40.3605	0.0688		1.5430	1.5430		1.4918	1.4918						6,511.9367

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
Vendor	0.0114	0.2392	0.1062	1.7600e-003	0.0567	6.3000e-004	0.0573	0.0163	6.1000e-004	0.0169						188.6057
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Total	0.0114	0.2392	0.1062	1.7600e-003	0.0567	6.3000e-004	0.0573	0.0163	6.1000e-004	0.0169						188.6057

3.8 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	3.5264	31.0202	40.2721	0.0688		1.3816	1.3816		1.3340	1.3340						6,511.5052
Total	3.5264	31.0202	40.2721	0.0688		1.3816	1.3816		1.3340	1.3340						6,511.5052

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
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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
Vendor	0.0113	0.2386	0.1050	1.7600e-003	0.0567	6.3000e-004	0.0573	0.0163	6.0000e-004	0.0169						188.1242
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Total	0.0113	0.2386	0.1050	1.7600e-003	0.0567	6.3000e-004	0.0573	0.0163	6.0000e-004	0.0169						188.1242

3.8 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	3.3155	29.1562	40.1569	0.0688		1.2075	1.2075		1.1652	1.1652						6,511.6216
Total	3.3155	29.1562	40.1569	0.0688		1.2075	1.2075		1.1652	1.1652						6,511.6216

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

Vendor	0.0111	0.2351	0.1037	1.7500e-003	0.0567	6.3000e-004	0.0573	0.0163	6.0000e-004	0.0169						187.3191
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Total	0.0111	0.2351	0.1037	1.7500e-003	0.0567	6.3000e-004	0.0573	0.0163	6.0000e-004	0.0169						187.3191

3.8 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	3.3155	29.1562	40.1569	0.0688		1.2075	1.2075		1.1652	1.1652						6,511.6216
Total	3.3155	29.1562	40.1569	0.0688		1.2075	1.2075		1.1652	1.1652						6,511.6216

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
Vendor	0.0110	0.2312	0.1027	1.7400e-003	0.0567	6.2000e-004	0.0573	0.0163	5.9000e-004	0.0169						186.5517
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Total	0.0110	0.2312	0.1027	1.7400e-003	0.0567	6.2000e-004	0.0573	0.0163	5.9000e-004	0.0169						186.5517

3.9 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	34.2495					0.0000	0.0000		0.0000	0.0000						0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Total	34.2495	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000

3.9 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	34.2495					0.0000	0.0000		0.0000	0.0000						0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Total	34.2495	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000

3.10 Paving/Landscape - 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	0.7780	7.0224	7.8123	0.0208		0.2972	0.2972		0.2800	0.2800						2,000.7673

Paving	0.0000					0.0000	0.0000		0.0000	0.0000						0.0000
Total	0.7780	7.0224	7.8123	0.0208		0.2972	0.2972		0.2800	0.2800						2,000.7673

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
Vendor	2.0300e-003	0.0675	0.0215	2.3000e-004	6.1800e-003	8.0000e-005	6.2600e-003	1.7800e-003	7.0000e-005	1.8500e-003						24.6297
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Total	2.0300e-003	0.0675	0.0215	2.3000e-004	6.1800e-003	8.0000e-005	6.2600e-003	1.7800e-003	7.0000e-005	1.8500e-003						24.6297

Angels Landing-Operational Project LADOT VMT - Los Angeles-South Coast County, Winter

Angels Landing-Operational Project LADOT VMT

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Commercial	1.00	User Defined Unit	0.00	0.00	0
Enclosed Parking with Elevator	750.00	Space	0.00	300,000.00	0
High Turnover (Sit Down Restaurant)	41.63	1000sqft	0.00	41,625.00	0
Hotel	515.00	Room	0.00	470,117.00	0
Condo/Townhouse High Rise	432.00	Dwelling Unit	5.50	726,942.00	1236
User Defined Residential	1.00	Dwelling Unit	0.00	0.00	3
Strip Mall	30.47	1000sqft	0.00	30,466.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2026
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	585	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - RPS for 2026

Land Use - Lot Acreage: Updated to reflect Project acreage.

Hotel: Square footage revised to reflect Project Description (Table II-1).

User Defined: LADOT VMT

Woodstoves - Limited number of fireplaces within units and common areas

Energy Use - Consistency with Building Code Requirements

Mobile Land Use Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Stationary Sources - Emergency Generators and Fire Pumps -

Stationary Sources - Emergency Generators and Fire Pumps EF - SCAQMD BACT

Table Name	Column Name	Default Value	New Value
tblEnergyUse	T24E	3.92	0.46
tblFireplaces	FireplaceDayYear	25.00	100.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	6.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	NumberGas	367.20	68.00
tblFireplaces	NumberGas	0.85	0.00
tblFireplaces	NumberNoFireplace	43.20	0.00
tblFireplaces	NumberNoFireplace	0.10	0.00
tblFireplaces	NumberWood	21.60	0.00
tblFireplaces	NumberWood	0.05	0.00
tblLandUse	LandUseSquareFeet	41,630.00	41,625.00
tblLandUse	LandUseSquareFeet	747,780.00	470,117.00
tblLandUse	LandUseSquareFeet	432,000.00	726,942.00
tblLandUse	LandUseSquareFeet	30,470.00	30,466.00
tblLandUse	LotAcreage	6.75	0.00
tblLandUse	LotAcreage	0.96	0.00
tblLandUse	LotAcreage	17.17	0.00

tblLandUse	LotAcreage	6.75	5.50
tblLandUse	LotAcreage	0.70	0.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	585
tblStationaryGeneratorsPumpsEF	NOX_EF	2.85	0.50
tblStationaryGeneratorsPumpsEF	PM10_EF	0.15	0.02
tblStationaryGeneratorsPumpsEF	PM2_5_EF	0.15	0.02
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	3.1000e-004
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	600.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.25
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	12.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	2.00
tblTripsAndVMT	HaulingTripNumber	25.00	880.00
tblTripsAndVMT	HaulingTripNumber	0.00	420.00
tblTripsAndVMT	HaulingTripNumber	0.00	36,540.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	7.40
tblVehicleTrips	CC_TTP	72.50	0.00
tblVehicleTrips	CC_TTP	61.60	0.00
tblVehicleTrips	CC_TTP	64.40	0.00
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00

tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	8.50	0.00
tblVehicleTrips	CW_TTP	19.40	0.00
tblVehicleTrips	CW_TTP	16.60	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	38.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HW_TL	14.70	0.00
tblVehicleTrips	HW_TL	14.70	7.40
tblVehicleTrips	HW_TTP	40.20	0.00
tblVehicleTrips	HW_TTP	40.20	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PB_TP	0.00	100.00

tblVehicleTrips	PR_TP	86.00	0.00
tblVehicleTrips	PR_TP	37.00	0.00
tblVehicleTrips	PR_TP	58.00	0.00
tblVehicleTrips	PR_TP	45.00	0.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	4.31	0.00
tblVehicleTrips	ST_TR	158.37	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	ST_TR	0.00	865.00
tblVehicleTrips	ST_TR	0.00	6,434.00
tblVehicleTrips	SU_TR	3.43	0.00
tblVehicleTrips	SU_TR	131.84	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	SU_TR	0.00	701.00
tblVehicleTrips	SU_TR	0.00	5,214.00
tblVehicleTrips	WD_TR	4.18	0.00
tblVehicleTrips	WD_TR	127.15	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblVehicleTrips	WD_TR	44.32	0.00
tblVehicleTrips	WD_TR	0.00	727.00
tblVehicleTrips	WD_TR	0.00	5,410.00
tblWoodstoves	NumberCatalytic	21.60	0.00
tblWoodstoves	NumberNoncatalytic	21.60	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

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	8.5963	39.3729	98.1195	0.3941	36.8989	0.3063	37.2052	9.8719	0.2844	10.1563						40,333.0201
Unmitigated	8.5963	39.3729	98.1195	0.3941	36.8989	0.3063	37.2052	9.8719	0.2844	10.1563						40,333.0201

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse High Rise	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
Strip Mall	0.00	0.00	0.00		
User Defined Commercial	727.00	865.00	701.00	27,045	27,045
User Defined Residential	5,410.00	6,434.00	5214.00	14,886,966	14,886,966
Total	6,137.00	7,299.00	5,915.00	14,914,011	14,914,011

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
Condo/Townhouse High Rise	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Hotel	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
User Defined Commercial	0.00	7.40	0.00	0.00	100.00	0.00	0	0	100

User Defined Residential	7.40	0.00	0.00	100.00	0.00	0.00	100	0	0
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4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse High Rise	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Enclosed Parking with Elevator	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
High Turnover (Sit Down Restaurant)	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Hotel	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Strip Mall	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
User Defined Commercial	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
User Defined Residential	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive 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	0.6974	6.2784	4.8770	0.0380		0.4818	0.4818		0.4818	0.4818						7,652.6592
NaturalGas Unmitigated	0.7360	6.6268	5.1498	0.0402		0.5085	0.5085		0.5085	0.5085						8,076.8746

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					
Condo/Townhouse High Rise	10908.8	0.1176	1.0053	0.4278	6.4200e-003		0.0813	0.0813		0.0813	0.0813						1,291.0167
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
High Turnover (Sit Down Restaurant)	26316.1	0.2838	2.5800	2.1672	0.0155		0.1961	0.1961		0.1961	0.1961						3,114.4126
Hotel	30886	0.3331	3.0280	2.5436	0.0182		0.2301	0.2301		0.2301	0.2301						3,655.2451
Strip Mall	136.888	1.4800e-003	0.0134	0.0113	8.0000e-005		1.0200e-003	1.0200e-003		1.0200e-003	1.0200e-003						16.2002
User Defined Commercial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
User Defined Residential	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Total		0.7360	6.6268	5.1498	0.0402		0.5085	0.5085		0.5085	0.5085						8,076.8746

