

Application for CEQA Streamlining Under the “Jobs and Economic Improvement through Environmental Leadership Act” (Public Resources Code Section 21178 et seq.)

GREENHOUSE GAS EMISSIONS METHODOLOGY AND DOCUMENTATION

For the Proposed

**8150 Sunset Boulevard Mixed-Use Project
Los Angeles, CA 90046**

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1.0 EXECUTIVE SUMMARY

PCR Services Corporation (PCR) has been retained to conduct a comprehensive greenhouse gas (GHG) emissions assessment for the 8150 Sunset Boulevard Mixed Use Project (“the Project”) and to demonstrate that the Project meets the requirements of the *Jobs and Economic Improvement Through Environmental Leadership Act* (“the Act”) (Public Resources Code Section 21178 et seq.), also referred to as Assembly Bill (AB) 900. In September 2011, the Governor signed the Act, which required the Governor to establish procedures for applying for streamlined environmental review under the California Environmental Quality Act (CEQA) for projects that meet certain requirements. The Office of Planning and Research (OPR) has provided approved guidelines for submitting applications for streamlined environmental review pursuant to the Act. With respect to GHG emissions, a project must demonstrate that it would not result in any net additional GHGs including GHG emissions from employee transportation in accordance with Public Resources Code Section 21183(c).

The Project would redevelop the existing 2.56-acre commercial property located at 8150 Sunset Boulevard in the City of Los Angeles with a mix of new residential and commercial uses. Construction of the Project is anticipated to begin in 2014 and be completed in mid-2017. The Project site is currently occupied with two structures built in 1960 and in 1988 and contain 80,000 square feet of retail tenancy inclusive of the following uses: fast food restaurants, check cashing facility, dry-cleaners (off-site dry cleaning), ice cream shop, walk-in bank facility, fitness, massage parlor, pet grooming services, storage facility and dental office. Operation of these uses currently generates GHG emissions from energy demand (electricity and natural gas), mobile sources traveling to and from the site, waste generation, water demand and wastewater generation, and other area and stationary sources such as landscaping equipment. The emissions of GHGs from the current site constitute the Baseline Condition.

The Project would demolish the existing uses and develop up to 333,903 square feet of commercial and residential space. While the total square footage would increase under the Project relative to the existing square footage, the Project would be built to meet and exceed today’s energy and water efficiency standards and would incorporate a mix of residential, commercial, retail, and restaurant uses that would reduce vehicle trips to and from the site, Project-related vehicle miles traveled, and associated GHG emissions.

Under the Baseline Condition, the site generates approximately 7,407 metric tons of carbon dioxide equivalents (MTCO_{2e}) per year. This excludes any one-time construction GHG emissions that were generated when the existing uses and related infrastructure were originally built. Construction of the Project would generate one-time GHG emissions of approximately ~~1,589~~ 1,631 MTCO_{2e}, during the first year and ~~2,608~~ 2,346 MTCO_{2e} during the second year. At Project buildout, the Site would generate approximately ~~6,406~~ 6,400 MTCO_{2e} during the first full year of operation. Compared to the Baseline Condition, the Project’s operational GHG emissions represent a net reduction in GHG emissions from the site of approximately ~~1,001~~ 1,007 MTCO_{2e} during the first full year of operation.

Future year emissions would decline as a greater percentage of motor vehicles meet more stringent emissions standards, including the Pavley Phase I and Phase II emissions standards and the 33 percent Renewables Portfolio Standard. The Project would reduce emissions through the use of grid-source, renewable energy technologies and carbon mitigation projects for approximately seven years to ensure future year contemporaneous GHG emissions do not exceed the Baseline Condition at any time. [After this](#)

[seven year period, future year emissions would decline to below the Baseline Condition without the need to purchase GHG reduction credits.](#)

Based on this assessment, the Project would not result in any net additional GHGs including GHG emissions from employee transportation in accordance with Public Resources Code Section 21183(c). Therefore, the Project would meet the GHG emissions requirements for streamlined environmental review under CEQA.

2.0 INTRODUCTION

2.1 PURPOSE

PCR has been retained to conduct a comprehensive greenhouse gas (GHG) emissions assessment for the 8150 Sunset Boulevard Mixed Use Project (the “Project”) and to demonstrate that the Project meets the requirements of the *Jobs and Economic Improvement Through Environmental Leadership Act* (“the Act”) (Public Resources Code Section 21178 et seq.), also referred to as Assembly Bill (AB) 900. This assessment describes the methodology used to estimate the GHG emissions from baseline and Project conditions, provides an estimate of the net change in GHG emissions for the proposed Project as compared to baseline conditions, and describes the methodology used to quantify GHG emission reductions from project design features and mitigation measures. The following baseline and Project-related emission sources have been evaluated:

- Construction Activities – Fossil fueled on- and off-road vehicles and equipment needed for demolition, mass and fine grading, building construction, paving, and architectural coating;
- Direct Emission Sources – Consumption of natural gas on-site for cooking, space heating and water heating, combustion of fossil fuels for lawn care and maintenance activities, and motor vehicles including employee transportation; and
- Indirect Emission Sources – Off-site electricity generation, wastewater treatment and water conveyance, and solid waste disposal.

