Appendix C

Air Quality and Greenhouse Gas Emissions

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

AIR QUALITY AND GREENHOUSE GAS EMISSIONS METHODLOGY

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Prepared by:

Eyestone Environmental, LLC

October 2020

1111 Sunset 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 1111 Sunset 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.

<u>Construction Off-Road Equipment</u>:

$$\text{Emissions Diesel [lbs]} = (\sum_i (EF_i \times Pop_i \times AvgHP_i \times Load_i \times Activity_i$$

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. PM_{10} 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:

<u>Construction On-Road Equipment</u>:

Emissions pollutant (lbs) = VMT * EF running, pollutant

Where: VMT = vehicle miles traveled (miles)

EF running,pollutant = 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:

Emissions Architectural Coatings (lbs) $=EF_{AC} \times F * A_{paint}$

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:

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

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:

$Emissions_{AP}$ (lbs) $= EF_{AP} \times A_{parking}$

Where: EF = emission factor (lb/acre)

A = area of the parking lot (acre)

Note: CalEEMod and the SCAQMD use the Sacramento Metropolitan Air Quality Management District (SMAQMD) default emission factor of 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} x 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:

Landscaping Equipment Emissions [lbs] = $(\Sigma_i (\text{Units} \times EF_{LE} \times A_{LE})_i)$

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 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 $MTCO_2e$ are calculated as follows:

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

Electricity:

Annual Emissions [$MTCO_2e$] = (Σ_i (Units × D_E × EF_E × GWP)$_i$) ÷ 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 [CO_2 = 1, CH_4 = 21, N_2O = 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 CO_2 intensity of 801 pounds of CO_2 per MWh for 2019. Senate Bill (SB) 100 requires by 2030, at least 60 percent of electricity shall be obtained from renewable sources. As year-by-year data is currently not available, the CO_2 intensity factor for the Project buildout was determined based on straight line extrapolation based on current and Year 2030 data points (801 pounds of CO_2 per MWh for Year 2019 and 403 pounds of CO_2 per MWh for Year 2030).

(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:

Natural Gas:

Natural Gas Emissions (lbs) = (Σ_i (Units × D_{NG} × EF_{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]

I = 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 Transportation Assessment for the 1111 Sunset Mixed Use Project 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:

Mobile Emissions [lbs] = (Σ_i (Units × ADT x D_{TRIP} × 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. [5] 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.[6] 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, HQTA 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

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[5] *Gibson Transportation Consulting, Inc., Transportation Assessment for the 1111 Sunset Boulevard Mixed-Use Project, City of Los Angeles, September 2020*

[6] *Environmental Protection Agency, Mixed-Use Trip Generation Model. www.epa.gov/smartgrowth/mixed-use-trip-generation-model. Accessed October 13, 2020.*

diesel generator and the number of hours operated per year for testing purposes. Annual emergency generator GHG emissions in units of $MTCO_2e$ were calculated as follows:

Emergency Generator:

Emissions [lbs] = (Total HP x LF x HR × 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 CO_2 and CH_4 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 $MTCO_2e$ were calculated in CalEEMod as follows:

Solid Waste:

Annual Emissions [$MTCO_2e$] = (Σ_i (Units × D_{MSW} × EF_{MSW} × GWP)$_i$) ÷ 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 annaual 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.[7]

(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 land uses, the water demand factors, the electrical intensity factors for water supply,

[7] *City of Los Angeles Bureau of Sanitation, Zero Waste Progress Report. March 2013.*

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):

$$\text{Annual Emissions [MTCO}_2\text{e]} = (\Sigma_i\ (\text{Units} \times D_W \times (EI_W \div 1{,}000) \times EF_W \times GWP)_i\ ) \div 2{,}204.62$$

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]
EI_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 [CO_2 = 1, CH_4 = 21, N_2O = 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.[8] 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. The 2016–2040 RTP/SCS would result in an estimated 8-percent decrease in per capita GHG emissions by 2020, 18-percent decrease in per capita GHG emissions from passenger vehicles by 2035, and 21-percent decrease in per capita GHG emissions from passenger vehicles by 2040. In March 2018, CARB adopted updated targets requiring a 19-percent decrease in VMT for the SCAG region by 2035. As the CARB targets were adopted after the 2016–2040 RTP/SCS, it is expected that the updated targets will be incorporated into the next RTP/SCS. The 2016–2040 RTP/SCS and/or the next RTP/SCS are expected to fulfill and exceed SB 375 compliance with respect to meeting the State's GHG emission reduction goals.

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[8] *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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Appendix C-2-Air Quality Worksheets and Modeling Output Files

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Air Quality Emissions Summary (Mixed Use Scenario)

AQ SUMMARY OF EMISSIONS

Construction Emissions (Unmitigated)

Regional (Daily) Unmitigated	ROG	NO_x	CO	SO2	PM_{10}	$PM_{2.5}$
2021	12	239	98	1	21	7
2022	10	76	92	0	10	5
2023	39	57	74	0	9	4
2024	39	54	73	0	9	4
MAX	39	239	98	<1	21	7
Threshold	**75**	**100**	**550**	**150**	**150**	**55**
Difference	**(36)**	**139**	**(452)**	**(149)**	**(129)**	**(48)**
Impact	**No**	**Yes**	**No**	**No**	**No**	**No**

Localized (Daily) Unmitigated	ROG	NO_x	CO	SO2	PM_{10}	$PM_{2.5}$
2021		63	73		16	4
2022		57	72		3	3
2023		43	56		2	2
2024		40	56		2	2
MAX		63	73		16	4
Threshold		97	3045		69	18
Difference		**(34)**	**(2,972)**		**(53)**	**(14)**
Impact		**No**	**No**		**No**	**No**

Construction Emissions (With Mitigation Measures)

Regional (Daily) w/PDFs	ROG	NO_x	CO	SO2	PM_{10}	$PM_{2.5}$
2020	7	106	111	<1	16	5
2021	10	76	92	<1	10	5
2022	39	57	74	<1	9	4
2023	39	54	73	<1	9	4
MAX	39	106	111	<1	16	5
Threshold	**75**	**100**	**550**	**150**	**150**	**55**
Difference	**(36)**	**6**	**(439)**	**(149)**	**(134)**	**(50)**
Impact	**No**	**Yes**	**No**	**No**	**No**	**No**
Percent Reduction:	0%	-56%	13%	0%	-26%	-29%

Localized (Daily) w/PDFs	ROG	NO_x	CO	SO2	PM_{10}	$PM_{2.5}$
2021		19	73		6	<1
2022		57	72		3	3
2023		43	56		2	2
2024		40	56		2	2
MAX		57	73		6	3
Threshold		97	3045		69	18
Difference		**(40)**	**(2,972)**		**(63)**	**(15)**
Impact		**No**	**No**		**No**	**No**
Percent Reduction:		-9%	0%		-64%	-24%

Operation Emissions (Without Project Design Features)

Regional Buildout (Buildout Year)	ROG	NO_x	CO	SO2	PM_{10}	$PM_{2.5}$
Area	24	1	61	<1	<1	<1
Energy	<1	5	3	<1	<1	<1
Mobile	9	45	99	<1	44	12
Emergency Generator	<1	<1	1	<1	<1	<1
Total	33	51	165	<1	44	13
Threshold	**55**	**55**	**550**	**150**	**150**	**55**
Difference	**(22)**	**(4)**	**(385)**	**(150)**	**(106)**	**(42)**
Impact	No	No	No	No	No	No
Project Localized (Buildout Year)						
Onsite Total		6	66		1	0.8
Threshold		**97**	**3045**		**17**	**5**
Difference		**(91)**	**(2979)**		**(16)**	**(4)**
Impact		**No**	**No**		**No**	**No**

1111 Sunset

Air Quality Emissions Summary (No Hotel Scenario)

AQ SUMMARY OF EMISSIONS

Construction Emissions (Unmitigated)

Regional (Daily) Unmitigated	ROG	NO_x	CO	SO2	PM_{10}	$PM_{2.5}$
2021	12	239	98	1	21	7
2022	10	76	92	0	10	5
2023	39	57	74	0	9	4
2024	39	54	73	0	9	4
MAX	39	239	98	<1	21	7
Threshold	**75**	**100**	**550**	**150**	**150**	**55**
Difference	**(36)**	**139**	**(452)**	**(149)**	**(129)**	**(48)**
Impact	**No**	**Yes**	**No**	**No**	**No**	**No**

Localized (Daily) Unmitigated	ROG	NO_x	CO	SO2	PM_{10}	$PM_{2.5}$
2021		63	73	<1	16	4
2022		57	72	<1	3	3
2023		43	56	<1	2	2
2024		40	56	<1	2	2
MAX		63	73	<1	16	4
Threshold		97	3045		69	18
Difference		**(34)**	**(2,972)**		**(53)**	**(14)**
Impact		**No**	**No**		**No**	**No**

Construction Emissions (With Project Design Features)

Regional (Daily) w/PDFs	ROG	NO_x	CO	SO2	PM_{10}	$PM_{2.5}$
2020	7	106	111	<1	16	5
2021	10	76	92	<1	10	5
2022	39	57	74	<1	9	4
2023	39	54	73	<1	9	4
MAX	39	106	111	<1	16	5
Threshold	**75**	**100**	**550**	**150**	**150**	**55**
Difference	**(36)**	**6**	**(439)**	**(149)**	**(134)**	**(50)**
Impact	**No**	**Yes**	**No**	**No**	**No**	**No**
Percent Reduction:	0%	-56%	13%	0%	-26%	-29%

Localized (Daily) w/PDFs	ROG	NO_x	CO	SO2	PM_{10}	$PM_{2.5}$
2021		19	73		16	4
2022		57	72		3	3
2023		43	56		2	2
2024		40	56		2	2
MAX		57	73		16	4
Threshold		97	3045		69	18
Difference		**(40)**	**(2,972)**		**(53)**	**(14)**
Impact		**No**	**No**		**No**	**No**
Percent Reduction:		-9%	0%		0%	0%

Operation Emissions (Without Project Design Features)

Regional Buildout (Buildout Year)	ROG	NO_x	CO	SO2	PM_{10}	$PM_{2.5}$
Area	24	<1	68	<1	<1	<1
Energy	<1	5	3	<1	<1	<1
Mobile	8	42	94	<1	41	11
Emergency Generator	<1	<1	<1	<1	<1	<1
Total	33	48	166	<1	42	12
Threshold	**55**	**55**	**550**	**150**	**150**	**55**
Difference	**(22)**	**(7)**	**(384)**	**(150)**	**(108)**	**(43)**
Impact	No	No	No	No	No	No
Project Localized (Buildout Year)						
Onsite Total		6	72		1	1
Threshold		**97**	**3045**		**17**	**5**
Difference		**(92)**	**(2973)**		**(16)**	**(4)**
Impact		**No**	**No**		**No**	**No**

Construction Details	Start Date	End Date	Days	Daily Employee Trips	Max Daily Haul Trips	Total Haul Trips	Max Delivery Trips
Project	1/6/2021	8/31/2024	952				
Utility Work (Phase 0) and Demolition (Phase 1)	1/6/2021	3/30/2021	60	136	146	8,760	20
Demolition (Phase 0) and Excavation (Phase 1)	4/1/2021	6/23/2021	72	206	510	36,720	60
Grading/Excavation (Phases 0 and 1)	6/24/2021	7/21/2021	24	200	556	13,344	60
Concrete (Phase 0) and Grading/Excavation (Phase 1)	7/22/2021	9/29/2021	60	256	430	25,800	170
Concrete (Phase 0 and Phase 1/2) Mat	9/30/2021	11/17/2021	35	150		-	1400
Building Construction (Phase 0 and Phase 1/2)	11/18/2021	9/28/2022	225	550		-	190
Building Construction (Phase 1/2)	9/29/2022	5/14/2024	424	550		-	190
Bungalows/Paving/Landscape	5/13/2023	8/31/2024	340	168		-	100

Demolition Quantities		
Demolition Quantities (Phase 0)	165,000	s.f.
Demolition Quantities (Phase 1/2)	732,867	s.f.
Demolition Quantities	897,867	s.f.
Import/Export Quantities during Grading		**Total:**
Import	-	-
Export (CY) (Phase 0)	16,647	
Export (CY) (Phase 1/2)	455,292	
Total Export (CY)	471,939	
Concrete Logistics		Total:
Import (CY)	145,562	145,562

The construction analysis conservatively assumes a 2021 start year. If construction were to be delayed, construction emissions would decrease due to more stringent emissions standards for construction equipment and trucks.

The construction analysis also conservatively assumes an accelerated and compressed schedule with overlapping phases. If certain construction phases were to take place at later dates avoiding overlap, Project construction would be complete by 2028.

Equipment (Worst Case Day)	Utility Work (Phase 0) and Demo (Phase 1)	Demolition (Phase 0) and Excavation (Phase 1)	Grading/ Excavation (Phases 0 and 1)	Concrete (Phase 0) and Grading/ Excavation (Phase 1)	Concrete (Phase 0 and Phase 1/2) Matt	Building Construction (Phase 0 and Phase 1/2)	Building Construction (Phase 1/2)	Bungalows/Paving /Landscape
Air Compressor	1	1	-	2	2	8	6	
Aerial Lift	-	-	-	-	-	12	10	
Bore/Drill Rig	-	3	3		-	-	-	-
Cement and Mortar Mixers	-	2	2	4			4	2
Concrete/Industrial Saws	1	1	-	-	-	-	-	1
Cranes (Tower) Electric	-			1	2	4	3	-
Cranes (Mobile)	-	-	-	1	2	2	2	1
Crawler Tractors	-	-	-	-	-	-	-	-
Crushing/Proc. Equipment	-	-	-	-	-	-	-	-
Excavators	2	4	4	3	-	-	-	1
Forklifts	-	-	-	-	2	7	5	2
Generator Sets	-	1	1	1	-	-	-	-
Graders	-			-	-	-	-	
Off-Highway Tractors	-	-	-	-	-	-	-	-
Pavers	-	-	-	-	-	-	-	2
Paving Equipment	-	-	-	-	-	-	-	2
Concrete Pumps	-	-	-	3	3	3	2	
Plate Compactors	-	-	-	-	-	-	-	-
Compactors	-	2	2	2	4	-	-	2
Rough Terrain Forklifts	1	1	1	1	1	2	1	1
Rubber Tired Dozers	-	-	-	-	-	-	-	-
Rubber Tired Loaders	-	4	4	3	-	-	-	1
Scrapers	-	-	-	-	-	-	-	-
Signal Boards	-	-	-	-	-	-	-	-
Skid Steer Loaders	2	2	2	2			2	2
Surfacing Equipment	-	-	-	-	-	-	-	-
Tractors/Loaders/Backhoes	2	2	2	2	2	2	1	2
Trenchers	2	-	-	-	-	-	-	1
Welders	-	3	3	3	2	3	2	1
Total Pieces	**11**	**26**	**24**	**28**	**20**	**43**	**38**	**21**

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

Central LA NO2 Monitoring Data

SRA	City	Design Value 2014-2016	98th percentile, ppb 2013	2014	2015	2016	Threshold (ppb)	Allowable Increase (ppb)
1	Central LA	65		67	62	65	100	35

SRA	City	Design Value 2006-2008	Max Hourly, ppb 2013	2014	2015	2016	Threshold (ppb)	Allowable Increase (ppb)
1	Central LA	120		82	79	65	180	60

Max Hourly vs. 98th Percentile Ratio (Allowable Increase)	**59%**

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, 100 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	82	48	1259	33	10	8	3	
2	110	64	1799	43	12	11	3	
5	165	97	3030	69	18	17	5	
5	**166**	**97**	**3045**	**69**	**18**	**17**	**5**	**<----Interpolated Value**

Construction Analysis

- Construction emissions were modeled assuming Project construction would start in 2021. Pending approvals, it is likely that construction would not start until 2022 at the earliest. However, construction equipment and vehicles would be required to comply with more stringent emissions control standards in future years. Such emissions control standards include the California Air Resources Board (CARB) Truck and Bus Regulation which requires trucks (construction haul trucks) to comply with Year 2010 emissions standards by 2023. With regard to on-site equipment, the CARB Off-road Fleet Rule would require construction fleets to add Tier 3 or higher emissions compliant equipment after 2023. If Project construction were to be delayed, equipment and trucks would be subject to more stringent emissions requirements which would reduce emissions.

- In addition, the Project also assumes a 44-month construction duration. This construction schedule assumes overlapping phases which would identify the worst-case daily emissions. However, if the Project construction schedule were to be extended to take place over a longer duration (Year 2028 buildout), construction activities would be less intense on a daily basis as most phases would occur sequentially (non-overlapping).

- Total haul trips during the excavation phase of project construction was calculated by multiplying maximum daily trips and the total number of days of excavation. This was done to capture the worst-case daily emissions. However, this method would conservatively overestimate the total number of haul truck trips as under real world conditions, the maximum truck trips would not be occurring on a daily basis.

- Haul truck trip length was modified to account for trucks travelling to the Vulcan Irwindale landfill.

- On-site construction emissions calculations assume a trucks would be travelling on-site for a short distance (0.1 miles). Haul trucks were entered as one trip, but trip length was adjusted to account for total on-site VMT on a worst-case day.

Operational Analysis

- Project mobile source emissions were estimated using CalEEMod with VMT data provided by the LADOT VMT Calculator. The LADOT VMT Calculator incorporates the USEPA MXD model and accounts for project features such as increased density and proximity to transit, parking availability, bicycle infrastructure and ridesharing, which would reduce VMT and associated fuel usage in comparison to free-standing sites. However, these features are accounted for in the LADOT VMT Calculator as mitigation measures. Based on City and LADOT guidance, the transportation analysis is required to perform the VMT anlaysis without mitigation measures Therefore, a separate LADOT VMT Calculator modeling run was performed with project design features for purposes of analyzing air quality, greenhouse gas and energy impacts.

- Vehicle trips and VMT based on the LADOT VMT Calculator were entered into CalEEMod using the User Defined Commercial. User Defined Commercial land uses represent trips and VMT.

- CO2 Intensity Factors are based on LADWP's Power Integrated Resource Plan and requirements of SB 350 and SB 100. Intensity factors for the Project buildout year were determined through interpolation between current LADWP intensity factors and SB 350 and SB 100 targets.

CalEEMod Version: CalEEMod.2016.3.2

 Date: 1/23/2020 2:03 PM

1111 Sunset Buildout with PDFs - South Coast Air Basin, Winter

1111 Sunset Buildout Construction-Regional

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	48.00	1000sqft	1.10	48,000.00	0
Enclosed Parking with Elevator	485.00	Space	4.36	194,000.00	0
Unenclosed Parking with Elevator	1,168.00	Space	10.51	467,200.00	0
Health Club	14.50	1000sqft	0.33	14,500.00	0
High Turnover (Sit Down Restaurant)	35.00	1000sqft	0.80	35,000.00	0
Hotel	180.00	Room	6.00	85,000.00	0
Apartments Mid Rise	96.00	Dwelling Unit	2.53	110,336.00	275
Condo/Townhouse High Rise	737.00	Dwelling Unit	11.52	766,982.00	2108
Strip Mall	18.20	1000sqft	0.42	18,200.00	0
Supermarket	27.30	1000sqft	0.63	27,300.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	12			**Operational Year**	2028
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	524	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - LADWP 2028 Carbon Intensity (SB100 RPS)

Land Use - see assumptions

Construction Phase - see assumptions

Off-road Equipment - Site Specific

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Trips and VMT - Soil Export - 25 miles to Irvindale (one-way)
Concrete - 6.5 miles to Catalina Pacific (one-way)
Demolition -

Grading -

Architectural Coating

Vehicle Trips - see assumptions

Construction Off-road Equipment Mitigation - Tier 4

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	22.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	20.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	15.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	15.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	17.00
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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
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tblConstructionPhase	NumDays	740.00	424.00
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tblConstructionPhase	NumDays	55.00	79.00
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tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	MaterialExported	0.00	216,720.00
tblGrading	MaterialExported	0.00	72,240.00
tblGrading	MaterialExported	0.00	183,610.00
tblLandUse	LandUseSquareFeet	261,360.00	85,000.00
tblLandUse	LandUseSquareFeet	96,000.00	110,336.00
tblLandUse	LandUseSquareFeet	737,000.00	766,982.00
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tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	HaulingTripLength	20.00	25.00
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tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblTripsAndVMT	HaulingTripNumber	4,084.00	8,760.00
tblTripsAndVMT	HaulingTripNumber	27,090.00	36,720.00
tblTripsAndVMT	HaulingTripNumber	9,030.00	13,344.00
tblTripsAndVMT	HaulingTripNumber	22,951.00	26,230.00
tblTripsAndVMT	VendorTripLength	6.90	6.50
tblTripsAndVMT	VendorTripNumber	0.00	20.00
tblTripsAndVMT	VendorTripNumber	0.00	60.00
tblTripsAndVMT	VendorTripNumber	0.00	60.00
tblTripsAndVMT	VendorTripNumber	0.00	170.00
tblTripsAndVMT	VendorTripNumber	235.00	1,400.00
tblTripsAndVMT	VendorTripNumber	235.00	190.00
tblTripsAndVMT	VendorTripNumber	235.00	190.00
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tblTripsAndVMT	WorkerTripNumber	964.00	550.00
tblTripsAndVMT	WorkerTripNumber	964.00	550.00
tblTripsAndVMT	WorkerTripNumber	193.00	0.00
tblTripsAndVMT	WorkerTripNumber	50.00	168.00

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					
2021	11.8374	239.1562	97.5745	0.6364	19.6484	3.3083	21.1969	4.0801	3.1857	6.6417	0.0000	67,631.1602	67,631.1602	6.7441	0.0000	67,786.1572
2022	9.5076	75.8262	91.5766	0.2162	7.3635	2.8528	10.2163	1.9804	2.7483	4.7286	0.0000	21,333.7546	21,333.7546	2.5705	0.0000	21,398.0178
2023	38.9225	56.9758	74.1608	0.1896	7.3635	1.9491	9.3125	1.9804	1.8740	3.8544	0.0000	18,742.8991	18,742.8991	2.1329	0.0000	18,796.2228

2024	38.5339	54.4380	72.7817	0.1876	7.3635	1.7307	9.0942	1.9804	1.6627	3.6431	0.0000	18,551.3022	18,551.3022	2.1050	0.0000	18,603.9259
Maximum	**38.9225**	**239.1562**	**97.5745**	**0.6364**	**19.6484**	**3.3083**	**21.1969**	**4.0801**	**3.1857**	**6.6417**	**0.0000**	**67,631.1602**	**67,631.1602**	**6.7441**	**0.0000**	**67,786.1572**

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					
2021	7.3826	208.4675	110.7236	0.6364	14.8882	0.7242	15.6124	4.0486	0.6980	4.7466	0.0000	67,631.1602	67,631.1602	6.7441	0.0000	67,786.1572
2022	4.4887	37.1670	96.6405	0.2162	7.3635	0.2459	7.6093	1.9804	0.2409	2.2213	0.0000	21,333.7546	21,333.7546	2.5705	0.0000	21,398.0178
2023	35.3290	31.0471	77.6378	0.1896	7.3635	0.1903	7.5538	1.9804	0.1862	2.1666	0.0000	18,742.8991	18,742.8991	2.1329	0.0000	18,796.2228
2024	35.2061	30.8969	76.4408	0.1876	7.3635	0.1895	7.5530	1.9804	0.1854	2.1658	0.0000	18,551.3022	18,551.3022	2.1050	0.0000	18,603.9259
Maximum	**35.3290**	**208.4675**	**110.7236**	**0.6364**	**14.8882**	**0.7242**	**15.6124**	**4.0486**	**0.6980**	**4.7466**	**0.0000**	**67,631.1602**	**67,631.1602**	**6.7441**	**0.0000**	**67,786.1572**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**16.59**	**27.87**	**-7.54**	**0.00**	**11.40**	**86.28**	**23.07**	**0.31**	**86.16**	**40.11**	**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	Utility Work and Demolition	Demolition	1/6/2021	3/27/2021	5	60	
2	Demolition and Excavation	Grading	3/28/2021	6/19/2021	6	72	
3	Grading and Excavation	Grading	6/20/2021	7/17/2021	6	24	
4	Concrete and Grading/Excavation	Grading	7/18/2021	9/25/2021	6	60	
5	Concrete and Mat Foundation	Building Construction	9/28/2021	11/15/2021	5	35	
6	Building Construction (Phase 0 and 1/2)	Building Construction	11/16/2021	9/24/2022	5	225	
7	Building Construction (Phase 1/2)	Building Construction	9/28/2022	5/12/2024	5	424	
8	Architectural Coating	Architectural Coating	6/1/2023	5/12/2024	5	248	
9	Paving	Paving	5/13/2024	8/31/2024	5	79	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 14.87

Residential Indoor: 1,776,569; Residential Outdoor: 592,190; Non-Residential Indoor: 342,000; Non-Residential Outdoor: 114,000; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Utility Work and Demolition	Air Compressors	1	8.00	78	0.48
Utility Work and Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Utility Work and Demolition	Excavators	2	8.00	158	0.38

Utility Work and Demolition	Rough Terrain Forklifts	1	8.00	100	0.40
Utility Work and Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Utility Work and Demolition	Skid Steer Loaders	2	8.00	65	0.37
Utility Work and Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utility Work and Demolition	Trenchers	2	8.00	78	0.50
Demolition and Excavation	Air Compressors	1	8.00	78	0.48
Demolition and Excavation	Bore/Drill Rigs	3	8.00	221	0.50
Demolition and Excavation	Cement and Mortar Mixers	2	8.00	9	0.56
Demolition and Excavation	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition and Excavation	Excavators	4	8.00	158	0.38
Demolition and Excavation	Generator Sets	1	8.00	84	0.74
Demolition and Excavation	Graders	0	8.00	187	0.41
Demolition and Excavation	Plate Compactors	2	8.00	8	0.43
Demolition and Excavation	Rough Terrain Forklifts	1	8.00	100	0.40
Demolition and Excavation	Rubber Tired Dozers	0	8.00	247	0.40
Demolition and Excavation	Rubber Tired Loaders	4	8.00	203	0.36
Demolition and Excavation	Scrapers	0	8.00	367	0.48
Demolition and Excavation	Skid Steer Loaders	2	8.00	65	0.37
Demolition and Excavation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition and Excavation	Welders	3	8.00	46	0.45
Grading and Excavation	Cement and Mortar Mixers	3	8.00	9	0.56
Grading and Excavation	Concrete/Industrial Saws	2	8.00	81	0.73
Grading and Excavation	Excavators	4	8.00	158	0.38
Grading and Excavation	Generator Sets	1	8.00	84	0.74
Grading and Excavation	Graders	0	8.00	187	0.41
Grading and Excavation	Plate Compactors	2	8.00	8	0.43
Grading and Excavation	Rough Terrain Forklifts	1	8.00	100	0.40
Grading and Excavation	Rubber Tired Dozers	0	8.00	247	0.40
Grading and Excavation	Rubber Tired Loaders	4	8.00	203	0.36
Grading and Excavation	Scrapers	0	8.00	367	0.48
Grading and Excavation	Skid Steer Loaders	2	8.00	65	0.37
Grading and Excavation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading and Excavation	Welders	3	8.00	46	0.45
Concrete and Grading/Excavation	Air Compressors	2	8.00	78	0.48
Concrete and Grading/Excavation	Cement and Mortar Mixers	4	8.00	9	0.56
Concrete and Grading/Excavation	Cranes	1	8.00	231	0.29
Concrete and Grading/Excavation	Excavators	3	8.00	158	0.38
Concrete and Grading/Excavation	Generator Sets	1	8.00	84	0.74
Concrete and Grading/Excavation	Graders	0	8.00	187	0.41
Concrete and Grading/Excavation	Plate Compactors	2	8.00	8	0.43
Concrete and Grading/Excavation	Pumps	3	8.00	84	0.74
Concrete and Grading/Excavation	Rough Terrain Forklifts	1	8.00	100	0.40
Concrete and Grading/Excavation	Rubber Tired Dozers	0	8.00	247	0.40
Concrete and Grading/Excavation	Rubber Tired Loaders	3	8.00	203	0.36
Concrete and Grading/Excavation	Scrapers	0	8.00	367	0.48
Concrete and Grading/Excavation	Skid Steer Loaders	2	8.00	65	0.37
Concrete and Grading/Excavation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Concrete and Grading/Excavation	Welders	3	8.00	46	0.45