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					
Condo/Townhouse High Rise	10.3897	0.1121	0.9575	0.4074	6.1100e-003		0.0774	0.0774		0.0774	0.0774						1,229.5829
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
High Turnover (Sit Down Restaurant)	25.826	0.2785	2.5320	2.1268	0.0152		0.1924	0.1924		0.1924	0.1924						3,056.4054
Hotel	28.3204	0.3054	2.7765	2.3323	0.0167		0.2110	0.2110		0.2110	0.2110						3,351.6067
Strip Mall	0.127289	1.3700e-003	0.0125	0.0105	7.0000e-005		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004						15.0642
User Defined Commercial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000

User Defined Residential	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000					0.0000
Total		0.6974	6.2784	4.8770	0.0380		0.4818	0.4818		0.4818	0.4818					7,652.6592

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive 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	29.2566	2.6723	37.0306	0.0171		0.4209	0.4209		0.4209	0.4209						2,969.8807
Unmitigated	29.2566	2.6723	37.0306	0.0171		0.4209	0.4209		0.4209	0.4209						2,969.8807

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	2.6461					0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	25.2354					0.0000	0.0000		0.0000	0.0000						0.0000
Hearth	0.2910	2.2600	1.2051	0.0152		0.2224	0.2224		0.2224	0.2224						2,903.7058
Landscaping	1.0841	0.4123	35.8255	1.9000e-003		0.1985	0.1985		0.1985	0.1985						66.1750
Total	29.2567	2.6723	37.0306	0.0171		0.4209	0.4209		0.4209	0.4209						2,969.8807

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	2.6461					0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	25.2354					0.0000	0.0000		0.0000	0.0000						0.0000
Hearth	0.2910	2.2600	1.2051	0.0152		0.2224	0.2224		0.2224	0.2224						2,903.7058
Landscaping	1.0841	0.4123	35.8255	1.9000e-003		0.1985	0.1985		0.1985	0.1985						66.1750
Total	29.2567	2.6723	37.0306	0.0171		0.4209	0.4209		0.4209	0.4209						2,969.8807

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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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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Emergency Generator	2	0.25	12	600	0.73	Diesel
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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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10.1 Stationary Sources

Unmitigated/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
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (600 - 750 HP)	0.0679	0.2414	1.2553	2.3700e-003		9.6600e-003	9.6600e-003		9.6600e-003	9.6600e-003						252.7370
Total	0.0679	0.2414	1.2553	2.3700e-003		9.6600e-003	9.6600e-003		9.6600e-003	9.6600e-003						252.7370

11.0 Vegetation

Angels Landing

Heavy Duty Diesel Truck Emissions Calculations

Construction Year **2022**
Truck Model Year **2007**

Run Emissions

Trips per Day	420					
Trip Length (mi.)	24					
Daily VMT	10080					
	TOG_RUNEX	CO_RUNEX	NOx_RUNEX	PM10_RUNEX	PM2_5_RUNEX	SOx_RUNEX
Run Emission Factors (g/mi) ¹	0.068	0.289	3.071	0.024	0.023	0.013
Run Emissions (lbs/day)	1.52	6.42	68.24	0.54	0.52	0.29
On-site Emissions (lbs/day)	0.01	0.03	0.28	0.00	0.00	0.00

Idle Emissions

Loads per Day	210					
Idle Time Per Truck (min.)	15					
Daily Idle Time (hrs)	52.50					
	TOG	CO	NOx	PM10	PM2_5	SOx
Idle Emission Factors (g/hr) ²	2.70	32.10	32.49	0.02	0.02	0.06
Idle Emissions (lbs/day)	0.31	3.72	3.76	0.00	0.00	0.01

Start Emissions

Trucks per Day	52.5					
Cold Starts per Day	1					
Warm Starts per Day	5					
	TOG	CO	NOx	PM10	PM2_5	SOx
Cold Start Emission Factors (g/start) ²	0	0	14.93	0	0	0
Warm Start Emission Factors (g/start) ²	0	0	0.55	0	0	0
Start Emissions (lbs/day)	0.000	0.000	2.047	0.000	0.000	0.000

Brake and Tire Wear

	PM10_TW	PM10_BW	PM2.5_TW	PM2.5_BW		
Brake and Tire Wear Emission Factors (g/mi) ¹	0.035	0.061	0.009	0.026		
Run Emissions (lbs/day)	0.79	1.35	0.20	0.58		
On-site Emissions (lbs/day)	0.00	0.01	0.00	0.00		

Reentrained Road Dust

	PM10	PM2.5				
Reentrained Dust Emission Factors (g/mi) ³	0.294	0.073				
Run Emissions (lbs/day)	6.53	1.63				
On-site Emissions (lbs/day)	0.03	0.01				
	TOG	CO	NOx	PM10	PM2_5	SOx
Total Emissions (Run + Idle + Start)	1.83	10.14	74.05	0.58	0.53	0.30
On-site Emissions (Run 0.1 mi + Idle)	0.32	3.74	4.05	0.04	0.01	0.01

¹ EMFAC2017 Web Database - Los Angeles County, EMFAC2007 Categories, HHDT

² EMFAC2017 Project Level (PL) v. 1.0.2 - Los Angeles County, EMFAC2007 Categories, HHDT

ANGELS LANDING - INTERSECTION PEAK HOUR VOLUMES
FUTURE WITH PROJECT CONDITIONS (YEAR 2028)

Signalized Intersections			Weekday Morning Peak Hour												Weekday Afternoon Peak Hour													
#	N/S Street	E/W Street	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL	Total	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL	Total
1	Olive Street	2nd Street	19	713	0	60	225	278	0	850	284	107	0	33	2,569	13	806	0	23	205	142	0	1,783	413	77	0	93	3,555
2	Olive Street	Kociuszko Way	364	818	0	0	0	0	0	993	167	110	0	52	2,504	118	835	0	0	0	0	1,611	127	225	0	267	3,183	
3	Hill Street	3rd Street	407	1,143	0	135	1,706	219	0	644	137	0	0	0	4,391	845	2,723	0	561	3,581	507	0	1,966	248	0	0	0	10,431
4	Broadway	3rd Street	316	472	0	95	1,689	77	0	756	102	0	0	0	3,507	150	709	0	191	1,656	173	0	1,227	142	0	0	0	4,248
5	Grand Avenue (L)	4th Street	0	0	69	0	0	0	0	0	0	0	2,188	676	2,933	0	0	184	0	0	0	0	0	0	0	2,328	250	2,762
6	Olive Street	4th Street	0	445	142	0	0	0	108	928	0	183	1,542	342	3,690	0	679	218	0	0	0	314	1,559	0	115	2,017	399	5,301
7	Hill Street	4th Street	0	1,247	98	0	0	0	211	608	0	306	1,354	182	4,006	0	1,363	125	0	0	0	209	966	0	448	1,869	144	5,124
8	Broadway	4th Street	0	546	21	0	0	0	140	759	0	92	1,310	185	3,053	0	814	43	0	0	0	147	1,131	0	148	1,797	348	4,428
9	Olive Street	5th Street	406	0	0	130	1,752	0	0	1,044	539	0	0	0	3,871	909	0	0	142	1,459	0	0	1,661	662	0	0	0	4,833
10	Hill Street	5th Street	308	1,141	0	197	1,444	187	0	728	83	0	0	0	4,088	213	1,430	0	275	1,184	264	0	1,141	120	0	0	0	4,627

Max Hourly: 4,391
Max Daily: 43,910

Max Hourly: 10,431
Max Daily: 104,310

Angels Landing

Draft EIR

Appendix B-3-Greenhouse Gas Emissions Worksheets and Modeling Output Files

- Appendix B-3: Greenhouse Gas Worksheets and Modeling Output Files
 - Appendix B-3.1: GHG Modeling Parameters and Summary of Emissions
 - GHG Emissions Summary
 - GHG Parameters and Summary
 - Weekend Trip Generation
 - VMT Calculations
 - Modeling Parameters
 - Electric Vehicle Charging Calculations
 - Appendix B-3.2: CalEEMod Outputs
 - Construction
 - Operation LADOT VMT (No MXD or PDFs)
 - Operation LADOT VMT (With MXD or PDFs)

Angels Landing

Operational Emissions Summary (GHG)

Construction Year	CO ₂ e (tons/year)
2022	936
2023	3,201
2024	2,335
2025	2,371
2026	1,336
Total	10,179
30-year Amortized	339

CalEEMod Output Summary	Project with PDFs	Project with no PDFs
Baseline (Buildout Year)^a	CO₂e	CO₂e
Area	0	0
Energy (Natural Gas)	0	0
Mobile	0	0
Emergency Generators	0	0
Solid Waste	0	0
Water/Wastewater	0	0
Total	0	0
Project (Buildout Year)^b		
Area	139	156
Energy (Natural Gas)	3,278	3,560
Mobile	5,807	12,101
Electric Vehicle Charging Credit	(298)	(298)
Emergency Generators	6	6
Solid Waste	120	120
Water/Wastewater	267	334
Construction	339	339
Total	9,659	16,317

^a Existing Uses

^b Please refer to CalEEMod outputs for Future uses

Angels Landing

VMT Calculations for CalEEMod Inputs

VMT Calculator Table ^a			
Existing Uses	New	Pass-by	Total
Daily Vehicle Trips	0	0	0
Daily VMT	0		0

Project	New	Pass-by	Total
Daily Vehicle Trips	5,410	727	5,410
Daily VMT	40,033		
Project (no TDM or MXD)	New	Pass-by	Total
Daily Vehicle Trips	11,823	727	11,823
Daily VMT	83,687		

CalEEMod Input Calculations					
Primary (%)	Passby (%)	Pass-by Trip Length (mi)	Pass-by Daily VMT	Primary Daily VMT	Primary Trip Length (mi)
0.0%	0.0%	0.1	0	0	0.0000
100.0%	0.0%	0.1	72.7	40,033	7.3998
100.0%	0.0%	0.1	72.7	83,614	7.0722