2.2 PROJECT DESCRIPTION

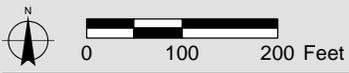
AG-SCH 8150 Sunset Boulevard Owner, L.P., (the “Applicant”) proposes to redevelop the 2.56-acre property located at 8150 Sunset Boulevard (the “Project Site”) in the Hollywood community of the City of Los Angeles (the “City”). The Project Site and surrounding uses are shown in **Figure 1, Aerial Photograph with Surrounding Land Uses**. The Project Site currently contains two commercial structures and other improvements, all of which would be demolished and removed from the Project Site. The Project would consist of two buildings over a single podium structure with various elements ranging in height from two stories to 16 stories in height as measured from the intersection of Sunset and Crescent Heights Boulevards. The North Building would include three levels (one subterranean) of entirely commercial uses and would have a maximum height of three levels above grade along Sunset Boulevard. The South Building would include commercial uses on the first two levels, twelve levels of residential uses above the commercial floors, and a rooftop restaurant/lounge level on Level 16. The Project would include 111,339 square feet of commercial retail and restaurant uses within three lower levels (one subterranean) and one rooftop level, 249 apartment units, including 28 affordable housing units, within the twelve upper levels representing 222,564 gross square feet of residential space. The Project would also provide a new, 9,134 square-foot public space (“Corner Plaza”) at the northeast corner of the site (this area is, and will continue to be, owned by the City, although the Applicant will be required to improve and maintain the area), a 34,050-square-foot central public plaza at the site interior (“Central Plaza”), public rooftop deck/garden areas (“Sunset Terrace”) along Sunset Boulevard, a private pool and pool deck area for residents (“Pool Terrace”), as well as other resident-only amenities totaling approximately 6,900 square feet that would include a residential lobby, resident recreation room, fitness center, business center, changing rooms, and library, as well as a wrap-around landscaped terrace on the fourth floor of the South Building (“Garden

Terrace”). Parking for all proposed uses would be provided on-site via a seven-level (three subterranean and semi-subterranean levels) parking structure (“Parking Structure”) housed within the podium structure that includes 849 total parking spaces (295 for residential uses and 554 for commercial retail and restaurant uses). Short- and long-term bicycle parking totaling 985 spaces would also be provided on-site, including 428 spaces for residential uses and 557 spaces for commercial uses. The total development would include up to 333,903 square feet of commercial and residential space with a maximum floor-area ratio (FAR) of 3:1. The site plan is illustrated in **Figure 2, Proposed Site Plan**.

2.3 ASSEMBLY BILL 900

In September 2011, the Governor signed the Act, which required the Governor to establish procedures for applying for streamlined environmental review under the California Environmental Quality Act (CEQA) for projects that meet certain requirements. The Office of Planning and Research (OPR) has provided approved guidelines for submitting applications for streamlined environmental review pursuant to the Act. With respect to GHG emissions, a project must demonstrate that it would not result in any net additional GHGs including GHG emissions from employee transportation in accordance with Public Resources Code Section 21183(c). For purposes of California Public Resources Code section 21183(c) the following process applies:

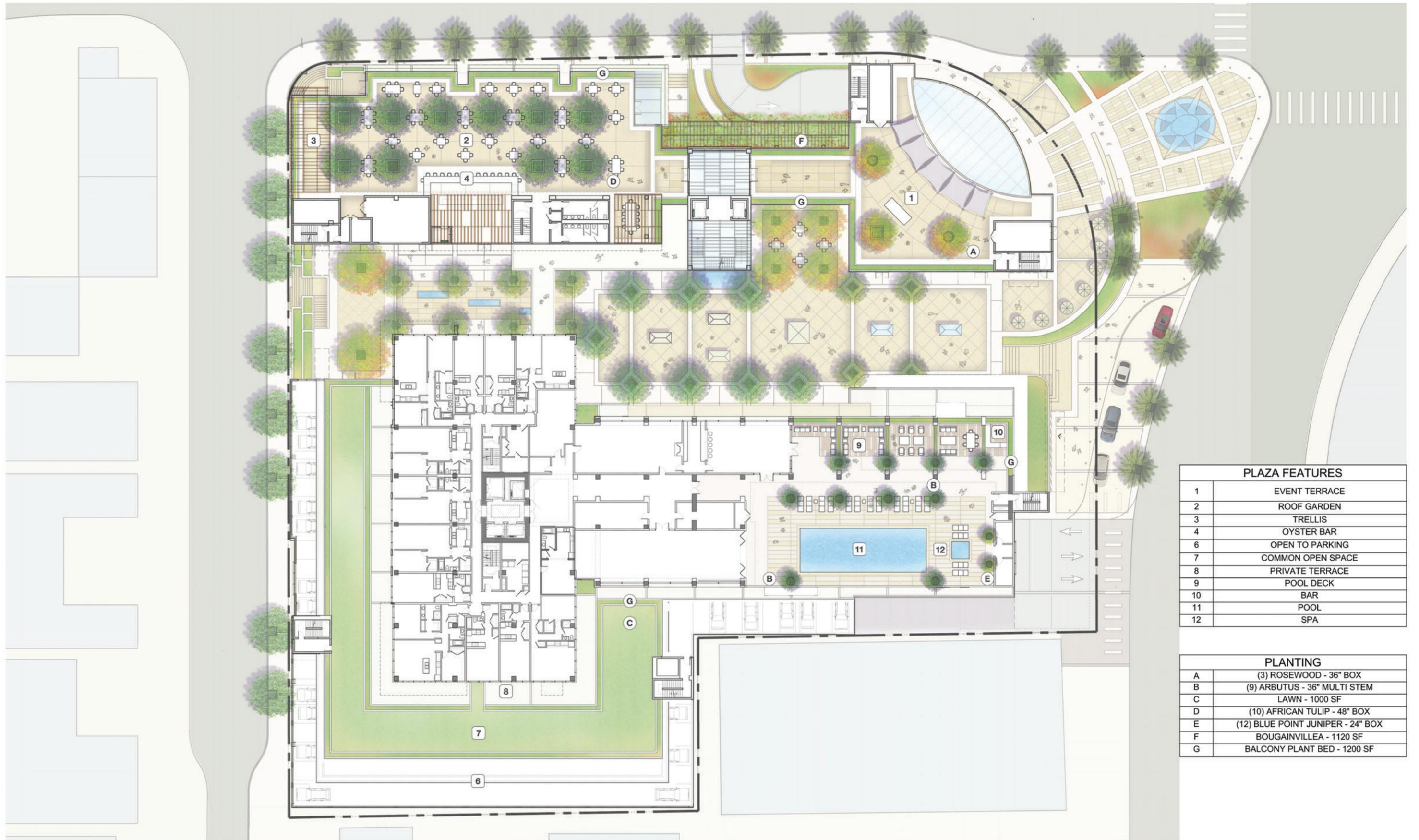
1. The applicant shall submit electronically to AB900ARBsubmittals@arb.ca.gov a proposed methodology for quantifying the project’s net additional GHG emissions. The CARB will review and comment on the methodology, at its discretion, within 30 days of submission.
2. At the same time, the applicant shall submit to AB900ARBsubmittals@arb.ca.gov documentation that the project does not result in any net additional GHG emissions. The documentation must at least quantify:
 - a. Both direct and indirect GHG emissions associated with the project’s construction and operation, including emissions from the project’s projected energy use and transportation related emissions; and
 - b. The net emissions of the project after accounting for any mitigation measures that will be monitored and enforced consistent with Public Resources Code section 21183(d).
3. Within 60 days of receiving the documentation (in 2. above), the CARB will determine whether the condition specified in Public Resources section 21183(c) has been met or, if more time is needed, notify the applicant of the expected completion date.
4. The CARB will determine and report to the Governor in writing that a project does not result in any net additional emissions of greenhouse gases if the project demonstrates through a combination of project design features, compliance with (or exceeding minimum requirements of) existing regulations, and mitigation that it would result in zero additional greenhouse gas emissions.