Concrete and Mat Foundation	Air Compressors	2	8.00	78	0.48
Concrete and Mat Foundation	Cranes	2	8.00	231	0.29
Concrete and Mat Foundation	Forklifts	2	8.00	89	0.20
Concrete and Mat Foundation	Generator Sets	0	8.00	84	0.74
Concrete and Mat Foundation	Plate Compactors	4	8.00	8	0.43
Concrete and Mat Foundation	Pumps	3	8.00	84	0.74
Concrete and Mat Foundation	Rough Terrain Forklifts	1	8.00	100	0.40
Concrete and Mat Foundation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Concrete and Mat Foundation	Welders	0	8.00	46	0.45
Concrete and Mat Foundation	Welders	2	8.00	46	0.45
Building Construction (Phase 0 and 1/2)	Aerial Lifts	12	8.00	63	0.31
Building Construction (Phase 0 and 1/2)	Air Compressors	8	8.00	78	0.48
Building Construction (Phase 0 and 1/2)	Cranes	2	8.00	231	0.29
Building Construction (Phase 0 and 1/2)	Forklifts	7	8.00	89	0.20
Building Construction (Phase 0 and 1/2)	Generator Sets	0	8.00	84	0.74
Building Construction (Phase 0 and 1/2)	Pumps	3	8.00	84	0.74
Building Construction (Phase 0 and 1/2)	Rough Terrain Forklifts	2	8.00	100	0.40
Building Construction (Phase 0 and 1/2)	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction (Phase 0 and 1/2)	Welders	0	8.00	46	0.45
Building Construction (Phase 0 and 1/2)	Welders	3	8.00	46	0.45
Building Construction (Phase 1/2)	Aerial Lifts	10	8.00	63	0.31
Building Construction (Phase 1/2)	Air Compressors	6	8.00	78	0.48
Building Construction (Phase 1/2)	Cement and Mortar Mixers	4	8.00	9	0.56
Building Construction (Phase 1/2)	Cranes	2	8.00	231	0.29
Building Construction (Phase 1/2)	Forklifts	5	8.00	89	0.20
Building Construction (Phase 1/2)	Generator Sets	0	8.00	84	0.74
Building Construction (Phase 1/2)	Pumps	2	8.00	84	0.74
Building Construction (Phase 1/2)	Rough Terrain Forklifts	1	8.00	100	0.40
Building Construction (Phase 1/2)	Skid Steer Loaders	2	8.00	65	0.37
Building Construction (Phase 1/2)	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction (Phase 1/2)	Welders	2	8.00	46	0.45
Architectural Coating	Air Compressors	0	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	8.00		
Paving	Cranes	1	8.00		
Paving	Excavators	1	8.00		
Paving	Forklifts	2	8.00		
Paving	Pavers	2	8.00		
Paving	Paving Equipment	2	8.00		
Paving	Plate Compactors	2	8.00		
Paving	Rollers	0	8.00		
Paving	Rough Terrain Forklifts	1	8.00		
Paving	Rubber Tired Loaders	1	8.00		
Paving	Skid Steer Loaders	2	8.00		
Paving	Tractors/Loaders/Backhoes	2	8.00		
Paving	Trenchers	1	8.00		
Paving	Welders	1	8.00		

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
Utility Work and Demolition	11	136.00	20.00	8,760.00	14.70	6.90	25.00	LD_Mix	HDT_Mix	HHDT
Demolition and Excavation	26	206.00	60.00	36,720.00	14.70	6.90	25.00	LD_Mix	HDT_Mix	HHDT
Grading and Excavation	24	200.00	60.00	13,344.00	14.70	6.90	25.00	LD_Mix	HDT_Mix	HHDT
Concrete and Grading/Excavation	27	256.00	170.00	26,230.00	14.70	6.90	25.00	LD_Mix	HDT_Mix	HHDT
Concrete and Mat Foundation	18	150.00	1,400.00	0.00	14.70	6.50	20.00	LD_Mix	HHDT	HHDT
Building Construction (Phase 0 and 1/2)	39	550.00	190.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction (Phase 1/2)	35	550.00	190.00	0.00	14.70	6.90	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	20	168.00	100.00	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 Utility Work and Demolition - 2021

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					14.7303	0.0000	14.7303	2.2303	0.0000	2.2303						
Off-Road	2.5488	23.8156	27.4482	0.0411		1.3852	1.3852		1.2982	1.2982						
Total	**2.5488**	**23.8156**	**27.4482**	**0.0411**	**14.7303**	**1.3852**	**16.1155**	**2.2303**	**1.2982**	**3.5285**						

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	1.3594	44.6542	10.5957	0.1343	3.2700	0.1480	3.4180	0.8936	0.1416	1.0352						
Vendor	0.0591	1.9108	0.5170	4.9200e-003	0.1280	4.0300e-003	0.1320	0.0368	3.8600e-003	0.0407						
Worker	0.6272	0.4077	4.6222	0.0142	1.5202	0.0113	1.5314	0.4032	0.0104	0.4135						
Total	**2.0457**	**46.9727**	**15.7348**	**0.1534**	**4.9181**	**0.1633**	**5.0814**	**1.3336**	**0.1558**	**1.4894**						

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					5.7448	0.0000	5.7448	0.8698	0.0000	0.8698						
Off-Road	0.5319	4.1882	29.6612	0.0411		0.0641	0.0641		0.0641	0.0641						
Total	**0.5319**	**4.1882**	**29.6612**	**0.0411**	**5.7448**	**0.0641**	**5.8090**	**0.8698**	**0.0641**	**0.9340**						

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	1.3594	44.6542	10.5957	0.1343	3.2700	0.1480	3.4180	0.8936	0.1416	1.0352						
Vendor	0.0591	1.9108	0.5170	4.9200e-003	0.1280	4.0300e-003	0.1320	0.0368	3.8600e-003	0.0407						
Worker	0.6272	0.4077	4.6222	0.0142	1.5202	0.0113	1.5314	0.4032	0.0104	0.4135						
Total	**2.0457**	**46.9727**	**15.7348**	**0.1534**	**4.9181**	**0.1633**	**5.0814**	**1.3336**	**0.1558**	**1.4894**						

3.3 Demolition and Excavation - 2021

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					0.3404	0.0000	0.3404	0.0516	0.0000	0.0516						
Off-Road	5.8518	54.5534	51.2747	0.1146		2.3125	2.3125		2.1865	2.1865						
Total	**5.8518**	**54.5534**	**51.2747**	**0.1146**	**0.3404**	**2.3125**	**2.6529**	**0.0516**	**2.1865**	**2.2380**						

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	4.7487	155.9837	37.0123	0.4691	11.1319	0.5170	11.6489	3.0500	0.4946	3.5447						
Vendor	0.1774	5.7325	1.5509	0.0148	0.3839	0.0121	0.3960	0.1105	0.0116	0.1221						
Worker	0.9500	0.6175	7.0013	0.0215	2.3026	0.0170	2.3196	0.6107	0.0157	0.6264						
Total	**5.8761**	**162.3337**	**45.5645**	**0.5054**	**13.8184**	**0.5462**	**14.3646**	**3.7712**	**0.5219**	**4.2931**						

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					0.1328	0.0000	0.1328	0.0201	0.0000	0.0201						
Off-Road	1.4338	10.5387	65.1592	0.1146		0.1756	0.1756		0.1756	0.1756						
Total	**1.4338**	**10.5387**	**65.1592**	**0.1146**	**0.1328**	**0.1756**	**0.3084**	**0.0201**	**0.1756**	**0.1957**						

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	4.7487	155.9837	37.0123	0.4691	11.1319	0.5170	11.6489	3.0500	0.4946	3.5447						
Vendor	0.1774	5.7325	1.5509	0.0148	0.3839	0.0121	0.3960	0.1105	0.0116	0.1221						
Worker	0.9500	0.6175	7.0013	0.0215	2.3026	0.0170	2.3196	0.6107	0.0157	0.6264						
Total	**5.8761**	**162.3337**	**45.5645**	**0.5054**	**13.8184**	**0.5462**	**14.3646**	**3.7712**	**0.5219**	**4.2931**						

3.4 Grading and Excavation - 2021

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					0.3404	0.0000	0.3404	0.0516	0.0000	0.0516						
Off-Road	5.2290	46.8554	46.6118	0.0893		2.0996	2.0996		1.9955	1.9955						
Total	**5.2290**	**46.8554**	**46.6118**	**0.0893**	**0.3404**	**2.0996**	**2.4400**	**0.0516**	**1.9955**	**2.0471**						

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	5.1770	170.0528	40.3507	0.5114	12.1359	0.5637	12.6996	3.3251	0.5393	3.8644						
Vendor	0.1774	5.7325	1.5509	0.0148	0.3839	0.0121	0.3960	0.1105	0.0116	0.1221						
Worker	0.9223	0.5996	6.7973	0.0208	2.2355	0.0165	2.2521	0.5929	0.0152	0.6081						
Total	**6.2767**	**176.3848**	**48.6989**	**0.5470**	**14.7554**	**0.5923**	**15.3477**	**4.0285**	**0.5661**	**4.5946**						

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					0.1328	0.0000	0.1328	0.0201	0.0000	0.0201						
Off-Road	1.1059	9.1181	53.7119	0.0893		0.1319	0.1319		0.1319	0.1319						
Total	**1.1059**	**9.1181**	**53.7119**	**0.0893**	**0.1328**	**0.1319**	**0.2647**	**0.0201**	**0.1319**	**0.1520**						

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	5.1770	170.0528	40.3507	0.5114	12.1359	0.5637	12.6996	3.3251	0.5393	3.8644						
Vendor	0.1774	5.7325	1.5509	0.0148	0.3839	0.0121	0.3960	0.1105	0.0116	0.1221						
Worker	0.9223	0.5996	6.7973	0.0208	2.2355	0.0165	2.2521	0.5929	0.0152	0.6081						
Total	**6.2767**	**176.3848**	**48.6989**	**0.5470**	**14.7554**	**0.5923**	**15.3477**	**4.0285**	**0.5661**	**4.5946**						

3.5 Concrete and Grading/Excavation - 2021

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					0.3461	0.0000	0.3461	0.0524	0.0000	0.0524						
Off-Road	6.0838	53.6816	52.7531	0.0995		2.5150	2.5150		2.4139	2.4139						
Total	**6.0838**	**53.6816**	**52.7531**	**0.0995**	**0.3461**	**2.5150**	**2.8611**	**0.0524**	**2.4139**	**2.4663**						

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	4.0705	133.7076	31.7266	0.4021	9.5421	0.4432	9.9853	2.6145	0.4240	3.0385						
Vendor	0.5025	16.2421	4.3943	0.0419	1.0878	0.0343	1.1221	0.3132	0.0328	0.3459						

Worker	1.1806	0.7674	8.7006	0.0267	2.8615	0.0212	2.8827	0.7589	0.0195	0.7784						
Total	**5.7536**	**150.7171**	**44.8214**	**0.4706**	**13.4914**	**0.4987**	**13.9900**	**3.6865**	**0.4763**	**4.1628**						

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					0.1350	0.0000	0.1350	0.0204	0.0000	0.0204						
Off-Road	1.1874	9.4710	58.8959	0.0995		0.1428	0.1428		0.1428	0.1428						
Total	**1.1874**	**9.4710**	**58.8959**	**0.0995**	**0.1350**	**0.1428**	**0.2777**	**0.0204**	**0.1428**	**0.1632**						

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	4.0705	133.7076	31.7266	0.4021	9.5421	0.4432	9.9853	2.6145	0.4240	3.0385						
Vendor	0.5025	16.2421	4.3943	0.0419	1.0878	0.0343	1.1221	0.3132	0.0328	0.3459						
Worker	1.1806	0.7674	8.7006	0.0267	2.8615	0.0212	2.8827	0.7589	0.0195	0.7784						
Total	**5.7536**	**150.7171**	**44.8214**	**0.4706**	**13.4914**	**0.4987**	**13.9900**	**3.6865**	**0.4763**	**4.1628**						

3.6 Concrete and Mat Foundation - 2021

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	4.0729	35.1854	33.4642	0.0590		1.8182	1.8182		1.7504	1.7504						
Total	**4.0729**	**35.1854**	**33.4642**	**0.0590**		**1.8182**	**1.8182**		**1.7504**	**1.7504**						

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						
Vendor	5.1873	203.5211	41.7539	0.4279	7.9670	0.4175	8.3845	2.1848	0.3995	2.5843						
Worker	0.6918	0.4497	5.0980	0.0156	1.6767	0.0124	1.6891	0.4447	0.0114	0.4561						
Total	**5.8790**	**203.9708**	**46.8519**	**0.4435**	**9.6436**	**0.4300**	**10.0736**	**2.6295**	**0.4109**	**3.0404**						

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	0.6619	4.4967	34.8654	0.0590		0.0824	0.0824		0.0824	0.0824						
Total	**0.6619**	**4.4967**	**34.8654**	**0.0590**		**0.0824**	**0.0824**		**0.0824**	**0.0824**						

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						
Vendor	5.1873	203.5211	41.7539	0.4279	7.9670	0.4175	8.3845	2.1848	0.3995	2.5843						
Worker	0.6918	0.4497	5.0980	0.0156	1.6767	0.0124	1.6891	0.4447	0.0114	0.4561						
Total	**5.8790**	**203.9708**	**46.8519**	**0.4435**	**9.6436**	**0.4300**	**10.0736**	**2.6295**	**0.4109**	**3.0404**						

3.7 Building Construction (Phase 0 and 1/2) - 2021

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	7.1860	62.6191	70.1437	0.1146		3.2244	3.2244		3.1072	3.1072						
Total	**7.1860**	**62.6191**	**70.1437**	**0.1146**		**3.2244**	**3.2244**		**3.1072**	**3.1072**						

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						
Vendor	0.5616	18.1529	4.9113	0.0468	1.2158	0.0383	1.2541	0.3500	0.0367	0.3866						
Worker	2.5364	1.6488	18.6927	0.0573	6.1477	0.0455	6.1932	1.6304	0.0419	1.6723						
Total	**3.0980**	**19.8017**	**23.6039**	**0.1041**	**7.3635**	**0.0838**	**7.4473**	**1.9804**	**0.0786**	**2.0589**						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5760	18.4478	74.7333	0.1146		0.1683	0.1683		0.1683	0.1683						
Total	**1.5760**	**18.4478**	**74.7333**	**0.1146**		**0.1683**	**0.1683**		**0.1683**	**0.1683**						

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						
Vendor	0.5616	18.1529	4.9113	0.0468	1.2158	0.0383	1.2541	0.3500	0.0367	0.3866						
Worker	2.5364	1.6488	18.6927	0.0573	6.1477	0.0455	6.1932	1.6304	0.0419	1.6723						
Total	**3.0980**	**19.8017**	**23.6039**	**0.1041**	**7.3635**	**0.0838**	**7.4473**	**1.9804**	**0.0786**	**2.0589**						

3.7 Building Construction (Phase 0 and 1/2) - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.5948	57.1070	69.6694	0.1146		2.7752	2.7752		2.6756	2.6756						
Total	**6.5948**	**57.1070**	**69.6694**	**0.1146**		**2.7752**	**2.7752**		**2.6756**	**2.6756**						

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						
Vendor	0.5272	17.2300	4.6516	0.0463	1.2158	0.0334	1.2491	0.3500	0.0319	0.3819						
Worker	2.3856	1.4892	17.2556	0.0552	6.1477	0.0442	6.1919	1.6304	0.0407	1.6711						
Total	**2.9128**	**18.7191**	**21.9072**	**0.1016**	**7.3635**	**0.0776**	**7.4410**	**1.9804**	**0.0726**	**2.0530**						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5760	18.4478	74.7333	0.1146		0.1683	0.1683		0.1683	0.1683						
Total	**1.5760**	**18.4478**	**74.7333**	**0.1146**		**0.1683**	**0.1683**		**0.1683**	**0.1683**						

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						
Vendor	0.5272	17.2300	4.6516	0.0463	1.2158	0.0334	1.2491	0.3500	0.0319	0.3819						
Worker	2.3856	1.4892	17.2556	0.0552	6.1477	0.0442	6.1919	1.6304	0.0407	1.6711						
Total	**2.9128**	**18.7191**	**21.9072**	**0.1016**	**7.3635**	**0.0776**	**7.4410**	**1.9804**	**0.0726**	**2.0530**						

3.8 Building Construction (Phase 1/2) - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.2191	45.8630	54.3918	0.0916		2.1617	2.1617		2.0808	2.0808						
Total	**5.2191**	**45.8630**	**54.3918**	**0.0916**		**2.1617**	**2.1617**		**2.0808**	**2.0808**						

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						
Vendor	0.5272	17.2300	4.6516	0.0463	1.2158	0.0334	1.2491	0.3500	0.0319	0.3819						
Worker	2.3856	1.4892	17.2556	0.0552	6.1477	0.0442	6.1919	1.6304	0.0407	1.6711						
Total	**2.9128**	**18.7191**	**21.9072**	**0.1016**	**7.3635**	**0.0776**	**7.4410**	**1.9804**	**0.0726**	**2.0530**						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2883	16.7411	57.6080	0.0916		0.1316	0.1316		0.1316	0.1316						
Total	**1.2883**	**16.7411**	**57.6080**	**0.0916**		**0.1316**	**0.1316**		**0.1316**	**0.1316**						

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						
Vendor	0.5272	17.2300	4.6516	0.0463	1.2158	0.0334	1.2491	0.3500	0.0319	0.3819						
Worker	2.3856	1.4892	17.2556	0.0552	6.1477	0.0442	6.1919	1.6304	0.0407	1.6711						
Total	**2.9128**	**18.7191**	**21.9072**	**0.1016**	**7.3635**	**0.0776**	**7.4410**	**1.9804**	**0.0726**	**2.0530**						

3.8 Building Construction (Phase 1/2) - 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	4.8818	42.6698	54.1311	0.0916		1.8903	1.8903		1.8194	1.8194						
Total	**4.8818**	**42.6698**	**54.1311**	**0.0916**		**1.8903**	**1.8903**		**1.8194**	**1.8194**						

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						
Vendor	0.3913	12.9590	4.1252	0.0448	1.2158	0.0157	1.2314	0.3500	0.0150	0.3650						
Worker	2.2500	1.3470	15.9046	0.0532	6.1477	0.0431	6.1908	1.6304	0.0396	1.6700						
Total	**2.6414**	**14.3060**	**20.0298**	**0.0980**	**7.3635**	**0.0587**	**7.4222**	**1.9804**	**0.0546**	**2.0350**						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2883	16.7411	57.6080	0.0916		0.1316	0.1316		0.1316	0.1316						
Total	**1.2883**	**16.7411**	**57.6080**	**0.0916**		**0.1316**	**0.1316**		**0.1316**	**0.1316**						

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						
Vendor	0.3913	12.9590	4.1252	0.0448	1.2158	0.0157	1.2314	0.3500	0.0150	0.3650						
Worker	2.2500	1.3470	15.9046	0.0532	6.1477	0.0431	6.1908	1.6304	0.0396	1.6700						
Total	**2.6414**	**14.3060**	**20.0298**	**0.0980**	**7.3635**	**0.0587**	**7.4222**	**1.9804**	**0.0546**	**2.0350**						

3.8 Building Construction (Phase 1/2) - 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	4.6161	40.2821	53.9489	0.0916		1.6728	1.6728		1.6089	1.6089						
Total	**4.6161**	**40.2821**	**53.9489**	**0.0916**		**1.6728**	**1.6728**		**1.6089**	**1.6089**						

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						
Vendor	0.3826	12.9287	4.0078	0.0447	1.2158	0.0154	1.2312	0.3500	0.0148	0.3647						
Worker	2.1358	1.2272	14.8250	0.0514	6.1477	0.0425	6.1902	1.6304	0.0391	1.6695						
Total	**2.5184**	**14.1558**	**18.8328**	**0.0960**	**7.3635**	**0.0579**	**7.4214**	**1.9804**	**0.0538**	**2.0342**						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2883	16.7411	57.6080	0.0916		0.1316	0.1316		0.1316	0.1316						
Total	**1.2883**	**16.7411**	**57.6080**	**0.0916**		**0.1316**	**0.1316**		**0.1316**	**0.1316**						

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						
Vendor	0.3826	12.9287	4.0078	0.0447	1.2158	0.0154	1.2312	0.3500	0.0148	0.3647						
Worker	2.1358	1.2272	14.8250	0.0514	6.1477	0.0425	6.1902	1.6304	0.0391	1.6695						
Total	**2.5184**	**14.1558**	**18.8328**	**0.0960**	**7.3635**	**0.0579**	**7.4214**	**1.9804**	**0.0538**	**2.0342**						

3.9 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	31.3994					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						
Total	**31.3994**	**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						
Vendor	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						
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	31.3994					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						
Total	**31.3994**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**						

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						
Vendor	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						

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**						

3.9 Architectural Coating - 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					
Archit. Coating	31.3994					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						
Total	**31.3994**	**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						
Vendor	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						
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	31.3994					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						
Total	**31.3994**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**						

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						

Vendor	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						
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**						

3.10 Paving - 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	2.9396	27.1566	34.5628	0.0600		1.2434	1.2434		1.1516	1.1516						
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						
Total	**2.9396**	**27.1566**	**34.5628**	**0.0600**		**1.2434**	**1.2434**		**1.1516**	**1.1516**						

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						
Vendor	0.2014	6.8046	2.1094	0.0235	0.6399	8.1200e-003	0.6480	0.1842	7.7600e-003	0.1920						
Worker	0.6524	0.3748	4.5284	0.0157	1.8778	0.0130	1.8908	0.4980	0.0119	0.5100						
Total	**0.8538**	**7.1794**	**6.6377**	**0.0392**	**2.5177**	**0.0211**	**2.5388**	**0.6822**	**0.0197**	**0.7019**						

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	0.7707	6.0373	39.4793	0.0600		0.0931	0.0931		0.0931	0.0931						
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						
Total	**0.7707**	**6.0373**	**39.4793**	**0.0600**		**0.0931**	**0.0931**		**0.0931**	**0.0931**						

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						
Vendor	0.2014	6.8046	2.1094	0.0235	0.6399	8.1200e-003	0.6480	0.1842	7.7600e-003	0.1920						
Worker	0.6524	0.3748	4.5284	0.0157	1.8778	0.0130	1.8908	0.4980	0.0119	0.5100						
Total	**0.8538**	**7.1794**	**6.6377**	**0.0392**	**2.5177**	**0.0211**	**2.5388**	**0.6822**	**0.0197**	**0.7019**						

1111 Sunset Buildout with PDFs (Construction On-Site)

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	48.00	1000sqft	1.10	48,000.00	0
Enclosed Parking with Elevator	485.00	Space	4.36	194,000.00	0
Unenclosed Parking with Elevator	1,168.00	Space	10.51	467,200.00	0
Health Club	14.50	1000sqft	0.33	14,500.00	0
High Turnover (Sit Down Restaurant)	35.00	1000sqft	0.80	35,000.00	0
Hotel	180.00	Room	6.00	85,000.00	0
Apartments Mid Rise	96.00	Dwelling Unit	2.53	110,336.00	275
Condo/Townhouse High Rise	737.00	Dwelling Unit	11.52	766,982.00	2108
Strip Mall	18.20	1000sqft	0.42	18,200.00	0
Supermarket	27.30	1000sqft	0.63	27,300.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	12			**Operational Year**	2028
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	524	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - LADWP 2028 Carbon Intensity (SB100 RPS)

Land Use - see assumptions

Construction Phase - see assumptions

Off-road Equipment - Site Specific

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Trips and VMT - Soil Export - 25 miles to Irvindale (one-way)
Concrete - 6.5 miles to Catalina Pacific (one-way)

Demolition -

Grading -

Architectural Coating

Vehicle Trips - see assumptions

Construction Off-road Equipment Mitigation - Tier 4

Table Name	Column Name	Default Value	New Value
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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					
2021	7.7214	62.9430	72.5925	0.1200	14.7574	3.2287	16.1446	2.2379	3.1111	3.5380	0.0000	11,450.8043	11,450.8043	3.0157	0.0000	11,526.1956
2022	7.0871	57.4013	71.8890	0.1168	0.0648	2.7793	2.8441	0.0183	2.6794	2.6977	0.0000	11,084.4875	11,084.4875	2.1181	0.0000	11,137.4405
2023	36.7337	42.8983	56.1434	0.0937	0.0648	1.8941	1.9589	0.0183	1.8229	1.8412	0.0000	8,843.3250	8,843.3250	1.7327	0.0000	8,886.6434
2024	36.4345	40.4972	55.7920	0.0936	0.0648	1.6766	1.7413	0.0183	1.6124	1.6306	0.0000	8,838.3796	8,838.3796	1.7657	0.0000	8,881.3469
Maximum	**36.7337**	**62.9430**	**72.5925**	**0.1200**	**14.7574**	**3.2287**	**16.1446**	**2.2379**	**3.1111**	**3.5380**	**0.0000**	**11,450.8043**	**11,450.8043**	**3.0157**	**0.0000**	**11,526.1956**

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					
2021	2.1113	18.7718	77.1820	0.1200	5.7719	0.1807	5.8381	0.8774	0.1804	0.9435	0.0000	11,450.8043	11,450.8043	3.0157	0.0000	11,526.1956
2022	2.0683	18.7421	76.9529	0.1168	0.0648	0.1724	0.2372	0.0183	0.1721	0.1904	0.0000	11,084.4875	11,084.4875	2.1181	0.0000	11,137.4405
2023	33.1402	16.9696	59.6204	0.0937	0.0648	0.1354	0.2002	0.0183	0.1351	0.1534	0.0000	8,843.3250	8,843.3250	1.7327	0.0000	8,886.6434
2024	33.1067	16.9561	59.4512	0.0936	0.0648	0.1353	0.2001	0.0183	0.1351	0.1533	0.0000	8,838.3796	8,838.3796	1.7657	0.0000	8,881.3469
Maximum	**33.1402**	**18.7718**	**77.1820**	**0.1200**	**5.7719**	**0.1807**	**5.8381**	**0.8774**	**0.1804**	**0.9435**	**0.0000**	**11,450.8043**	**11,450.8043**	**3.0157**	**0.0000**	**11,526.1956**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**19.95**	**64.94**	**-6.55**	**0.00**	**60.10**	**93.49**	**71.46**	**59.34**	**93.25**	**85.16**	**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	Utility Work and Demolition	Demolition	1/6/2021	3/27/2021	5	60	
2	Demolition and Excavation	Grading	3/28/2021	6/19/2021	6	72	
3	Grading and Excavation	Grading	6/20/2021	7/17/2021	6	24	
4	Concrete and Grading/Excavation	Grading	7/18/2021	9/25/2021	6	60	

5	Concrete and Mat Foundation	Building Construction	9/28/2021	11/15/2021	5	35	
6	Building Construction (Phase 0 and 1/2)	Building Construction	11/16/2021	9/24/2022	5	225	
7	Building Construction (Phase 1/2)	Building Construction	9/28/2022	5/12/2024	5	424	
8	Architectural Coating	Architectural Coating	6/1/2023	5/12/2024	5	248	
9	Paving	Paving	5/13/2024	8/31/2024	5	79	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 14.87

Residential Indoor: 1,776,569; Residential Outdoor: 592,190; Non-Residential Indoor: 342,000; Non-Residential Outdoor: 114,000; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Utility Work and Demolition	Air Compressors	1	8.00	78	0.48
Utility Work and Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Utility Work and Demolition	Excavators	2	8.00	158	0.38
Utility Work and Demolition	Rough Terrain Forklifts	1	8.00	100	0.40
Utility Work and Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Utility Work and Demolition	Skid Steer Loaders	2	8.00	65	0.37
Utility Work and Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utility Work and Demolition	Trenchers	2	8.00	78	0.50
Demolition and Excavation	Air Compressors	1	8.00	78	0.48
Demolition and Excavation	Bore/Drill Rigs	3	8.00	221	0.50
Demolition and Excavation	Cement and Mortar Mixers	2	8.00	9	0.56
Demolition and Excavation	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition and Excavation	Excavators	4	8.00	158	0.38
Demolition and Excavation	Generator Sets	1	8.00	84	0.74
Demolition and Excavation	Graders	0	8.00	187	0.41
Demolition and Excavation	Plate Compactors	2	8.00	8	0.43
Demolition and Excavation	Rough Terrain Forklifts	1	8.00	100	0.40
Demolition and Excavation	Rubber Tired Dozers	0	8.00	247	0.40
Demolition and Excavation	Rubber Tired Loaders	4	8.00	203	0.36
Demolition and Excavation	Scrapers	0	8.00	367	0.48
Demolition and Excavation	Skid Steer Loaders	2	8.00	65	0.37
Demolition and Excavation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition and Excavation	Welders	3	8.00	46	0.45
Grading and Excavation	Cement and Mortar Mixers	3	8.00	9	0.56
Grading and Excavation	Concrete/Industrial Saws	2	8.00	81	0.73
Grading and Excavation	Excavators	4	8.00	158	0.38
Grading and Excavation	Generator Sets	1	8.00	84	0.74
Grading and Excavation	Graders	0	8.00	187	0.41
Grading and Excavation	Plate Compactors	2	8.00	8	0.43
Grading and Excavation	Rough Terrain Forklifts	1	8.00	100	0.40
Grading and Excavation	Rubber Tired Dozers	0	8.00	247	0.40
Grading and Excavation	Rubber Tired Loaders	4	8.00	203	0.36
Grading and Excavation	Scrapers	0	8.00	367	0.48
Grading and Excavation	Skid Steer Loaders	2	8.00	65	0.37