Scalar
Saturday Sunday

119% 96%

119% 96%

CalEEMod Inputs - PASTE THIS INTO CALEEMOD INPUT FILE

VehicleTripsLandUseSubType	VehicleTripsLandUseSizeMetric	WD_TR	ST_TR	SU_TR	HW_TL	HS_TL	HO_TL	CC_TL	CW_TL	CNW_TL	PR_TP	DV_TP	PB_TP	HW_TTP	HS_TTP	HO_TTP	CC_TTP	CW_TTP	CNW_TTP
Project User Defined Res. (VMT)	User Defined Unit	5,410	6,434	5,214	7.3998	0	0	0.0000	0	0	100.0	0	0.0	100	0	0	0	0	0
Project User Defined Comm (Pass-By)	User Defined Unit	727	865	701	0	0	0	7.3998			0.0	0	100.0	0	0	0	100	0	0
No MXD User Defined Res. (VMT)	User Defined Unit	11,823	14,061	11,394	7.0722	0	0	0.0000	0	0	100.0	0	0.0	100	0	0	0	0	0
No MXD User Defined Comm (Pass-By)	User Defined Unit	727	865	701	0	0	0	7.0722			0.0	0	100.0	0	0	0	100	0	0
	Project																		
	Resident	Worker																	
VMT per Capita (Mitigated)	3.9	7.3																	
APC Average for Designated Area	7.1	8.9																	
Reduction (%)	-45%	-18%																	

^a Provided by Gibson Transportation

**TABLE 1
ANGELS LANDING
PROJECT DAILY TRIP COMPARISON**

TRIP GENERATION RATES [a]					
Land Use	ITE Land Use	Rate	Daily Trips		
			Weekday	Saturday	Sunday
Multi-Family Housing (High-Rise) [b]	222	per Dwelling Unit	2.07	4.53	3.59
Hotel	310	per room	8.36	8.19	5.95
Shopping Center	820	per 1,000 sf	37.75	46.12	21.10
High-Turnover (Sit-Down) Restaurant	932	per 1,000 sf	112.18	122.40	142.64
Quality Restaurant	931	per 1,000 sf	83.84	90.04	71.97

TRIP GENERATION ESTIMATES					
Land Use	ITE Land Use	Rate	Daily Trips		
			Weekday	Saturday	Sunday
Proposed Project [f]					
Multi-Family Housing (High-Rise)	222	432 du	894	1,957	1,551
Subtotal - Residential			894	1,957	1,551
Hotel	310	515 rooms	4,305	4,218	3,064
<i>Transit/Walk-In Reduction - 25% [c]</i>			<i>(1,076)</i>	<i>(1,055)</i>	<i>(766)</i>
Subtotal - Hotel			3,229	3,163	2,298
Shopping Center (Retail)	820	28,836 sf	1,089	1,330	608
<i>Internal Capture Reduction - 20% [d]</i>			<i>(218)</i>	<i>(266)</i>	<i>(122)</i>
<i>Transit/Walk-In Reduction - 25% [c]</i>			<i>(218)</i>	<i>(266)</i>	<i>(122)</i>
<i>Pass-by Reduction - 50% [e]</i>			<i>(327)</i>	<i>(399)</i>	<i>(182)</i>
High-Turnover Restaurant	932	21,627 sf	2,426	2,647	3,085
<i>Internal Capture Reduction - 20% [d]</i>			<i>(485)</i>	<i>(529)</i>	<i>(617)</i>
<i>Transit/Walk-In Reduction - 25% [c]</i>			<i>(485)</i>	<i>(530)</i>	<i>(617)</i>
<i>Pass-by Reduction - 20% [e]</i>			<i>(291)</i>	<i>(318)</i>	<i>(370)</i>
Quality Restaurant	931	21,627 sf	1,813	1,947	1,556
<i>Internal Capture Reduction - 20% [d]</i>			<i>(363)</i>	<i>(389)</i>	<i>(311)</i>
<i>Transit/Walk-In Reduction - 25% [c]</i>			<i>(363)</i>	<i>(390)</i>	<i>(311)</i>
<i>Pass-by Reduction - 10% [e]</i>			<i>(109)</i>	<i>(117)</i>	<i>(93)</i>
Subtotal - Commercial			2,469	2,720	2,504
TOTAL NEW PROJECT TRIPS [g]			6,592	7,840	6,353

Notes:

Dwelling Unit = du.

[a] Source: *Trip Generation Manual, 10th Edition*, Institute of Transportation Engineers, 2017.

[b] Per LADOT's *Transportation Assessment Guidelines*, the morning and afternoon trip rates are based on Multi-Family High-Rise rates for Dense Multi-Use Urban Areas. These rates are not subjected to any transit/walk-in adjustment.

[c] Per LADOT's *Transportation Assessment Guidelines*, the Project Site is located adjacent to a transit station (Metro Purple / Red Line Pershing Square Station), therefore a transit reduction is applied to account for transit usage and walking visitor arrivals from the surrounding neighborhoods and adjacent commercial developments, and for arrivals via taxi and/or carpool services.

[d] Internal capture adjustments account for person trips made between distinct land uses within a mixed-use development (e.g., residents and hotel guests visiting the commercial uses).

[e] Per Attachment H of LADOT's *Transportation Assessment Guidelines*, pass-by adjustments account for Project trips made as an intermediate stop on the way from an origin to a primary trip destination without route diversion.

[f] Land uses proposed as part of the Project include conservative assumptions for retail and restaurant uses, some of which space could be programmed with cultural/civic uses as plans are finalized.

[g] Per LADOT's *VMT Calculator Version 1.2*, November 11, 2019, the Project is anticipated to generate 5,410 daily vehicle trips.

Angels Landing

VMT Calculation for AQ and GHG

Mixed Use Scenario

Mixed Use-Pre MXD		Mixed Use-Project		Mixed Use-Project TDM		Percent Reduction		
585	2984	347	1770	347	1770			
1567	6425	487	1997	487	1997			
1475	13275	1091	9819	1091	9819			
708	5947	423	3553	423	3553			
5856	42163	1851	13327	1851	13327			
1632	12893	1211	9567	1211	9567			
						MXD	TDM	Total
11823	83687	5410	40033	5410	40033	-52%	0%	-52%

Calculation of Parking Garage Ventilation Energy Factor

Full Power Ventilation Flowrate:	0.5 cfm/sf	Section 120.6(c) of California Building Code, Mandatory Requirements for Enclosed Parking Garages, provides a minimum 0.15 cfm/sf flowrate. Conservatively assumed 0.5 cfm/sf.
Fan Horsepower/1,000 sf:	0.19 hp/1,000 sf	Fan Horsepower = (CFM x Static Pressure of 1.6 in WC)/(6356 x Motor Fan Efficiency of 65%)
Setback Mode Power Ventilation Flowrate:	0.05 cfm/sf	Energy Star technical reference recommends a minimum flow rate of 0.05 cfm/sf when fan is in setback mode.
Fan Horsepower/1,000 sf:	0.02 hp/1,000 sf	Fan Horsepower = (CFM x Static Pressure of 1.6 in WC)/(6356 x Motor Fan Efficiency of 65%)
Fan Horsepower/1,000 sf per Day:	1.51 hp/1,000 sf/Day	Energy Star technical reference recommends 6 hours per day at full power and 18 hours per day at 0.05 cfm/sf in setback mode
Horsepower to kW Conv.	0.746 kW per hp	
Fan kW/1,000 sf per Day:	1.13 kW/1,000 sf/Day	
Annual kW/sf	0.41 kWh/sf Annual	
Adjustment:	0.46 kWh/sf Annual	(CalEEMod applies mitigation to all land uses. So, this adjustment accounts for the 10% reduction in lighting associated with Title 24)

GHG Emissions Reductions for Residential Uses Associated with PDF XX-XX (Electric Vehicle Charging Stations/Plugs)

Step 1: Estimating GHG Emissions Reduction to Replace Gasoline/Diesel Vehicle with Electric Vehicle

LADWP Electricity Emission Factor ¹	0.27 MTCO ₂ E/MWh
Fuel Economy of Electric Vehicle ²	0.33 kWh/mile
Electric Vehicle GHG Emissions	87.6 grams/mile
GHG Emissions from Residential Miles Traveled (CalEEMod) ³	757.9 grams/mile
GHG Emissions Reduction from Additional Electric Vehicles, per mile	670.3 grams/mile

Step 2: Estimating Project Residential-Related VMT GHG Emissions

Residential Average Yearly VMT with TDM and PDFs ⁴	7,675,011 miles/year
Percent of Residential Miles Driven in Electric Vehicles due to this Measure	5.0%
Residential VMT that is Displaced by Evs due to this Measure	383,751 miles/year
GHG Emissions Reduction from Residential Electric Vehicles	257 MTCO ₂ E/MWh

Energy Usage for Charging Vehicles	126,638 kWh/year
------------------------------------	------------------

Notes:

- 1) CO₂ intensity factor reflects a 2026 RPS for LADWP (585 lbs of CO₂E/MWh).
- 2) US Department of Energy, 2013. Benefits and Considerations of Electricity as a Vehicle Fuel. Available at: http://afdc.energy.gov/fuels/electricity_benefits.html.
- 3) CalEEMod Output file provided in Appendix XX.X of this Draft EIR.
- 4) Residential charging of vehicles would primarily occur over night, while commercial use charging of vehicles would primarily occur during the day. In addition, it is assumed that the charging stations/plugs for residential uses would be fully utilized which is supported by the projected number of electric vehicles in the future. Bloomberg New Energy Finance projects that electric vehicles will represent 35 percent of global new car sales by 2040 (<https://about.bnef.com/blog/electric-vehicles-to-be-35-of-global-new-car-sales-by-2040/>).