Aerial Photograph with Surrounding Land Uses

8150 Sunset Boulevard Mixed-Use Project
 Greenhouse Gas Emissions Methodology and Documentation
 Source: ESRI, 2010; PCR Services Corporation, 2013.

FIGURE



| PLAZA FEATURES | |
|----------------|-------------------|
| 1 | EVENT TERRACE |
| 2 | ROOF GARDEN |
| 3 | TRELLIS |
| 4 | OYSTER BAR |
| 6 | OPEN TO PARKING |
| 7 | COMMON OPEN SPACE |
| 8 | PRIVATE TERRACE |
| 9 | POOL DECK |
| 10 | BAR |
| 11 | POOL |
| 12 | SPA |

| PLANTING | |
|----------|-----------------------------------|
| A | (3) ROSEWOOD - 36" BOX |
| B | (9) ARBUTUS - 36" MULTI STEM |
| C | LAWN - 1000 SF |
| D | (10) AFRICAN TULIP - 48" BOX |
| E | (12) BLUE POINT JUNIPER - 24" BOX |
| F | BOUGAINVILLEA - 1120 SF |
| G | BALCONY PLANT BED - 1200 SF |

3.0 GREENHOUSE GAS EMISSIONS METHODOLOGY

3.1 GLOBAL CLIMATE CHANGE AND GREENHOUSE GASES

The natural process through which heat is retained in the troposphere¹ is called the “greenhouse effect.” The greenhouse effect traps heat in the troposphere through a three-fold process as follows: (1) short-wave radiation in the form of visible light emitted by the Sun is absorbed by the Earth as heat; (2) long-wave radiation re-emitted by the Earth; and (3) GHGs in the atmosphere absorbing or trapping the long-wave radiation and re-emitting it back towards the Earth and into space. This third process is the focus of global climate change actions.

The most commonly emitted GHG from anthropogenic (i.e., human) activities is carbon dioxide (CO₂). Not all GHGs possess the same ability to induce climate change; as a result, GHG contributions are commonly quantified in the units of equivalent mass of carbon dioxide (CO₂e). Mass emissions are calculated by converting pollutant-specific emissions to CO₂e emissions by applying the proper global warming potential (GWP) value.² By applying the GWP ratios, project-related CO₂e emissions can be tabulated in metric tons of CO₂e (MTCO₂e) per year. Typically, the GWP ratio corresponding to the warming potential of CO₂ over a 100-year period is used as a baseline. The CO₂e values are calculated for construction years as well as existing and project build-out conditions in order to generate a net change in GHG emissions for construction and operation. Compounds that are regulated as GHGs are discussed below.

- **Carbon Dioxide (CO₂):** CO₂ is the most abundant GHG in the atmosphere and is primarily generated from fossil fuel combustion from stationary and mobile sources. CO₂ is the reference gas (GWP of 1) for determining the GWPs of other GHGs.
- **Methane (CH₄):** CH₄ is emitted from biogenic sources (i.e., resulting from the activity of living organisms), incomplete combustion in forest fires, landfills, manure management, and leaks in natural gas pipelines. The GWP of CH₄ is 21.
- **Nitrous Oxide (N₂O):** N₂O produced by human-related sources including agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic acid production, and nitric acid production. The GWP of N₂O is 310.
- **Hydrofluorocarbons (HFCs):** HFCs are fluorinated compounds consisting of hydrogen, carbon, and fluorine. They are typically used as refrigerants in both stationary refrigeration and mobile air conditioning systems. The GWPs of HFCs ranges from 140 for HFC-152a to 11,700 for HFC-23.
- **Perfluorocarbons (PFCs):** PFCs are fluorinated compounds consisting of carbon and fluorine. They are primarily created as a byproduct of aluminum production and semiconductor manufacturing. The GWPs of PFCs range from 5,700 to 11,900.