Grading and Excavation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading and Excavation	Welders	3	8.00	46	0.45
Concrete and Grading/Excavation	Air Compressors	2	8.00	78	0.48
Concrete and Grading/Excavation	Cement and Mortar Mixers	4	8.00	9	0.56
Concrete and Grading/Excavation	Cranes	1	8.00	231	0.29
Concrete and Grading/Excavation	Excavators	3	8.00	158	0.38
Concrete and Grading/Excavation	Generator Sets	1	8.00	84	0.74
Concrete and Grading/Excavation	Graders	0	8.00	187	0.41
Concrete and Grading/Excavation	Plate Compactors	2	8.00	8	0.43
Concrete and Grading/Excavation	Pumps	3	8.00	84	0.74
Concrete and Grading/Excavation	Rough Terrain Forklifts	1	8.00	100	0.40
Concrete and Grading/Excavation	Rubber Tired Dozers	0	8.00	247	0.40
Concrete and Grading/Excavation	Rubber Tired Loaders	3	8.00	203	0.36
Concrete and Grading/Excavation	Scrapers	0	8.00	367	0.48
Concrete and Grading/Excavation	Skid Steer Loaders	2	8.00	65	0.37
Concrete and Grading/Excavation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Concrete and Grading/Excavation	Welders	3	8.00	46	0.45
Concrete and Mat Foundation	Air Compressors	2	8.00	78	0.48
Concrete and Mat Foundation	Cranes	2	8.00	231	0.29
Concrete and Mat Foundation	Forklifts	2	8.00	89	0.20
Concrete and Mat Foundation	Generator Sets	0	8.00	84	0.74
Concrete and Mat Foundation	Plate Compactors	4	8.00	8	0.43
Concrete and Mat Foundation	Pumps	3	8.00	84	0.74
Concrete and Mat Foundation	Rough Terrain Forklifts	1	8.00	100	0.40
Concrete and Mat Foundation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Concrete and Mat Foundation	Welders	0	8.00	46	0.45
Concrete and Mat Foundation	Welders	2	8.00	46	0.45
Building Construction (Phase 0 and 1/2)	Aerial Lifts	12	8.00	63	0.31
Building Construction (Phase 0 and 1/2)	Air Compressors	8	8.00	78	0.48
Building Construction (Phase 0 and 1/2)	Cranes	2	8.00	231	0.29
Building Construction (Phase 0 and 1/2)	Forklifts	7	8.00	89	0.20
Building Construction (Phase 0 and 1/2)	Generator Sets	0	8.00	84	0.74
Building Construction (Phase 0 and 1/2)	Pumps	3	8.00	84	0.74
Building Construction (Phase 0 and 1/2)	Rough Terrain Forklifts	2	8.00	100	0.40
Building Construction (Phase 0 and 1/2)	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction (Phase 0 and 1/2)	Welders	0	8.00	46	0.45
Building Construction (Phase 0 and 1/2)	Welders	3	8.00	46	0.45
Building Construction (Phase 1/2)	Aerial Lifts	10	8.00	63	0.31
Building Construction (Phase 1/2)	Air Compressors	6	8.00	78	0.48
Building Construction (Phase 1/2)	Cement and Mortar Mixers	4	8.00	9	0.56
Building Construction (Phase 1/2)	Cranes	2	8.00	231	0.29
Building Construction (Phase 1/2)	Forklifts	5	8.00	89	0.20
Building Construction (Phase 1/2)	Generator Sets	0	8.00	84	0.74
Building Construction (Phase 1/2)	Pumps	2	8.00	84	0.74
Building Construction (Phase 1/2)	Rough Terrain Forklifts	1	8.00	100	0.40
Building Construction (Phase 1/2)	Skid Steer Loaders	2	8.00	65	0.37
Building Construction (Phase 1/2)	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction (Phase 1/2)	Welders	2	8.00	46	0.45

Architectural Coating	Air Compressors	0	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	8.00		
Paving	Cranes	1	8.00		
Paving	Excavators	1	8.00		
Paving	Forklifts	2	8.00		
Paving	Pavers	2	8.00		
Paving	Paving Equipment	2	8.00		
Paving	Plate Compactors	2	8.00		
Paving	Rollers	0	8.00		
Paving	Rough Terrain Forklifts	1	8.00		
Paving	Rubber Tired Loaders	1	8.00		
Paving	Skid Steer Loaders	2	8.00		
Paving	Tractors/Loaders/Backhoes	2	8.00		
Paving	Trenchers	1	8.00		
Paving	Welders	1	8.00		

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
Utility Work and Demolition	11	136.00	20.00	1.00	0.10	0.10	876.00	LD_Mix	HDT_Mix	HHDT
Demolition and Excavation	26	206.00	60.00	1.00	0.10	0.10	3,672.00	LD_Mix	HDT_Mix	HHDT
Grading and Excavation	24	200.00	60.00	1.00	0.10	0.10	1,334.40	LD_Mix	HDT_Mix	HHDT
Concrete and Grading/Excavation	27	256.00	1.00	1.00	0.10	17.00	2,623.00	LD_Mix	HDT_Mix	HHDT
Concrete and Mat Foundation	18	150.00	1.00	0.00	0.10	140.00	20.00	LD_Mix	HHDT	HHDT
Building Construction (Phase 0 and 1/2)	39	550.00	1.00	0.00	0.10	19.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction (Phase 1/2)	35	550.00	1.00	0.00	0.10	19.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	0.00	0.00	0.00	0.10	0.10	20.00	LD_Mix	HDT_Mix	HHDT
Paving	20	168.00	1.00	0.00	0.10	10.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Utility Work and Demolition - 2021

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					14.7303	0.0000	14.7303	2.2303	0.0000	2.2303						
Off-Road	2.5488	23.8156	27.4482	0.0411		1.3852	1.3852		1.2982	1.2982						
Total	**2.5488**	**23.8156**	**27.4482**	**0.0411**	**14.7303**	**1.3852**	**16.1155**	**2.2303**	**1.2982**	**3.5285**						

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	4.4500e-003	0.1281	0.0340	4.9000e-004	0.0131	5.7000e-004	0.0136	3.5700e-003	5.4000e-004	4.1100e-003						
Vendor	0.0285	1.1460	0.3052	1.0200e-003	2.3700e-003	5.6000e-004	2.9300e-003	7.4000e-004	5.3000e-004	1.2700e-003						
Worker	0.1310	0.0397	0.5945	4.0000e-004	0.0117	9.3000e-004	0.0126	3.2700e-003	8.5000e-004	4.1200e-003						
Total	**0.1639**	**1.3137**	**0.9337**	**1.9100e-003**	**0.0271**	**2.0600e-003**	**0.0292**	**7.5800e-003**	**1.9200e-003**	**9.5000e-003**						

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					5.7448	0.0000	5.7448	0.8698	0.0000	0.8698						
Off-Road	0.5319	4.1882	29.6612	0.0411		0.0641	0.0641		0.0641	0.0641						
Total	**0.5319**	**4.1882**	**29.6612**	**0.0411**	**5.7448**	**0.0641**	**5.8090**	**0.8698**	**0.0641**	**0.9340**						

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	4.4500e-003	0.1281	0.0340	4.9000e-004	0.0131	5.7000e-004	0.0136	3.5700e-003	5.4000e-004	4.1100e-003						
Vendor	0.0285	1.1460	0.3052	1.0200e-003	2.3700e-003	5.6000e-004	2.9300e-003	7.4000e-004	5.3000e-004	1.2700e-003						
Worker	0.1310	0.0397	0.5945	4.0000e-004	0.0117	9.3000e-004	0.0126	3.2700e-003	8.5000e-004	4.1200e-003						
Total	**0.1639**	**1.3137**	**0.9337**	**1.9100e-003**	**0.0271**	**2.0600e-003**	**0.0292**	**7.5800e-003**	**1.9200e-003**	**9.5000e-003**						

3.3 Demolition and Excavation - 2021

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					0.3404	0.0000	0.3404	0.0516	0.0000	0.0516						
Off-Road	5.8518	54.5534	51.2747	0.1146		2.3125	2.3125		2.1865	2.1865						
Total	**5.8518**	**54.5534**	**51.2747**	**0.1146**	**0.3404**	**2.3125**	**2.6529**	**0.0516**	**2.1865**	**2.2380**						

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	0.0155	0.4436	0.1181	1.6900e-003	0.0445	1.9700e-003	0.0465	0.0122	1.8900e-003	0.0141						
Vendor	0.0854	3.4379	0.9157	3.0700e-003	7.1200e-003	1.6700e-003	8.7900e-003	2.2100e-003	1.6000e-003	3.8100e-003						
Worker	0.1984	0.0601	0.9004	6.1000e-004	0.0177	1.4000e-003	0.0191	4.9500e-003	1.2900e-003	6.2400e-003						
Total	**0.2993**	**3.9415**	**1.9342**	**5.3700e-003**	**0.0693**	**5.0400e-003**	**0.0743**	**0.0193**	**4.7800e-003**	**0.0241**						

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					0.1328	0.0000	0.1328	0.0201	0.0000	0.0201						
Off-Road	1.4338	10.5387	65.1592	0.1146		0.1756	0.1756		0.1756	0.1756						
Total	**1.4338**	**10.5387**	**65.1592**	**0.1146**	**0.1328**	**0.1756**	**0.3084**	**0.0201**	**0.1756**	**0.1957**						

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	0.0155	0.4436	0.1181	1.6900e-003	0.0445	1.9700e-003	0.0465	0.0122	1.8900e-003	0.0141						
Vendor	0.0854	3.4379	0.9157	3.0700e-003	7.1200e-003	1.6700e-003	8.7900e-003	2.2100e-003	1.6000e-003	3.8100e-003						
Worker	0.1984	0.0601	0.9004	6.1000e-004	0.0177	1.4000e-003	0.0191	4.9500e-003	1.2900e-003	6.2400e-003						
Total	**0.2993**	**3.9415**	**1.9342**	**5.3700e-003**	**0.0693**	**5.0400e-003**	**0.0743**	**0.0193**	**4.7800e-003**	**0.0241**						

3.4 Grading and Excavation - 2021

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					0.3404	0.0000	0.3404	0.0516	0.0000	0.0516						

Off-Road	5.2290	46.8554	46.6118	0.0893		2.0996	2.0996		1.9955	1.9955						
Total	**5.2290**	**46.8554**	**46.6118**	**0.0893**	**0.3404**	**2.0996**	**2.4400**	**0.0516**	**1.9955**	**2.0471**						

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	0.0169	0.4860	0.1291	1.8500e-003	0.0485	2.1500e-003	0.0507	0.0133	2.0600e-003	0.0153						
Vendor	0.0854	3.4379	0.9157	3.0700e-003	7.1200e-003	1.6700e-003	8.7900e-003	2.2100e-003	1.6000e-003	3.8100e-003						
Worker	0.1926	0.0583	0.8742	5.9000e-004	0.0172	1.3600e-003	0.0185	4.8100e-003	1.2500e-003	6.0600e-003						
Total	**0.2949**	**3.9822**	**1.9190**	**5.5100e-003**	**0.0728**	**5.1800e-003**	**0.0780**	**0.0203**	**4.9100e-003**	**0.0252**						

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					0.1328	0.0000	0.1328	0.0201	0.0000	0.0201						
Off-Road	1.1059	9.1181	53.7119	0.0893		0.1319	0.1319		0.1319	0.1319						
Total	**1.1059**	**9.1181**	**53.7119**	**0.0893**	**0.1328**	**0.1319**	**0.2647**	**0.0201**	**0.1319**	**0.1520**						

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	0.0169	0.4860	0.1291	1.8500e-003	0.0485	2.1500e-003	0.0507	0.0133	2.0600e-003	0.0153						
Vendor	0.0854	3.4379	0.9157	3.0700e-003	7.1200e-003	1.6700e-003	8.7900e-003	2.2100e-003	1.6000e-003	3.8100e-003						
Worker	0.1926	0.0583	0.8742	5.9000e-004	0.0172	1.3600e-003	0.0185	4.8100e-003	1.2500e-003	6.0600e-003						
Total	**0.2949**	**3.9822**	**1.9190**	**5.5100e-003**	**0.0728**	**5.1800e-003**	**0.0780**	**0.0203**	**4.9100e-003**	**0.0252**						

3.5 Concrete and Grading/Excavation - 2021

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					0.3461	0.0000	0.3461	0.0524	0.0000	0.0524						
Off-Road	6.0838	53.6816	52.7531	0.0995		2.5150	2.5150		2.4139	2.4139						
Total	**6.0838**	**53.6816**	**52.7531**	**0.0995**	**0.3461**	**2.5150**	**2.8611**	**0.0524**	**2.4139**	**2.4663**						

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	0.0133	0.3807	0.1013	1.4500e-003	0.0381	1.6900e-003	0.0398	0.0104	1.6200e-003	0.0121						
Vendor	5.2300e-003	0.1524	0.0416	5.4000e-004	0.0157	4.6000e-004	0.0162	4.5200e-003	4.4000e-004	4.9600e-003						
Worker	0.2465	0.0746	1.1190	7.5000e-004	0.0220	1.7400e-003	0.0237	6.1600e-003	1.6000e-003	7.7600e-003						
Total	**0.2650**	**0.6077**	**1.2618**	**2.7400e-003**	**0.0758**	**3.8900e-003**	**0.0797**	**0.0211**	**3.6600e-003**	**0.0248**						

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					0.1350	0.0000	0.1350	0.0204	0.0000	0.0204						
Off-Road	1.1874	9.4710	58.8959	0.0995		0.1428	0.1428		0.1428	0.1428						
Total	**1.1874**	**9.4710**	**58.8959**	**0.0995**	**0.1350**	**0.1428**	**0.2777**	**0.0204**	**0.1428**	**0.1632**						

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	0.0133	0.3807	0.1013	1.4500e-003	0.0381	1.6900e-003	0.0398	0.0104	1.6200e-003	0.0121						
Vendor	5.2300e-003	0.1524	0.0416	5.4000e-004	0.0157	4.6000e-004	0.0162	4.5200e-003	4.4000e-004	4.9600e-003						
Worker	0.2465	0.0746	1.1190	7.5000e-004	0.0220	1.7400e-003	0.0237	6.1600e-003	1.6000e-003	7.7600e-003						
Total	**0.2650**	**0.6077**	**1.2618**	**2.7400e-003**	**0.0758**	**3.8900e-003**	**0.0797**	**0.0211**	**3.6600e-003**	**0.0248**						

3.6 Concrete and Mat Foundation - 2021

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	4.0729	35.1854	33.4642	0.0590		1.8182	1.8182		1.7504	1.7504						
Total	**4.0729**	**35.1854**	**33.4642**	**0.0590**		**1.8182**	**1.8182**		**1.7504**	**1.7504**						

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						
Vendor	0.0442	1.3034	0.3383	4.7400e-003	0.1221	5.4600e-003	0.1276	0.0335	5.2300e-003	0.0387						
Worker	0.1445	0.0437	0.6557	4.4000e-004	0.0129	1.0200e-003	0.0139	3.6100e-003	9.4000e-004	4.5500e-003						
Total	**0.1886**	**1.3472**	**0.9940**	**5.1800e-003**	**0.1350**	**6.4800e-003**	**0.1415**	**0.0371**	**6.1700e-003**	**0.0432**						

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	0.6619	4.4967	34.8654	0.0590		0.0824	0.0824		0.0824	0.0824						
Total	**0.6619**	**4.4967**	**34.8654**	**0.0590**		**0.0824**	**0.0824**		**0.0824**	**0.0824**						

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						
Vendor	0.0442	1.3034	0.3383	4.7400e-003	0.1221	5.4600e-003	0.1276	0.0335	5.2300e-003	0.0387						
Worker	0.1445	0.0437	0.6557	4.4000e-004	0.0129	1.0200e-003	0.0139	3.6100e-003	9.4000e-004	4.5500e-003						
Total	**0.1886**	**1.3472**	**0.9940**	**5.1800e-003**	**0.1350**	**6.4800e-003**	**0.1415**	**0.0371**	**6.1700e-003**	**0.0432**						

3.7 Building Construction (Phase 0 and 1/2) - 2021

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	7.1860	62.6191	70.1437	0.1146		3.2244	3.2244		3.1072	3.1072						
Total	**7.1860**	**62.6191**	**70.1437**	**0.1146**		**3.2244**	**3.2244**		**3.1072**	**3.1072**						

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						
Vendor	5.6800e-003	0.1636	0.0447	5.9000e-004	0.0176	5.1000e-004	0.0181	5.0500e-003	4.9000e-004	5.5400e-003						
Worker	0.5297	0.1604	2.4041	1.6200e-003	0.0472	3.7400e-003	0.0510	0.0132	3.4400e-003	0.0167						
Total	**0.5353**	**0.3240**	**2.4488**	**2.2100e-003**	**0.0648**	**4.2500e-003**	**0.0690**	**0.0183**	**3.9300e-003**	**0.0222**						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5760	18.4478	74.7333	0.1146		0.1683	0.1683		0.1683	0.1683						
Total	**1.5760**	**18.4478**	**74.7333**	**0.1146**		**0.1683**	**0.1683**		**0.1683**	**0.1683**						

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						
Vendor	5.6800e-003	0.1636	0.0447	5.9000e-004	0.0176	5.1000e-004	0.0181	5.0500e-003	4.9000e-004	5.5400e-003						

Worker	0.5297	0.1604	2.4041	1.6200e-003	0.0472	3.7400e-003	0.0510	0.0132	3.4400e-003	0.0167						
Total	**0.5353**	**0.3240**	**2.4488**	**2.2100e-003**	**0.0648**	**4.2500e-003**	**0.0690**	**0.0183**	**3.9300e-003**	**0.0222**						

3.7 Building Construction (Phase 0 and 1/2) - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.5948	57.1070	69.6694	0.1146		2.7752	2.7752		2.6756	2.6756						
Total	**6.5948**	**57.1070**	**69.6694**	**0.1146**		**2.7752**	**2.7752**		**2.6756**	**2.6756**						

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						
Vendor	5.3600e-003	0.1524	0.0427	5.9000e-004	0.0176	4.5000e-004	0.0180	5.0500e-003	4.3000e-004	5.4800e-003						
Worker	0.4870	0.1419	2.1769	1.5600e-003	0.0472	3.6700e-003	0.0509	0.0132	3.3700e-003	0.0166						
Total	**0.4923**	**0.2943**	**2.2196**	**2.1500e-003**	**0.0648**	**4.1200e-003**	**0.0689**	**0.0183**	**3.8000e-003**	**0.0221**						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5760	18.4478	74.7333	0.1146		0.1683	0.1683		0.1683	0.1683						
Total	**1.5760**	**18.4478**	**74.7333**	**0.1146**		**0.1683**	**0.1683**		**0.1683**	**0.1683**						

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						
Vendor	5.3600e-003	0.1524	0.0427	5.9000e-004	0.0176	4.5000e-004	0.0180	5.0500e-003	4.3000e-004	5.4800e-003						
Worker	0.4870	0.1419	2.1769	1.5600e-003	0.0472	3.6700e-003	0.0509	0.0132	3.3700e-003	0.0166						
Total	**0.4923**	**0.2943**	**2.2196**	**2.1500e-003**	**0.0648**	**4.1200e-003**	**0.0689**	**0.0183**	**3.8000e-003**	**0.0221**						

3.8 Building Construction (Phase 1/2) - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.2191	45.8630	54.3918	0.0916		2.1617	2.1617		2.0808	2.0808						
Total	**5.2191**	**45.8630**	**54.3918**	**0.0916**		**2.1617**	**2.1617**		**2.0808**	**2.0808**						

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						
Vendor	5.3600e-003	0.1524	0.0427	5.9000e-004	0.0176	4.5000e-004	0.0180	5.0500e-003	4.3000e-004	5.4800e-003						
Worker	0.4870	0.1419	2.1769	1.5600e-003	0.0472	3.6700e-003	0.0509	0.0132	3.3700e-003	0.0166						
Total	**0.4923**	**0.2943**	**2.2196**	**2.1500e-003**	**0.0648**	**4.1200e-003**	**0.0689**	**0.0183**	**3.8000e-003**	**0.0221**						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2883	16.7411	57.6080	0.0916		0.1316	0.1316		0.1316	0.1316						
Total	**1.2883**	**16.7411**	**57.6080**	**0.0916**		**0.1316**	**0.1316**		**0.1316**	**0.1316**						

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						
Vendor	5.3600e-003	0.1524	0.0427	5.9000e-004	0.0176	4.5000e-004	0.0180	5.0500e-003	4.3000e-004	5.4800e-003						
Worker	0.4870	0.1419	2.1769	1.5600e-003	0.0472	3.6700e-003	0.0509	0.0132	3.3700e-003	0.0166						
Total	**0.4923**	**0.2943**	**2.2196**	**2.1500e-003**	**0.0648**	**4.1200e-003**	**0.0689**	**0.0183**	**3.8000e-003**	**0.0221**						

3.8 Building Construction (Phase 1/2) - 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	4.8818	42.6698	54.1311	0.0916		1.8903	1.8903		1.8194	1.8194						
Total	**4.8818**	**42.6698**	**54.1311**	**0.0916**		**1.8903**	**1.8903**		**1.8194**	**1.8194**						

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						
Vendor	3.8900e-003	0.1024	0.0382	5.7000e-004	0.0176	2.0000e-004	0.0178	5.0500e-003	1.9000e-004	5.2500e-003						
Worker	0.4487	0.1261	1.9741	1.5000e-003	0.0472	3.6000e-003	0.0508	0.0132	3.3100e-003	0.0165						
Total	**0.4526**	**0.2285**	**2.0123**	**2.0700e-003**	**0.0648**	**3.8000e-003**	**0.0686**	**0.0183**	**3.5000e-003**	**0.0218**						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2883	16.7411	57.6080	0.0916		0.1316	0.1316		0.1316	0.1316						
Total	**1.2883**	**16.7411**	**57.6080**	**0.0916**		**0.1316**	**0.1316**		**0.1316**	**0.1316**						

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						
Vendor	3.8900e-003	0.1024	0.0382	5.7000e-004	0.0176	2.0000e-004	0.0178	5.0500e-003	1.9000e-004	5.2500e-003						
Worker	0.4487	0.1261	1.9741	1.5000e-003	0.0472	3.6000e-003	0.0508	0.0132	3.3100e-003	0.0165						
Total	**0.4526**	**0.2285**	**2.0123**	**2.0700e-003**	**0.0648**	**3.8000e-003**	**0.0686**	**0.0183**	**3.5000e-003**	**0.0218**						

3.8 Building Construction (Phase 1/2) - 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	4.6161	40.2821	53.9489	0.0916		1.6728	1.6728		1.6089	1.6089						
Total	**4.6161**	**40.2821**	**53.9489**	**0.0916**		**1.6728**	**1.6728**		**1.6089**	**1.6089**						

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						
Vendor	3.8500e-003	0.1023	0.0376	5.7000e-004	0.0176	2.0000e-004	0.0178	5.0500e-003	1.9000e-004	5.2500e-003						
Worker	0.4152	0.1128	1.8055	1.4500e-003	0.0472	3.5500e-003	0.0508	0.0132	3.2700e-003	0.0165						
Total	**0.4191**	**0.2151**	**1.8431**	**2.0200e-003**	**0.0648**	**3.7500e-003**	**0.0685**	**0.0183**	**3.4600e-003**	**0.0217**						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2883	16.7411	57.6080	0.0916		0.1316	0.1316		0.1316	0.1316						
Total	**1.2883**	**16.7411**	**57.6080**	**0.0916**		**0.1316**	**0.1316**		**0.1316**	**0.1316**						

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						
Vendor	3.8500e-003	0.1023	0.0376	5.7000e-004	0.0176	2.0000e-004	0.0178	5.0500e-003	1.9000e-004	5.2500e-003						
Worker	0.4152	0.1128	1.8055	1.4500e-003	0.0472	3.5500e-003	0.0508	0.0132	3.2700e-003	0.0165						
Total	**0.4191**	**0.2151**	**1.8431**	**2.0200e-003**	**0.0648**	**3.7500e-003**	**0.0685**	**0.0183**	**3.4600e-003**	**0.0217**						

3.9 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	31.3994					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						
Total	**31.3994**	**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						
Vendor	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						
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**						

Mitigated Construction On-Site

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

Archit. Coating	31.3994					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						
Total	**31.3994**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**						

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						
Vendor	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						
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**						

3.9 Architectural Coating - 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					
Archit. Coating	31.3994					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						
Total	**31.3994**	**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						
Vendor	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						
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	31.3994					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						
Total	**31.3994**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**						

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						
Vendor	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						
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**						

3.10 Paving - 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	2.9396	27.1566	34.5628	0.0600		1.2434	1.2434		1.1516	1.1516						
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						
Total	**2.9396**	**27.1566**	**34.5628**	**0.0600**		**1.2434**	**1.2434**		**1.1516**	**1.1516**						

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						
Vendor	2.4800e-003	0.0768	0.0253	3.2000e-004	9.2600e-003	1.1000e-004	9.3700e-003	2.6700e-003	1.1000e-004	2.7700e-003						
Worker	0.1268	0.0344	0.5515	4.4000e-004	0.0144	1.0800e-003	0.0155	4.0400e-003	1.0000e-003	5.0400e-003						
Total	**0.1293**	**0.1113**	**0.5768**	**7.6000e-004**	**0.0237**	**1.1900e-003**	**0.0249**	**6.7100e-003**	**1.1100e-003**	**7.8100e-003**						

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	0.7707	6.0373	39.4793	0.0600		0.0931	0.0931		0.0931	0.0931						
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						
Total	**0.7707**	**6.0373**	**39.4793**	**0.0600**		**0.0931**	**0.0931**		**0.0931**	**0.0931**						

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						
Vendor	2.4800e-003	0.0768	0.0253	3.2000e-004	9.2600e-003	1.1000e-004	9.3700e-003	2.6700e-003	1.1000e-004	2.7700e-003						
Worker	0.1268	0.0344	0.5515	4.4000e-004	0.0144	1.0800e-003	0.0155	4.0400e-003	1.0000e-003	5.0400e-003						
Total	**0.1293**	**0.1113**	**0.5768**	**7.6000e-004**	**0.0237**	**1.1900e-003**	**0.0249**	**6.7100e-003**	**1.1100e-003**	**7.8100e-003**						

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Construction Mitigation Calculations - Model Year 2010 and Newer Trucks

Hauling and Vendor Truck Trips[1]

Year	PhaseName	VendorTripNumber	HaulingTripNumber	VendorTripLength	HaulingTripLength	NumDays	Haul Trips per Day	Haul Trip VMT	Vendor VMT	Total Trips	Total VMT
2021	Utility Work and Demolition	20	8760	6.9	25	60	146	3,650	138	166	3,788
	Demolition and Excavation	60	36720	6.9	25	72	510	12,750	414	570	13,164
	Grading and Excavation	60	13344	6.9	25	24	556	13,900	414	616	14,314
	Concrete and Grading/Excavation	170	26230	6.9	25	60	437	10,929	1,173	607	12,102
	Concrete and Mat Foundation	1400	0	6.5	20	35	0	0	9,100	1400	9,100
	Building Construction (Phase 0 and 1/2)	190	0	6.9	20	225	0	0	1,311	190	1,311

Emission Factors[2]

Parameter	TOG	CO	NOx	PM10	PM2.5	SOx
Run Emission Factors (g/mi)	0.044	0.235	2.644	0.022	0.021	0.013
Idle Emission Factors (g/hr)	2.73	31.63	33.85	0.03	0.02	0.06
Cold Start Emission Factors (g/start)	0	0	13.61	0	0	0
Warm Start Emission Factors (g/start)	0	0	0.50	0	0	0

Hauling and Vendor Truck Emissions

		Total[3]		NOx Emissions (lbs/day)				
Year	Phase	Daily Trips	Daily VMT	Run Emissions	Idle Emissions[4]	Cold Start Emissions[5]	Warm Start Emissions[5]	Total
2021	Utility Work and Demolition	166	3,788	22	2	6	1.33	31
	Demolition and Excavation	570	13,164	77	5	6	1.33	89
	Grading and Excavation	616	14,314	83	6	6	1.33	97
	Concrete and Grading/Excavation	607	12,102	71	6	6	1.33	84
	Concrete and Mat Foundation	1400	9,100	53	13	6	1.33	73
	Building Construction (Phase 0 and 1/2)	190	1,311	8	2	6	1.33	17

Regional NOx Emissions (Mitigated) (lbs/day)

Year	Phase	Onsite + Employees[1]	Truck Emissions (Mitigated)	Total Mitigated Emissions
2021	Utility Work and Demolition	5	31	36
	Demolition and Excavation	11	89	101
	Grading and Excavation	10	97	106
	Concrete and Grading/Excavation	10	84	94
	Concrete and Mat Foundation	5	73	78
	Building Construction (Phase 0 and 1/2)	20	17	37

[1] Refer to CalEEMod Output Files in Appendix

[2] Please see Emission Factor Calculations in Appendix (EMFAC 2017)

[3] Trips and VMT are based on CalEEMod Output Files

[4] Trucks are assumed to idle 15 minutes per trip (0.25 hours)

[5] Start emissions are based on a fleet of 200 trucks. Trucks are assumed to cold start once per day, warm start up to six times per day.