GHG Emissions Reductions for Commercial Uses Associated with PDF XX-X (Electric Vehicle Charging Stations/Plugs)

Step 1: Estimating GHG Emissions Reduction to Replace Gasoline/Diesel Vehicle with Electric Vehicle

LADWP Electricity Emission Factor ^{1+A32}	0.27 MTCO ₂ E/MWh
Fuel Economy of Electric Vehicle ²	0.33 kWh/mile
Gasoline/Diesel CO ₂ Emissions While Running ³	204.6 grams/mile
Annual VMT Reduction per Parking Spot ⁴	9,125 miles/charging station/year
Number of On-Site Chargers ⁵	38
Annual VMT Reduction All Stations/Plugs (Based on Charge)	346,750

Step 2: Estimating GHG Emissions Reduction from Installing Electric Vehicle Charging Stations/Plugs

GHG Emissions of Gasoline/Diesel Vehicle	71 MTCO ₂ E/MWh
GHG Emissions of Electric Vehicle	30 MTCO ₂ E/MWh
GHG Emissions Reduction	41 MTCO ₂ E/MWh

Notes:

- 1) CO₂ intensity factor reflects a 2026 RPS for LADWP (585 lbs of CO₂E/MWh).
- 2) US Department of Energy, 2013. Benefits and Considerations of Electricity as a Vehicle Fuel. Available at: http://afdc.energy.gov/fuels/electricity_benefits.html.
- 3) CARB, 2017. EMFAC2014, running exhaust emission rate for CO₂ and CH₄ for light duty gasoline- and diesel-powered vehicles in Los Angeles, aggregated for all models and speeds, averaged over all seasons for 2026.
- 4) Annual VMT reduction estimated based on an estimate of 10 hours of charge time for a Level 2 charging station that charges at a rate of 25 driving range per hour. It is conservatively assumed that 10% of the miles charged would be driven by the charged vehicles.
- 5) PDF GHG-2 requires 5% of parking spaces to be equipped with EV chargers.

Angels Landing-Construction Regional Annual - Los Angeles-South Coast County, Annual

Angels Landing-Construction Regional Annual

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	750.00	Space	0.00	300,000.00	0
High Turnover (Sit Down Restaurant)	41.63	1000sqft	0.00	41,625.00	0
Hotel	515.00	Room	0.00	470,117.00	0
Condo/Townhouse High Rise	432.00	Dwelling Unit	5.50	726,942.00	1236
Strip Mall	30.47	1000sqft	0.00	30,466.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2026
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot Acreage: Updated to reflect Project acreage.

Hotel: Square footage revised to reflect Project Description (Table II-1).

Construction Phase - Construction Schedule Updated to Reflect Project Specific Schedule

Off-road Equipment - Site Specific Architectural Coating List of Equipment

- Off-road Equipment - Site Specific Building Construction List of Equipment
- Off-road Equipment - Site Specific Building Construction (Up to Podium Level) List of Equipment
- Off-road Equipment - Site Specific Demolition List of Equipment
- Off-road Equipment - Site Specific Grading/Excavation List of Equipment
- Off-road Equipment - Site Specific Mat Foundation List of Equipment
- Off-road Equipment - Site Specific Paving/Landscape List of Equipment
- Off-road Equipment - Site Specific Site Preparation List of Equipment
- Off-road Equipment - Site Specific Trenching Construction List of Equipment
- Trips and VMT - Site Specific Trip Data
- Demolition -
- Grading -
- Woodstoves -
- Construction Off-road Equipment Mitigation - Mitigation for Grading/Excavation and Utilities.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstructionPhase	NumDays	230.00	7.00
tblConstructionPhase	NumDays	230.00	58.00
tblConstructionPhase	NumDays	230.00	717.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	20.00	174.00

tblConstructionPhase	NumDays	20.00	129.00
tblConstructionPhase	NumDays	10.00	21.00
tblGrading	MaterialExported	0.00	334,000.00
tblLandUse	LandUseSquareFeet	41,630.00	41,625.00
tblLandUse	LandUseSquareFeet	747,780.00	470,117.00
tblLandUse	LandUseSquareFeet	432,000.00	726,942.00
tblLandUse	LandUseSquareFeet	30,470.00	30,466.00
tblLandUse	LotAcreage	6.75	0.00
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tblLandUse	LotAcreage	17.17	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblTripsAndVMT	VendorVehicleClass	HDT_Mix	HHDT
tblTripsAndVMT	WorkerTripNumber	662.00	50.00
tblTripsAndVMT	WorkerTripNumber	662.00	100.00
tblTripsAndVMT	WorkerTripNumber	662.00	850.00

2.0 Emissions Summary

2.1 Overall Construction
Unmitigated Construction

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

Year	tons/yr										MT/yr					
2022	0.2407	3.8081	2.0089	9.8400e-003	0.6093	0.0810	0.6903	0.1388	0.0759	0.2147						935.9555
2023	0.7443	9.1866	7.5280	0.0339	1.0835	0.2035	1.2870	0.2741	0.1927	0.4668						3,200.5138
2024	0.9130	6.0426	9.1287	0.0258	1.3720	0.1923	1.5643	0.3679	0.1852	0.5531						2,335.2673
2025	3.5157	5.7612	9.1068	0.0262	1.4774	0.1694	1.6469	0.3959	0.1630	0.5589						2,371.4746
2026	2.7091	3.3804	5.0311	0.0148	0.7862	0.1032	0.8893	0.2107	0.0989	0.3096						1,336.0904
Maximum	3.5157	9.1866	9.1287	0.0339	1.4774	0.2035	1.6469	0.3959	0.1927	0.5589						3,200.5138

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1152	2.3790	2.3694	9.8400e-003	0.5365	0.0119	0.5484	0.1304	0.0116	0.1420						935.9551
2023	0.4081	5.5505	8.6276	0.0339	1.0157	0.0292	1.0449	0.2663	0.0286	0.2949						3,200.5128
2024	0.5697	2.6404	9.5937	0.0258	1.3720	0.0291	1.4011	0.3679	0.0282	0.3961						2,335.2664
2025	3.2012	2.6152	9.5850	0.0262	1.4774	0.0295	1.5070	0.3959	0.0287	0.4246						2,371.4737
2026	2.5189	1.4393	5.4441	0.0148	0.7862	0.0169	0.8031	0.2107	0.0165	0.2272						1,336.0898
Maximum	3.2012	5.5505	9.5937	0.0339	1.4774	0.0295	1.5070	0.3959	0.0287	0.4246						3,200.5128

	ROG	NOx	CO	SO2	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	16.12	48.10	-8.58	0.00	2.64	84.44	12.73	1.17	84.13	29.40	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)
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1	9-1-2022	11-30-2022	2.3841	1.2866
2	12-1-2022	2-28-2023	3.7920	2.6211
3	3-1-2023	5-31-2023	3.4255	2.2866
4	6-1-2023	8-31-2023	2.0468	1.1605
5	9-1-2023	11-30-2023	2.2539	0.9281
6	12-1-2023	2-29-2024	2.1108	0.9351
7	3-1-2024	5-31-2024	1.7364	0.7969
8	6-1-2024	8-31-2024	1.7305	0.7910
9	9-1-2024	11-30-2024	1.7233	0.7940
10	12-1-2024	2-28-2025	1.6567	0.7813
11	3-1-2025	5-31-2025	1.6538	0.7825
12	6-1-2025	8-31-2025	2.7969	1.9256
13	9-1-2025	11-30-2025	2.7794	1.9176
14	12-1-2025	2-28-2026	2.9410	1.9512
15	3-1-2026	5-31-2026	3.0938	2.0080
16	6-1-2026	8-31-2026	1.0068	0.6527
		Highest	3.7920	2.6211

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2022	9/30/2022	5	22	
2	Site Preparation	Site Preparation	10/1/2022	10/31/2022	5	21	
3	Grading	Grading	11/1/2022	6/30/2023	5	174	
4	Trenching/Utilities/Drainage	Trenching	6/1/2023	6/30/2023	5	22	
5	Mat Foundation	Building Construction	7/1/2023	7/11/2023	5	7	
6	Building Construction (Up to Podium)	Building Construction	7/12/2023	9/30/2023	5	58	
7	Building Construction	Building Construction	10/1/2023	6/30/2026	5	717	
8	Architectural Coating	Architectural Coating	6/1/2025	6/30/2026	5	282	

9	Paving/Landscape	Paving	1/1/2026	6/30/2026	5	129
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Acres of Grading (Site Preparation Phase): 10.5

Acres of Grading (Grading Phase): 174

Acres of Paving: 0

Residential Indoor: 1,472,058; Residential Outdoor: 490,686; Non-Residential Indoor: 813,312; Non-Residential Outdoor: 271,104;

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Air Compressors	1	8.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Crawler Tractors	1	8.00	212	0.43
Demolition	Crushing/Proc. Equipment	1	8.00	85	0.78
Demolition	Excavators	1	8.00	158	0.38
Demolition	Generator Sets	1	8.00	84	0.74
Demolition	Rubber Tired Dozers	3	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Air Compressors	1	8.00	78	0.48
Site Preparation	Crawler Tractors	1	8.00	212	0.43
Site Preparation	Excavators	1	8.00	158	0.38
Site Preparation	Plate Compactors	2	8.00	8	0.43
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Skid Steer Loaders	1	8.00	65	0.37
Site Preparation	Sweepers/Scrubbers	1	8.00	64	0.46
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Bore/Drill Rigs	2	8.00	221	0.50
Grading	Cranes	1	8.00	231	0.29
Grading	Crawler Tractors	2	8.00	212	0.43
Grading	Excavators	3	8.00	158	0.38
Grading	Generator Sets	1	8.00	84	0.74

Grading	Graders	0	8.00	187	0.41
Grading	Plate Compactors	2	8.00	8	0.43
Grading	Pumps	1	8.00	84	0.74
Grading	Rough Terrain Forklifts	1	8.00	100	0.40
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Rubber Tired Loaders	2	8.00	203	0.36
Grading	Skid Steer Loaders	1	8.00	65	0.37
Grading	Sweepers/Scrubbers	1	8.00	64	0.46
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching/Utilities/Drainage	Excavators	1	8.00	158	0.38
Trenching/Utilities/Drainage	Rough Terrain Forklifts	1	8.00	100	0.40
Trenching/Utilities/Drainage	Trenchers	1	8.00	78	0.50
Mat Foundation	Air Compressors	2	8.00	78	0.48
Mat Foundation	Cranes	1	8.00	231	0.29
Mat Foundation	Forklifts	0	8.00	89	0.20
Mat Foundation	Generator Sets	2	8.00	84	0.74
Mat Foundation	Plate Compactors	1	8.00	8	0.43
Mat Foundation	Rough Terrain Forklifts	2	8.00	100	0.40
Mat Foundation	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Mat Foundation	Welders	1	8.00	46	0.45
Building Construction (Up to Podium)	Air Compressors	2	8.00	78	0.48
Building Construction (Up to Podium)	Cranes	1	8.00	231	0.29
Building Construction (Up to Podium)	Forklifts	0	8.00	89	0.20
Building Construction (Up to Podium)	Generator Sets	2	8.00	84	0.74
Building Construction (Up to Podium)	Plate Compactors	1	8.00	8	0.43
Building Construction (Up to Podium)	Rough Terrain Forklifts	2	8.00	100	0.40
Building Construction (Up to Podium)	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction (Up to Podium)	Welders	1	8.00	46	0.45
Building Construction	Air Compressors	3	8.00	78	0.48
Building Construction	Cranes	1	8.00	231	0.29

Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Plate Compactors	4	8.00	8	0.43
Building Construction	Pumps	2	8.00	84	0.74
Building Construction	Rough Terrain Forklifts	4	8.00	100	0.40
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Trenchers	1	8.00	78	0.50
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	0	6.00	78	0.48
Paving/Landscape	Air Compressors	1	8.00	78	0.48
Paving/Landscape	Pavers	0	8.00	130	0.42
Paving/Landscape	Paving Equipment	0	8.00	132	0.36
Paving/Landscape	Rollers	1	8.00	80	0.38
Paving/Landscape	Signal Boards	1	8.00	6	0.82
Paving/Landscape	Surfacing Equipment	2	8.00	263	0.30

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	12	30.00	0.00	500.00	14.70	6.90	24.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	8	20.00	0.00	40.00	14.70	6.90	24.00	LD_Mix	HDT_Mix	HHDT
Grading	18	45.00	0.00	55,666.00	14.70	6.90	24.00	LD_Mix	HDT_Mix	HHDT
Trenching/Utilities/Drainage	3	8.00	10.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Mat Foundation	12	50.00	398.00	0.00	14.70	6.90	20.00	LD_Mix	HHDT	HHDT
Building Construction (Up to Podium)	12	100.00	100.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	19	850.00	184.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	132.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving/Landscape	5	13.00	20.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.6700e-003	0.0000	2.6700e-003	4.1000e-004	0.0000	4.1000e-004						0.0000
Off-Road	0.0565	0.5503	0.4083	7.9000e-004		0.0266	0.0266		0.0250	0.0250						69.2560
Total	0.0565	0.5503	0.4083	7.9000e-004	2.6700e-003	0.0266	0.0293	4.1000e-004	0.0250	0.0254						69.2560

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	2.3300e-003	0.0726	0.0185	2.2000e-004	5.1600e-003	2.1000e-004	5.3700e-003	1.4200e-003	2.1000e-004	1.6200e-003						22.1477
Vendor	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	1.0000e-003	0.0115	3.0000e-005	3.6200e-003	3.0000e-005	3.6500e-003	9.6000e-004	3.0000e-005	9.9000e-004						3.1509
Total	3.6600e-003	0.0736	0.0300	2.5000e-004	8.7800e-003	2.4000e-004	9.0200e-003	2.3800e-003	2.4000e-004	2.6100e-003						25.2986

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.5700e-003	0.0000	5.5700e-003	6.0000e-004	0.0000	6.0000e-004						0.0000
Off-Road	0.0155	0.1530	0.1465	2.7000e-004		7.2100e-003	7.2100e-003		6.7400e-003	6.7400e-003						23.5097
Total	0.0155	0.1530	0.1465	2.7000e-004	5.5700e-003	7.2100e-003	0.0128	6.0000e-004	6.7400e-003	7.3400e-003						23.5097

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	1.9000e-004	5.8100e-003	1.4800e-003	2.0000e-005	4.1000e-004	2.0000e-005	4.3000e-004	1.1000e-004	2.0000e-005	1.3000e-004						1.7718
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	8.5000e-004	6.4000e-004	7.3200e-003	2.0000e-005	2.3000e-003	2.0000e-005	2.3200e-003	6.1000e-004	2.0000e-005	6.3000e-004						2.0051
Total	1.0400e-003	6.4500e-003	8.8000e-003	4.0000e-005	2.7100e-003	4.0000e-005	2.7500e-003	7.2000e-004	4.0000e-005	7.6000e-004						3.7769

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1112	0.0000	0.1112	0.0128	0.0000	0.0128						0.0000
Off-Road	0.0945	0.9768	0.8600	2.0600e-003		0.0408	0.0408		0.0381	0.0381						181.1380
Total	0.0945	0.9768	0.8600	2.0600e-003	0.1112	0.0408	0.1519	0.0128	0.0381	0.0509						181.1380

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	0.0655	2.0449	0.5208	6.3200e-003	0.4676	6.0300e-003	0.4736	0.1190	5.7700e-003	0.1248						623.5237
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	3.9900e-003	3.0000e-003	0.0345	1.0000e-004	0.0109	9.0000e-005	0.0109	2.8800e-003	8.0000e-005	2.9600e-003						9.4526
Total	0.0695	2.0479	0.5553	6.4200e-003	0.4784	6.1200e-003	0.4846	0.1219	5.8500e-003	0.1277						632.9763

3.4 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
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Category	tons/yr										MT/yr					
Fugitive Dust					0.1112	0.0000	0.1112	0.0128	0.0000	0.0128						0.0000
Off-Road	0.2597	2.5724	2.5232	6.0900e-003		0.1063	0.1063		0.0993	0.0993						535.3327
Total	0.2597	2.5724	2.5232	6.0900e-003	0.1112	0.1063	0.2175	0.0128	0.0993	0.1121						535.3327

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	0.1267	3.8946	1.3985	0.0178	0.5380	7.4200e-003	0.5454	0.1446	7.1000e-003	0.1517						1,765.6696
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0111	8.0100e-003	0.0937	3.0000e-004	0.0321	2.5000e-004	0.0323	8.5100e-003	2.3000e-004	8.7400e-003						26.9051
Total	0.1378	3.9026	1.4922	0.0181	0.5700	7.6700e-003	0.5777	0.1531	7.3300e-003	0.1604						1,792.5747

3.5 Trenching/Utilities/Drainage - 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	7.0500e-003	0.0680	0.0895	1.3000e-004		3.8000e-003	3.8000e-003		3.4900e-003	3.4900e-003						11.6804

Total	7.0500e-003	0.0680	0.0895	1.3000e-004		3.8000e-003	3.8000e-003		3.4900e-003	3.4900e-003						11.6804
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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
Vendor	2.4000e-004	7.7900e-003	2.5000e-003	3.0000e-005	6.9000e-004	1.0000e-005	7.0000e-004	2.0000e-004	1.0000e-005	2.1000e-004						2.6071
Worker	3.3000e-004	2.4000e-004	2.8200e-003	1.0000e-005	9.6000e-004	1.0000e-005	9.7000e-004	2.6000e-004	1.0000e-005	2.6000e-004						0.8095
Total	5.7000e-004	8.0300e-003	5.3200e-003	4.0000e-005	1.6500e-003	2.0000e-005	1.6700e-003	4.6000e-004	2.0000e-005	4.7000e-004						3.4165

3.6 Mat Foundation - 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	8.5200e-003	0.0763	0.0951	1.6000e-004		3.4500e-003	3.4500e-003		3.3200e-003	3.3200e-003						13.9392
Total	8.5200e-003	0.0763	0.0951	1.6000e-004		3.4500e-003	3.4500e-003		3.3200e-003	3.3200e-003						13.9392

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
Vendor	3.5400e-003	0.1494	0.0380	4.4000e-004	8.2800e-003	1.7000e-004	8.4500e-003	2.2800e-003	1.6000e-004	2.4300e-003						43.2312
Worker	6.6000e-004	4.8000e-004	5.6100e-003	2.0000e-005	1.9200e-003	1.0000e-005	1.9300e-003	5.1000e-004	1.0000e-005	5.2000e-004						1.6097
Total	4.2000e-003	0.1499	0.0436	4.6000e-004	0.0102	1.8000e-004	0.0104	2.7900e-003	1.7000e-004	2.9500e-003						44.8409

3.7 Building Construction (Up to Podium) - 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	0.0706	0.6322	0.7876	1.3400e-003		0.0286	0.0286		0.0275	0.0275						115.4961
Total	0.0706	0.6322	0.7876	1.3400e-003		0.0286	0.0286		0.0275	0.0275						115.4961

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
Vendor	6.2800e-003	0.2054	0.0659	7.1000e-004	0.0183	2.4000e-004	0.0185	5.2700e-003	2.3000e-004	5.5000e-003						68.7314
Worker	0.0110	7.9400e-003	0.0929	2.9000e-004	0.0318	2.5000e-004	0.0320	8.4400e-003	2.3000e-004	8.6700e-003						26.6751
Total	0.0173	0.2134	0.1588	1.0000e-003	0.0501	4.9000e-004	0.0505	0.0137	4.6000e-004	0.0142						95.4065

3.8 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	0.1209	1.0646	1.3117	2.2300e-003		0.0502	0.0502		0.0485	0.0485						191.9947
Total	0.1209	1.0646	1.3117	2.2300e-003		0.0502	0.0502		0.0485	0.0485						191.9947

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
Vendor	0.0129	0.4236	0.1358	1.4600e-003	0.0377	4.9000e-004	0.0382	0.0109	4.7000e-004	0.0113						141.7289
Worker	0.1048	0.0756	0.8851	2.8100e-003	0.3027	2.3500e-003	0.3051	0.0804	2.1600e-003	0.0826						254.1033
Total	0.1177	0.4992	1.0210	4.2700e-003	0.3404	2.8400e-003	0.3432	0.0913	2.6300e-003	0.0939						395.8322

3.8 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	0.4620	4.0636	5.2757	9.0100e-003		0.1810	0.1810		0.1748	0.1748						773.8351
Total	0.4620	4.0636	5.2757	9.0100e-003		0.1810	0.1810		0.1748	0.1748						773.8351