¹ The troposphere is the bottom layer of the atmosphere, which varies in height from the Earth's surface to 10 to 12 kilometers.

² GWPs and associated CO₂e values were developed by the Intergovernmental Panel on Climate Change (IPCC), and published in its Second Assessment Report, in 1996. In accordance with international and United States convention to maintain the value of the carbon dioxide “currency,” GHG emission inventories are calculated using the GWPs from the IPCC Second Assessment Report.

- **Sulfur Hexafluoride (SF₆):** SF₆ is a fluorinated compound consisting of sulfur and fluoride. It is a colorless, odorless, nontoxic, nonflammable gas. It is most commonly used as an electrical insulator in high voltage equipment that transmits and distributes electricity. SF₆ has a GWP of 23,900.

The Climate Registry (TCR) has prepared the *General Reporting Protocol* for calculating and reporting GHG emissions from a number of general and industry-specific activities.³ No specific protocols are available for land use development projects; however, the General Reporting Protocol has been adapted to address the land use development GHG emissions in this assessment. The information provided in this assessment is generally consistent with the *General Reporting Protocol* minimum reporting requirements. The *General Reporting Protocol* recommends the separation of GHG emissions into three categories that reflect different aspects of ownership or control over emissions. They include:

- Scope 1: Direct GHG emissions from human activity (e.g., stationary combustion of fuels, mobile combustion of fuels in transportation).
- Scope 2: Indirect GHG emissions associated with activities of the reporting entity but occur at sources controlled by another entity (e.g., purchased electricity or purchased steam).
- Scope 3: Indirect emissions associated with other emissions sources, such as employee commute and business travel and waste disposal.

According to the California Air Resources Board (CARB), the consideration of so-called indirect emissions provides a more complete picture of the GHG footprint of a facility: “As facilities consider changes that would affect their emissions – addition of a cogeneration unit to boost overall efficiency even as it increases direct emissions, for example – the relative impact on total (direct plus indirect) emissions by the facility should be monitored. Annually reported indirect energy usage also aids the conservation awareness of the facility and provides information” to CARB to be considered for future strategies by the industrial sector.⁴ Additionally, the Office of Planning and Research directs lead agencies to “make a good-faith effort, based on available information, to calculate, model, or estimate...GHG emissions from a project, including the emissions associated with vehicular traffic, energy consumption, water usage and construction activities.”⁵ Therefore, direct and indirect emissions are considered in this assessment.

3.2 BASELINE OPERATIONAL EMISSIONS

3.2.1 Description of Baseline Condition

The Project Site encompasses approximately 2.56 acres (111,339 square feet) of land area currently occupied by two commercial buildings and associated parking, as shown in Figure 1. The two structures on the site were built in 1960 and in 1988 and contain 80,000 square feet of retail tenancy inclusive of the following uses: general retail, restaurants, ice cream parlor, walk-in bank facility, fitness center, storage facility, and dental office. The square footage for each of these land uses are provided in **Table 1, Baseline Condition Floor Area**.

³ *The Climate Registry, General Reporting Protocol, Version 2.0, (2013).*

⁴ *California Air Resources Board, Initial Statement of Reasons for Rulemaking, Proposed Regulation for Mandatory Reporting of Greenhouse Gas Emissions Pursuant to the California Global Warming Solutions Act of 2006 (AB 32), (2007).*

⁵ *Office of Planning and Research, Technical Advisory, p. 5.*

Table 1**Baseline Condition Floor Area**

| Land Use | Square Feet (sqft) |
|---|---------------------------|
| General Retail | 14,647 |
| Storage Facility | 27,625 |
| Walk-in Bank Facility | 20,172 |
| Restaurant | 2,056 |
| Ice Cream Parlor | 800 |
| Fast Food Restaurant without Drive-Thru | 3,720 |
| Fast Food Restaurant with Drive-Thru | 5,070 |
| Dental Office | 2,360 |
| Fitness Center | 3,550 |
| Total Floor Area | 80,000 |

Source: AG-SCH 8150 Sunset Boulevard Owner LP, 2013

The main retail structure, completed in 1988, is a three-level concrete and light-gauge steel structure inclusive of a one-level, partial below-grade parking garage, three levels of above-grade retail uses and surface parking. The second structure is a two-story building constructed in 1960 that fronts Sunset Boulevard. In addition, there is a standard-sized billboard at the site that until recently was digital. All existing on-site structures, parking, signage, and landscaping would be removed from the site prior to construction of the Project. The Project Site is generally flat, with a topography that slopes down from the north to the south. Landscaping on the site is limited to a small number of ornamental trees.

3.2.2 Baseline GHG Emission Sources and Calculation Methodology

(a) Construction

The Project Site is currently built-out. As discussed previously, the two structures on the Project Site were built in 1960 and in 1988. Construction of the two structures and associated parking areas and infrastructure resulted in one-time GHG emissions of carbon dioxide (CO₂) and smaller amounts of methane (CH₄) and nitrous oxide (N₂O) from heavy-duty construction equipment, haul trucks, and worker vehicles. However, sufficient detail is not available with respect to the construction schedule, equipment usage, and number of haul trips to provide a quantitative construction GHG emissions assessment for the baseline condition. Therefore, construction-related GHG emissions are not included for the baseline condition. This is a conservative approach since, by excluding the baseline construction-related GHG emissions, the Project would need to provide slightly greater GHG reductions in order to meet the requirements of AB 900 of no net additional GHG emissions.