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Heavy Duty Diesel Truck Emission Factors - EMFAC2017

Construction Year	**2021**
Truck Model Year	**2010**

Run Emissions

	TOG_RUNEX	CO_RUNEX	NOx_RUNEX	PM10_RUNEX	PM2_5_RUNEX	SOx_RUNEX
Run Emission Factors (g/mi)[1]	0.044	0.235	2.644	0.022	0.021	0.013

Idle Emissions

	TOG	CO	NOx	PM10	PM2_5	SOx
Idle Emission Factors (g/hr)[2]	2.73	31.63	33.85	0.03	0.02	0.06

Start Emissions

	TOG	CO	NOx	PM10	PM2_5	SOx
Cold Start Emission Factors (g/start)[2]	0	0	13.61	0	0	0
Warm Start Emission Factors (g/start)[2]	0	0	0.50	0	0	0

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

Reentrained Road Dust

	PM10	PM2.5
Reentrained Dust Emission Factors (g/mi)[3]	0.294	0.073

[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

EMFAC2017 (v1.0.2) Emissions Inventory
Region Type: Air Basin
Region: SOUTH COAST
Calendar Year: 2021, 2022, 2023, 2024, 2025, 2026, 2027
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Construction Year **2021**
Truck Model Year **2010**
Fuel Type **DSL**

						Totals	9,848,953	799,264	28.70
						g/mi			2.64
Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	**Population**	**VMT**	**Trips**	**NOx_RUNEX**
SOUTH COAST	2021	HHDT	1977	Aggregated	GAS	0.3	2.7	5.0	2.06E-04
SOUTH COAST	2021	HHDT	1977	Aggregated	DSL	10.3	306.5	34.5	7.56E-03
SOUTH COAST	2021	HHDT	1978	Aggregated	GAS	0.8	12.0	15.6	4.95E-04
SOUTH COAST	2021	HHDT	1978	Aggregated	DSL	13.0	331.3	41.3	7.63E-03
SOUTH COAST	2021	HHDT	1979	Aggregated	GAS	0.5	7.3	9.4	4.09E-05
SOUTH COAST	2021	HHDT	1979	Aggregated	DSL	22.5	495.4	69.3	1.09E-02
SOUTH COAST	2021	HHDT	1980	Aggregated	GAS	0.3	4.2	5.5	3.27E-06
SOUTH COAST	2021	HHDT	1980	Aggregated	DSL	17.9	454.8	57.0	1.05E-02
SOUTH COAST	2021	HHDT	1981	Aggregated	GAS	2.9	43.5	58.0	2.90E-03
SOUTH COAST	2021	HHDT	1981	Aggregated	DSL	102.3	2,906.6	341.8	7.24E-02
SOUTH COAST	2021	HHDT	1982	Aggregated	GAS	2.2	33.5	43.8	8.65E-04
SOUTH COAST	2021	HHDT	1982	Aggregated	DSL	110.1	2,619.7	347.9	6.03E-02
SOUTH COAST	2021	HHDT	1983	Aggregated	GAS	0.4	6.4	8.4	0.00E+00
SOUTH COAST	2021	HHDT	1983	Aggregated	DSL	79.5	1,780.7	245.9	3.90E-02
SOUTH COAST	2021	HHDT	1984	Aggregated	GAS	2.7	42.0	54.8	9.50E-04
SOUTH COAST	2021	HHDT	1984	Aggregated	DSL	153.7	4,367.7	512.4	1.08E-01
SOUTH COAST	2021	HHDT	1985	Aggregated	GAS	6.4	94.5	129.0	6.03E-03
SOUTH COAST	2021	HHDT	1985	Aggregated	DSL	161.1	4,105.3	516.7	9.58E-02
SOUTH COAST	2021	HHDT	1986	Aggregated	GAS	2.4	33.8	48.3	1.22E-03
SOUTH COAST	2021	HHDT	1986	Aggregated	DSL	141.9	3,670.2	454.6	8.52E-02
SOUTH COAST	2021	HHDT	1987	Aggregated	GAS	1.5	23.4	30.8	5.98E-04
SOUTH COAST	2021	HHDT	1987	Aggregated	DSL	162.4	4,340.8	526.1	1.02E-01
SOUTH COAST	2021	HHDT	1988	Aggregated	GAS	1.1	17.3	22.5	5.85E-04
SOUTH COAST	2021	HHDT	1988	Aggregated	DSL	137.1	3,559.8	433.5	7.91E-02
SOUTH COAST	2021	HHDT	1989	Aggregated	GAS	1.4	19.6	27.3	0.00E+00
SOUTH COAST	2021	HHDT	1989	Aggregated	DSL	254.7	7,270.0	843.0	1.76E-01
SOUTH COAST	2021	HHDT	1990	Aggregated	GAS	3.3	61.9	65.7	0.00E+00
SOUTH COAST	2021	HHDT	1990	Aggregated	DSL	188.8	5,319.2	616.0	1.25E-01
SOUTH COAST	2021	HHDT	1991	Aggregated	GAS	1.0	23.0	20.3	7.05E-04
SOUTH COAST	2021	HHDT	1991	Aggregated	DSL	162.0	4,255.8	521.3	1.05E-01
SOUTH COAST	2021	HHDT	1992	Aggregated	DSL	110.6	3,138.2	361.7	7.78E-02
SOUTH COAST	2021	HHDT	1993	Aggregated	GAS	0.7	20.7	14.0	4.20E-04
SOUTH COAST	2021	HHDT	1993	Aggregated	DSL	114.0	3,642.7	387.4	8.68E-02
SOUTH COAST	2021	HHDT	1994	Aggregated	GAS	0.4	11.7	7.1	1.23E-04
SOUTH COAST	2021	HHDT	1994	Aggregated	DSL	168.7	5,549.1	581.5	1.14E-01
SOUTH COAST	2021	HHDT	1994	Aggregated	NG	0.3	14.2	1.4	6.23E-04
SOUTH COAST	2021	HHDT	1995	Aggregated	GAS	0.7	23.9	14.1	6.80E-04
SOUTH COAST	2021	HHDT	1995	Aggregated	DSL	218.3	7,513.6	769.9	1.56E-01
SOUTH COAST	2021	HHDT	1996	Aggregated	GAS	1.1	39.7	21.9	3.97E-04
SOUTH COAST	2021	HHDT	1996	Aggregated	DSL	340.2	19,290.2	2,024.2	4.00E-01
SOUTH COAST	2021	HHDT	1996	Aggregated	NG	1.1	46.7	4.5	2.04E-03
SOUTH COAST	2021	HHDT	1997	Aggregated	DSL	286.3	16,704.6	1,845.7	3.42E-01
SOUTH COAST	2021	HHDT	1997	Aggregated	NG	0.7	28.8	2.7	1.26E-03
SOUTH COAST	2021	HHDT	1998	Aggregated	GAS	1.6	71.0	32.6	7.12E-04

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	**Population**	**VMT**	**Trips**	**NOx_RUNEX**
SOUTH COAST	2021	HHDT	1998	Aggregated	DSL	304.5	19,538.9	2,172.7	4.03E-01
SOUTH COAST	2021	HHDT	1998	Aggregated	NG	2.3	95.6	9.1	4.18E-03
SOUTH COAST	2021	HHDT	1999	Aggregated	DSL	533.6	32,744.5	3,564.5	8.24E-01
SOUTH COAST	2021	HHDT	2000	Aggregated	GAS	1.1	48.7	22.1	4.65E-04
SOUTH COAST	2021	HHDT	2000	Aggregated	DSL	757.6	51,795.9	5,728.1	1.31E+00
SOUTH COAST	2021	HHDT	2001	Aggregated	GAS	2.1	110.3	41.4	1.14E-03
SOUTH COAST	2021	HHDT	2001	Aggregated	DSL	715.8	43,327.0	4,722.6	1.09E+00
SOUTH COAST	2021	HHDT	2001	Aggregated	NG	12.4	506.2	48.3	2.21E-02
SOUTH COAST	2021	HHDT	2002	Aggregated	GAS	1.5	83.4	30.0	7.76E-04
SOUTH COAST	2021	HHDT	2002	Aggregated	DSL	597.7	31,497.2	3,483.8	7.81E-01
SOUTH COAST	2021	HHDT	2002	Aggregated	NG	40.3	1,647.2	157.2	7.21E-02
SOUTH COAST	2021	HHDT	2003	Aggregated	GAS	0.6	41.2	12.1	4.00E-04
SOUTH COAST	2021	HHDT	2003	Aggregated	DSL	645.8	38,244.3	4,135.5	5.77E-01
SOUTH COAST	2021	HHDT	2003	Aggregated	NG	33.4	1,363.3	130.1	4.85E-02
SOUTH COAST	2021	HHDT	2004	Aggregated	GAS	2.6	189.2	51.2	7.56E-04
SOUTH COAST	2021	HHDT	2004	Aggregated	DSL	618.6	40,256.7	4,476.2	5.30E-01
SOUTH COAST	2021	HHDT	2004	Aggregated	NG	69.8	2,853.9	272.4	1.02E-01
SOUTH COAST	2021	HHDT	2005	Aggregated	GAS	3.6	248.6	72.5	9.33E-04
SOUTH COAST	2021	HHDT	2005	Aggregated	DSL	1,441.7	106,195.8	12,951.4	1.40E+00
SOUTH COAST	2021	HHDT	2005	Aggregated	NG	32.8	1,341.1	128.0	4.77E-02
SOUTH COAST	2021	HHDT	2006	Aggregated	DSL	1,904.8	140,110.6	17,324.4	1.85E+00
SOUTH COAST	2021	HHDT	2006	Aggregated	NG	24.2	990.5	94.5	3.52E-02
SOUTH COAST	2021	HHDT	2007	Aggregated	GAS	7.8	729.4	155.1	2.76E-03
SOUTH COAST	2021	HHDT	2007	Aggregated	DSL	2,418.7	197,462.7	23,289.8	2.36E+00
SOUTH COAST	2021	HHDT	2007	Aggregated	NG	107.3	4,383.7	418.4	6.50E-02
SOUTH COAST	2021	HHDT	2008	Aggregated	GAS	4.5	424.7	89.4	1.69E-03
SOUTH COAST	2021	HHDT	2008	Aggregated	DSL	4,194.8	411,984.4	37,841.0	4.09E+00
SOUTH COAST	2021	HHDT	2008	Aggregated	NG	147.9	6,044.2	576.9	8.96E-02
SOUTH COAST	2021	HHDT	2009	Aggregated	GAS	3.8	398.5	76.6	1.52E-03
SOUTH COAST	2021	HHDT	2009	Aggregated	DSL	4,596.1	482,086.9	43,919.7	4.75E+00
SOUTH COAST	2021	HHDT	2009	Aggregated	NG	289.1	11,814.1	1,127.7	1.75E-01
SOUTH COAST	2021	HHDT	2010	Aggregated	GAS	1.2	147.5	24.6	5.32E-04
SOUTH COAST	2021	HHDT	2010	Aggregated	DSL	3,874.1	431,307.2	36,573.0	3.92E+00
SOUTH COAST	2021	HHDT	2010	Aggregated	NG	254.3	10,391.2	991.9	4.49E-03
SOUTH COAST	2021	HHDT	2011	Aggregated	GAS	1.4	183.9	28.1	6.26E-04
SOUTH COAST	2021	HHDT	2011	Aggregated	DSL	4,702.6	521,182.6	44,552.1	2.82E+00
SOUTH COAST	2021	HHDT	2011	Aggregated	NG	296.7	12,124.7	1,157.3	5.24E-03
SOUTH COAST	2021	HHDT	2012	Aggregated	DSL	12,597.6	935,277.3	121,885.0	3.94E+00
SOUTH COAST	2021	HHDT	2012	Aggregated	NG	358.6	14,650.6	1,398.4	6.33E-03
SOUTH COAST	2021	HHDT	2013	Aggregated	GAS	1.7	261.7	34.0	8.41E-04
SOUTH COAST	2021	HHDT	2013	Aggregated	DSL	6,950.1	787,787.4	72,842.6	3.14E+00
SOUTH COAST	2021	HHDT	2013	Aggregated	NG	228.1	9,318.0	889.4	4.02E-03
SOUTH COAST	2021	HHDT	2014	Aggregated	DSL	7,148.8	893,990.5	76,410.6	2.40E+00
SOUTH COAST	2021	HHDT	2014	Aggregated	NG	185.0	7,560.0	721.6	3.27E-03
SOUTH COAST	2021	HHDT	2015	Aggregated	GAS	1.5	279.8	30.8	8.17E-04
SOUTH COAST	2021	HHDT	2015	Aggregated	DSL	8,431.2	1,222,915.8	97,063.2	2.85E+00
SOUTH COAST	2021	HHDT	2015	Aggregated	NG	303.8	12,413.4	1,184.9	5.36E-03
SOUTH COAST	2021	HHDT	2016	Aggregated	DSL	12,271.6	2,020,637.9	148,611.3	4.44E+00
SOUTH COAST	2021	HHDT	2016	Aggregated	NG	424.5	17,345.2	1,655.6	7.49E-03
SOUTH COAST	2021	HHDT	2017	Aggregated	GAS	3.6	729.8	71.5	2.00E-03
SOUTH COAST	2021	HHDT	2017	Aggregated	DSL	4,772.7	651,064.6	45,832.8	1.31E+00
SOUTH COAST	2021	HHDT	2017	Aggregated	NG	741.8	30,307.4	2,892.9	1.31E-02
SOUTH COAST	2021	HHDT	2018	Aggregated	GAS	3.4	741.6	67.1	2.00E-03
SOUTH COAST	2021	HHDT	2018	Aggregated	DSL	3,713.5	625,077.5	40,559.5	1.17E+00
SOUTH COAST	2021	HHDT	2018	Aggregated	NG	187.1	7,643.0	729.5	3.30E-03
SOUTH COAST	2021	HHDT	2019	Aggregated	GAS	3.2	759.1	63.5	2.03E-03
SOUTH COAST	2021	HHDT	2019	Aggregated	DSL	3,579.0	618,797.5	38,681.6	1.06E+00
SOUTH COAST	2021	HHDT	2019	Aggregated	NG	340.1	13,897.1	1,326.5	6.00E-03

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	**Population**	**VMT**	**Trips**	**NOx_RUNEX**
SOUTH COAST	2021	HHDT	2020	Aggregated	GAS	3.2	819.9	63.5	2.14E-03
SOUTH COAST	2021	HHDT	2020	Aggregated	DSL	3,524.5	630,267.1	38,299.3	9.71E-01
SOUTH COAST	2021	HHDT	2020	Aggregated	NG	319.9	13,070.8	1,247.6	5.64E-03
SOUTH COAST	2021	HHDT	2021	Aggregated	GAS	3.0	840.0	60.2	1.91E-03
SOUTH COAST	2021	HHDT	2021	Aggregated	DSL	2,384.6	410,549.7	25,134.3	5.61E-01
SOUTH COAST	2021	HHDT	2021	Aggregated	NG	250.3	10,227.9	976.3	4.41E-03
SOUTH COAST	2021	HHDT	2022	Aggregated	DSL	1,091.9	100,097.6	12,819.2	1.20E-01
SOUTH COAST	2021	HHDT	2022	Aggregated	NG	28.4	482.8	110.6	2.08E-04

CalEEMod Version: CalEEMod.2016.3.2

 Date: 12/8/2020 5:05 PM

1111 Sunset Buildout - Mixed Use Option (With PDFs) - South Coast Air Basin, Winter

1111 Sunset Buildout - Mixed Use Option (With PDFs)

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	48.00	1000sqft	1.10	48,000.00	0
User Defined Commercial	1.00	User Defined Unit	0.00	0.00	0
Enclosed Parking with Elevator	485.00	Space	4.36	194,000.00	0
Unenclosed Parking with Elevator	1,168.00	Space	10.51	467,200.00	0
Health Club	14.50	1000sqft	0.33	14,500.00	0
High Turnover (Sit Down Restaurant)	35.00	1000sqft	0.80	35,000.00	0
Hotel	180.00	Room	6.00	85,000.00	0
Condo/Townhouse High Rise	737.00	Dwelling Unit	11.52	766,982.00	2108
Strip Mall	18.20	1000sqft	0.42	18,200.00	0
Supermarket	27.30	1000sqft	0.63	27,300.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	12			**Operational Year**	2028
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	524	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - LADWP 2028 Carbon Intensity (SB100 RPS)

Land Use - see assumptions

Construction Phase - see assumptions

Off-road Equipment - Site Specific

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Trips and VMT - Soil Export - 25 miles to Irvindale (one-way)

Demolition -

Grading -

Architectural Coating - No Architectural Coatings for Existing Elysian Apartments

Vehicle Trips - see assumptions

Woodstoves - Assumes 7 firepits. No wood burning fireplaces

Energy Use - Adjustment for Parking Structure Energy Usage (See assumptions). Exiting Uses usage rate increased by 10 percent as PDF would not apply to these uses.

Water And Wastewater - Exiting Uses usage rate increased by 20 percent as PDF would not apply to these uses.

Construction Off-road Equipment Mitigation - Tier 4

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation - City of LA Waste Diversion Rate (2013)

Fleet Mix -

Stationary Sources - Emergency Generators and Fire Pumps -

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

Table Name	Column Name	Default Value	New Value
tblEnergyUse	T24E	3.92	0.46
tblFireplaces	FireplaceDayYear	25.00	100.00
tblFireplaces	FireplaceHourDay	3.00	6.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	626.45	14.00
tblFireplaces	NumberNoFireplace	73.70	0.00
tblFireplaces	NumberWood	36.85	0.00
tblLandUse	LandUseSquareFeet	261,360.00	85,000.00
tblLandUse	LandUseSquareFeet	737,000.00	766,982.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	524
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
tblStationaryGeneratorsPumpsEF	TOG_EF	2.4700e-003	2.4700e-004
tblTripsAndVMT	HaulingTripNumber	4,084.00	8,760.00
tblTripsAndVMT	HaulingTripNumber	0.00	36,720.00
tblTripsAndVMT	HaulingTripNumber	0.00	13,344.00
tblTripsAndVMT	HaulingTripNumber	0.00	26,230.00
tblVehicleTrips	CC_TL	8.40	6.36
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	4.31	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	20.87	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	177.59	0.00
tblVehicleTrips	ST_TR	0.00	8,810.22
tblVehicleTrips	SU_TR	3.43	0.00

tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	26.73	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	166.44	0.00
tblVehicleTrips	SU_TR	0.00	8,810.22
tblVehicleTrips	WD_TR	4.18	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	32.93	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	102.24	0.00
tblVehicleTrips	WD_TR	0.00	8,257.00
tblWoodstoves	NumberCatalytic	36.85	0.00
tblWoodstoves	NumberNoncatalytic	36.85	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	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	lb/day										lb/day					
Area	23.7759	1.1660	61.1448	6.1900e-003		0.3753	0.3753		0.3753	0.3753						
Energy	0.5791	5.1343	3.4661	0.0316		0.4001	0.4001		0.4001	0.4001						
Mobile	8.9311	44.5048	99.1918	0.4305	43.3385	0.2999	43.6385	11.5906	0.2784	11.8690						
Stationary	0.0792	0.2816	1.4645	2.7600e-003		0.0113	0.0113		0.0113	0.0113						
Total	**33.3653**	**51.0867**	**165.2672**	**0.4711**	**43.3385**	**1.0866**	**44.4252**	**11.5906**	**1.0651**	**12.6557**						

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	23.7759	1.1660	61.1448	6.1900e-003		0.3753	0.3753		0.3753	0.3753						
Energy	0.5566	4.9350	3.3349	0.0304		0.3845	0.3845		0.3845	0.3845						

Mobile	8.9311	44.5048	99.1918	0.4305	43.3385	0.2999	43.6385	11.5906	0.2784	11.8690						
Stationary	0.0792	0.2816	1.4645	2.7600e-003		0.0113	0.0113		0.0113	0.0113						
Total	**33.3427**	**50.8874**	**165.1360**	**0.4698**	**43.3385**	**1.0711**	**44.4096**	**11.5906**	**1.0496**	**12.6401**						

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.07**	**0.39**	**0.08**	**0.26**	**0.00**	**1.43**	**0.04**	**0.00**	**1.46**	**0.12**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	8.9311	44.5048	99.1918	0.4305	43.3385	0.2999	43.6385	11.5906	0.2784	11.8690						
Unmitigated	8.9311	44.5048	99.1918	0.4305	43.3385	0.2999	43.6385	11.5906	0.2784	11.8690						

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		
General Office Building	0.00	0.00	0.00		
Health Club	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		
Supermarket	0.00	0.00	0.00		
Unenclosed Parking with Elevator	0.00	0.00	0.00		
User Defined Commercial	8,257.00	8,810.22	8810.22	19,482,126	19,482,126
Total	8,257.00	8,810.22	8,810.22	19,482,126	19,482,126

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15
Supermarket	16.60	8.40	6.90	6.50	74.50	19.00	34	30	36
Unenclosed Parking with	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
User Defined Commercial	0.00	6.36	0.00	0.00	100.00	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	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Enclosed Parking with Elevator	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
General Office Building	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Health Club	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
High Turnover (Sit Down Restaurant)	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Hotel	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Strip Mall	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Supermarket	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Unenclosed Parking with Elevator	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
User Defined Commercial	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782

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	0.5566	4.9350	3.3349	0.0304		0.3845	0.3845		0.3845	0.3845						
NaturalGas Unmitigated	0.5791	5.1343	3.4661	0.0316		0.4001	0.4001		0.4001	0.4001						

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	22166.9	0.2391	2.0428	0.8693	0.0130		0.1652	0.1652		0.1652	0.1652						
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
General Office Building	1368.99	0.0148	0.1342	0.1127	8.1000e-004		0.0102	0.0102		0.0102	0.0102						
Health Club	719.041	7.7500e-003	0.0705	0.0592	4.2000e-004		5.3600e-003	5.3600e-003		5.3600e-003	5.3600e-003						
High Turnover (Sit Down Restaurant)	22127.7	0.2386	2.1694	1.8223	0.0130		0.1649	0.1649		0.1649	0.1649						
Hotel	5584.38	0.0602	0.5475	0.4599	3.2800e-003		0.0416	0.0416		0.0416	0.0416						

Strip Mall	81.7753	8.8000e-004	8.0200e-003	6.7300e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004						
Supermarket	1650.72	0.0178	0.1618	0.1359	9.7000e-004		0.0123	0.0123		0.0123	0.0123						
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
User Defined Commercial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Total		**0.5791**	**5.1343**	**3.4661**	**0.0316**		**0.4001**	**0.4001**		**0.4001**	**0.4001**						

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	21.2185	0.2288	1.9554	0.8321	0.0125		0.1581	0.1581		0.1581	0.1581						
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
General Office Building	1.23722	0.0133	0.1213	0.1019	7.3000e-004		9.2200e-003	9.2200e-003		9.2200e-003	9.2200e-003						
Health Club	0.664815	7.1700e-003	0.0652	0.0548	3.9000e-004		4.9500e-003	4.9500e-003		4.9500e-003	4.9500e-003						
High Turnover (Sit Down Restaurant)	21.7155	0.2342	2.1290	1.7883	0.0128		0.1618	0.1618		0.1618	0.1618						
Hotel	5.12049	0.0552	0.5020	0.4217	3.0100e-003		0.0382	0.0382		0.0382	0.0382						
Strip Mall	0.0760411	8.2000e-004	7.4600e-003	6.2600e-003	4.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004						
Supermarket	1.57719	0.0170	0.1546	0.1299	9.3000e-004		0.0118	0.0118		0.0118	0.0118						
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
User Defined Commercial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Total		**0.5566**	**4.9350**	**3.3349**	**0.0304**		**0.3845**	**0.3845**		**0.3845**	**0.3845**						

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	23.7759	1.1660	61.1448	6.1900e-003		0.3753	0.3753		0.3753	0.3753						
Unmitigated	23.7759	1.1660	61.1448	6.1900e-003		0.3753	0.3753		0.3753	0.3753						

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.9443					0.0000	0.0000		0.0000	0.0000						
Consumer Products	19.9348					0.0000	0.0000		0.0000	0.0000						
Hearth	0.0544	0.4645	0.1977	2.9600e-003		0.0376	0.0376		0.0376	0.0376						
Landscaping	1.8424	0.7015	60.9472	3.2300e-003		0.3378	0.3378		0.3378	0.3378						
Total	**23.7759**	**1.1660**	**61.1448**	**6.1900e-003**		**0.3753**	**0.3753**		**0.3753**	**0.3753**						

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.9443					0.0000	0.0000		0.0000	0.0000						
Consumer Products	19.9348					0.0000	0.0000		0.0000	0.0000						
Hearth	0.0544	0.4645	0.1977	2.9600e-003		0.0376	0.0376		0.0376	0.0376						
Landscaping	1.8424	0.7015	60.9472	3.2300e-003		0.3378	0.3378		0.3378	0.3378						
Total	**23.7759**	**1.1660**	**61.1448**	**6.1900e-003**		**0.3753**	**0.3753**		**0.3753**	**0.3753**						

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	1	12	350	0.73	Diesel

Boilers

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

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	lb/day										lb/day					
Emergency Generator - Diesel (300 - 600 HP)	0.0792	0.2816	1.4645	2.7600e-003		0.0113	0.0113		0.0113	0.0113						
Total	**0.0792**	**0.2816**	**1.4645**	**2.7600e-003**		**0.0113**	**0.0113**		**0.0113**	**0.0113**						

11.0 Vegetation

CalEEMod Version: CalEEMod.2016.3.2

 Date: 12/8/2020 5:28 PM

1111 Sunset Buildout - No Hotel Option (with PDFs) - South Coast Air Basin, Winter

1111 Sunset Buildout - No Hotel Option (with PDFs)

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	48.00	1000sqft	1.10	48,000.00	0
User Defined Commercial	1.00	User Defined Unit	0.00	0.00	0
Enclosed Parking with Elevator	485.00	Space	4.36	194,000.00	0
Unenclosed Parking with Elevator	1,210.00	Space	10.89	484,000.00	0
Health Club	14.50	1000sqft	0.33	14,500.00	0
High Turnover (Sit Down Restaurant)	35.00	1000sqft	0.80	35,000.00	0
Condo/Townhouse High Rise	827.00	Dwelling Unit	12.92	851,982.00	1931
Strip Mall	18.20	1000sqft	0.42	18,200.00	0
Supermarket	27.30	1000sqft	0.63	27,300.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	12			**Operational Year**	2028
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	524	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - LADWP 2028 Carbon Intensity (SB100 RPS)

Land Use - No Hotel Option

Construction Phase - see assumptions

Off-road Equipment - Site Specific

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Trips and VMT - Soil Export - 25 miles to Irvindale (one-way)
Concrete - 6.5 miles to Catalina Pacific (one-way)

Demolition -

Grading -

Architectural Coating - No Architectural Coatings for Existing Elysian Apartments

Vehicle Trips - User Defined Commercial Uses represent trips and VMT obtained from the LADOT VMT Calculator
User Defined Industrial Uses represent pass-by trips obtained from ITE trip generation methodology

Woodstoves - New high-rise would not inlcude fireplaces, but would include seven fire pits

Energy Use - Adjustment for Parking Structure Energy Usage (See assumptions).

Water And Wastewater -

Construction Off-road Equipment Mitigation - Tier 4

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation - City of LA Waste Diversion Rate (2013)

Fleet Mix -

Stationary Sources - Emergency Generators and Fire Pumps -

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

Table Name	Column Name	Default Value	New Value
tblEnergyUse	T24E	3.92	0.46
tblFireplaces	FireplaceDayYear	25.00	100.00
tblFireplaces	FireplaceHourDay	3.00	6.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	702.95	14.00
tblFireplaces	NumberNoFireplace	82.70	0.00
tblFireplaces	NumberWood	41.35	0.00
tblLandUse	LandUseSquareFeet	827,000.00	851,982.00
tblLandUse	Population	2,365.00	1,931.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	524
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
tblStationaryGeneratorsPumpsEF	TOG_EF	2.4700e-003	2.4700e-004
tblTripsAndVMT	HaulingTripNumber	4,084.00	8,760.00
tblTripsAndVMT	HaulingTripNumber	0.00	36,720.00
tblTripsAndVMT	HaulingTripNumber	0.00	13,344.00
tblTripsAndVMT	HaulingTripNumber	0.00	26,230.00
tblVehicleTrips	CC_TL	8.40	6.37
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	4.31	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	158.37	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	ST_TR	177.59	0.00
tblVehicleTrips	ST_TR	0.00	8,358.72
tblVehicleTrips	SU_TR	3.43	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	26.73	0.00

tblVehicleTrips	SU_TR	131.84	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	SU_TR	166.44	0.00
tblVehicleTrips	SU_TR	0.00	8,358.72
tblVehicleTrips	WD_TR	4.18	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	127.15	0.00
tblVehicleTrips	WD_TR	44.32	0.00
tblVehicleTrips	WD_TR	102.24	0.00
tblVehicleTrips	WD_TR	0.00	7,711.00
tblWoodstoves	NumberCatalytic	41.35	0.00
tblWoodstoves	NumberNoncatalytic	41.35	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	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	lb/day										lb/day					
Area	23.9344	1.2513	68.5488	6.5800e-003		0.4164	0.4164		0.4164	0.4164						
Energy	0.5481	4.8362	3.1124	0.0299		0.3787	0.3787		0.3787	0.3787						
Mobile	8.4791	42.2541	94.2450	0.4092	41.1953	0.2850	41.4803	11.0174	0.2646	11.2820						
Stationary	0.0396	0.1408	0.7323	1.3800e-003		5.6300e-003	5.6300e-003		5.6300e-003	5.6300e-003						
Total	**33.0011**	**48.4825**	**166.6384**	**0.4470**	**41.1953**	**1.0858**	**42.2811**	**11.0174**	**1.0653**	**12.0827**						

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	23.8800	0.7869	68.3512	3.6200e-003		0.3789	0.3789		0.3789	0.3789						
Energy	0.5293	4.6718	3.0148	0.0289		0.3657	0.3657		0.3657	0.3657						
Mobile	8.4791	42.2541	94.2450	0.4092	41.1953	0.2850	41.4803	11.0174	0.2646	11.2820						
Stationary	0.0396	0.1408	0.7323	1.3800e-003		5.6300e-003	5.6300e-003		5.6300e-003	5.6300e-003						
Total	**32.9280**	**47.8535**	**166.3432**	**0.4430**	**41.1953**	**1.0352**	**42.2305**	**11.0174**	**1.0148**	**12.0322**						

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.22**	**1.30**	**0.18**	**0.89**	**0.00**	**4.65**	**0.12**	**0.00**	**4.74**	**0.42**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	8.4791	42.2541	94.2450	0.4092	41.1953	0.2850	41.4803	11.0174	0.2646	11.2820						
Unmitigated	8.4791	42.2541	94.2450	0.4092	41.1953	0.2850	41.4803	11.0174	0.2646	11.2820						

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		
General Office Building	0.00	0.00	0.00		
Health Club	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00		
Strip Mall	0.00	0.00	0.00		
Supermarket	0.00	0.00	0.00		
Unenclosed Parking with Elevator	0.00	0.00	0.00		
User Defined Commercial	7,711.00	8,358.72	8358.72	18,315,129	18,315,129
Total	7,711.00	8,358.72	8,358.72	18,315,129	18,315,129

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15
Supermarket	16.60	8.40	6.90	6.50	74.50	19.00	34	30	36
Unenclosed Parking with	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
User Defined Commercial	0.00	6.37	0.00	0.00	100.00	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	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Enclosed Parking with Elevator	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
General Office Building	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Health Club	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782

High Turnover (Sit Down Restaurant)	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Strip Mall	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Supermarket	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Unenclosed Parking with Elevator	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
User Defined Commercial	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782