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
Vendor	0.0509	1.7011	0.5307	5.8400e-003	0.1518	1.9600e-003	0.1538	0.0438	1.8800e-003	0.0457						568.9922
Worker	0.4001	0.2779	3.3224	0.0110	1.2202	9.3300e-003	1.2295	0.3241	8.5900e-003	0.3327						992.4400

Total	0.4510	1.9790	3.8531	0.0168	1.3720	0.0113	1.3833	0.3679	0.0105	0.3784						1,561.432 2
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3.8 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	0.4327	3.8049	5.2405	8.9700e-003		0.1576	0.1576		0.1521	0.1521						770.8953
Total	0.4327	3.8049	5.2405	8.9700e-003		0.1576	0.1576		0.1521	0.1521						770.8953

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
Vendor	0.0494	1.6800	0.5150	5.7900e-003	0.1513	1.9200e-003	0.1532	0.0437	1.8400e-003	0.0455						563.7251
Worker	0.3790	0.2533	3.0717	0.0105	1.2155	9.1000e-003	1.2246	0.3228	8.3800e-003	0.3312						950.3405
Total	0.4284	1.9333	3.5867	0.0163	1.3668	0.0110	1.3778	0.3665	0.0102	0.3767						1,514.065 5

3.8 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	0.2139	1.8806	2.5901	4.4300e-003		0.0779	0.0779		0.0752	0.0752						381.0172
Total	0.2139	1.8806	2.5901	4.4300e-003		0.0779	0.0779		0.0752	0.0752						381.0172

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
Vendor	0.0239	0.8225	0.2494	2.8400e-003	0.0748	9.3000e-004	0.0757	0.0216	8.9000e-004	0.0225						277.1540
Worker	0.1790	0.1153	1.4186	5.0100e-003	0.6008	4.3500e-003	0.6051	0.1596	4.0000e-003	0.1636						453.3807
Total	0.2029	0.9378	1.6680	7.8500e-003	0.6755	5.2800e-003	0.6808	0.1812	4.8900e-003	0.1860						730.5346

3.9 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	2.6201					0.0000	0.0000		0.0000	0.0000						0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Total	2.6201	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0345	0.0231	0.2796	9.6000e-004	0.1107	8.3000e-004	0.1115	0.0294	7.6000e-004	0.0302						86.5138
Total	0.0345	0.0231	0.2796	9.6000e-004	0.1107	8.3000e-004	0.1115	0.0294	7.6000e-004	0.0302						86.5138

3.9 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	2.2091					0.0000	0.0000		0.0000	0.0000						0.0000

Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Total	2.2091	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000

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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0278	0.0179	0.2203	7.8000e-004	0.0933	6.7000e-004	0.0940	0.0248	6.2000e-004	0.0254						70.4074
Total	0.0278	0.0179	0.2203	7.8000e-004	0.0933	6.7000e-004	0.0940	0.0248	6.2000e-004	0.0254						70.4074

3.10 Paving/Landscape - 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	0.0502	0.4529	0.5039	1.3400e-003		0.0192	0.0192		0.0181	0.0181						117.0717
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						0.0000
Total	0.0502	0.4529	0.5039	1.3400e-003		0.0192	0.0192		0.0181	0.0181						117.0717

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
Vendor	2.5900e-003	0.0894	0.0271	3.1000e-004	8.1300e-003	1.0000e-004	8.2300e-003	2.3500e-003	1.0000e-004	2.4400e-003						30.1254
Worker	2.7400e-003	1.7600e-003	0.0217	8.0000e-005	9.1900e-003	7.0000e-005	9.2500e-003	2.4400e-003	6.0000e-005	2.5000e-003						6.9341
Total	5.3300e-003	0.0912	0.0488	3.9000e-004	0.0173	1.7000e-004	0.0175	4.7900e-003	1.6000e-004	4.9400e-003						37.0595

Angels Landing-Operational Project LADOT VMT (No MXD or PDFs) - Los Angeles-South Coast County, Annual

Angels Landing-Operational Project LADOT VMT (No MXD or PDFs)
Los Angeles-South Coast County, Annual

1.0 Project Characteristics**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Commercial	1.00	User Defined Unit	0.00	0.00	0
Enclosed Parking with Elevator	750.00	Space	0.00	300,000.00	0
High Turnover (Sit Down Restaurant)	41.63	1000sqft	0.00	41,625.00	0
Hotel	515.00	Room	0.00	470,117.00	0
Condo/Townhouse High Rise	432.00	Dwelling Unit	5.50	726,942.00	1236
User Defined Residential	1.00	Dwelling Unit	0.00	0.00	3
Strip Mall	30.47	1000sqft	0.00	30,466.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2026
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	585	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - RPS for 2026

Land Use - Lot Acreage: Updated to reflect Project acreage.

Hotel: Square footage revised to reflect Project Description (Table II-1).

User Defined: LADOT VMT

Trips and VMT - Site Specific Trip Data

Woodstoves - 90% of units would have fireplaces (CalEEMod default) plus common areas

Energy Use - Consistency with Building Code Requirements

Mobile Land Use Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Stationary Sources - Emergency Generators and Fire Pumps -

Stationary Sources - Emergency Generators and Fire Pumps EF - SCAQMD BACT

Table Name	Column Name	Default Value	New Value
tblEnergyUse	T24E	3.92	0.41
tblFireplaces	FireplaceDayYear	25.00	100.00
tblFireplaces	FireplaceHourDay	3.00	6.00
tblFireplaces	NumberGas	367.20	389.00
tblFireplaces	NumberGas	0.85	28.00
tblFireplaces	NumberNoFireplace	43.20	0.00
tblFireplaces	NumberNoFireplace	0.10	0.00
tblFireplaces	NumberWood	21.60	0.00
tblFireplaces	NumberWood	0.05	0.00
tblLandUse	LandUseSquareFeet	41,630.00	41,625.00
tblLandUse	LandUseSquareFeet	747,780.00	470,117.00
tblLandUse	LandUseSquareFeet	432,000.00	726,942.00
tblLandUse	LandUseSquareFeet	30,470.00	30,466.00
tblLandUse	LotAcreage	6.75	0.00
tblLandUse	LotAcreage	0.96	0.00
tblLandUse	LotAcreage	17.17	0.00
tblLandUse	LotAcreage	6.75	5.50
tblLandUse	LotAcreage	0.70	0.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	585
tblStationaryGeneratorsPumpsEF	NOX_EF	2.85	0.50

tblStationaryGeneratorsPumpsEF	PM10_EF	0.15	0.02
tblStationaryGeneratorsPumpsEF	PM2_5_EF	0.15	0.02
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	3.1000e-004
tblTripsAndVMT	HaulingTripNumber	25.00	880.00
tblTripsAndVMT	HaulingTripNumber	0.00	420.00
tblTripsAndVMT	HaulingTripNumber	0.00	36,540.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	7.07
tblVehicleTrips	CC_TTP	72.50	0.00
tblVehicleTrips	CC_TTP	61.60	0.00
tblVehicleTrips	CC_TTP	64.40	0.00
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	8.50	0.00
tblVehicleTrips	CW_TTP	19.40	0.00

tblVehicleTrips	CW_TTP	16.60	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	38.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HW_TL	14.70	0.00
tblVehicleTrips	HW_TL	14.70	7.07
tblVehicleTrips	HW_TTP	40.20	0.00
tblVehicleTrips	HW_TTP	40.20	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PB_TP	0.00	100.00
tblVehicleTrips	PR_TP	86.00	0.00
tblVehicleTrips	PR_TP	37.00	0.00
tblVehicleTrips	PR_TP	58.00	0.00
tblVehicleTrips	PR_TP	45.00	0.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	4.31	0.00
tblVehicleTrips	ST_TR	158.37	0.00
tblVehicleTrips	ST_TR	8.19	0.00

tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	ST_TR	0.00	865.00
tblVehicleTrips	ST_TR	0.00	14,061.00
tblVehicleTrips	SU_TR	3.43	0.00
tblVehicleTrips	SU_TR	131.84	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	SU_TR	0.00	701.00
tblVehicleTrips	SU_TR	0.00	11,394.00
tblVehicleTrips	WD_TR	4.18	0.00
tblVehicleTrips	WD_TR	127.15	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblVehicleTrips	WD_TR	44.32	0.00
tblVehicleTrips	WD_TR	0.00	727.00
tblVehicleTrips	WD_TR	0.00	11,823.00
tblWoodstoves	NumberCatalytic	21.60	0.00
tblWoodstoves	NumberNoncatalytic	21.60	0.00

2.0 Emissions Summary

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	5.2391	0.1787	4.5353	1.0600e-003		0.0356	0.0356		0.0356	0.0356						155.6577
Energy	0.1343	1.2094	0.9399	7.3300e-003		0.0928	0.0928		0.0928	0.0928						3,559.7644

Mobile	2.6946	12.9064	32.2469	0.1304	11.8109	0.0993	11.9102	3.1650	0.0922	3.2572						12,100.6099
Stationary	1.6300e-003	5.7900e-003	0.0301	6.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004						5.5027
Waste						0.0000	0.0000		0.0000	0.0000						506.9599
Water						0.0000	0.0000		0.0000	0.0000						334.3622
Total	8.0697	14.3003	37.7523	0.1388	11.8109	0.2280	12.0389	3.1650	0.2208	3.3859						16,662.8567

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	5.2391	0.1787	4.5353	1.0600e-003		0.0356	0.0356		0.0356	0.0356						155.6577
Energy	0.1343	1.2094	0.9399	7.3300e-003		0.0928	0.0928		0.0928	0.0928						3,394.4177
Mobile	2.6946	12.9064	32.2469	0.1304	11.8109	0.0993	11.9102	3.1650	0.0922	3.2572						12,100.6099
Stationary	1.6300e-003	5.7900e-003	0.0301	6.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004						5.5027
Waste						0.0000	0.0000		0.0000	0.0000						119.6425
Water						0.0000	0.0000		0.0000	0.0000						267.4898
Total	8.0697	14.3003	37.7523	0.1388	11.8109	0.2280	12.0389	3.1650	0.2208	3.3859						16,043.3202