(b) Operational Energy – Electricity

The generation of electricity in California is achieved through the combustion of fossil fuels, primarily natural gas, using steam boilers, internal combustion engines, and combustion turbines. A portion of the electricity generated in California and imported from outside the state is derived from the combustion of coal and other non-gaseous fossil fuels. The combustion of fossil fuels to produce electricity results in GHG

emissions of CO₂ and smaller amounts of CH₄ and N₂O. These emissions occur due to the electrical demand of the commercial and retail land uses that current operate on the Project Site. The electricity generation occurs off-site; therefore, electricity use results in GHG emissions that are considered to be indirect.

Emissions of GHGs associated with the Baseline Condition energy demand are based on the size of the commercial and retail land uses, the electrical demand factors for the land uses, the GHG 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:

Electricity:

$$\text{Annual Emissions [MTCO}_2\text{e]} = \left(\sum_i (\text{Units} \times D_E \times EF_E \times \text{GWP})_i \right) \div 2204.62 \quad [\text{Equation 1}]$$

| | | | |
|--------|-----------------|---|--|
| Where: | Units | = | Number of land use units (same land use type) [1000 sqft] |
| | D _E | = | Electrical demand factor [megawatt-hour (MWh)/1000 sqft/year] |
| | EF _E | = | GHG emission factor [pounds per megawatt-hour (MWh)] |
| | GWP | = | Global warming potential [CO ₂ = 1, CH ₄ = 21, N ₂ O = 310] |
| | 2204.62 | = | Conversion factor [pounds/MT] |
| | <i>i</i> | = | Summation index |

Electrical demand is based on data from the California Energy Commission (CEC) *California Commercial End Use Survey* (CEUS), which lists energy demand by building type.⁶ The data from the CEUS is from 2002. Since 1978, the CEC has established building energy efficiency standards, which are updated periodically. As discussed previously, the existing buildings on the Project Site were built in 1960 and 1988. Thus, the use of the CEUS 2002 survey data to represent the electrical demand for the Baseline Condition would provide a conservative assessment as future building energy efficiency standards are more restrictive than prior standards. The CEUS provides data on a limited statewide basis or for each of the four largest publicly owned utilities (Pacific Gas & Electric, Southern California Edison (SCE), Sacramento Municipal Utility District, and San Diego Gas & Electric). For the purposes of this assessment, demand factors for SCE were used as most representative of the Project Site.

The Los Angeles Department of Water and Power (LADWP) provides electric service to the Project Site. Emission factors for GHGs due to electrical generation to serve the electrical demands of the Baseline Condition were obtained from the LADWP ~~2012~~ 2013 *Power Integrated Resource Plan*, which provides a CO₂ intensity of ~~1,156~~ 1,094 pounds of CO₂ per MWh.⁷ Currently, LADWP provides 20 percent of electricity via renewable sources.⁸ Emission factors for CH₄ and N₂O were obtained from the California Emissions Estimator Model (CalEEMod).⁹

⁶ California Energy Commission, *California Commercial End-Use Survey*, <http://capabilities.itron.com/CeusWeb/ChartsSF/Default2.aspx> ~~http://capabilities.itron.com/CeusWeb/Chart.aspx~~ Accessed March 2014 ~~November 2013~~.

⁷ Los Angeles Department of Water and Power, ~~2012~~ 2013 *Power Integrated Resource Plan*, ~~(2012) C-11~~ (2013) C-12.

⁸ Los Angeles Department of Water and Power, ~~2012~~ 2013 *Power Integrated Resource Plan*, ~~(2012) 114~~ (2013) ES-31.

⁹ California Air Pollution Control Officers Association, *California Emissions Estimator Model*, <http://www.caleemod.com/>. Accessed November 2013 March 2014.

The estimated annual emissions from electrical demand from the Baseline Condition are provided in **Table 2, Baseline Condition Electrical Demand Greenhouse Gas Emissions**. Detailed emissions calculations are provided in Appendix A.

Table 2
Baseline Condition Electrical Demand Greenhouse Gas Emissions

| Land Use | Units (1000 sqft) | Annual Electrical Demand Factor ^a (MWh/1000 sqft/year) | CO ₂ Factor ^b (pounds/MWh) | CH ₄ Factor ^b (pounds/MWh) | N ₂ O Factor ^c (pounds/MWh) | Annual GHG |
|--|-------------------------|---|---|---|--|--|
| | | | | | | Emissions ^d (MTCO ₂ e/year) |
| General Retail | 14.65 | 15.36 | 1,156 <u>1,094</u> | 0.029 | 0.0062 | 118.21 <u>111.89</u> |
| Storage Facility | 27.63 | 4.29 | 1,156 <u>1,094</u> | 0.029 | 0.0062 | 62.25 <u>58.92</u> |
| Walk-in Bank Facility | 20.17 | 13.24 | 1,156 <u>1,094</u> | 0.029 | 0.0062 | 140.39 <u>132.88</u> |
| Restaurant | 2.06 | 46.18 | 1,156 <u>1,094</u> | 0.029 | 0.0062 | 49.90 <u>47.23</u> |
| Ice Cream Parlor | 0.80 | 46.18 | 1,156 <u>1,094</u> | 0.029 | 0.0062 | 19.42 <u>18.38</u> |
| Fast Food Restaurant without Drive-Thru | 3.72 | 46.18 | 1,156 <u>1,094</u> | 0.029 | 0.0062 | 123.05 <u>116.46</u> |
| Fast Food Restaurant with Drive-Thru | 5.07 | 46.18 | 1,156 <u>1,094</u> | 0.029 | 0.0062 | 90.28 <u>85.45</u> |
| Dental Office | 2.36 | 20.30 | 1,156 <u>1,094</u> | 0.029 | 0.0062 | 25.17 <u>23.82</u> |
| Fitness Center | 3.55 | 20.30 | 1,156 <u>1,094</u> | 0.029 | 0.0062 | 37.86 <u>35.84</u> |
| Total GHG Emissions | | | | | | 667 <u>631</u> |