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	0.5293	4.6718	3.0148	0.0289		0.3657	0.3657		0.3657	0.3657						
NaturalGas Unmitigated	0.5481	4.8362	3.1124	0.0299		0.3787	0.3787		0.3787	0.3787						

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	24873.8	0.2683	2.2923	0.9755	0.0146		0.1853	0.1853		0.1853	0.1853						
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
General Office Building	1368.99	0.0148	0.1342	0.1127	8.1000e-004		0.0102	0.0102		0.0102	0.0102						
Health Club	719.041	7.7500e-003	0.0705	0.0592	4.2000e-004		5.3600e-003	5.3600e-003		5.3600e-003	5.3600e-003						
High Turnover (Sit Down Restaurant)	22127.7	0.2386	2.1694	1.8223	0.0130		0.1649	0.1649		0.1649	0.1649						
Strip Mall	81.7753	8.8000e-004	8.0200e-003	6.7300e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004						
Supermarket	1650.72	0.0178	0.1618	0.1359	9.7000e-004		0.0123	0.0123		0.0123	0.0123						
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
User Defined Commercial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Total		**0.5481**	**4.8362**	**3.1124**	**0.0299**		**0.3787**	**0.3787**		**0.3787**	**0.3787**						

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	23.8096	0.2568	2.1942	0.9337	0.0140		0.1774	0.1774		0.1774	0.1774						
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
General Office Building	1.23722	0.0133	0.1213	0.1019	7.3000e-004		9.2200e-003	9.2200e-003		9.2200e-003	9.2200e-003						
Health Club	0.664815	7.1700e-003	0.0652	0.0548	3.9000e-004		4.9500e-003	4.9500e-003		4.9500e-003	4.9500e-003						
High Turnover (Sit Down Restaurant)	21.7155	0.2342	2.1290	1.7883	0.0128		0.1618	0.1618		0.1618	0.1618						
Strip Mall	0.0760411	8.2000e-004	7.4600e-003	6.2600e-003	4.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004						
Supermarket	1.57719	0.0170	0.1546	0.1299	9.3000e-004		0.0118	0.0118		0.0118	0.0118						
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
User Defined Commercial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Total		**0.5293**	**4.6718**	**3.0148**	**0.0289**		**0.3657**	**0.3657**		**0.3657**	**0.3657**						

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	23.8800	0.7869	68.3512	3.6200e-003		0.3789	0.3789		0.3789	0.3789						
Unmitigated	23.9344	1.2513	68.5488	6.5800e-003		0.4164	0.4164		0.4164	0.4164						

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.8754					0.0000	0.0000		0.0000	0.0000						
Consumer Products	19.9408					0.0000	0.0000		0.0000	0.0000						
Hearth	0.0544	0.4645	0.1977	2.9600e-003		0.0376	0.0376		0.0376	0.0376						
Landscaping	2.0638	0.7869	68.3512	3.6200e-003		0.3789	0.3789		0.3789	0.3789						

Total	**23.9344**	**1.2513**	**68.5488**	**6.5800e-003**		**0.4164**	**0.4164**		**0.4164**	**0.4164**						

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.8754					0.0000	0.0000		0.0000	0.0000						
Consumer Products	19.9408					0.0000	0.0000		0.0000	0.0000						
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Landscaping	2.0638	0.7869	68.3512	3.6200e-003		0.3789	0.3789		0.3789	0.3789						
Total	**23.8800**	**0.7869**	**68.3512**	**3.6200e-003**		**0.3789**	**0.3789**		**0.3789**	**0.3789**						

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.5	12	350	0.73	Diesel

Boilers

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

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	lb/day										lb/day					

Emergency Generator - Diesel (300 - 600 HP)	0.0396	0.1408	0.7323	1.3800e-003		5.6300e-003	5.6300e-003		5.6300e-003	5.6300e-003						
Total	**0.0396**	**0.1408**	**0.7323**	**1.3800e-003**		**5.6300e-003**	**5.6300e-003**		**5.6300e-003**	**5.6300e-003**						

11.0 Vegetation

CO Hotspots Analysis

	CO Hotspot Analysis - Maximum Impacted Intersection			
	Beaudry Avenue and Sunset Boulevard			
	Existing		Future with Project	
Direction	AM	PM	AM	PM
SBR	123	117	204	225
SBT	270	208	407	384
SBL	36	24	125	123
EBR	35	46	91	129
EBT	887	1,189	1,007	1,362
EBL	92	89	95	91
NBR	112	133	128	144
NBT	97	422	223	619
NBL	121	448	173	503
WBR	847	360	923	420
WBT	1,228	972	1,418	1,163
WBL	36	60	118	167
Max Daily Trips	38,840	40,680	49,120	53,300

1111 Sunset

Draft EIR

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

- Appendix C-3: Greenhouse Gas Worksheets and Modeling Output Files
  - Appendix C-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 C-3.2: CalEEMod Outputs
    - Construction
    - Mixed Use Scenario without Project Design Features
    - Mixed Use Scenario with Project Design Features
    - No Hotel Scenario without Project Design Features
    - No Hotel Scenario with Project Design Features

1111 Sunset - Mixed Use Scenario

Operational Emissions Summary (GHG)

CalEEMod Output Summary	Project with no PDFs	Project with PDFs
Buildout (Buildout Year)[a]		
Area	173	40
Energy (Natural Gas and Electricity)[b]	3,213	3,041
Mobile	11,415	7,061
Electric Vehicle Charging Credit	-	(76)
Emergency Generators	2	2
Solid Waste	581	137
Water/Wastewater	447	357
Construction	406	406
Total	**16,236**	**10,968**

[a] Please refer to CalEEMod outputs for Future uses

[b] Energy emissions includes mechanical parking lift electricity usage. Please refer to the Energy appendix for electricity calculations

1111 Sunset - No Hotel Scenario

Operational Emissions Summary (GHG)

CalEEMod Output Summary	Project with no PDFs	Project with PDFs
Buildout (Buildout Year)[a]		
Area	184	14
Energy (Natural Gas and Electricity)[b]	3,114	2,947
Mobile	10,678	6,637
Electric Vehicle Charging Credit	-	(86)
Emergency Generators	2	2
Solid Waste	552	130
Water/Wastewater	461	369
Construction	406	406
Total	**15,396**	**10,419**

[a] Please refer to CalEEMod outputs for Future uses

[b] Energy emissions includes mechanical parking lift electricity usage. Please refer to the Energy appendix for electricity calculations

GHG SOURCE CALCULATIONS:

ENERGY

Consistent with Section 120.6(c), Mandatory Requirements for Enclosed Parking Garages, the ventilation rate shall be at least 0.15 cfm/sq f when the garage is scheduled to be occupied.

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 mititgation to all land uses. So, this adjustement accounts for the 10% reduction in lighting associated with Title 24)

Source: Energy Star Portfolio Manger Technical Reference: Parking and the Energy Star Score in the United States and Canada, August 2018

APPLICABLE GHG REDUCTION MEASURES Included within CalEEMod

Energy Reduction Measures Included in CalEEMod Run:

High Efficiency Lighting (25%)

Title 24 (Above 10%) — The analysis assumes that the project will comply with 2019 Title 24 standards. It was conservatively assumed that 2019 Title 24 would be 10% more efficient than 2016 Title 24 Standards

Water Reduction Measures Included in CalEEMod Run:

20 Percent Reduction Beyond Code Requirements

Waste Diversion Rate Reduction Measures Included in CalEEMod Run:

-Project assumes a 76.4% Diversion Rate (Los Angeles, 2011)

Area Source Reduction Measure Included in CalEEMod Run:

-New Residential DU's do not include fireplaces.

GHG Emissions Reductions for Residential Uses Associated with Electric Vehicle Charging Stations/Plugins

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

LADWP Electricity Emission Factor[1]	0.24	MTCO2E/MWh
Fuel Economy of Electric Vehicle[2]	0.33	kWh/mile
Electric Vehicle GHG Emissions	78.4	grams/mile
GHG Emissions from Residential Miles Traveled (CalEEMod)[3]	328.7	grams/mile
GHG Emissions Reduction from Additional Electric Vehicles, per mile	250.3	grams/mile

Step 2: Estimating Project Residential-Related VMT GHG Emissions

Residential Average Yearly VMT with TDM and PDFs[4]	3,020,792	miles/year
Percent of Residential Miles Driven in Electric Vehicles due to this Measure	10.0%	
Residential VMT that is Displaced by Evs due to this Measure	302,079	miles/year
GHG Emisisons Reduction from Residential Electric Vehicles	**76**	MTCO2E/MWh
Energy Usage (kWh/year)	**99,686**	

Notes:
1) CO2 intensity factor reflects a 2028 RPS for LADWP (524 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/plugins for residential uses would be fully utlized 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 Residential Uses Associated with Electric Vehicle Charging Stations/Plugins

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LADWP Electricity Emission Factor[1]	0.24	MTCO2E/MWh
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Electric Vehicle GHG Emissions	78.4	grams/mile
GHG Emissions from Residential Miles Traveled (CalEEMod)[3]	328.8	grams/mile
GHG Emissions Reduction from Additional Electric Vehicles, per mile	250.4	grams/mile

Step 2: Estimating Project Residential-Related VMT GHG Emissions

Residential Average Yearly VMT with TDM and PDFs[4]	3,438,490	miles/year
Percent of Residential Miles Driven in Electric Vehicles due to this Measure	10.0%	
Residential VMT that is Displaced by Evs due to this Measure	343,849	miles/year
GHG Emisisons Reduction from Residential Electric Vehicles	**86**	MTCO2E/MWh
Energy Usage	**113,470**	

Notes:
1) CO2 intensity factor reflects a 2028 RPS for LADWP (524 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/plugins for residential uses would be fully utlized 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/).

1111 Sunset - Mixed Use Scenario

LADOT VMT Calculator Data

VMT Summary

	Existing	Proposed Project	With Mitigation	Project Weekday Trips	Weekend Trips	Weekend Vs. Weekday Ratio
Daily Trips	0	8,709	8,257	1	1	**1.07**
Daily VMT	0	55,575	52,517			

Project without TDM (MXD Data)

	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT
Home Based Work Production	657	-29.4%	464	7.5	4,928	3,480
Home Based Other Production	1,819	-40.4%	1085	5.6	10,186	6,076
Non-Home Based Other Production	2,582	-4.1%	2477	6.8	17,558	16,844
Home-Based Work Attraction	844	-21.7%	661	8.5	7,174	5,619
Home-Based Other Attraction	5,590	-34.1%	3682	5.9	32,981	21,724
Non-Home Based Other Attraction	1,939	-4.5%	1851	6.2	12,022	11,476
Total	**13,431**				**84,849**	**65,219**

Project with TDM (MXD Data)

	Proposed Project			*Project with Mitigation Measures*		
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT
Home Based Work Production	-14.8%	395	2,965	-26.7%	340	2,551
Home Based Other Production	-14.8%	925	5,178	-26.7%	795	4,454
Non-Home Based Other Production	-14.8%	2,111	14,353	-16.7%	2,063	14,031
Home-Based Work Attraction	-14.8%	563	4,788	-31.9%	450	3,825
Home-Based Other Attraction	-14.8%	3,138	18,512	-16.7%	3,067	18,096
Non-Home Based Other Attraction	-14.8%	1,577	9,779	-16.7%	1,542	9,560
Total		**8,709**	**55,575**		**8,257**	**52,517**
Residential VMT			8,143			7,005

Source: Gibson Transportation

1111 Sunset - No Hotel Scenario

LADOT VMT Calculator Data

VMT Summary

	Existing	Proposed Project	With Mitigation	Project Weekday Trips	Weekend Trips	Weekend Vs. Weekday Ratio
Daily Trips	0	8,139	7,711	1	1	**1.08**
Daily VMT	0	51,975	49,137			

Project without TDM (MXD Data)

	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT
Home Based Work Production	737	-28.4%	528	7.5	5,528	3,960
Home Based Other Production	2,042	-40.0%	1226	5.6	11,435	6,866
Non-Home Based Other Production	2,552	-4.0%	2450	6.8	17,354	16,660
Home-Based Work Attraction	714	-22.4%	554	8.5	6,069	4,709
Home-Based Other Attraction	4,624	-34.2%	3044	5.9	27,282	17,960
Non-Home Based Other Attraction	1,830	-4.5%	1748	6.2	11,346	10,838
Total	**12,499**				**79,014**	**60,993**

Project with TDM (MXD Data)

	Proposed Project			*Project with Mitigation Measures*		
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT
Home Based Work Production	-14.8%	450	3,374	-26.7%	387	2,903
Home Based Other Production	-14.8%	1,045	5,851	-26.7%	899	5,033
Non-Home Based Other Production	-14.8%	2,088	14,197	-16.7%	2,041	13,878
Home-Based Work Attraction	-14.8%	472	4,013	-29.2%	392	3,334
Home-Based Other Attraction	-14.8%	2,594	15,304	-16.7%	2,536	14,961
Non-Home Based Other Attraction	-14.8%	1,490	9,236	-16.7%	1,456	9,028
Total		**8,139**	**51,975**		**7,711**	**49,137**
Residential VMT			9,225			7,936

Source: Gibson Transportation

1111 Sunset Buildout with PDFs

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	48.00	1000sqft	1.10	48,000.00	0
Enclosed Parking with Elevator	485.00	Space	4.36	194,000.00	0
Unenclosed Parking with Elevator	1,168.00	Space	10.51	467,200.00	0
Health Club	14.50	1000sqft	0.33	14,500.00	0
High Turnover (Sit Down Restaurant)	35.00	1000sqft	0.80	35,000.00	0
Hotel	180.00	Room	6.00	85,000.00	0
Apartments Mid Rise	96.00	Dwelling Unit	2.53	110,336.00	275
Condo/Townhouse High Rise	737.00	Dwelling Unit	11.52	766,982.00	2108
Strip Mall	18.20	1000sqft	0.42	18,200.00	0
Supermarket	27.30	1000sqft	0.63	27,300.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	12			**Operational Year**	2028
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	524	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - LADWP 2028 Carbon Intensity (SB100 RPS)

Land Use - see assumptions

Construction Phase - see assumptions

Off-road Equipment - Site Specific

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Trips and VMT - Soil Export - 25 miles to Irvindale (one-way)

Demolition -

Grading -

Architectural Coating - No Architectural Coatings for Existing Elysian Apartments

Vehicle Trips - see assumptions

Woodstoves - Existing apartments are assumed to be consistent with default CalEEMod assumptions. New high-rise would not inlcude fireplaces, but would include seven fire pits

Energy Use - Adjustment for Parking Structure Energy Usage (See assumptions). Exiting Uses usage rate increased by 10 percent as PDF would not apply to these uses

Water And Wastewater - Exiting Uses usage rate increased by 20 percent as PDF would not apply to these uses.

Construction Off-road Equipment Mitigation - Tier 4

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation - City of LA Waste Diversion Rate (2013)

Fleet Mix -

Stationary Sources - Emergency Generators and Fire Pumps -

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

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	114,000.00	71,543.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	342,000.00	214,628.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	592,190.00	518,388.00
tblArchitecturalCoating	ConstArea_Residential_Interior	1,776,569.00	1,555,164.00
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tblOffRoadEquipment	UsageHours	7.00	8.00
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tblWoodstoves	NumberNoncatalytic	4.80	0.00
tblWoodstoves	NumberNoncatalytic	36.85	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

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					
2021											0.0000	6,296.6844	6,296.6844	0.6143	0.0000	6,312.0420
2022											0.0000	2,447.3329	2,447.3329	0.2886	0.0000	2,454.5476
2023											0.0000	2,229.3771	2,229.3771	0.2507	0.0000	2,235.6450
2024											0.0000	1,163.7799	1,163.7799	0.1609	0.0000	1,167.8012
Maximum											**0.0000**	**6,296.6844**	**6,296.6844**	**0.6143**	**0.0000**	**6,312.0420**

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					
2021											0.0000	6,296.6831	6,296.6831	0.6143	0.0000	6,312.0408
2022											0.0000	2,447.3315	2,447.3315	0.2886	0.0000	2,454.5462
2023											0.0000	2,229.3759	2,229.3759	0.2507	0.0000	2,235.6438
2024											0.0000	1,163.7792	1,163.7792	0.1609	0.0000	1,167.8005
Maximum											**0.0000**	**6,296.6831**	**6,296.6831**	**0.6143**	**0.0000**	**6,312.0408**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction											**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	Utility Work and Demolition	Demolition	1/6/2021	3/27/2021	5	60	
2	Demolition and Excavation	Grading	3/28/2021	6/19/2021	6	72	
3	Grading and Excavation	Grading	6/20/2021	7/17/2021	6	24	
4	Concrete and Grading/Excavation	Grading	7/18/2021	9/25/2021	6	60	
5	Concrete and Mat Foundation	Building Construction	9/28/2021	11/15/2021	5	35	
6	Building Construction (Phase 0 and 1/2)	Building Construction	11/16/2021	9/24/2022	5	225	
7	Building Construction (Phase 1/2)	Building Construction	9/28/2022	5/12/2024	5	424	
8	Architectural Coating	Architectural Coating	6/1/2023	5/12/2024	5	248	
9	Paving	Paving	5/13/2024	8/31/2024	5	79	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 14.87

Residential Indoor: 1,555,164; Residential Outdoor: 518,388; Non-Residential Indoor: 214,628; Non-Residential Outdoor: 71,543; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Utility Work and Demolition	Air Compressors	1	8.00	78	0.48
Utility Work and Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Utility Work and Demolition	Excavators	2	8.00	158	0.38
Utility Work and Demolition	Rough Terrain Forklifts	1	8.00	100	0.40
Utility Work and Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Utility Work and Demolition	Skid Steer Loaders	2	8.00	65	0.37
Utility Work and Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utility Work and Demolition	Trenchers	2	8.00	78	0.50
Demolition and Excavation	Air Compressors	1	8.00	78	0.48
Demolition and Excavation	Bore/Drill Rigs	3	8.00	221	0.50
Demolition and Excavation	Cement and Mortar Mixers	2	8.00	9	0.56
Demolition and Excavation	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition and Excavation	Excavators	4	8.00	158	0.38
Demolition and Excavation	Generator Sets	1	8.00	84	0.74
Demolition and Excavation	Graders	0	8.00	187	0.41
Demolition and Excavation	Plate Compactors	2	8.00	8	0.43
Demolition and Excavation	Rough Terrain Forklifts	1	8.00	100	0.40
Demolition and Excavation	Rubber Tired Dozers	0	8.00	247	0.40
Demolition and Excavation	Rubber Tired Loaders	4	8.00	203	0.36
Demolition and Excavation	Scrapers	0	8.00	367	0.48
Demolition and Excavation	Skid Steer Loaders	2	8.00	65	0.37
Demolition and Excavation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition and Excavation	Welders	3	8.00	46	0.45
Grading and Excavation	Cement and Mortar Mixers	3	8.00	9	0.56
Grading and Excavation	Concrete/Industrial Saws	2	8.00	81	0.73
Grading and Excavation	Excavators	4	8.00	158	0.38
Grading and Excavation	Generator Sets	1	8.00	84	0.74
Grading and Excavation	Graders	0	8.00	187	0.41
Grading and Excavation	Plate Compactors	2	8.00	8	0.43
Grading and Excavation	Rough Terrain Forklifts	1	8.00	100	0.40

Grading and Excavation	Rubber Tired Dozers	0	8.00	247	0.40
Grading and Excavation	Rubber Tired Loaders	4	8.00	203	0.36
Grading and Excavation	Scrapers	0	8.00	367	0.48
Grading and Excavation	Skid Steer Loaders	2	8.00	65	0.37
Grading and Excavation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading and Excavation	Welders	3	8.00	46	0.45
Concrete and Grading/Excavation	Air Compressors	2	8.00	78	0.48
Concrete and Grading/Excavation	Cement and Mortar Mixers	4	8.00	9	0.56
Concrete and Grading/Excavation	Cranes	1	8.00	231	0.29
Concrete and Grading/Excavation	Excavators	3	8.00	158	0.38
Concrete and Grading/Excavation	Generator Sets	1	8.00	84	0.74
Concrete and Grading/Excavation	Graders	0	8.00	187	0.41
Concrete and Grading/Excavation	Plate Compactors	2	8.00	8	0.43
Concrete and Grading/Excavation	Pumps	3	8.00	84	0.74
Concrete and Grading/Excavation	Rough Terrain Forklifts	1	8.00	100	0.40
Concrete and Grading/Excavation	Rubber Tired Dozers	0	8.00	247	0.40
Concrete and Grading/Excavation	Rubber Tired Loaders	3	8.00	203	0.36
Concrete and Grading/Excavation	Scrapers	0	8.00	367	0.48
Concrete and Grading/Excavation	Skid Steer Loaders	2	8.00	65	0.37
Concrete and Grading/Excavation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Concrete and Grading/Excavation	Welders	3	8.00	46	0.45
Concrete and Mat Foundation	Air Compressors	2	8.00	78	0.48
Concrete and Mat Foundation	Cranes	2	8.00	231	0.29
Concrete and Mat Foundation	Forklifts	2	8.00	89	0.20
Concrete and Mat Foundation	Generator Sets	0	8.00	84	0.74
Concrete and Mat Foundation	Plate Compactors	4	8.00	8	0.43
Concrete and Mat Foundation	Pumps	3	8.00	84	0.74
Concrete and Mat Foundation	Rough Terrain Forklifts	1	8.00	100	0.40
Concrete and Mat Foundation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Concrete and Mat Foundation	Welders	0	8.00	46	0.45
Concrete and Mat Foundation	Welders	2	8.00	46	0.45
Building Construction (Phase 0 and 1/2)	Aerial Lifts	12	8.00	63	0.31
Building Construction (Phase 0 and 1/2)	Air Compressors	8	8.00	78	0.48
Building Construction (Phase 0 and 1/2)	Cranes	2	8.00	231	0.29
Building Construction (Phase 0 and 1/2)	Forklifts	7	8.00	89	0.20
Building Construction (Phase 0 and 1/2)	Generator Sets	0	8.00	84	0.74
Building Construction (Phase 0 and 1/2)	Pumps	3	8.00	84	0.74
Building Construction (Phase 0 and 1/2)	Rough Terrain Forklifts	2	8.00	100	0.40
Building Construction (Phase 0 and 1/2)	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction (Phase 0 and 1/2)	Welders	0	8.00	46	0.45
Building Construction (Phase 0 and 1/2)	Welders	3	8.00	46	0.45
Building Construction (Phase 1/2)	Aerial Lifts	10	8.00	63	0.31
Building Construction (Phase 1/2)	Air Compressors	6	8.00	78	0.48
Building Construction (Phase 1/2)	Cement and Mortar Mixers	4	8.00	9	0.56
Building Construction (Phase 1/2)	Cranes	2	8.00	231	0.29
Building Construction (Phase 1/2)	Forklifts	5	8.00	89	0.20
Building Construction (Phase 1/2)	Generator Sets	0	8.00	84	0.74
Building Construction (Phase 1/2)	Pumps	2	8.00	84	0.74

Building Construction (Phase 1/2)	Rough Terrain Forklifts	1	8.00	100	0.40
Building Construction (Phase 1/2)	Skid Steer Loaders	2	8.00	65	0.37
Building Construction (Phase 1/2)	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction (Phase 1/2)	Welders	2	8.00	46	0.45
Architectural Coating	Air Compressors	0	6.00	78	0.48
					0.56
					0.29
					0.38
					0.20
					0.42
					0.36
					0.43
					0.38
					0.40
					0.36
					0.37
					0.37
					0.50
					0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Utility Work and Demolition	11	136.00	20.00	8,760.00	14.70	6.90	25.00	LD_Mix	HDT_Mix	HHDT
Demolition and Excavation	26	206.00	60.00	36,720.00	14.70	6.90	25.00	LD_Mix	HDT_Mix	HHDT
Grading and Excavation	24	200.00	60.00	13,344.00	14.70	6.90	25.00	LD_Mix	HDT_Mix	HHDT
Concrete and Grading/Excavation	27	256.00	170.00	26,230.00	14.70	6.90	25.00	LD_Mix	HDT_Mix	HHDT
Concrete and Mat Foundation	18	150.00	1,400.00	0.00	14.70	6.50	20.00	LD_Mix	HHDT	HHDT
Building Construction (Phase 0 and 1/2)	39	550.00	190.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction (Phase 1/2)	35	550.00	190.00	0.00	14.70	6.90	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	20	168.00	100.00	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 Utility Work and Demolition - 2021

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												0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road												104.1317	104.1317	0.0270	0.0000	104.8074

Total												**104.1317**	**104.1317**	**0.0270**	**0.0000**	**104.8074**

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												387.0522	387.0522	0.0270	0.0000	387.7259
Vendor												14.0828	14.0828	9.1000e-004	0.0000	14.1055
Worker												37.7304	37.7304	1.0200e-003	0.0000	37.7557
Total												**438.8653**	**438.8653**	**0.0289**	**0.0000**	**439.5872**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust												0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road												104.1316	104.1316	0.0270	0.0000	104.8073
Total												**104.1316**	**104.1316**	**0.0270**	**0.0000**	**104.8073**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling												387.0522	387.0522	0.0270	0.0000	387.7259
Vendor												14.0828	14.0828	9.1000e-004	0.0000	14.1055
Worker												37.7304	37.7304	1.0200e-003	0.0000	37.7557
Total												**438.8653**	**438.8653**	**0.0289**	**0.0000**	**439.5872**

3.3 Demolition and Excavation - 2021

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												0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road												355.2351	355.2351	0.0959	0.0000	357.6337
Total												**355.2351**	**355.2351**	**0.0959**	**0.0000**	**357.6337**

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												1,678.3841	1,678.3841	0.1169	0.0000	1,681.3056
Vendor												52.4462	52.4462	3.3800e-003	0.0000	52.5307
Worker												70.9453	70.9453	1.9100e-003	0.0000	70.9930
Total												**1,801.7756**	**1,801.7756**	**0.1222**	**0.0000**	**1,804.8294**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust												0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road												355.2347	355.2347	0.0959	0.0000	357.6333
Total												**355.2347**	**355.2347**	**0.0959**	**0.0000**	**357.6333**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling												1,678.3841	1,678.3841	0.1169	0.0000	1,681.3056
Vendor												52.4462	52.4462	3.3800e-003	0.0000	52.5307
Worker												70.9453	70.9453	1.9100e-003	0.0000	70.9930
Total												**1,801.7756**	**1,801.7756**	**0.1222**	**0.0000**	**1,804.8294**

3.4 Grading and Excavation - 2021

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												0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road												91.5416	91.5416	0.0225	0.0000	92.1041
Total												**91.5416**	**91.5416**	**0.0225**	**0.0000**	**92.1041**

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												609.9226	609.9226	0.0425	0.0000	610.9843
Vendor												17.4821	17.4821	1.1300e-003	0.0000	17.5103
Worker												22.9597	22.9597	6.2000e-004	0.0000	22.9751
Total												**650.3643**	**650.3643**	**0.0442**	**0.0000**	**651.4696**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust												0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road												91.5415	91.5415	0.0225	0.0000	92.1039
Total												**91.5415**	**91.5415**	**0.0225**	**0.0000**	**92.1039**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling												609.9226	609.9226	0.0425	0.0000	610.9843
Vendor												17.4821	17.4821	1.1300e-003	0.0000	17.5103
Worker												22.9597	22.9597	6.2000e-004	0.0000	22.9751
Total												**650.3643**	**650.3643**	**0.0442**	**0.0000**	**651.4696**

3.5 Concrete and Grading/Excavation - 2021

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												0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road												254.3860	254.3860	0.0539	0.0000	255.7330
Total												**254.3860**	**254.3860**	**0.0539**	**0.0000**	**255.7330**

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												1,198.9111	1,198.9111	0.0835	0.0000	1,200.9980
Vendor												123.8314	123.8314	7.9800e-003	0.0000	124.0309
Worker												73.4709	73.4709	1.9800e-003	0.0000	73.5203
Total												**1,396.2133**	**1,396.2133**	**0.0934**	**0.0000**	**1,398.5492**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust												0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road												254.3857	254.3857	0.0539	0.0000	255.7327
Total												**254.3857**	**254.3857**	**0.0539**	**0.0000**	**255.7327**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling												1,198.9111	1,198.9111	0.0835	0.0000	1,200.9980
Vendor												123.8314	123.8314	7.9800e-003	0.0000	124.0309
Worker												73.4709	73.4709	1.9800e-003	0.0000	73.5203

Total												**1,396.2133**	**1,396.2133**	**0.0934**	**0.0000**	**1,398.5492**

3.6 Concrete and Mat Foundation - 2021

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												87.6597	87.6597	0.0156	0.0000	88.0493
Total												**87.6597**	**87.6597**	**0.0156**	**0.0000**	**88.0493**

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
Vendor												755.9164	755.9164	0.0698	0.0000	757.6603
Worker												25.1121	25.1121	6.8000e-004	0.0000	25.1290
Total												**781.0285**	**781.0285**	**0.0704**	**0.0000**	**782.7893**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road												87.6596	87.6596	0.0156	0.0000	88.0492
Total												**87.6596**	**87.6596**	**0.0156**	**0.0000**	**88.0492**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling												0.0000	0.0000	0.0000	0.0000	0.0000

Vendor												755.9164	755.9164	0.0698	0.0000	757.6603
Worker												25.1121	25.1121	6.8000e-004	0.0000	25.1290
Total												**781.0285**	**781.0285**	**0.0704**	**0.0000**	**782.7893**

3.7 Building Construction (Phase 0 and 1/2) - 2021

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												167.6097	167.6097	0.0328	0.0000	168.4299
Total												**167.6097**	**167.6097**	**0.0328**	**0.0000**	**168.4299**