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.72

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.6946	12.9064	32.2469	0.1304	11.8109	0.0993	11.9102	3.1650	0.0922	3.2572						12,100.6099
Unmitigated	2.6946	12.9064	32.2469	0.1304	11.8109	0.0993	11.9102	3.1650	0.0922	3.2572						12,100.6099

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse High Rise	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
Strip Mall	0.00	0.00	0.00		
User Defined Commercial	727.00	865.00	701.00	27,045	27,045
User Defined Residential	11,823.00	14,061.00	11394.00	31,100,990	31,100,990
Total	12,550.00	14,926.00	12,095.00	31,128,035	31,128,035

4.3 Trip Type Information

[illegible]

User Defined Commercial	0.00	7.07	0.00	0.00	100.00	0.00	0	0	100
User Defined Residential	7.07	0.00	0.00	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse High Rise	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Enclosed Parking with Elevator	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
High Turnover (Sit Down Restaurant)	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Hotel	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Strip Mall	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
User Defined Commercial	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
User Defined Residential	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive 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						2,057.2005
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000						2,222.5472
NaturalGas Mitigated	0.1343	1.2094	0.9399	7.3300e-003		0.0928	0.0928		0.0928	0.0928						1,337.2172
NaturalGas Unmitigated	0.1343	1.2094	0.9399	7.3300e-003		0.0928	0.0928		0.0928	0.0928						1,337.2172

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					
Condo/Townhouse High Rise	3.98172e+006	0.0215	0.1835	0.0781	1.1700e-003		0.0148	0.0148		0.0148	0.0148						213.7423
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
High Turnover (Sit Down Restaurant)	9.60539e+006	0.0518	0.4709	0.3955	2.8300e-003		0.0358	0.0358		0.0358	0.0358						515.6259
Hotel	1.12734e+007	0.0608	0.5526	0.4642	3.3200e-003		0.0420	0.0420		0.0420	0.0420						605.1668
Strip Mall	49964.2	2.7000e-004	2.4500e-003	2.0600e-003	1.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004						2.6821
User Defined Commercial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
User Defined Residential	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Total		0.1343	1.2094	0.9399	7.3300e-003		0.0928	0.0928		0.0928	0.0928						1,337.2172

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					
Condo/Townhouse High Rise	3.98172e+006	0.0215	0.1835	0.0781	1.1700e-003		0.0148	0.0148		0.0148	0.0148						213.7423
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
High Turnover (Sit Down Restaurant)	9.60539e+006	0.0518	0.4709	0.3955	2.8300e-003		0.0358	0.0358		0.0358	0.0358						515.6259

Hotel	1.12734e+007	0.0608	0.5526	0.4642	3.3200e-003		0.0420	0.0420		0.0420	0.0420						605.1668
Strip Mall	49964.2	2.7000e-004	2.4500e-003	2.0600e-003	1.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004						2.6821
User Defined Commercial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
User Defined Residential	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Total		0.1343	1.2094	0.9399	7.3300e-003		0.0928	0.0928		0.0928	0.0928						1,337.2172

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse High Rise	1.82293e+006				485.7946
Enclosed Parking with Elevator	705000				187.8765
High Turnover (Sit Down Restaurant)	1.83733e+006				489.6320
Hotel	3.56349e+006				949.6387
Strip Mall	411291				109.6055
User Defined Commercial	0				0.0000
User Defined Residential	0				0.0000
Total					2,222.5472

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse High Rise	1.71481e+006				456.9818
Enclosed Parking with Elevator	573750				152.8995
High Turnover (Sit Down Restaurant)	1.75543e+006				467.8071
Hotel	3.31197e+006				882.6127
Strip Mall	363612				96.8994
User Defined Commercial	0				0.0000
User Defined Residential	0				0.0000
Total					2,057.2005

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive 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	5.2391	0.1787	4.5353	1.0600e-003		0.0356	0.0356		0.0356	0.0356						155.6577
Unmitigated	5.2391	0.1787	4.5353	1.0600e-003		0.0356	0.0356		0.0356	0.0356						155.6577

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	0.4829					0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	4.6055					0.0000	0.0000		0.0000	0.0000						0.0000
Hearth	0.0152	0.1272	0.0572	8.2000e-004		0.0108	0.0108		0.0108	0.0108						148.1536
Landscaping	0.1355	0.0515	4.4782	2.4000e-004		0.0248	0.0248		0.0248	0.0248						7.5041
Total	5.2391	0.1787	4.5353	1.0600e-003		0.0356	0.0356		0.0356	0.0356						155.6577

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	0.4829					0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	4.6055					0.0000	0.0000		0.0000	0.0000						0.0000
Hearth	0.0152	0.1272	0.0572	8.2000e-004		0.0108	0.0108		0.0108	0.0108						148.1536
Landscaping	0.1355	0.0515	4.4782	2.4000e-004		0.0248	0.0248		0.0248	0.0248						7.5041
Total	5.2391	0.1787	4.5353	1.0600e-003		0.0356	0.0356		0.0356	0.0356						155.6577

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated				267.4898
Unmitigated				334.3622

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse High Rise	28.1465 / 17.7446				188.5167
Enclosed Parking with Elevator	0 / 0				0.0000
High Turnover (Sit Down Restaurant)	12.6361 / 0.80656				63.4349
Hotel	13.0639 / 1.45154				67.4112
Strip Mall	2.25699 / 1.38332				14.9995
User Defined Commercial	0 / 0				0.0000

User Defined Residential	0 / 0			0.0000
Total				334.3622

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse High Rise	22.5172 / 14.1956				150.8134
Enclosed Parking with Elevator	0 / 0				0.0000
High Turnover (Sit Down Restaurant)	10.1089 / 0.645248				50.7479
Hotel	10.4511 / 1.16123				53.9289
Strip Mall	1.80559 / 1.10665				11.9996
User Defined Commercial	0 / 0				0.0000
User Defined Residential	0 / 0				0.0000
Total					267.4898

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated				119.6425
Unmitigated				506.9599

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse High Rise	198.72				99.9366
Enclosed Parking with Elevator	0				0.0000
High Turnover (Sit Down Restaurant)	495.4				249.1374
Hotel	281.96				141.7981
Strip Mall	31.99				16.0878
User Defined Commercial	0				0.0000
User Defined Residential	0				0.0000
Total					506.9599

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse High Rise	46.8979				23.5850
Enclosed Parking with Elevator	0				0.0000
High Turnover (Sit Down Restaurant)	116.914				58.7964
Hotel	66.5426				33.4644
Strip Mall	7.54964				3.7967
User Defined Commercial	0				0.0000
User Defined Residential	0				0.0000
Total					119.6426

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
Emergency Generator	2	0.25	12	600	0.73	Diesel

Boilers

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

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

10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (600 - 750 HP)	1.6300e-003	5.7900e-003	0.0301	6.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004						5.5027
Total	1.6300e-003	5.7900e-003	0.0301	6.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004						5.5027

11.0 Vegetation

Angels Landing-Operational Project LADOT VMT - Los Angeles-South Coast County, Annual

Angels Landing-Operational Project LADOT VMT

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Commercial	1.00	User Defined Unit	0.00	0.00	0
Enclosed Parking with Elevator	750.00	Space	0.00	300,000.00	0
High Turnover (Sit Down Restaurant)	41.63	1000sqft	0.00	41,625.00	0
Hotel	515.00	Room	0.00	470,117.00	0
Condo/Townhouse High Rise	432.00	Dwelling Unit	5.50	726,942.00	1236
User Defined Residential	1.00	Dwelling Unit	0.00	0.00	3
Strip Mall	30.47	1000sqft	0.00	30,466.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2026
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	585	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - RPS for 2026

Land Use - Lot Acreage: Updated to reflect Project acreage.

Hotel: Square footage revised to reflect Project Description (Table II-1).

User Defined: LADOT VMT

Trips and VMT - Site Specific Trip Data

Woodstoves - Limited number of fireplaces within units and common areas

Energy Use - Consistency with Building Code Requirements

Mobile Land Use Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Stationary Sources - Emergency Generators and Fire Pumps -

Stationary Sources - Emergency Generators and Fire Pumps EF - SCAQMD BACT

Table Name	Column Name	Default Value	New Value
tblEnergyUse	T24E	3.92	0.46
tblFireplaces	FireplaceDayYear	25.00	100.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	6.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	NumberGas	367.20	68.00
tblFireplaces	NumberGas	0.85	0.00
tblFireplaces	NumberNoFireplace	43.20	0.00
tblFireplaces	NumberNoFireplace	0.10	0.00
tblFireplaces	NumberWood	21.60	0.00
tblFireplaces	NumberWood	0.05	0.00
tblLandUse	LandUseSquareFeet	41,630.00	41,625.00
tblLandUse	LandUseSquareFeet	747,780.00	470,117.00
tblLandUse	LandUseSquareFeet	432,000.00	726,942.00
tblLandUse	LandUseSquareFeet	30,470.00	30,466.00
tblLandUse	LotAcreage	6.75	0.00
tblLandUse	LotAcreage	0.96	0.00
tblLandUse	LotAcreage	17.17	0.00
tblLandUse	LotAcreage	6.75	5.50
tblLandUse	LotAcreage	0.70	0.00

tblProjectCharacteristics	CO2IntensityFactor	1227.89	585
tblStationaryGeneratorsPumpsEF	NOX_EF	2.85	0.50
tblStationaryGeneratorsPumpsEF	PM10_EF	0.15	0.02
tblStationaryGeneratorsPumpsEF	PM2_5_EF	0.15	0.02
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	3.1000e-004
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	600.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.25
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	12.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	2.00
tblTripsAndVMT	HaulingTripNumber	25.00	880.00
tblTripsAndVMT	HaulingTripNumber	0.00	420.00
tblTripsAndVMT	HaulingTripNumber	0.00	36,540.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	7.40
tblVehicleTrips	CC_TTP	72.50	0.00
tblVehicleTrips	CC_TTP	61.60	0.00
tblVehicleTrips	CC_TTP	64.40	0.00
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00

tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	8.50	0.00
tblVehicleTrips	CW_TTP	19.40	0.00
tblVehicleTrips	CW_TTP	16.60	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	38.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HW_TL	14.70	0.00
tblVehicleTrips	HW_TL	14.70	7.40
tblVehicleTrips	HW_TTP	40.20	0.00
tblVehicleTrips	HW_TTP	40.20	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PB_TP	0.00	100.00
tblVehicleTrips	PR_TP	86.00	0.00
tblVehicleTrips	PR_TP	37.00	0.00

tblVehicleTrips	PR_TP	58.00	0.00
tblVehicleTrips	PR_TP	45.00	0.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	4.31	0.00
tblVehicleTrips	ST_TR	158.37	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	ST_TR	0.00	865.00
tblVehicleTrips	ST_TR	0.00	6,434.00
tblVehicleTrips	SU_TR	3.43	0.00
tblVehicleTrips	SU_TR	131.84	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	SU_TR	0.00	701.00
tblVehicleTrips	SU_TR	0.00	5,214.00
tblVehicleTrips	WD_TR	4.18	0.00
tblVehicleTrips	WD_TR	127.15	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblVehicleTrips	WD_TR	44.32	0.00
tblVehicleTrips	WD_TR	0.00	727.00
tblVehicleTrips	WD_TR	0.00	5,410.00
tblWoodstoves	NumberCatalytic	21.60	0.00
tblWoodstoves	NumberNoncatalytic	21.60	0.00