^a California Energy Commission, California Commercial End Use Survey, <http://capabilities.itron.com/CeusWeb/ChartsSF/Default2.aspx> ~~http://capabilities.itron.com/CeusWeb/Chart.aspx~~. Accessed ~~March 2014~~ November 2013. Factors are based on the Southern California Edison (SCE) sector as representative of the Project Site location.

^b Los Angeles Department of Water and Power, ~~2012~~ 2013 Power Integrated Resource Plan, (2012) ~~C-11~~ (2013) C-12.

^c California Air Pollution Control Officers Association, California Emissions Estimator Model, <http://www.caleemod.com/>. Accessed ~~January~~ March 2014.

^d Totals may not add up exactly due to rounding in the modeling calculations.

Source: PCR Services Corporation, 2014. Detailed emissions calculations are provided in Appendix A.

(c) Operational Energy – Natural Gas

The existing land uses under the Baseline Condition utilize natural gas primarily for heating needs. Natural gas is also used for cooking. The combustion of natural gas results in GHG emissions of CO₂ and smaller amounts of CH₄ and N₂O. The combustion of natural gas occurs on-site; therefore, the GHG emissions are considered to be direct.

The emissions of GHGs associated with natural gas combustion under the Baseline Condition are based on the size of the commercial and retail land uses, the natural gas combustion factors for the land uses in units of million British thermal units (MMBtu), the GHG emission factors for natural gas combustion, and the GWP values for the GHGs emitted. Annual natural gas GHG emissions in units of MTCO₂e are calculated as follows:

Natural Gas:

$$\text{Annual Emissions [MTCO}_2\text{e]} = \left(\sum_i (\text{Units} \times D_{\text{NG}} \times \text{EF}_{\text{NG}} \times \text{GWP})_i \right) \div 2204.62 \quad [\text{Equation 2}]$$

| | | | |
|--------|-------------------------|---|--|
| Where: | Units | = | Number of land use units (same land use type) [1000 sqft] |
| | D_{NG} | = | Natural gas combustion factor [MMBtu/1000 sqft/year] |
| | EF_{NG} | = | GHG emission factor [pounds/MMBtu] |
| | GWP | = | Global warming potential [$\text{CO}_2 = 1$, $\text{CH}_4 = 21$, $\text{N}_2\text{O} = 310$] |
| | 2204.62 | = | Conversion factor [pounds/MT] |
| | i | = | Summation index |

Natural gas demand is based on data from the CEC *California Commercial End Use Survey* (CEUS), which lists energy demand by building type.¹⁰ The data from the CEUS is from 2002. Since 1978, the CEC has established building energy efficiency standards, which are updated periodically. As discussed previously, the existing buildings on the Project Site were built in 1960 and 1988. Thus, the use of the CEUS 2002 survey data to represent the electrical demand for the Baseline Condition would provide a conservative assessment as future building energy efficiency standards are more restrictive than prior standards. For the purposes of this assessment, demand factors for SCE were used as most representative of the Project Site.

The combustion of natural gas results in relatively equal amounts of GHG emissions per unit of gas combusted in the state. Emission factors for GHGs due to natural gas combustion to serve the heating and cooking demands of the Baseline Condition were obtained from the CalEEMod tool, which provides statewide emission factors.¹¹

The estimated annual emissions from natural gas combustion from the Baseline Condition are provided in **Table 3**, *Baseline Condition Natural Gas Combustion Greenhouse Gas Emissions*. Detailed emissions calculations are provided in Appendix A.

(d) Operational Mobile

Mobile source emission calculations associated with the Baseline Condition are calculated using the CalEEMod tool, which incorporates the CARB emissions factor model for on-road vehicles (EMFAC2011). Emissions of GHGs associated with mobile sources under the Baseline Condition are based on the average daily trip rate, trip distance, the GHG emission factors for the mobile sources, and the GWP values for the GHGs emitted. [The types of vehicles that visit the Site include all vehicle types including automobiles, light-duty trucks, delivery trucks, and waste haul trucks. Modeling for the Baseline Condition was conducted using the vehicle fleet mix for the South Coast Air Basin for all vehicle types as provided in EMFAC2011.](#) Annual mobile source GHG emissions in units of MTCO₂e are generally calculated in CalEEMod as follows:

¹⁰ California Energy Commission, California Commercial End-Use Survey, <http://capabilities.itron.com/CeusWeb/ChartsSF/Default2.aspx> <http://capabilities.itron.com/CeusWeb/Chart.aspx>. Accessed March 2014. November 2013.

¹¹ California Air Pollution Control Officers Association, California Emissions Estimator Model, <http://www.caleemod.com/>. Accessed November 2013. March 2014.