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
Vendor												78.4265	78.4265	5.0600e-003	0.0000	78.5529
Worker												89.4470	89.4470	2.4100e-003	0.0000	89.5071
Total												**167.8735**	**167.8735**	**7.4700e-003**	**0.0000**	**168.0601**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road												167.6095	167.6095	0.0328	0.0000	168.4297
Total												**167.6095**	**167.6095**	**0.0328**	**0.0000**	**168.4297**

Mitigated Construction Off-Site

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

Category	tons/yr										MT/yr					
Hauling												0.0000	0.0000	0.0000	0.0000	0.0000
Vendor												78.4265	78.4265	5.0600e-003	0.0000	78.5529
Worker												89.4470	89.4470	2.4100e-003	0.0000	89.5071
Total												**167.8735**	**167.8735**	**7.4700e-003**	**0.0000**	**168.0601**

3.7 Building Construction (Phase 0 and 1/2) - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road												936.7139	936.7139	0.1813	0.0000	941.2467
Total												**936.7139**	**936.7139**	**0.1813**	**0.0000**	**941.2467**

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
Vendor												434.3943	434.3943	0.0273	0.0000	435.0761
Worker												481.9471	481.9471	0.0122	0.0000	482.2509
Total												**916.3414**	**916.3414**	**0.0394**	**0.0000**	**917.3269**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road												936.7128	936.7128	0.1813	0.0000	941.2456
Total												**936.7128**	**936.7128**	**0.1813**	**0.0000**	**941.2456**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling												0.0000	0.0000	0.0000	0.0000	0.0000
Vendor												434.3943	434.3943	0.0273	0.0000	435.0761
Worker												481.9471	481.9471	0.0122	0.0000	482.2509
Total												**916.3414**	**916.3414**	**0.0394**	**0.0000**	**917.3269**

3.8 Building Construction (Phase 1/2) - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road												266.3238	266.3238	0.0538	0.0000	267.6676
Total												**266.3238**	**266.3238**	**0.0538**	**0.0000**	**267.6676**

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
Vendor												155.4674	155.4674	9.7600e-003	0.0000	155.7114
Worker												172.4863	172.4863	4.3500e-003	0.0000	172.5950
Total												**327.9538**	**327.9538**	**0.0141**	**0.0000**	**328.3065**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road												266.3235	266.3235	0.0538	0.0000	267.6672
Total												**266.3235**	**266.3235**	**0.0538**	**0.0000**	**267.6672**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling												0.0000	0.0000	0.0000	0.0000	0.0000
Vendor												155.4674	155.4674	9.7600e-003	0.0000	155.7114
Worker												172.4863	172.4863	4.3500e-003	0.0000	172.5950
Total												**327.9538**	**327.9538**	**0.0141**	**0.0000**	**328.3065**

3.8 Building Construction (Phase 1/2) - 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												1,018.3623	1,018.3623	0.2028	0.0000	1,023.4333
Total												**1,018.3623**	**1,018.3623**	**0.2028**	**0.0000**	**1,023.4333**

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
Vendor												576.0821	576.0821	0.0329	0.0000	576.9045
Worker												634.9327	634.9327	0.0150	0.0000	635.3073
Total												**1,211.0148**	**1,211.0148**	**0.0479**	**0.0000**	**1,212.2117**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road												1,018.3611	1,018.3611	0.2028	0.0000	1,023.4321

Total												**1,018.3611**	**1,018.3611**	**0.2028**	**0.0000**	**1,023.4321**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling												0.0000	0.0000	0.0000	0.0000	0.0000
Vendor												576.0821	576.0821	0.0329	0.0000	576.9045
Worker												634.9327	634.9327	0.0150	0.0000	635.3073
Total												**1,211.0148**	**1,211.0148**	**0.0479**	**0.0000**	**1,212.2117**

3.8 Building Construction (Phase 1/2) - 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												372.1052	372.1052	0.0736	0.0000	373.9441
Total												**372.1052**	**372.1052**	**0.0736**	**0.0000**	**373.9441**

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
Vendor												209.7369	209.7369	0.0118	0.0000	210.0328
Worker												224.3313	224.3313	5.0100e-003	0.0000	224.4566
Total												**434.0682**	**434.0682**	**0.0169**	**0.0000**	**434.4895**

Mitigated Construction On-Site

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

Category	tons/yr										MT/yr					
Off-Road												372.1047	372.1047	0.0736	0.0000	373.9436
Total												**372.1047**	**372.1047**	**0.0736**	**0.0000**	**373.9436**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling												0.0000	0.0000	0.0000	0.0000	0.0000
Vendor												209.7369	209.7369	0.0118	0.0000	210.0328
Worker												224.3313	224.3313	5.0100e-003	0.0000	224.4566
Total												**434.0682**	**434.0682**	**0.0169**	**0.0000**	**434.4895**

3.9 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating												0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road												0.0000	0.0000	0.0000	0.0000	0.0000
Total												**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
Vendor												0.0000	0.0000	0.0000	0.0000	0.0000
Worker												0.0000	0.0000	0.0000	0.0000	0.0000
Total												**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating												0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road												0.0000	0.0000	0.0000	0.0000	0.0000
Total												**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling												0.0000	0.0000	0.0000	0.0000	0.0000
Vendor												0.0000	0.0000	0.0000	0.0000	0.0000
Worker												0.0000	0.0000	0.0000	0.0000	0.0000
Total												**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.9 Architectural Coating - 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					
Archit. Coating												0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road												0.0000	0.0000	0.0000	0.0000	0.0000
Total												**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
Vendor												0.0000	0.0000	0.0000	0.0000	0.0000
Worker												0.0000	0.0000	0.0000	0.0000	0.0000
Total												**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating												0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road												0.0000	0.0000	0.0000	0.0000	0.0000
Total												**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling												0.0000	0.0000	0.0000	0.0000	0.0000
Vendor												0.0000	0.0000	0.0000	0.0000	0.0000
Worker												0.0000	0.0000	0.0000	0.0000	0.0000
Total												**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.10 Paving - 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												206.9447	206.9447	0.0639	0.0000	208.5424
Paving												0.0000	0.0000	0.0000	0.0000	0.0000
Total												**206.9447**	**206.9447**	**0.0639**	**0.0000**	**208.5424**

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
Vendor												92.9582	92.9582	5.2500e-003	0.0000	93.0893

Worker												57.7036	57.7036	1.2900e-003	0.0000	57.7358
Total												**150.6618**	**150.6618**	**6.5400e-003**	**0.0000**	**150.8252**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road												206.9445	206.9445	0.0639	0.0000	208.5422
Paving												0.0000	0.0000	0.0000	0.0000	0.0000
Total												**206.9445**	**206.9445**	**0.0639**	**0.0000**	**208.5422**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling												0.0000	0.0000	0.0000	0.0000	0.0000
Vendor												92.9582	92.9582	5.2500e-003	0.0000	93.0893
Worker												57.7036	57.7036	1.2900e-003	0.0000	57.7358
Total												**150.6618**	**150.6618**	**6.5400e-003**	**0.0000**	**150.8252**

1111 Sunset Buildout - Mixed Use Option (Without PDFs, TDM, LADOT MXD Methodology)

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	48.00	1000sqft	1.10	48,000.00	0
User Defined Commercial	1.00	User Defined Unit	0.00	0.00	0
Enclosed Parking with Elevator	485.00	Space	4.36	194,000.00	0
Unenclosed Parking with Elevator	1,168.00	Space	10.51	467,200.00	0
Health Club	14.50	1000sqft	0.33	14,500.00	0
High Turnover (Sit Down Restaurant)	35.00	1000sqft	0.80	35,000.00	0
Hotel	180.00	Room	6.00	85,000.00	0
Condo/Townhouse High Rise	737.00	Dwelling Unit	11.52	766,982.00	1784
Strip Mall	18.20	1000sqft	0.42	18,200.00	0
Supermarket	27.30	1000sqft	0.63	27,300.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	12			**Operational Year**	2028
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	524	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - LADWP 2028 Carbon Intensity (SB100 RPS)

Land Use - see assumptions

Construction Phase - see assumptions

Off-road Equipment - Site Specific

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Trips and VMT - Soil Export - 25 miles to Irvindale (one-way)

Demolition -

Grading -

Architectural Coating - see assumptions

Vehicle Trips - see assumptions

Woodstoves - Default Fireplace settings. No wood burning fireplaces

Energy Use - Adjustment for Parking Structure Energy Usage (See assumptions).

Water And Wastewater - see assumptions

Construction Off-road Equipment Mitigation - Tier 4

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation - City of LA Waste Diversion Rate (2013)

Fleet Mix -

Stationary Sources - Emergency Generators and Fire Pumps -

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

Table Name	Column Name	Default Value	New Value
tblEnergyUse	T24E	3.92	0.46
tblFireplaces	NumberGas	626.45	663.00
tblFireplaces	NumberWood	36.85	0.00
tblLandUse	LandUseSquareFeet	261,360.00	85,000.00
tblLandUse	LandUseSquareFeet	737,000.00	766,982.00
tblLandUse	Population	2,108.00	1,784.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	524
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
tblStationaryGeneratorsPumpsEF	TOG_EF	2.4700e-003	2.4700e-004
tblTripsAndVMT	HaulingTripNumber	4,084.00	8,760.00
tblTripsAndVMT	HaulingTripNumber	0.00	36,720.00
tblTripsAndVMT	HaulingTripNumber	0.00	13,344.00
tblTripsAndVMT	HaulingTripNumber	0.00	26,230.00
tblVehicleTrips	CC_TL	8.40	6.32
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	4.31	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	20.87	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	177.59	0.00
tblVehicleTrips	ST_TR	0.00	14,330.88
tblVehicleTrips	SU_TR	3.43	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	26.73	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	166.44	0.00
tblVehicleTrips	SU_TR	0.00	14,330.88
tblVehicleTrips	WD_TR	4.18	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	32.93	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	102.24	0.00
tblVehicleTrips	WD_TR	0.00	13,431.00
tblWoodstoves	NumberCatalytic	36.85	0.00
tblWoodstoves	NumberNoncatalytic	36.85	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																172.9217
Energy																3,151.2532
Mobile																11,415.0406
Stationary																1.6050
Waste																580.5696
Water																446.8490
Total																**15,768.2391**

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																172.9217
Energy																3,081.0016
Mobile																11,415.0406
Stationary																1.6050

Waste																137.0144
Water																446.8490
Total																**15,254.4323**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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**	**3.26**

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																11,415.0406
Unmitigated																11,415.0406

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		
General Office Building	0.00	0.00	0.00		
Health Club	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		
Supermarket	0.00	0.00	0.00		
Unenclosed Parking with Elevator	0.00	0.00	0.00		
User Defined Commercial	13,431.00	14,330.88	14330.88	31,476,264	31,476,264
Total	13,431.00	14,330.88	14,330.88	31,476,264	31,476,264

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15
Supermarket	16.60	8.40	6.90	6.50	74.50	19.00	34	30	36
Unenclosed Parking with	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
User Defined Commercial	0.00	6.32	0.00	0.00	100.00	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	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Enclosed Parking with Elevator	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
General Office Building	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Health Club	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
High Turnover (Sit Down Restaurant)	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Hotel	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Strip Mall	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Supermarket	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Unenclosed Parking with Elevator	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
User Defined Commercial	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive 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																2,069.7841
Electricity Unmitigated																2,099.0906
NaturalGas Mitigated																1,011.2175
NaturalGas Unmitigated																1,052.1626

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	8.09092e+006																434.3280
Enclosed Parking with Elevator	0																0.0000
General Office Building	499680																26.8233
Health Club	262450																14.0886
High Turnover (Sit Down Restaurant)	8.0766e+006																433.5593
Hotel	2.0383e+006																109.4178

Strip Mall	29848																1.6023
Supermarket	602511																32.3434
Unenclosed Parking with Elevator	0																0.0000
User Defined Commercial	0																0.0000
Total																	**1,052.1626**

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	7.74474e+006																415.7446
Enclosed Parking with Elevator	0																0.0000
General Office Building	451584																24.2415
Health Club	242658																13.0261
High Turnover (Sit Down Restaurant)	7.92617e+006																425.4841
Hotel	1.86898e+006																100.3286
Strip Mall	27755																1.4899
Supermarket	575675																30.9028
Unenclosed Parking with Elevator	0																0.0000
User Defined Commercial	0																0.0000
Total																	**1,011.2175**

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	3.17889e+006				759.1909
Enclosed Parking with Elevator	465600				111.1957
General Office Building	623520				148.9105
Health Club	160950				38.4385
High Turnover (Sit Down Restaurant)	1.5449e+006				368.9565
Hotel	644300				153.8732
Strip Mall	245700				58.6786
Supermarket	1.01911e+006				243.3859

Unenclosed Parking with Elevator	906368				216.4609
User Defined Commercial	0				0.0000
Total					**2,099.0906**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse High Rise	3.15987e+006				754.6482
Enclosed Parking with Elevator	456676				109.0644
General Office Building	601440				143.6373
Health Club	157688				37.6593
High Turnover (Sit Down Restaurant)	1.51652e+006				362.1776
Hotel	622625				148.6967
Strip Mall	238402				56.9357
Supermarket	1.00704e+006				240.5042
Unenclosed Parking with Elevator	906368				216.4609
User Defined Commercial	0				0.0000
Total					**2,069.7841**

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																172.9217
Unmitigated																172.9217

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																0.0000
Consumer Products																0.0000
Hearth																160.1570
Landscaping																12.7647
Total																**172.9217**

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																0.0000
Consumer Products																0.0000
Hearth																160.1570
Landscaping																12.7647
Total																**172.9217**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated				446.8490
Unmitigated				446.8490

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse High Rise	48.0185 / 30.2725				295.0070
Enclosed Parking with Elevator	0 / 0				0.0000

General Office Building	8.53122 / 5.22881				52.0156
Health Club	0.857576 / 0.525611				5.2287
High Turnover (Sit Down Restaurant)	10.6237 / 0.678107				49.2963
Hotel	4.56602 / 0.507335				21.7602
Strip Mall	1.34812 / 0.826267				8.2196
Supermarket	3.36522 / 0.104079				15.3216
Unenclosed Parking with Elevator	0 / 0				0.0000
User Defined Commercial	0 / 0				0.0000
Total					**446.8490**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse High Rise	48.0185 / 30.2725				295.0070
Enclosed Parking with Elevator	0 / 0				0.0000
General Office Building	8.53122 / 5.22881				52.0156
Health Club	0.857576 / 0.525611				5.2287
High Turnover (Sit Down Restaurant)	10.6237 / 0.678107				49.2963
Hotel	4.56602 / 0.507335				21.7602
Strip Mall	1.34812 / 0.826267				8.2196
Supermarket	3.36522 / 0.104079				15.3216
Unenclosed Parking with Elevator	0 / 0				0.0000
User Defined Commercial	0 / 0				0.0000
Total					**446.8490**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			

Mitigated				137.0144
Unmitigated				580.5696

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse High Rise	339.02				170.4937
Enclosed Parking with Elevator	0				0.0000
General Office Building	44.64				22.4495
Health Club	82.65				41.5648
High Turnover (Sit Down Restaurant)	416.5				209.4585
Hotel	98.55				49.5609
Strip Mall	19.11				9.6105
Supermarket	153.97				77.4318
Unenclosed Parking with Elevator	0				0.0000
User Defined Commercial	0				0.0000
Total					**580.5696**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse High Rise	80.0087				40.2365
Enclosed Parking with Elevator	0				0.0000
General Office Building	10.535				5.2981
Health Club	19.5054				9.8093
High Turnover (Sit Down Restaurant)	98.294				49.4322
Hotel	23.2578				11.6964
Strip Mall	4.50996				2.2681
Supermarket	36.3369				18.2739
Unenclosed Parking with Elevator	0				0.0000
User Defined Commercial	0				0.0000

Total				**137.0144**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.5	12	350	0.73	Diesel

Boilers

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

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 (300 - 600 HP)																1.6050
Total																**1.6050**

11.0 Vegetation

1111 Sunset Buildout - Mixed Use Option (With PDFs)

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	48.00	1000sqft	1.10	48,000.00	0
User Defined Commercial	1.00	User Defined Unit	0.00	0.00	0
Enclosed Parking with Elevator	485.00	Space	4.36	194,000.00	0
Unenclosed Parking with Elevator	1,168.00	Space	10.51	467,200.00	0
Health Club	14.50	1000sqft	0.33	14,500.00	0
High Turnover (Sit Down Restaurant)	35.00	1000sqft	0.80	35,000.00	0
Hotel	180.00	Room	6.00	85,000.00	0
Condo/Townhouse High Rise	737.00	Dwelling Unit	11.52	766,982.00	2108
Strip Mall	18.20	1000sqft	0.42	18,200.00	0
Supermarket	27.30	1000sqft	0.63	27,300.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	12			**Operational Year**	2028
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	524	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - LADWP 2028 Carbon Intensity (SB100 RPS)

Land Use - see assumptions

Construction Phase - see assumptions

Off-road Equipment - Site Specific

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Trips and VMT - Soil Export - 25 miles to Irvindale (one-way)

Demolition - Concrete - 6.5 miles to Catalina Pacific (one-way)

Grading -

Architectural Coating - No Architectural Coatings for Existing Elysian Apartments

Vehicle Trips - see assumptions

Woodstoves - Assumes 7 firepits. No wood burning fireplaces

Energy Use - Adjustment for Parking Structure Energy Usage (See assumptions). Exiting Uses usage rate increased by 10 percent as PDF would not apply to these uses.

Water And Wastewater - Exiting Uses usage rate increased by 20 percent as PDF would not apply to these uses.

Construction Off-road Equipment Mitigation - Tier 4

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation - City of LA Waste Diversion Rate (2013)

Fleet Mix -

Stationary Sources - Emergency Generators and Fire Pumps -

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

Table Name	Column Name	Default Value	New Value
tblEnergyUse	T24E	3.92	0.46
tblFireplaces	FireplaceDayYear	25.00	100.00
tblFireplaces	FireplaceHourDay	3.00	6.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	626.45	14.00
tblFireplaces	NumberNoFireplace	73.70	0.00
tblFireplaces	NumberWood	36.85	0.00
tblLandUse	LandUseSquareFeet	261,360.00	85,000.00
tblLandUse	LandUseSquareFeet	737,000.00	766,982.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	524
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
tblStationaryGeneratorsPumpsEF	TOG_EF	2.4700e-003	2.4700e-004
tblTripsAndVMT	HaulingTripNumber	4,084.00	8,760.00
tblTripsAndVMT	HaulingTripNumber	0.00	36,720.00
tblTripsAndVMT	HaulingTripNumber	0.00	13,344.00
tblTripsAndVMT	HaulingTripNumber	0.00	26,230.00
tblVehicleTrips	CC_TL	8.40	6.36
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	4.31	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	20.87	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	177.59	0.00
tblVehicleTrips	ST_TR	0.00	8,810.22
tblVehicleTrips	SU_TR	3.43	0.00

tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	26.73	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	166.44	0.00
tblVehicleTrips	SU_TR	0.00	8,810.22
tblVehicleTrips	WD_TR	4.18	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	32.93	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	102.24	0.00
tblVehicleTrips	WD_TR	0.00	8,257.00
tblWoodstoves	NumberCatalytic	36.85	0.00
tblWoodstoves	NumberNoncatalytic	36.85	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	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																39.8198
Energy																3,151.2532
Mobile																7,061.1794
Stationary																1.6050
Waste																580.5696
Water																446.8490
Total																**11,281.2760**

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																39.8198
Energy																2,908.8095
Mobile																7,061.1794
Stationary																1.6050
Waste																137.0144
Water																357.4792
Total																**10,505.9073**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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**	**6.87**

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																7,061.1794
Unmitigated																7,061.1794

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		
General Office Building	0.00	0.00	0.00		
Health Club	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		
Supermarket	0.00	0.00	0.00		
Unenclosed Parking with Elevator	0.00	0.00	0.00		
User Defined Commercial	8,257.00	8,810.22	8810.22	19,482,126	19,482,126
Total	8,257.00	8,810.22	8,810.22	19,482,126	19,482,126

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9

High Turnover (Sit Down Restaurant)	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15
Supermarket	16.60	8.40	6.90	6.50	74.50	19.00	34	30	36
Unenclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
User Defined Commercial	0.00	6.36	0.00	0.00	100.00	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	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Enclosed Parking with Elevator	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
General Office Building	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Health Club	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
High Turnover (Sit Down Restaurant)	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Hotel	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Strip Mall	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Supermarket	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Unenclosed Parking with Elevator	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
User Defined Commercial	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782

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																1,897.5920
Electricity Unmitigated																2,099.0906
NaturalGas Mitigated																1,011.2175
NaturalGas Unmitigated																1,052.1626

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	8.09092e+006																434.3280
Enclosed Parking with Elevator	0																0.0000

General Office Building	499680																26.8233
Health Club	262450																14.0886
High Turnover (Sit Down Restaurant)	8.0766e+006																433.5593
Hotel	2.0383e+006																109.4178
Strip Mall	29848																1.6023
Supermarket	602511																32.3434
Unenclosed Parking with Elevator	0																0.0000
User Defined Commercial	0																0.0000
Total																	**1,052.1626**

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	7.74474e+006																415.7446
Enclosed Parking with Elevator	0																0.0000
General Office Building	451584																24.2415
Health Club	242658																13.0261
High Turnover (Sit Down Restaurant)	7.92617e+006																425.4841
Hotel	1.86898e+006																100.3286
Strip Mall	27755																1.4899
Supermarket	575675																30.9028
Unenclosed Parking with Elevator	0																0.0000
User Defined Commercial	0																0.0000
Total																	**1,011.2175**

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	3.17889e+006				759.1909
Enclosed Parking with Elevator	465600				111.1957
General Office Building	623520				148.9105
Health Club	160950				38.4385

High Turnover (Sit Down Restaurant)	1.5449e+006				368.9565
Hotel	644300				153.8732
Strip Mall	245700				58.6786
Supermarket	1.01911e+006				243.3859
Unenclosed Parking with Elevator	906368				216.4609
User Defined Commercial	0				0.0000
Total					**2,099.0906**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse High Rise	2.97542e+006				710.5968
Enclosed Parking with Elevator	371801				88.7944
General Office Building	556200				132.8330
Health Club	146450				34.9755
High Turnover (Sit Down Restaurant)	1.44765e+006				345.7317
Hotel	577150				137.8363
Strip Mall	209919				50.1333
Supermarket	959063				229.0455
Unenclosed Parking with Elevator	701968				167.6456
User Defined Commercial	0				0.0000
Total					**1,897.5920**

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																39.8198
Unmitigated																39.8198

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																0.0000
Consumer Products																0.0000
Hearth																27.0552
Landscaping																12.7647
Total																**39.8198**

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																0.0000
Consumer Products																0.0000
Hearth																27.0552
Landscaping																12.7647
Total																**39.8198**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated				357.4792
Unmitigated				446.8490

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse High Rise	48.0185 / 30.2725				295.0070
Enclosed Parking with Elevator	0 / 0				0.0000
General Office Building	8.53122 / 5.22881				52.0156
Health Club	0.857576 / 0.525611				5.2287
High Turnover (Sit Down Restaurant)	10.6237 / 0.678107				49.2963
Hotel	4.56602 / 0.507335				21.7602
Strip Mall	1.34812 / 0.826267				8.2196
Supermarket	3.36522 / 0.104079				15.3216
Unenclosed Parking with Elevator	0 / 0				0.0000
User Defined Commercial	0 / 0				0.0000
Total					**446.8490**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse High Rise	38.4148 / 24.218				236.0056
Enclosed Parking with Elevator	0 / 0				0.0000
General Office Building	6.82498 / 4.18305				41.6125
Health Club	0.68606 / 0.420489				4.1830
High Turnover (Sit Down Restaurant)	8.49894 / 0.542486				39.4370
Hotel	3.65281 / 0.405868				17.4081
Strip Mall	1.0785 / 0.661014				6.5757
Supermarket	2.69218 / 0.0832632				12.2573
Unenclosed Parking with Elevator	0 / 0				0.0000
User Defined Commercial	0 / 0				0.0000
Total					**357.4792**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated				137.0144
Unmitigated				580.5696

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse High Rise	339.02				170.4937
Enclosed Parking with Elevator	0				0.0000
General Office Building	44.64				22.4495
Health Club	82.65				41.5648
High Turnover (Sit Down Restaurant)	416.5				209.4585
Hotel	98.55				49.5609
Strip Mall	19.11				9.6105
Supermarket	153.97				77.4318
Unenclosed Parking with Elevator	0				0.0000
User Defined Commercial	0				0.0000
Total					**580.5696**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse High Rise	80.0087				40.2365
Enclosed Parking with Elevator	0				0.0000
General Office Building	10.535				5.2981
Health Club	19.5054				9.8093
High Turnover (Sit Down Restaurant)	98.294				49.4322

Hotel	23.2578			11.6964
Strip Mall	4.50996			2.2681
Supermarket	36.3369			18.2739
Unenclosed Parking with Elevator	0			0.0000
User Defined Commercial	0			0.0000
Total				**137.0144**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	1	12	350	0.73	Diesel

Boilers

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

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 (300 - 600 HP)																1.6050
Total																**1.6050**

11.0 Vegetation

CalEEMod Version: CalEEMod.2016.3.2

 Date: 8/26/2020 5:47 PM

1111 Sunset Buildout - No Hotel Option (without PDFs) - South Coast Air Basin, Annual

1111 Sunset Buildout - No Hotel Option (without PDFs)

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	48.00	1000sqft	1.10	48,000.00	0
User Defined Commercial	1.00	User Defined Unit	0.00	0.00	0
Enclosed Parking with Elevator	485.00	Space	4.36	194,000.00	0
Unenclosed Parking with Elevator	1,210.00	Space	10.89	484,000.00	0
Health Club	14.50	1000sqft	0.33	14,500.00	0
High Turnover (Sit Down Restaurant)	35.00	1000sqft	0.80	35,000.00	0
Condo/Townhouse High Rise	827.00	Dwelling Unit	12.92	851,982.00	1931
Strip Mall	18.20	1000sqft	0.42	18,200.00	0
Supermarket	27.30	1000sqft	0.63	27,300.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	12			**Operational Year**	2028
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	524	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - LADWP 2028 Carbon Intensity (SB100 RPS)

Land Use - No Hotel Option

Construction Phase - see assumptions

Off-road Equipment - Site Specific

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Trips and VMT - Soil Export - 25 miles to Irvindale (one-way)

Demolition -

Grading -

Architectural Coating - No Architectural Coatings for Existing Elysian Apartments

Vehicle Trips - User Defined Commercial Uses represent trips and VMT obtained from the LADOT VMT Calculator

Woodstoves - Assumes default fireplaces. No wood stoves.

Energy Use - Adjustment for Parking Structure Energy Usage (See assumptions).