2.0 Emissions Summary

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	5.2374	0.1644	4.5293	9.7000e-004		0.0344	0.0344		0.0344	0.0344						138.9898
Energy	0.1343	1.2094	0.9399	7.3300e-003		0.0928	0.0928		0.0928	0.0928						3,563.7617
Mobile	1.3072	6.2558	15.5167	0.0626	5.6588	0.0477	5.7065	1.5164	0.0443	1.5607						5,806.9604
Stationary	1.6300e-003	5.7900e-003	0.0301	6.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004						5.5027
Waste						0.0000	0.0000		0.0000	0.0000						506.9599
Water						0.0000	0.0000		0.0000	0.0000						334.3622
Total	6.6805	7.6354	21.0160	0.0709	5.6588	0.1752	5.8340	1.5164	0.1718	1.6882						10,356.5368

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	5.2374	0.1644	4.5293	9.7000e-004		0.0344	0.0344		0.0344	0.0344						138.9898
Energy	0.1273	1.1458	0.8901	6.9400e-003		0.0879	0.0879		0.0879	0.0879						3,278.4108
Mobile	1.3072	6.2558	15.5167	0.0626	5.6588	0.0477	5.7065	1.5164	0.0443	1.5607						5,806.9604
Stationary	1.6300e-003	5.7900e-003	0.0301	6.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004						5.5027
Waste						0.0000	0.0000		0.0000	0.0000						119.6425
Water						0.0000	0.0000		0.0000	0.0000						267.4898
Total	6.6735	7.5718	20.9662	0.0705	5.6588	0.1703	5.8291	1.5164	0.1669	1.6833						9,616.9960

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.11	0.83	0.24	0.55	0.00	2.78	0.08	0.00	2.84	0.29	0.00	0.00	0.00	0.00	0.00	7.14

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.3072	6.2558	15.5167	0.0626	5.6588	0.0477	5.7065	1.5164	0.0443	1.5607						5,806.9604
Unmitigated	1.3072	6.2558	15.5167	0.0626	5.6588	0.0477	5.7065	1.5164	0.0443	1.5607						5,806.9604

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse High Rise	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
Strip Mall	0.00	0.00	0.00		
User Defined Commercial	727.00	865.00	701.00	27,045	27,045
User Defined Residential	5,410.00	6,434.00	5214.00	14,886,966	14,886,966
Total	6,137.00	7,299.00	5,915.00	14,914,011	14,914,011

4.3 Trip Type Information

[illegible]

Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
User Defined Commercial	0.00	7.40	0.00	0.00	100.00	0.00	0	0	100
User Defined Residential	7.40	0.00	0.00	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse High Rise	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Enclosed Parking with Elevator	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
High Turnover (Sit Down Restaurant)	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Hotel	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Strip Mall	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
User Defined Commercial	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
User Defined Residential	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive 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						2,011.4272
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000						2,226.5446

NaturalGas Mitigated	0.1273	1.1458	0.8901	6.9400e-003		0.0879	0.0879		0.0879	0.0879						1,266.9836
NaturalGas Unmitigated	0.1343	1.2094	0.9399	7.3300e-003		0.0928	0.0928		0.0928	0.0928						1,337.2172

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					
Condo/Townhouse High Rise	3.98172e+006	0.0215	0.1835	0.0781	1.1700e-003		0.0148	0.0148		0.0148	0.0148						213.7423
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
High Turnover (Sit Down Restaurant)	9.60539e+006	0.0518	0.4709	0.3955	2.8300e-003		0.0358	0.0358		0.0358	0.0358						515.6259
Hotel	1.12734e+007	0.0608	0.5526	0.4642	3.3200e-003		0.0420	0.0420		0.0420	0.0420						605.1668
Strip Mall	49964.2	2.7000e-004	2.4500e-003	2.0600e-003	1.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004						2.6821
User Defined Commercial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
User Defined Residential	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Total		0.1343	1.2094	0.9399	7.3300e-003		0.0928	0.0928		0.0928	0.0928						1,337.2172

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					
Condo/Townhouse High Rise	3.79225e+006	0.0205	0.1747	0.0744	1.1200e-003		0.0141	0.0141		0.0141	0.0141						203.5712

Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
High Turnover (Sit Down Restaurant)	9.42648e+006	0.0508	0.4621	0.3882	2.7700e-003		0.0351	0.0351		0.0351	0.0351						506.0222
Hotel	1.03369e+007	0.0557	0.5067	0.4256	3.0400e-003		0.0385	0.0385		0.0385	0.0385						554.8961
Strip Mall	46460.6	2.5000e-004	2.2800e-003	1.9100e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004						2.4941
User Defined Commercial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
User Defined Residential	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Total		0.1273	1.1458	0.8901	6.9400e-003		0.0879	0.0879		0.0879	0.0879						1,266.9836

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse High Rise	1.82293e+006				485.7946
Enclosed Parking with Elevator	720000				191.8738
High Turnover (Sit Down Restaurant)	1.83733e+006				489.6320
Hotel	3.56349e+006				949.6387
Strip Mall	411291				109.6055
User Defined Commercial	0				0.0000
User Defined Residential	0				0.0000
Total					2,226.5446

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse High Rise	1.7077e+006				455.0876
Enclosed Parking with Elevator	574950				153.2192
High Turnover (Sit Down Restaurant)	1.72167e+006				458.8109
Hotel	3.19209e+006				850.6658
Strip Mall	351395				93.6437
User Defined Commercial	0				0.0000
User Defined Residential	0				0.0000
Total					2,011.4272

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive 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	5.2374	0.1644	4.5293	9.7000e-004		0.0344	0.0344		0.0344	0.0344						138.9898
Unmitigated	5.2374	0.1644	4.5293	9.7000e-004		0.0344	0.0344		0.0344	0.0344						138.9898

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	0.4829					0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	4.6055					0.0000	0.0000		0.0000	0.0000						0.0000
Hearth	0.0135	0.1129	0.0511	7.3000e-004		9.6200e-003	9.6200e-003		9.6200e-003	9.6200e-003						131.4856
Landscaping	0.1355	0.0515	4.4782	2.4000e-004		0.0248	0.0248		0.0248	0.0248						7.5041
Total	5.2374	0.1644	4.5292	9.7000e-004		0.0344	0.0344		0.0344	0.0344						138.9898

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	0.4829					0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	4.6055					0.0000	0.0000		0.0000	0.0000						0.0000
Hearth	0.0135	0.1129	0.0511	7.3000e-004		9.6200e-003	9.6200e-003		9.6200e-003	9.6200e-003						131.4856
Landscaping	0.1355	0.0515	4.4782	2.4000e-004		0.0248	0.0248		0.0248	0.0248						7.5041
Total	5.2374	0.1644	4.5292	9.7000e-004		0.0344	0.0344		0.0344	0.0344						138.9898

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated				267.4898
Unmitigated				334.3622

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse High Rise	28.1465 / 17.7446				188.5167
Enclosed Parking with Elevator	0 / 0				0.0000
High Turnover (Sit Down Restaurant)	12.6361 / 0.80656				63.4349
Hotel	13.0639 / 1.45154				67.4112
Strip Mall	2.25699 / 1.38332				14.9995

User Defined Commercial	0 / 0			0.0000
User Defined Residential	0 / 0			0.0000
Total				334.3622

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse High Rise	22.5172 / 14.1956				150.8134
Enclosed Parking with Elevator	0 / 0				0.0000
High Turnover (Sit Down Restaurant)	10.1089 / 0.645248				50.7479
Hotel	10.4511 / 1.16123				53.9289
Strip Mall	1.80559 / 1.10665				11.9996
User Defined Commercial	0 / 0				0.0000
User Defined Residential	0 / 0				0.0000
Total					267.4898

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated				119.6425
Unmitigated				506.9599

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse High Rise	198.72				99.9366
Enclosed Parking with Elevator	0				0.0000
High Turnover (Sit Down Restaurant)	495.4				249.1374
Hotel	281.96				141.7981
Strip Mall	31.99				16.0878
User Defined Commercial	0				0.0000
User Defined Residential	0				0.0000
Total					506.9599

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse High Rise	46.8979				23.5850
Enclosed Parking with Elevator	0				0.0000
High Turnover (Sit Down Restaurant)	116.914				58.7964
Hotel	66.5426				33.4644
Strip Mall	7.54964				3.7967
User Defined Commercial	0				0.0000
User Defined Residential	0				0.0000
Total					119.6426

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
Emergency Generator	2	0.25	12	600	0.73	Diesel

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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10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (600 - 750 HP)	1.6300e-003	5.7900e-003	0.0301	6.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004						5.5027
Total	1.6300e-003	5.7900e-003	0.0301	6.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004						5.5027

11.0 Vegetation