Table 3

Baseline Condition Natural Gas Combustion Greenhouse Gas Emissions

| Land Use | Units (1000 sqft) | Annual Natural Gas Demand Factor ^a (MMBtu/1000 sqft/year) | CO ₂ Factor ^b (pounds/MMBtu) | CH ₄ Factor ^b (pounds/MMBtu) | N ₂ O Factor ^b (pounds/MMBtu) | Annual GHG Emissions ^c (MTCO ₂ e/year) |
|---|-------------------|--|--|--|---|--|
| General Retail | 14.65 | 2.46 | 117.65 | 0.0023 | 0.0022 | 1.94 |
| Storage Facility | 27.63 | 2.46 | 117.65 | 0.0023 | 0.0022 | 3.64 |
| Walk-in Bank Facility | 20.17 | 8.05 | 117.65 | 0.0023 | 0.0022 | 8.72 |
| Restaurant | 2.06 | 249.14 | 117.65 | 0.0023 | 0.0022 | 27.50 |
| Ice Cream Parlor | 0.80 | 249.14 | 117.65 | 0.0023 | 0.0022 | 10.70 |
| Fast Food Restaurant without Drive-Thru | 3.72 | 249.14 | 117.65 | 0.0023 | 0.0022 | 67.82 |
| Fast Food Restaurant with Drive-Thru | 5.07 | 249.14 | 117.65 | 0.0023 | 0.0022 | 49.76 |
| Dental Office | 2.36 | 68.32 | 117.65 | 0.0023 | 0.0022 | 8.66 |
| Fitness Center | 3.55 | 68.32 | 117.65 | 0.0023 | 0.0022 | 13.02 |
| Total GHG Emissions | | | | | | 192 |

^a California Energy Commission, California Commercial End Use Survey, <http://capabilities.itron.com/CeusWeb/ChartsSF/Default2.aspx> ~~http://capabilities.itron.com/CeusWeb/Chart.aspx~~. Accessed ~~November 2013~~ **March 2014**. Factors are based on the Southern California Edison (SCE) sector as representative of the Project Site location.

^b California Air Pollution Control Officers Association, California Emissions Estimator Model, <http://www.caleemod.com/>. Accessed ~~January~~ **March 2014**.

^c Totals may not add up exactly due to rounding in the modeling calculations.

Source: PCR Services Corporation, 2014. Detailed emissions calculations are provided in Appendix A.

Mobile:

$$\text{Annual Emissions [MTCO}_2\text{e]} = \left(\sum_i (\text{Units} \times \text{ADT} \times D_{\text{TRIP}} \times \text{EF} \times \text{GWP})_i \right) \div 2204.62 \quad \text{[Equation 3]}$$

- Where: Units = Number of vehicles (same vehicle model year and class)
- ADT = Average daily trip rate [trips/day]
- D_{TRIP} = Trip distance [miles/trip]
- Days = Number of days per year [days/year]
- EF = GHG emission factor [pounds per mile]
- GWP = Global warming potential [CO₂ = 1, CH₄ = 21, N₂O = 310]
- 2204.62 = Conversion factor [pounds/MT]
- i* = Summation index

The CalEEMod tool allows the input of several variables to quantify mobile source emissions. The number of motor vehicles that travel to and from the existing Project Site is based on trip generation rates for the Baseline Condition. [The Project traffic study¹² occasionally references trips on a passenger car equivalent \(PCE\) basis in order to evaluate traffic congestion on roadways, which is a typical methodology for projects in the Los Angeles area. For the purposes of evaluating traffic congestion, PCE trips count passenger vehicles as a single vehicle and heavy-duty trucks as usually two or three passenger vehicle equivalents depending on the truck type \(buses may also be counted as multiple passenger vehicle equivalents\). However, air quality and GHG assessments typically do not reference PCE trip rates and usually estimate emissions based on actual trip rates and emission factors for all vehicle types. Thus, for the purposes of estimating emissions, this assessment uses the actual trip rates \(not adjusted for PCE trip rates\) and the associated emissions factors for each vehicle type, as well as the vehicle fleet mix, as provided in EMFAC2011.](#) Trip length values are based on the residential and commercial trip distances provided in CalEEMod. The trip distances were applied to the maximum daily trip estimates, based on standard Institute of Transportation Engineers (ITE) trip generation rates, for each existing land use provided by the Project traffic study¹³ to estimate the total vehicle miles traveled (VMT). The trips take into account VMT reductions from characteristics including the existing site's proximity to existing public transit and its urban infill location. The estimated VMT reductions are calculated using the equations and methodologies prescribed in the California Air Pollution Control Officer's Association (CAPCOA) guidance document, *Quantifying Greenhouse Gas Mitigation Measures*, which provides VMT reduction values for transportation characteristics and measures.¹⁴ Based on the CAPCOA guidance, the existing site results in approximately 16.5 percent less VMT compared to the VMT calculated using standard ITE trip rates and standard trip distance values.

Emissions from [passenger vehicles \(i.e., light-duty automobiles and light-duty trucks\)](#) idling on-site due to queuing at the fast food restaurant drive-thru were estimated outside of the CalEEMod software based on industry data regarding the percentage of visitors at a hamburger fast food restaurant using the drive-thru and the average wait times. Accord to the industry survey data, hamburger fast food restaurants have 57 percent of visitors utilizing the drive-thru¹⁵ with average wait times over 130 seconds (over two minutes).¹⁶ In order not to overestimate emissions from the existing fast food restaurant and thus not overestimate the amount of existing emissions credits, a value of 120 second (or 2 minutes) was used in this assessment.