Water And Wastewater -

Construction Off-road Equipment Mitigation - Tier 4

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation - City of LA Waste Diversion Rate (2013)

Fleet Mix -

Stationary Sources - Emergency Generators and Fire Pumps -

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

Table Name	Column Name	Default Value	New Value
tblEnergyUse	T24E	3.92	0.41
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	41.35	0.00
tblLandUse	LandUseSquareFeet	827,000.00	851,982.00
tblLandUse	Population	2,365.00	1,931.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	524
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
tblStationaryGeneratorsPumpsEF	TOG_EF	2.4700e-003	2.4700e-004
tblTripsAndVMT	HaulingTripNumber	4,084.00	8,760.00
tblTripsAndVMT	HaulingTripNumber	0.00	36,720.00
tblTripsAndVMT	HaulingTripNumber	0.00	13,344.00
tblTripsAndVMT	HaulingTripNumber	0.00	26,230.00
tblVehicleTrips	CC_TL	8.40	6.32
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	4.31	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	158.37	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	ST_TR	177.59	0.00
tblVehicleTrips	ST_TR	0.00	13,548.92
tblVehicleTrips	SU_TR	3.43	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	131.84	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	SU_TR	166.44	0.00
tblVehicleTrips	SU_TR	0.00	13,548.92

tblVehicleTrips	WD_TR	4.18	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	127.15	0.00
tblVehicleTrips	WD_TR	44.32	0.00
tblVehicleTrips	WD_TR	102.24	0.00
tblVehicleTrips	WD_TR	0.00	12,499.00
tblWoodstoves	NumberCatalytic	41.35	0.00
tblWoodstoves	NumberNoncatalytic	41.35	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	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																184.1209
Energy																3,039.1779
Mobile																10,677.5732
Stationary																1.6050
Waste																551.8288
Water																461.1141
Total																**14,915.4199**

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																184.1209
Energy																2,980.5996
Mobile																10,677.5732
Stationary																1.6050
Waste																130.2316
Water																461.1141

Total																**14,435.2444**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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**	**3.22**

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																10,677.5732
Unmitigated																10,677.5732

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		
General Office Building	0.00	0.00	0.00		
Health Club	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00		
Strip Mall	0.00	0.00	0.00		
Supermarket	0.00	0.00	0.00		
Unenclosed Parking with Elevator	0.00	0.00	0.00		
User Defined Commercial	12,499.00	13,548.92	13548.92	29,443,791	29,443,791
Total	12,499.00	13,548.92	13,548.92	29,443,791	29,443,791

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15
Supermarket	16.60	8.40	6.90	6.50	74.50	19.00	34	30	36
Unenclosed Parking with	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
User Defined Commercial	0.00	6.32	0.00	0.00	100.00	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	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Enclosed Parking with Elevator	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782

General Office Building	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Health Club	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
High Turnover (Sit Down Restaurant)	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Strip Mall	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Supermarket	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Unenclosed Parking with Elevator	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
User Defined Commercial	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive 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																2,018.9413
Electricity Unmitigated																2,043.3944
NaturalGas Mitigated																961.6583
NaturalGas Unmitigated																995.7835

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	9.07895e+006																487.3667
Enclosed Parking with Elevator	0																0.0000
General Office Building	499680																26.8233
Health Club	262450																14.0886
High Turnover (Sit Down Restaurant)	8.0766e+006																433.5593
Strip Mall	29848																1.6023
Supermarket	602511																32.3434
Unenclosed Parking with Elevator	0																0.0000
User Defined Commercial	0																0.0000
Total																	**995.7835**

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	8.6905e+006																466.5140
Enclosed Parking with Elevator	0																0.0000
General Office Building	451584																24.2415
Health Club	242658																13.0261
High Turnover (Sit Down Restaurant)	7.92617e+006																425.4841
Strip Mall	27755																1.4899
Supermarket	575675																30.9028
Unenclosed Parking with Elevator	0																0.0000
User Defined Commercial	0																0.0000
Total																	**961.6583**

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	3.56709e+006				851.9008
Enclosed Parking with Elevator	455900				108.8791
General Office Building	623520				148.9105
Health Club	160950				38.4385
High Turnover (Sit Down Restaurant)	1.5449e+006				368.9565
Strip Mall	245700				58.6786
Supermarket	1.01911e+006				243.3859
Unenclosed Parking with Elevator	938960				224.2446
User Defined Commercial	0				0.0000
Total					**2,043.3944**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e

Land Use	kWh/yr	MT/yr			
Condo/Townhouse High Rise	3.54575e+006				846.8033
Enclosed Parking with Elevator	447946				106.9795
General Office Building	601440				143.6373
Health Club	157688				37.6593
High Turnover (Sit Down Restaurant)	1.51652e+006				362.1776
Strip Mall	238402				56.9357
Supermarket	1.00704e+006				240.5042
Unenclosed Parking with Elevator	938960				224.2446
User Defined Commercial	0				0.0000
Total					**2,018.9413**

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																184.1209
Unmitigated																184.1209

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																0.0000
Consumer Products																0.0000
Hearth																169.8075
Landscaping																14.3134
Total																**184.1209**

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																0.0000
Consumer Products																0.0000
Hearth																169.8075
Landscaping																14.3134
Total																**184.1209**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated				461.1141
Unmitigated				461.1141

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse High Rise	53.8824 / 33.9693				331.0323
Enclosed Parking with Elevator	0 / 0				0.0000
General Office Building	8.53122 / 5.22881				52.0156
Health Club	0.857576 / 0.525611				5.2287
High Turnover (Sit Down Restaurant)	10.6237 / 0.678107				49.2963
Strip Mall	1.34812 / 0.826267				8.2196
Supermarket	3.36522 / 0.104079				15.3216
Unenclosed Parking with Elevator	0 / 0				0.0000
User Defined Commercial	0 / 0				0.0000
Total					**461.1141**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse High Rise	53.8824 / 33.9693				331.0323
Enclosed Parking with Elevator	0 / 0				0.0000
General Office Building	8.53122 / 5.22881				52.0156
Health Club	0.857576 / 0.525611				5.2287
High Turnover (Sit Down Restaurant)	10.6237 / 0.678107				49.2963
Strip Mall	1.34812 / 0.826267				8.2196
Supermarket	3.36522 / 0.104079				15.3216
Unenclosed Parking with Elevator	0 / 0				0.0000
User Defined Commercial	0 / 0				0.0000
Total					**461.1141**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated				130.2316
Unmitigated				551.8288

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse High Rise	380.42				191.3138
Enclosed Parking with Elevator	0				0.0000

General Office Building	44.64			22.4495
Health Club	82.65			41.5648
High Turnover (Sit Down Restaurant)	416.5			209.4585
Strip Mall	19.11			9.6105
Supermarket	153.97			77.4318
Unenclosed Parking with Elevator	0			0.0000
User Defined Commercial	0			0.0000
Total				**551.8288**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse High Rise	89.7791				45.1501
Enclosed Parking with Elevator	0				0.0000
General Office Building	10.535				5.2981
Health Club	19.5054				9.8093
High Turnover (Sit Down Restaurant)	98.294				49.4322
Strip Mall	4.50996				2.2681
Supermarket	36.3369				18.2739
Unenclosed Parking with Elevator	0				0.0000
User Defined Commercial	0				0.0000
Total					**130.2316**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.5	12	350	0.73	Diesel

Boilers

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

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 (300 - 600 HP)																1.6050
Total																**1.6050**

11.0 Vegetation

CalEEMod Version: CalEEMod.2016.3.2

 Date: 12/8/2020 5:44 PM

1111 Sunset Buildout - No Hotel Option (with PDFs) - South Coast Air Basin, Annual

1111 Sunset Buildout - No Hotel Option (with PDFs)

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	48.00	1000sqft	1.10	48,000.00	0
User Defined Commercial	1.00	User Defined Unit	0.00	0.00	0
Enclosed Parking with Elevator	485.00	Space	4.36	194,000.00	0
Unenclosed Parking with Elevator	1,210.00	Space	10.89	484,000.00	0
Health Club	14.50	1000sqft	0.33	14,500.00	0
High Turnover (Sit Down Restaurant)	35.00	1000sqft	0.80	35,000.00	0
Condo/Townhouse High Rise	827.00	Dwelling Unit	12.92	851,982.00	1931
Strip Mall	18.20	1000sqft	0.42	18,200.00	0
Supermarket	27.30	1000sqft	0.63	27,300.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	12			**Operational Year**	2028
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	524	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - LADWP 2028 Carbon Intensity (SB100 RPS)

Land Use - No Hotel Option

Construction Phase - see assumptions

Off-road Equipment - Site Specific

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Off-road Equipment - see assumptions

Trips and VMT - Soil Export - 25 miles to Irvindale (one-way)
Concrete - 6.5 miles to Catalina Pacific (one-way)

Demolition -

Grading -

Architectural Coating - No Architectural Coatings for Existing Elysian Apartments

Vehicle Trips - User Defined Commercial Uses represent trips and VMT obtained from the LADOT VMT Calculator
User Defined Industrial Uses represent pass-by trips obtained from ITE trip generation methodology

Woodstoves - New high-rise would not inlcude fireplaces, but would include seven fire pits

Energy Use - Adjustment for Parking Structure Energy Usage (See assumptions).

Water And Wastewater -

Construction Off-road Equipment Mitigation - Tier 4

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation - City of LA Waste Diversion Rate (2013)

Fleet Mix -

Stationary Sources - Emergency Generators and Fire Pumps -

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

Table Name	Column Name	Default Value	New Value
tblEnergyUse	T24E	3.92	0.46
tblFireplaces	FireplaceDayYear	25.00	100.00
tblFireplaces	FireplaceHourDay	3.00	6.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	702.95	14.00
tblFireplaces	NumberNoFireplace	82.70	0.00
tblFireplaces	NumberWood	41.35	0.00
tblLandUse	LandUseSquareFeet	827,000.00	851,982.00
tblLandUse	Population	2,365.00	1,931.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	524
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
tblStationaryGeneratorsPumpsEF	TOG_EF	2.4700e-003	2.4700e-004
tblTripsAndVMT	HaulingTripNumber	4,084.00	8,760.00
tblTripsAndVMT	HaulingTripNumber	0.00	36,720.00
tblTripsAndVMT	HaulingTripNumber	0.00	13,344.00
tblTripsAndVMT	HaulingTripNumber	0.00	26,230.00
tblVehicleTrips	CC_TL	8.40	6.37
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	4.31	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	158.37	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	ST_TR	177.59	0.00
tblVehicleTrips	ST_TR	0.00	8,358.72
tblVehicleTrips	SU_TR	3.43	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	26.73	0.00

tblVehicleTrips	SU_TR	131.84	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	SU_TR	166.44	0.00
tblVehicleTrips	SU_TR	0.00	8,358.72
tblVehicleTrips	WD_TR	4.18	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	127.15	0.00
tblVehicleTrips	WD_TR	44.32	0.00
tblVehicleTrips	WD_TR	102.24	0.00
tblVehicleTrips	WD_TR	0.00	7,711.00
tblWoodstoves	NumberCatalytic	41.35	0.00
tblWoodstoves	NumberNoncatalytic	41.35	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	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																41.3686
Energy																3,041.4945
Mobile																6,637.1315
Stationary																1.6050
Waste																551.8288
Water																461.1141
Total																**10,734.5424**

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																14.3134
Energy																2,814.2181
Mobile																6,637.1315

Stationary																1.6050
Waste																130.2316
Water																368.8913
Total																**9,966.3908**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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**	**7.16**

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																6,637.1315
Unmitigated																6,637.1315

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		
General Office Building	0.00	0.00	0.00		
Health Club	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00		
Strip Mall	0.00	0.00	0.00		
Supermarket	0.00	0.00	0.00		
Unenclosed Parking with Elevator	0.00	0.00	0.00		
User Defined Commercial	7,711.00	8,358.72	8358.72	18,315,129	18,315,129
Total	7,711.00	8,358.72	8,358.72	18,315,129	18,315,129

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15
Supermarket	16.60	8.40	6.90	6.50	74.50	19.00	34	30	36
Unenclosed Parking with	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
User Defined Commercial	0.00	6.37	0.00	0.00	100.00	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	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Enclosed Parking with Elevator	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
General Office Building	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Health Club	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
High Turnover (Sit Down Restaurant)	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Strip Mall	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Supermarket	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Unenclosed Parking with Elevator	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
User Defined Commercial	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782

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																1,852.5598
Electricity Unmitigated																2,045.7110
NaturalGas Mitigated																961.6583
NaturalGas Unmitigated																995.7835

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	9.07895e+006																487.3667
Enclosed Parking with Elevator	0																0.0000
General Office Building	499680																26.8233
Health Club	262450																14.0886
High Turnover (Sit Down Restaurant)	8.0766e+006																433.5593
Strip Mall	29848																1.6023

Supermarket	602511																32.3434
Unenclosed Parking with Elevator	0																0.0000
User Defined Commercial	0																0.0000
Total																	**995.7835**

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	8.6905e+006																466.5140
Enclosed Parking with Elevator	0																0.0000
General Office Building	451584																24.2415
Health Club	242658																13.0261
High Turnover (Sit Down Restaurant)	7.92617e+006																425.4841
Strip Mall	27755																1.4899
Supermarket	575675																30.9028
Unenclosed Parking with Elevator	0																0.0000
User Defined Commercial	0																0.0000
Total																	**961.6583**

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	3.56709e+006				851.9008
Enclosed Parking with Elevator	465600				111.1957
General Office Building	623520				148.9105
Health Club	160950				38.4385
High Turnover (Sit Down Restaurant)	1.5449e+006				368.9565
Strip Mall	245700				58.6786
Supermarket	1.01911e+006				243.3859
Unenclosed Parking with Elevator	938960				224.2446
User Defined Commercial	0				0.0000
Total					**2,045.7110**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse High Rise	3.33877e+006				797.3725
Enclosed Parking with Elevator	371801				88.7944
General Office Building	556200				132.8330
Health Club	146450				34.9755
High Turnover (Sit Down Restaurant)	1.44765e+006				345.7317
Strip Mall	209919				50.1333
Supermarket	959063				229.0455
Unenclosed Parking with Elevator	727210				173.6740
User Defined Commercial	0				0.0000
Total					**1,852.5598**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive 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																14.3134
Unmitigated																41.3686

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																0.0000
Consumer Products																0.0000

Hearth																27.0552
Landscaping																14.3134
Total																**41.3686**

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																0.0000
Consumer Products																0.0000
Hearth																0.0000
Landscaping																14.3134
Total																**14.3134**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated				368.8913
Unmitigated				461.1141

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse High Rise	53.8824 / 33.9693				331.0323
Enclosed Parking with Elevator	0 / 0				0.0000
General Office Building	8.53122 / 5.22881				52.0156
Health Club	0.857576 / 0.525611				5.2287

High Turnover (Sit Down Restaurant)	10.6237 / 0.678107				49.2963
Strip Mall	1.34812 / 0.826267				8.2196
Supermarket	3.36522 / 0.104079				15.3216
Unenclosed Parking with Elevator	0 / 0				0.0000
User Defined Commercial	0 / 0				0.0000
Total					**461.1141**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse High Rise	43.1059 / 27.1755				264.8258
Enclosed Parking with Elevator	0 / 0				0.0000
General Office Building	6.82498 / 4.18305				41.6125
Health Club	0.68606 / 0.420489				4.1830
High Turnover (Sit Down Restaurant)	8.49894 / 0.542486				39.4370
Strip Mall	1.0785 / 0.661014				6.5757
Supermarket	2.69218 / 0.0832632				12.2573
Unenclosed Parking with Elevator	0 / 0				0.0000
User Defined Commercial	0 / 0				0.0000
Total					**368.8913**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated				130.2316
Unmitigated				551.8288

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse High Rise	380.42				191.3138
Enclosed Parking with Elevator	0				0.0000
General Office Building	44.64				22.4495
Health Club	82.65				41.5648
High Turnover (Sit Down Restaurant)	416.5				209.4585
Strip Mall	19.11				9.6105
Supermarket	153.97				77.4318
Unenclosed Parking with Elevator	0				0.0000
User Defined Commercial	0				0.0000
Total					**551.8288**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse High Rise	89.7791				45.1501
Enclosed Parking with Elevator	0				0.0000
General Office Building	10.535				5.2981
Health Club	19.5054				9.8093
High Turnover (Sit Down Restaurant)	98.294				49.4322
Strip Mall	4.50996				2.2681
Supermarket	36.3369				18.2739
Unenclosed Parking with Elevator	0				0.0000
User Defined Commercial	0				0.0000
Total					**130.2316**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.5	12	350	0.73	Diesel

Boilers

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

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 (300 - 600 HP)																1.6050
Total																**1.6050**

11.0 Vegetation

1111 Sunset

Draft EIR

Appendix C-4-LADOT VMT Calculator Outputs

MEMORANDUM

TO: Ashley Muñoz, Eyestone Environmental

FROM: Jonathan Chambers, P.E.

DATE: October 14, 2020

RE: Supplemental Vehicle Miles Traveled Analysis for the 1111 Sunset Boulevard Mixed-Use Project
Los Angeles, California **Ref:** J1388

This memorandum presents a supplemental analysis of vehicle miles traveled (VMT) for the 1111 Sunset Boulevard Mixed-Use Project (Project). The VMT analysis provided in Chapter 5 or the transportation assessment (*Transportation Assessment for the 1111 Sunset Boulevard Mixed-Use Project*, Gibson Transportation Consulting, Inc., October 2020) included only those transportation demand management (TDM) measures that qualify as Project design features (PDFs). At the request of the Department of City Planning (DCP), the VMT analysis in Chapter 5 excluded the effects of additional TDM measures that would be included in the Project because they are not required as mitigation measures.

The TDM measures qualifying as PDFs, and included in the analysis in Chapter 5, are reduced parking supply and provision of bicycle parking in accordance with the Los Angeles Municipal Code requirement. The additional TDM measures, not incorporated into the analysis in Chapter 5, are:

- Unbundled parking and parking cash-out
- TDM promotions and marketing
- Ride-share program
- First-mile / last-mile options
- Pedestrian network improvements

While these additional TDM measures are not included in the transportation analysis of Project VMT provided in Chapter 5 at DCP request, several other types of environmental analysis in the Project's Environmental Impact Report, including energy, greenhouse gas, and air quality, incorporate the VMT Calculator results including all Project TDM measures. Therefore, two supplemental analyses of Project VMT, including all proposed TDM measures, are attached to this memorandum—one for the Mixed-Use Development Scenario and one for the No-Hotel Development Scenario.

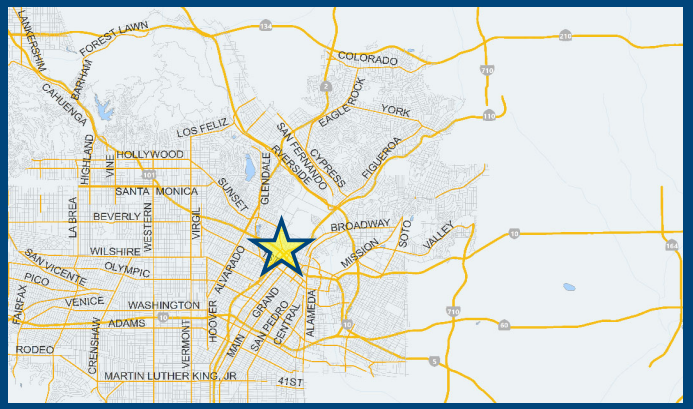
CITY OF LOS ANGELES VMT CALCULATOR Version 1.3

Project Information

Project: 1111 Sunset Boulevard

Scenario: Mixed-Use Development Scenario

Address: 1111 W SUNSET BLVD, 90012



Proposed Project Land Use Type	Value	Unit
Housing | Multi-Family	661	DU
Housing | Hotel	180	Rooms
Retail | General Retail	18.2	ksf
Retail | Supermarket	27.3	ksf
Retail | Health Club	14.5	ksf
Retail | High-Turnover Sit-Down Restaurant	35	ksf
Office | General Office	48	ksf
Housing | Affordable Housing - Family	76	DU

TDM Strategies

Select each section to show individual strategies

Use ☑ to denote if the TDM strategy is part of the proposed project or is a mitigation strategy

	Proposed Project	With Mitigation
Max Home Based TDM Achieved?	**No**	**No**
Max Work Based TDM Achieved?	**No**	**No**

- A Parking
- B Transit
- C Education & Encouragement
- D Commute Trip Reductions
- E Shared Mobility
- F Bicycle Infrastructure
- G Neighborhood Enhancement

Traffic Calming Improvements

☐ Proposed Prj ☐ Mitigation

25 percent of streets within project with traffic calming improvements

25 percent of intersections within project with traffic calming improvements

Pedestrian Network Improvements

☐ Proposed Prj ☑ Mitigation

within project and connecting off-site

Analysis Results

Proposed Project	With Mitigation
8,887 Daily Vehicle Trips	**8,257** Daily Vehicle Trips
56,710 Daily VMT	**52,517** Daily VMT
4.8 Household VMT per Capita	**4.1** Household VMT per Capita
8.4 Work VMT per Employee	**6.6** Work VMT per Employee

Significant VMT Impact?

Household: No Threshold = 7.2 15% Below APC	**Household: No** Threshold = 7.2 15% Below APC
Work: No Threshold = 12.7 15% Below APC	**Work: No** Threshold = 12.7 15% Below APC

Measuring the Miles

10/14/2020

Project Information

Land Use Type		Value	Units
Housing	*Single Family*	*0*	*DU*
	Multi Family	661	DU
	Townhouse	*0*	*DU*
	Hotel	180	Rooms
	Motel	*0*	*Rooms*
Affordable Housing	Family	76	DU
	Senior	*0*	*DU*
	Special Needs	*0*	*DU*
	Permanent Supportive	*0*	*DU*
Retail	General Retail	18.200	ksf
	Furniture Store	*0.000*	*ksf*
	Pharmacy/Drugstore	*0.000*	*ksf*
	Supermarket	27.300	ksf
	Bank	*0.000*	*ksf*
	Health Club	14.500	ksf
	High-Turnover Sit-Down Restaurant	35.000	ksf
	Fast-Food Restaurant	*0.000*	*ksf*
	Quality Restaurant	*0.000*	*ksf*
	Auto Repair	*0.000*	*ksf*
	Home Improvement	*0.000*	*ksf*
	Free-Standing Discount	*0.000*	*ksf*
	Movie Theater	*0*	*Seats*
Office	General Office	48.000	ksf
	Medical Office	*0.000*	*ksf*
Industrial	*Light Industrial*	*0.000*	*ksf*
	Manufacturing	*0.000*	*ksf*
	Warehousing/Self-Storage	*0.000*	*ksf*
School	*University*	*0*	*Students*
	High School	*0*	*Students*
	Middle School	*0*	*Students*
	Elementary	*0*	*Students*
	Private School (K-12)	*0*	*Students*
Other		*0*	*Trips*

Analysis Results

Total Employees: 582
Total Population: 1,728

Proposed Project		*With Mitigation*	
8,887	**Daily Vehicle Trips**	**8,257**	**Daily Vehicle Trips**
56,710	**Daily VMT**	**52,517**	**Daily VMT**
4.8	**Household VMT per Capita**	**4.1**	**Household VMT per Capita**
8.4	**Work VMT per Employee**	**6.6**	**Work VMT per Employee**

Significant VMT Impact?

APC: East Los Angeles

Impact Threshold: 15% Below APC Average
Household = 7.2
Work = 12.7

Proposed Project		*With Mitigation*	
VMT Threshold	**Impact**	**VMT Threshold**	**Impact**
Household > 7.2	No	Household > 7.2	No
Work > 12.7	No	Work > 12.7	No

TDM Strategy Inputs

Strategy Type		Description	Proposed Project	Mitigations
Parking	Reduce parking supply	City code parking provision (spaces)	2157	2157
		Actual parking provision (spaces)	933	933
	Unbundle parking	Monthly cost for parking ($)	*$0*	$100
	Parking cash-out	Employees eligible (%)	*0%*	50%
	Price workplace parking	*Daily parking charge ($)*	*$0.00*	*$0.00*
		Employees subject to priced parking (%)	*0%*	*0%*
	Residential area parking permits	*Cost of annual permit ($)*	*$0*	*$0*

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Transit	*Reduce transit headways*	*Reduction in headways (increase in frequency) (%)*	*0%*	*0%*
		Existing transit mode share (as a percent of total daily trips) (%)	*0%*	*0%*
		Lines within project site improved (<50%, >=50%)	*0*	*0*
	Implement neighborhood shuttle	*Degree of implementation (low, medium, high)*	*0*	*0*
		Employees and residents eligible (%)	*0%*	*0%*
	Transit subsidies	*Employees and residents eligible (%)*	*0%*	*0%*
		Amount of transit subsidy per passenger (daily equivalent) ($)	*$0.00*	*$0.00*
Education & Encouragement	*Voluntary travel behavior change program*	*Employees and residents participating (%)*	*0%*	*0%*
	Promotions and marketing	Employees and residents participating (%)	*0%*	50%

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Commute Trip Reductions	*Required commute trip reduction program*	*Employees participating (%)*	*0%*	*0%*
	Alternative Work Schedules and Telecommute	*Employees participating (%)*	*0%*	*0%*
		Type of program	*0*	*0*
	Employer sponsored vanpool or shuttle	*Degree of implementation (low, medium, high)*	*0*	*0*
		Employees eligible (%)	*0%*	*0%*
		Employer size (small, medium, large)	*0*	*0*
	Ride-share program	Employees eligible (%)	*0%*	100%
Shared Mobility	*Car share*	*Car share project setting (Urban, Suburban, All Other)*	*0*	*0*
	Bike share	Within 600 feet of existing bike share station - OR- implementing new bike share station (Yes/No)	*0*	Yes
	School carpool program	*Level of implementation (Low, Medium, High)*	*0*	*0*

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Bicycle Infrastructure	*Implement/Improve on-street bicycle facility*	*Provide bicycle facility along site (Yes/No)*	*0*	*0*
	Include Bike parking per LAMC	Meets City Bike Parking Code (Yes/No)	Yes	Yes
	Include secure bike parking and showers	*Includes indoor bike parking/lockers, showers, & repair station (Yes/No)*	*0*	*0*
Neighborhood Enhancement	*Traffic calming improvements*	*Streets with traffic calming improvements (%)*	*0%*	*0%*
		Intersections with traffic calming improvements (%)	*0%*	*0%*
	Pedestrian network improvements	Included (within project and connecting off-site/within project only)	*0*	within project and connecting off-site

TDM Adjustments by Trip Purpose & Strategy

Place type: Compact Infill

		Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*		*Source*
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Parking	Reduce parking supply	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	TDM Strategy Appendix, Parking sections 1 - 5
	Unbundle parking	0%	12%	0%	0%	0%	12%	0%	0%	0%	0%	0%	0%	
	Parking cash-out	0%	0%	0%	4%	0%	0%	0%	0%	0%	0%	0%	0%	
	Price workplace parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Residential area parking permits	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Transit	Reduce transit headways	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Transit sections 1 - 3
	Implement neighborhood shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Transit subsidies	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Education & Encouragement	Voluntary travel behavior change program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Education & Encouragement sections 1 - 2
	Promotions and marketing	0%	2%	0%	2%	0%	2%	0%	2%	0%	2%	0%	0%	
Commute Trip Reductions	Required commute trip reduction program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Commute Trip Reductions sections 1 - 4
	Alternative Work Schedules and Telecommute Program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Employer sponsored vanpool or shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Ride-share program	0%	0%	0%	15%	0%	0%	0%	0%	0%	0%	0%	0%	
Shared Mobility	Car-share	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Shared Mobility sections 1 - 3
	Bike share	0.00%	0.25%	0.00%	0.25%	0.00%	0.25%	0.00%	0.25%	0.00%	0.25%	0.00%	0.25%	
	School carpool program	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

TDM Adjustments by Trip Purpose & Strategy, Cont.

Place type: Compact Infill

		Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*		*Source*
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Bicycle Infrastructure	Implement/ Improve on-street bicycle facility	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	TDM Strategy Appendix, Bicycle Infrastructure sections 1 - 3
	Include Bike parking per LAMC	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	
	Include secure bike parking and showers	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	
Neighborhood Enhancement	Traffic calming improvements	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	TDM Strategy Appendix, Neighborhood Enhancement sections 1 - 2
	Pedestrian network improvements	*0.0%*	2.0%	*0.0%*	2.0%	*0.0%*	2.0%	*0.0%*	2.0%	*0.0%*	2.0%	*0.0%*	2.0%	

Final Combined & Maximum TDM Effect

	Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*	
	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated
COMBINED TOTAL	*13%*	*27%*	*13%*	*32%*	*13%*	*27%*	*13%*	*17%*	*13%*	*17%*	*13%*	*15%*
MAX. TDM EFFECT	*13%*	*27%*	*13%*	*32%*	*13%*	*27%*	*13%*	*17%*	*13%*	*17%*	*13%*	*17%*

= Minimum (X%, 1-[(1-A)*(1-B)…])

where X%=

PLACE TYPE MAX:	*urban*	*75%*
	compact infill	*40%*
	suburban center	*20%*
	suburban	*15%*

Note: (1-[(1-A)*(1-B)…]) reflects the dampened combined effectiveness of TDM Strategies (e.g., A, B,...). See the TDM Strategy Appendix (*Transportation Assessment Guidelines Attachment G)* for further discussion of dampening.

CITY OF LOS ANGELES VMT CALCULATOR

Report 4: MXD Methodology

Date: October 14, 2020
Project Name: 1111 Sunset Boulevard
Project Scenario: Mixed-Use Development Scenario
Project Address: 1111 W SUNSET BLVD, 90012

Version 1.3

MXD Methodology - Project Without TDM

	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT
Home Based Work Production	657	-29.4%	464	7.5	4,928	3,480
Home Based Other Production	1,819	-40.4%	1,085	5.6	10,186	6,076
Non-Home Based Other Production	2,582	-4.1%	2,477	6.8	17,558	16,844
Home-Based Work Attraction	844	-21.7%	661	8.5	7,174	5,619
Home-Based Other Attraction	5,590	-34.1%	3,682	5.9	32,981	21,724
Non-Home Based Other Attraction	1,939	-4.5%	1,851	6.2	12,022	11,476

MXD Methodology with TDM Measures

	Proposed Project			*Project with Mitigation Measures*		
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT
Home Based Work Production	-13.0%	403	3,026	-26.7%	340	2,551
Home Based Other Production	-13.0%	943	5,283	-26.7%	795	4,454
Non-Home Based Other Production	-13.0%	2,154	14,646	-16.7%	2,063	14,031
Home-Based Work Attraction	-13.0%	575	4,886	-31.9%	450	3,825
Home-Based Other Attraction	-13.0%	3,202	18,890	-16.7%	3,067	18,096
Non-Home Based Other Attraction	-13.0%	1,610	9,979	-16.7%	1,542	9,560

MXD VMT Methodology Per Capita & Per Employee

Total Population: 1,728
Total Employees: 582
APC: East Los Angeles

	Proposed Project	*Project with Mitigation Measures*
Total Home Based Production VMT	**8,309**	**7,005**
Total Home Based Work Attraction VMT	**4,886**	**3,825**
Total Home Based VMT Per Capita	**4.8**	**4.1**
Total Work Based VMT Per Employee	**8.4**	**6.6**

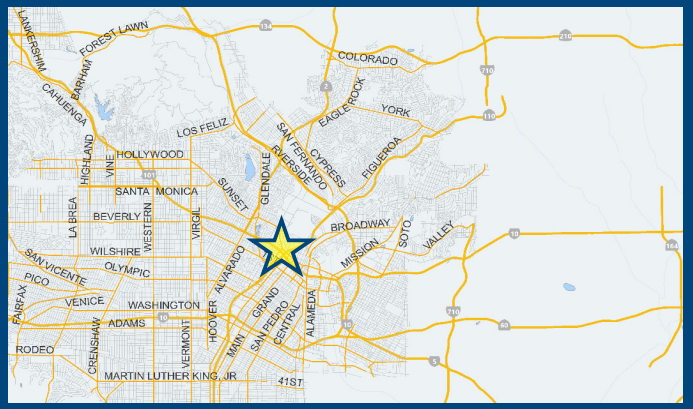
CITY OF LOS ANGELES VMT CALCULATOR Version 1.3

Project Information

Project: 1111 Sunset Boulevard

Scenario: No-Hotel Development Scenario

Address: 1111 W SUNSET BLVD, 90012



Proposed Project Land Use Type	Value	Unit
Housing | Multi-Family	751	DU
Retail | General Retail	18.2	ksf
Retail | Supermarket	27.3	ksf
Retail | Health Club	14.5	ksf
Retail | High-Turnover Sit-Down Restaurant	35	ksf
Office | General Office	48	ksf
Housing | Affordable Housing - Family	76	DU

TDM Strategies

Select each section to show individual strategies

Use ☑ to denote if the TDM strategy is part of the proposed project or is a mitigation strategy

	Proposed Project	With Mitigation
Max Home Based TDM Achieved?	**No**	**No**
Max Work Based TDM Achieved?	**No**	**No**

- **A** Parking
- **B** Transit
- **C** Education & Encouragement
- **D** Commute Trip Reductions
- **E** Shared Mobility
- **F** Bicycle Infrastructure
- **G** Neighborhood Enhancement

Traffic Calming Improvements

☐ Proposed Prj ☐ Mitigation

25 percent of streets within project with traffic calming improvements

25 percent of intersections within project with traffic calming improvements

Pedestrian Network Improvements

☐ Proposed Prj ☑ Mitigation

within project and connecting off-site

Analysis Results

Proposed Project	With Mitigation
8,304 Daily Vehicle Trips	**7,711** Daily Vehicle Trips
53,035 Daily VMT	**49,137** Daily VMT
4.9 Household VMT per Capita	**4.1** Household VMT per Capita
8.3 Work VMT per Employee	**6.8** Work VMT per Employee

Significant VMT Impact?

Household: No Threshold = 7.2 15% Below APC	**Household: No** Threshold = 7.2 15% Below APC
Work: No Threshold = 12.7 15% Below APC	**Work: No** Threshold = 12.7 15% Below APC

Measuring the Miles

10/14/2020

CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: October 14, 2020
Project Name: 1111 Sunset Boulevard
Project Scenario: No-Hotel Development Scenario
Project Address: 1111 W SUNSET BLVD, 90012

Version 1.3

Project Information

Land Use Type		Value	Units
Housing	*Single Family*	*0*	*DU*
	Multi Family	751	DU
	Townhouse	*0*	*DU*
	Hotel	*0*	*Rooms*
	Motel	*0*	*Rooms*
Affordable Housing	Family	76	DU
	Senior	*0*	*DU*
	Special Needs	*0*	*DU*
	Permanent Supportive	*0*	*DU*
Retail	General Retail	18.200	ksf
	Furniture Store	*0.000*	*ksf*
	Pharmacy/Drugstore	*0.000*	*ksf*
	Supermarket	27.300	ksf
	Bank	*0.000*	*ksf*
	Health Club	14.500	ksf
	High-Turnover Sit-Down Restaurant	35.000	ksf
	Fast-Food Restaurant	*0.000*	*ksf*
	Quality Restaurant	*0.000*	*ksf*
	Auto Repair	*0.000*	*ksf*
	Home Improvement	*0.000*	*ksf*
	Free-Standing Discount	*0.000*	*ksf*
	Movie Theater	*0*	*Seats*
Office	General Office	48.000	ksf
	Medical Office	*0.000*	*ksf*
Industrial	*Light Industrial*	*0.000*	*ksf*
	Manufacturing	*0.000*	*ksf*
	Warehousing/Self-Storage	*0.000*	*ksf*
School	*University*	*0*	*Students*
	High School	*0*	*Students*
	Middle School	*0*	*Students*
	Elementary	*0*	*Students*
	Private School (K-12)	*0*	*Students*
Other		*0*	*Trips*

CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: October 14, 2020
Project Name: 1111 Sunset Boulevard
Project Scenario: No-Hotel Development Scenario
Project Address: 1111 W SUNSET BLVD, 90012

Version 1.3

Analysis Results

Total Employees: 492
Total Population: 1,931

Proposed Project		*With Mitigation*	
8,304	**Daily Vehicle Trips**	**7,711**	**Daily Vehicle Trips**
53,035	**Daily VMT**	**49,137**	**Daily VMT**
4.9	**Household VMT per Capita**	**4.1**	**Household VMT per Capita**
8.3	**Work VMT per Employee**	**6.8**	**Work VMT per Employee**

Significant VMT Impact?

APC: East Los Angeles

Impact Threshold: 15% Below APC Average
Household = 7.2
Work = 12.7

Proposed Project		*With Mitigation*	
VMT Threshold	**Impact**	**VMT Threshold**	**Impact**
Household > 7.2	No	Household > 7.2	No
Work > 12.7	No	Work > 12.7	No

TDM Strategy Inputs

Strategy Type		Description	Proposed Project	Mitigations
Parking	Reduce parking supply	City code parking provision (spaces)	2221	2221
		Actual parking provision (spaces)	907	907
	Unbundle parking	Monthly cost for parking ($)	*$0*	$100
	Parking cash-out	*Employees eligible (%)*	*0%*	*0%*
	Price workplace parking	*Daily parking charge ($)*	*$0.00*	*$0.00*
		Employees subject to priced parking (%)	*0%*	*0%*
	Residential area parking permits	*Cost of annual permit ($)*	*$0*	*$0*

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Transit	*Reduce transit headways*	*Reduction in headways (increase in frequency) (%)*	*0%*	*0%*
		Existing transit mode share (as a percent of total daily trips) (%)	*0%*	*0%*
		Lines within project site improved (<50%, >=50%)	*0*	*0*
	Implement neighborhood shuttle	*Degree of implementation (low, medium, high)*	*0*	*0*
		Employees and residents eligible (%)	*0%*	*0%*
	Transit subsidies	*Employees and residents eligible (%)*	*0%*	*0%*
		Amount of transit subsidy per passenger (daily equivalent) ($)	*$0.00*	*$0.00*
Education & Encouragement	*Voluntary travel behavior change program*	*Employees and residents participating (%)*	*0%*	*0%*
	Promotions and marketing	Employees and residents participating (%)	*0%*	50%

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Commute Trip Reductions	*Required commute trip reduction program*	*Employees participating (%)*	*0%*	*0%*
	Alternative Work Schedules and Telecommute	*Employees participating (%)*	*0%*	*0%*
		Type of program	*0*	*0*
	Employer sponsored vanpool or shuttle	*Degree of implementation (low, medium, high)*	*0*	*0*
		Employees eligible (%)	*0%*	*0%*
		Employer size (small, medium, large)	*0*	*0*
	Ride-share program	Employees eligible (%)	*0%*	100%
Shared Mobility	*Car share*	*Car share project setting (Urban, Suburban, All Other)*	*0*	*0*
	Bike share	Within 600 feet of existing bike share station - OR- implementing new bike share station (Yes/No)	*0*	Yes
	School carpool program	*Level of implementation (Low, Medium, High)*	*0*	*0*

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Bicycle Infrastructure	*Implement/Improve on-street bicycle facility*	*Provide bicycle facility along site (Yes/No)*	*0*	*0*
	Include Bike parking per LAMC	Meets City Bike Parking Code (Yes/No)	Yes	Yes
	Include secure bike parking and showers	*Includes indoor bike parking/lockers, showers, & repair station (Yes/No)*	*0*	*0*
Neighborhood Enhancement	*Traffic calming improvements*	*Streets with traffic calming improvements (%)*	*0%*	*0%*
		Intersections with traffic calming improvements (%)	*0%*	*0%*
	Pedestrian network improvements	Included (within project and connecting off-site/within project only)	*0*	within project and connecting off-site

TDM Adjustments by Trip Purpose & Strategy

Place type: Compact Infill

		Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*		*Source*
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Parking	Reduce parking supply	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	TDM Strategy Appendix, Parking sections 1 - 5
	Unbundle parking	0%	12%	0%	0%	0%	12%	0%	0%	0%	0%	0%	0%	
	Parking cash-out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Price workplace parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Residential area parking permits	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Transit	Reduce transit headways	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Transit sections 1 - 3
	Implement neighborhood shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Transit subsidies	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Education & Encouragement	Voluntary travel behavior change program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Education & Encouragement sections 1 - 2
	Promotions and marketing	0%	2%	0%	2%	0%	2%	0%	2%	0%	2%	0%	0%	
Commute Trip Reductions	Required commute trip reduction program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Commute Trip Reductions sections 1 - 4
	Alternative Work Schedules and Telecommute Program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Employer sponsored vanpool or shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Ride-share program	0%	0%	0%	15%	0%	0%	0%	0%	0%	0%	0%	0%	
Shared Mobility	Car-share	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Shared Mobility sections 1 - 3
	Bike share	0.00%	0.25%	0.00%	0.25%	0.00%	0.25%	0.00%	0.25%	0.00%	0.25%	0.00%	0.25%	
	School carpool program	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

TDM Adjustments by Trip Purpose & Strategy, Cont.

Place type: Compact Infill

		Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*		*Source*
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Bicycle Infrastructure	Implement/ Improve on-street bicycle facility	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	TDM Strategy Appendix, Bicycle Infrastructure sections 1 - 3
	Include Bike parking per LAMC	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	
	Include secure bike parking and showers	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	
Neighborhood Enhancement	Traffic calming improvements	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	TDM Strategy Appendix, Neighborhood Enhancement sections 1 - 2
	Pedestrian network improvements	*0.0%*	2.0%	*0.0%*	2.0%	*0.0%*	2.0%	*0.0%*	2.0%	*0.0%*	2.0%	*0.0%*	2.0%	

Final Combined & Maximum TDM Effect

	Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*	
	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated
COMBINED TOTAL	*13%*	*27%*	*13%*	*29%*	*13%*	*27%*	*13%*	*17%*	*13%*	*17%*	*13%*	*15%*
MAX. TDM EFFECT	*13%*	*27%*	*13%*	*29%*	*13%*	*27%*	*13%*	*17%*	*13%*	*17%*	*13%*	*17%*

= Minimum (X%, 1-[(1-A)*(1-B)…])

where X%=

PLACE TYPE MAX:	*urban*	*75%*
	compact infill	*40%*
	suburban center	*20%*
	suburban	*15%*

Note: (1-[(1-A)*(1-B)…]) reflects the dampened combined effectiveness of TDM Strategies (e.g., A, B,...). See the TDM Strategy Appendix (*Transportation Assessment Guidelines Attachment G)* for further discussion of dampening.

CITY OF LOS ANGELES VMT CALCULATOR

Report 4: MXD Methodology

Date: October 14, 2020
Project Name: 1111 Sunset Boulevard
Project Scenario: No-Hotel Development Scenario
Project Address: 1111 W SUNSET BLVD, 90012

Version 1.3

MXD Methodology - Project Without TDM

	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT
Home Based Work Production	737	-28.4%	528	7.5	5,528	3,960
Home Based Other Production	2,042	-40.0%	1,226	5.6	11,435	6,866
Non-Home Based Other Production	2,552	-4.0%	2,450	6.8	17,354	16,660
Home-Based Work Attraction	714	-22.4%	554	8.5	6,069	4,709
Home-Based Other Attraction	4,624	-34.2%	3,044	5.9	27,282	17,960
Non-Home Based Other Attraction	1,830	-4.5%	1,748	6.2	11,346	10,838

MXD Methodology with TDM Measures

	Proposed Project			*Project with Mitigation Measures*		
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT
Home Based Work Production	-13.0%	459	3,443	-26.7%	387	2,903
Home Based Other Production	-13.0%	1,066	5,970	-26.7%	899	5,033
Non-Home Based Other Production	-13.0%	2,130	14,486	-16.7%	2,041	13,878
Home-Based Work Attraction	-13.0%	482	4,095	-29.2%	392	3,334
Home-Based Other Attraction	-13.0%	2,647	15,617	-16.7%	2,536	14,961
Non-Home Based Other Attraction	-13.0%	1,520	9,424	-16.7%	1,456	9,028

MXD VMT Methodology Per Capita & Per Employee

Total Population: 1,931
Total Employees: 492
APC: East Los Angeles

	Proposed Project	*Project with Mitigation Measures*
Total Home Based Production VMT	**9,413**	**7,936**
Total Home Based Work Attraction VMT	**4,095**	**3,334**
Total Home Based VMT Per Capita	**4.9**	**4.1**
Total Work Based VMT Per Employee	**8.3**	**6.8**

1111 Sunset

Draft EIR

Appendix C-5

CalEEMod Outputs Alternatives 3 and 4 Operations

1111 Sunset Buildout with PDFs - Alt 3 - South Coast Air Basin, Winter

1111 Sunset Buildout with PDFs - Alt 3

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	633.42	1000sqft	14.54	633,418.00	0
User Defined Commercial	1.00	User Defined Unit	0.00	0.00	0
Enclosed Parking with Elevator	485.00	Space	4.36	194,000.00	0
Unenclosed Parking with Elevator	1,073.00	Space	9.66	429,200.00	0
Regional Shopping Center	75.00	1000sqft	1.72	75,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	12			**Operational Year**	2028
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	524	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - LADWP 2028 Carbon Intensity (SB100 RPS)

Land Use - see assumptions

Construction Phase - see assumptions

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	354,209.00	71,543.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	1,062,627.00	214,628.00
tblArchitecturalCoating	ConstArea_Parking	37,392.00	39,672.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	0.00	518,388.00
tblArchitecturalCoating	ConstArea_Residential_Interior	0.00	1,555,164.00
tblAreaCoating	Area_Nonresidential_Exterior	354209	114000
tblAreaCoating	Area_Nonresidential_Interior	1062627	342000
tblAreaCoating	Area_Parking	37392	39672
tblAreaCoating	Area_Residential_Exterior	0	592190
tblAreaCoating	Area_Residential_Interior	0	1776569
tblEnergyUse	LightingElect	1.75	2.33
tblEnergyUse	T24E	3.92	0.49
tblLandUse	LandUseSquareFeet	633,420.00	633,418.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	524
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

tblStationaryGeneratorsPumpsEF	TOG_EF	2.4700e-003	2.4700e-004
tblTripsAndVMT	HaulingTripNumber	4,084.00	8,760.00
tblTripsAndVMT	HaulingTripNumber	0.00	36,720.00
tblTripsAndVMT	HaulingTripNumber	0.00	13,344.00
tblTripsAndVMT	HaulingTripNumber	0.00	26,230.00
tblTripsAndVMT	VendorTripLength	6.90	6.50
tblTripsAndVMT	VendorTripNumber	0.00	20.00
tblTripsAndVMT	VendorTripNumber	0.00	60.00
tblTripsAndVMT	VendorTripNumber	0.00	60.00
tblTripsAndVMT	VendorTripNumber	0.00	170.00
tblTripsAndVMT	VendorTripNumber	218.00	1,400.00
tblTripsAndVMT	VendorTripNumber	218.00	190.00
tblTripsAndVMT	VendorTripNumber	218.00	190.00
tblTripsAndVMT	VendorTripNumber	0.00	100.00
tblTripsAndVMT	WorkerTripNumber	488.00	954.00
tblTripsAndVMT	WorkerTripNumber	488.00	954.00
tblTripsAndVMT	WorkerTripNumber	488.00	954.00
tblTripsAndVMT	WorkerTripNumber	98.00	191.00
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	6.91
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CC_TTP	64.70	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	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	33.00	0.00
tblVehicleTrips	CW_TTP	16.30	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	77.00	0.00
tblVehicleTrips	PR_TP	54.00	0.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	2.46	0.00

tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	ST_TR	0.00	8,436.77
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	SU_TR	0.00	8,436.77
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	42.70	0.00
tblVehicleTrips	WD_TR	0.00	7,907.00

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	lb/day										lb/day					
Area	16.4021	2.0900e-003	0.2309	2.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004						
Energy	0.1985	1.8042	1.5155	0.0108		0.1371	0.1371		0.1371	0.1371						
Mobile	8.8145	44.0060	101.2876	0.4451	45.0913	0.3085	45.3998	12.0593	0.2864	12.3457						
Stationary	0.0792	0.2816	1.4645	2.7600e-003		0.0113	0.0113		0.0113	0.0113						
Total	**25.4943**	**46.0939**	**104.4985**	**0.4587**	**45.0913**	**0.4577**	**45.5490**	**12.0593**	**0.4356**	**12.4949**						

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	16.4021	2.0900e-003	0.2309	2.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004						
Energy	0.1795	1.6314	1.3704	9.7900e-003		0.1240	0.1240		0.1240	0.1240						
Mobile	8.8145	44.0060	101.2876	0.4451	45.0913	0.3085	45.3998	12.0593	0.2864	12.3457						
Stationary	0.0792	0.2816	1.4645	2.7600e-003		0.0113	0.0113		0.0113	0.0113						
Total	**25.4753**	**45.9211**	**104.3533**	**0.4577**	**45.0913**	**0.4445**	**45.5359**	**12.0593**	**0.4224**	**12.4818**						

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.07**	**0.37**	**0.14**	**0.22**	**0.00**	**2.87**	**0.03**	**0.00**	**3.02**	**0.11**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	8.8145	44.0060	101.2876	0.4451	45.0913	0.3085	45.3998	12.0593	0.2864	12.3457						
Unmitigated	8.8145	44.0060	101.2876	0.4451	45.0913	0.3085	45.3998	12.0593	0.2864	12.3457						

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Unenclosed Parking with Elevator	0.00	0.00	0.00		
User Defined Commercial	7,907.00	8,436.77	8436.77	20,270,062	20,270,062
Total	7,907.00	8,436.77	8,436.77	20,270,062	20,270,062

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Regional Shopping Center	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Unenclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
User Defined Commercial	0.00	6.91	0.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
General Office Building	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Regional Shopping Center	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Unenclosed Parking with Elevator	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
User Defined Commercial	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782

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	0.1795	1.6314	1.3704	9.7900e-003		0.1240	0.1240		0.1240	0.1240						
NaturalGas Unmitigated	0.1985	1.8042	1.5155	0.0108		0.1371	0.1371		0.1371	0.1371						

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					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
General Office Building	18065.4	0.1948	1.7711	1.4877	0.0106		0.1346	0.1346		0.1346	0.1346						
Regional Shopping Center	336.986	3.6300e-003	0.0330	0.0278	2.0000e-004		2.5100e-003	2.5100e-003		2.5100e-003	2.5100e-003						
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
User Defined Commercial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Total		**0.1985**	**1.8042**	**1.5155**	**0.0108**		**0.1371**	**0.1371**		**0.1371**	**0.1371**						

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					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
General Office Building	16.3266	0.1761	1.6006	1.3445	9.6000e-003		0.1217	0.1217		0.1217	0.1217						
Regional Shopping Center	0.313356	3.3800e-003	0.0307	0.0258	1.8000e-004		2.3300e-003	2.3300e-003		2.3300e-003	2.3300e-003						
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
User Defined Commercial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Total		**0.1795**	**1.6314**	**1.3704**	**9.7800e-003**		**0.1240**	**0.1240**		**0.1240**	**0.1240**						

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	16.4021	2.0900e-003	0.2309	2.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004						
Unmitigated	16.4021	2.0900e-003	0.2309	2.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004						

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	2.1334					0.0000	0.0000		0.0000	0.0000						
Consumer Products	14.2474					0.0000	0.0000		0.0000	0.0000						
Landscaping	0.0213	2.0900e-003	0.2309	2.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004						
Total	**16.4021**	**2.0900e-003**	**0.2309**	**2.0000e-005**		**8.2000e-004**	**8.2000e-004**		**8.2000e-004**	**8.2000e-004**						

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	2.1334					0.0000	0.0000		0.0000	0.0000						
Consumer Products	14.2474					0.0000	0.0000		0.0000	0.0000						
Landscaping	0.0213	2.0900e-003	0.2309	2.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004						
Total	**16.4021**	**2.0900e-003**	**0.2309**	**2.0000e-005**		**8.2000e-004**	**8.2000e-004**		**8.2000e-004**	**8.2000e-004**						

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	1	12	350	0.73	Diesel

Boilers

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

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	lb/day										lb/day					
Emergency Generator - Diesel (999.999 HP)	0.0792	0.2816	1.4645	2.7600e-003		0.0113	0.0113		0.0113	0.0113						
Total	**0.0792**	**0.2816**	**1.4645**	**2.7600e-003**		**0.0113**	**0.0113**		**0.0113**	**0.0113**						

11.0 Vegetation

CalEEMod Version: CalEEMod.2016.3.2

 Date: 10/27/2020 5:12 PM

1111 Sunset Buildout with PDFs - Alt 4 - South Coast Air Basin, Winter

1111 Sunset Buildout with PDFs - Alt 4

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	540.00	Space	4.86	216,000.00	0
Unenclosed Parking with Elevator	1,100.00	Space	9.90	440,000.00	0
Health Club	14.50	1000sqft	0.33	14,500.00	0
High Turnover (Sit Down Restaurant)	25.00	1000sqft	0.57	25,000.00	0
Condo/Townhouse High Rise	827.00	Dwelling Unit	12.92	794,982.00	2365
Regional Shopping Center	125.00	1000sqft	2.87	125,000.00	0
Strip Mall	8.20	1000sqft	0.19	8,200.00	0
Supermarket	27.30	1000sqft	0.63	27,300.00	0
User Defined Retail	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	12			**Operational Year**	2028
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	524	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Vehicle Trips - see assumptions

Woodstoves - Existing apartments are assumed to be consistent with default CalEEMod assumptions. New high-rise would not inlcude fireplaces, but would include seven fire pits

Energy Use - Adjustment for Parking Structure Energy Usage (See assumptions). Exiting Uses usage rate increased by 10 percent as PDF would not apply to these uses

Water And Wastewater - Exiting Uses usage rate increased by 20 percent as PDF would not apply to these uses.

Construction Off-road Equipment Mitigation - Tier 4

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation - City of LA Waste Diversion Rate (2013)

Fleet Mix -

Stationary Sources - Emergency Generators and Fire Pumps -

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

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	702.95	7.00
tblFireplaces	NumberWood	41.35	0.00
tblLandUse	LandUseSquareFeet	827,000.00	794,982.00

tblProjectCharacteristics	CO2IntensityFactor	1227.89	524
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
tblStationaryGeneratorsPumpsEF	TOG_EF	2.4700e-003	2.4700e-004
tblTripsAndVMT	HaulingTripNumber	4,084.00	8,760.00
tblTripsAndVMT	HaulingTripNumber	0.00	36,720.00
tblTripsAndVMT	HaulingTripNumber	0.00	13,344.00
tblTripsAndVMT	HaulingTripNumber	0.00	26,230.00
tblVehicleTrips	CC_TL	8.40	6.34
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	4.31	0.00
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	158.37	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	ST_TR	177.59	0.00
tblVehicleTrips	ST_TR	0.00	11,580.15
tblVehicleTrips	SU_TR	3.43	0.00
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	131.84	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	SU_TR	166.44	0.00
tblVehicleTrips	SU_TR	0.00	11,580.15
tblVehicleTrips	WD_TR	4.18	0.00
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	127.15	0.00
tblVehicleTrips	WD_TR	42.70	0.00
tblVehicleTrips	WD_TR	44.32	0.00
tblVehicleTrips	WD_TR	102.24	0.00
tblVehicleTrips	WD_TR	0.00	10,853.00
tblWoodstoves	NumberCatalytic	41.35	0.00
tblWoodstoves	NumberNoncatalytic	41.35	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	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	lb/day										lb/day					
Area	23.9312	0.9030	68.4008	4.3600e-003		0.3883	0.3883		0.3883	0.3883						
Energy	0.4707	4.1329	2.5215	0.0257		0.3252	0.3252		0.3252	0.3252						
Mobile	11.7265	58.4309	130.0774	0.5643	56.7931	0.3932	57.1863	15.1889	0.3650	15.5539						
Stationary	0.0792	0.2816	1.4645	2.7600e-003		0.0113	0.0113		0.0113	0.0113						
Total	**36.2076**	**63.7484**	**202.4642**	**0.5971**	**56.7931**	**1.1180**	**57.9110**	**15.1889**	**1.0898**	**16.2787**						

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	23.9312	0.9030	68.4008	4.3600e-003		0.3883	0.3883		0.3883	0.3883						
Energy	0.4542	3.9893	2.4416	0.0248		0.3138	0.3138		0.3138	0.3138						
Mobile	11.7265	58.4309	130.0774	0.5643	56.7931	0.3932	57.1863	15.1889	0.3650	15.5539						
Stationary	0.0792	0.2816	1.4645	2.7600e-003		0.0113	0.0113		0.0113	0.0113						
Total	**36.1912**	**63.6048**	**202.3843**	**0.5962**	**56.7931**	**1.1066**	**57.8996**	**15.1889**	**1.0784**	**16.2673**						

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.05**	**0.23**	**0.04**	**0.15**	**0.00**	**1.02**	**0.02**	**0.00**	**1.05**	**0.07**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	11.7265	58.4309	130.0774	0.5643	56.7931	0.3932	57.1863	15.1889	0.3650	15.5539						
Unmitigated	11.7265	58.4309	130.0774	0.5643	56.7931	0.3932	57.1863	15.1889	0.3650	15.5539						

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		
Health Club	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Strip Mall	0.00	0.00	0.00		
Supermarket	0.00	0.00	0.00		
Unenclosed Parking with Elevator	0.00	0.00	0.00		
User Defined Retail	10,853.00	11,580.15	11580.15	25,530,389	25,530,389
Total	10,853.00	11,580.15	11,580.15	25,530,389	25,530,389

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15
Supermarket	16.60	8.40	6.90	6.50	74.50	19.00	34	30	36
Unenclosed Parking with	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
User Defined Retail	0.00	6.34	0.00	0.00	100.00	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	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Enclosed Parking with Elevator	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Health Club	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
High Turnover (Sit Down Restaurant)	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Regional Shopping Center	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Strip Mall	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Supermarket	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
Unenclosed Parking with Elevator	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782
User Defined Retail	0.554500	0.041901	0.206158	0.112158	0.013256	0.005781	0.022151	0.034039	0.002155	0.001547	0.004857	0.000717	0.000782

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	0.4542	3.9893	2.4416	0.0248		0.3138	0.3138		0.3138	0.3138						
NaturalGas Unmitigated	0.4707	4.1329	2.5215	0.0257		0.3252	0.3252		0.3252	0.3252						

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	24873.8	0.2683	2.2923	0.9755	0.0146		0.1853	0.1853		0.1853	0.1853						
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Health Club	719.041	7.7500e-003	0.0705	0.0592	4.2000e-004		5.3600e-003	5.3600e-003		5.3600e-003	5.3600e-003						
High Turnover (Sit Down Restaurant)	15805.5	0.1705	1.5496	1.3016	9.3000e-003		0.1178	0.1178		0.1178	0.1178						
Regional Shopping Center	561.644	6.0600e-003	0.0551	0.0463	3.3000e-004		4.1800e-003	4.1800e-003		4.1800e-003	4.1800e-003						
Strip Mall	36.8438	4.0000e-004	3.6100e-003	3.0300e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004						
Supermarket	1650.72	0.0178	0.1618	0.1359	9.7000e-004		0.0123	0.0123		0.0123	0.0123						
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Total		**0.4707**	**4.1329**	**2.5215**	**0.0257**		**0.3252**	**0.3252**		**0.3252**	**0.3252**						

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	23.8096	0.2568	2.1942	0.9337	0.0140		0.1774	0.1774		0.1774	0.1774						
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Health Club	0.664815	7.1700e-003	0.0652	0.0548	3.9000e-004		4.9500e-003	4.9500e-003		4.9500e-003	4.9500e-003						
High Turnover (Sit Down Restaurant)	15.5111	0.1673	1.5207	1.2774	9.1200e-003		0.1156	0.1156		0.1156	0.1156						
Regional Shopping Center	0.52226	5.6300e-003	0.0512	0.0430	3.1000e-004		3.8900e-003	3.8900e-003		3.8900e-003	3.8900e-003						
Strip Mall	0.0342603	3.7000e-004	3.3600e-003	2.8200e-003	2.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004						
Supermarket	1.57719	0.0170	0.1546	0.1299	9.3000e-004		0.0118	0.0118		0.0118	0.0118						
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Total		**0.4542**	**3.9893**	**2.4416**	**0.0248**		**0.3138**	**0.3138**		**0.3138**	**0.3138**						

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	23.9312	0.9030	68.4008	4.3600e-003		0.3883	0.3883		0.3883	0.3883						
Unmitigated	23.9312	0.9030	68.4008	4.3600e-003		0.3883	0.3883		0.3883	0.3883						

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.9208					0.0000	0.0000		0.0000	0.0000						
Consumer Products	19.9330					0.0000	0.0000		0.0000	0.0000						
Hearth	0.0136	0.1161	0.0494	7.4000e-004		9.3900e-003	9.3900e-003		9.3900e-003	9.3900e-003						
Landscaping	2.0639	0.7869	68.3514	3.6200e-003		0.3789	0.3789		0.3789	0.3789						
Total	**23.9312**	**0.9030**	**68.4008**	**4.3600e-003**		**0.3883**	**0.3883**		**0.3883**	**0.3883**						

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.9208					0.0000	0.0000		0.0000	0.0000						
Consumer Products	19.9330					0.0000	0.0000		0.0000	0.0000						
Hearth	0.0136	0.1161	0.0494	7.4000e-004		9.3900e-003	9.3900e-003		9.3900e-003	9.3900e-003						
Landscaping	2.0639	0.7869	68.3514	3.6200e-003		0.3789	0.3789		0.3789	0.3789						
Total	**23.9312**	**0.9030**	**68.4008**	**4.3600e-003**		**0.3883**	**0.3883**		**0.3883**	**0.3883**						

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	1	12	350	0.73	Diesel

Boilers

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

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	lb/day										lb/day					
Emergency Generator - Diesel (300 - 600 HP)	0.0792	0.2816	1.4645	2.7600e-003		0.0113	0.0113		0.0113	0.0113						
Total	**0.0792**	**0.2816**	**1.4645**	**2.7600e-003**		**0.0113**	**0.0113**		**0.0113**	**0.0113**						

11.0 Vegetation