Emissions of GHGs from motor vehicles are dependent on model years and the specific types of vehicles that are used to travel to and from the existing Project Site. The emissions were calculated using a representative motor vehicle fleet mix for year 2013 as provided in CalEEMod. The estimated annual emissions from mobile sources from the Baseline Condition are provided in **Table 4, Baseline Condition Mobile Source Greenhouse Gas Emissions**. Detailed emissions calculations are provided in Appendix A.

¹² [Hirsch/Green Transportation Consulting, Inc., Traffic Impact Analysis Report, Proposed Mixed-Use Development, 8150 Sunset Boulevard, Hollywood, California, November 2013.](#)

¹³ [Hirsch/Green Transportation Consulting, Inc., Traffic Impact Analysis Report, Proposed Mixed-Use Development, 8150 Sunset Boulevard, Hollywood, California, November 2013.](#)

¹⁴ [California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, \(2010\).](#)

¹⁵ [The NPD Group, Drive-Thru Windows Still Put the Fast in Fast Food Restaurants, Reports NPD, May 2012, https://www.npd.com/wps/portal/npd/us/news/press-releases/pr_120530a/. Accessed December 2013.](#)

¹⁶ [QSR Magazine, 2012 QSR Drive-Thru Study, http://www.qsrmagazine.com/print/50631. Accessed December 2013.](#)

Table 4

Baseline Condition Mobile Source Greenhouse Gas Emissions

| Land Use | Fleet Mix Year | Estimated Annual VMT^{OR} Annual Idling Hours | Annual GHG Emissions (MTCO₂e/year) |
|--|----------------------------|--|--|
| Existing Site (Traveling) | 2013 (All Vehicle Classes) | 13,291,777 (VMT) ^a | 6,358 ^a |
| Existing Site (Idling at On-Site Drive-Thru) | 2013 (LDA, LDT1, LDT2) | 17,442 (Idling Hours) | 98.28 |
| Total GHG Emissions | | | 6,456 |

LDA = Light-duty automobiles; LDT = Light-duty trucks

^a Calculated using the California Emissions Estimator Model, <http://www.caleemod.com/>. Accessed January ~~January~~ March 2014.

Source: PCR Services Corporation, 2014. Detailed emissions calculations are provided in Appendix A.

(e) Operational Waste

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

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

Waste:

$$\text{Annual Emissions [MTCO}_2\text{e]} = (\sum_i (\text{Units} \times D_{\text{MSW}} \times EF_{\text{MSW}} \times \text{GWP})_i) \div 1.1023 \quad \text{[Equation 4]}$$

- Where: Units = Number of land use units (same land use type) [1000 sqft]
- D_{MSW} = Waste disposal rate [tons/1000 sqft/year]
- EF_{MSW} = GHG emission factor [tons/ton waste]
- GWP = Global warming potential [CO₂ = 1, CH₄ = 21, N₂O = 310]
- 1.1023 = Conversion factor [tons/MT]
- i = Summation index

The CalEEMod tool 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. Annual waste disposal rates used in CalEEMod are based on data from the California Department of Resources Recycling and Recovery (CalRecycle). For commercial and retail land uses, the rates are based on statewide averages. The total amount of waste disposed was reduced by the diversion rate for the City

of Los Angeles of 60 percent, according to the most recent data available.¹⁷ The GHG emission factors, particularly for CH₄, 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, are used in this assessment.

The estimated annual emissions from solid waste disposal from the Baseline Condition are provided in **Table 5, Baseline Condition Solid Waste Disposal Greenhouse Gas Emissions**. Detailed emissions calculations are provided in Appendix A.

Table 5

Baseline Condition Solid Waste Disposal Greenhouse Gas Emissions

| Land Use | Waste Diversion ^a | Waste Disposal Rate after Diversion ^b (tons/year) | Landfill Gas (no capture) ^c | Landfill Gas (capture with flaring) ^c | Annual GHG Emissions (MTCO ₂ e/year) |
|----------------------------|------------------------------|--|--|--|---|
| Existing Site | 60% | 136.86 | 6% | 94% | 62.26 |
| Total GHG Emissions | | | | | 62 |

^a County of Los Angeles, *Countywide Integrated Waste Management Plan, 2012 Annual Report (2013)*.

^b Waste generation factors for commercial and restaurant uses are from the [CalRecycle \(formerly Integrated Waste Management Board\)](#), *Targeted Statewide Waste Characterization Study: Waste Disposal and Diversion Findings for Selected Industry Groups, June (2006) 12*.

^c California Air Pollution Control Officers Association, *California Emissions Estimator Model*, <http://www.caleemod.com/>. Accessed January March 2014.

Source: PCR Services Corporation, 2014. Detailed emissions calculations are provided in Appendix A.

(f) Operational Water and Wastewater

Water and wastewater generated from the existing land uses under the Baseline Condition requires energy to supply, distribute and treat. The combustion of fossil fuels to produce electricity results in GHG emissions of CO₂ and smaller amounts of CH₄ and N₂O. The electricity generation occurs off-site; therefore, the electricity use from water and wastewater results in GHG emissions that are considered to be indirect. Wastewater also results in emissions of GHGs from wastewater treatment systems (e.g., septic, aerobic, or lagoons) as well as from solids that are digested either through an anaerobic digester or with co-generation from combustion of digester gas.

The emissions of GHGs associated with water demand and wastewater generation under the Baseline Condition are calculated using the CalEEMod tool. The emissions are based on the size of the commercial and retail land uses, the water demand factors, the electrical intensity factors for water supply, treatment, and distribution and for wastewater treatment, the GHG emission factors for the electricity utility provider,

¹⁷ County of Los Angeles, *Countywide Integrated Waste Management Plan, 2012 Annual Report (2013)*.

and the GWP values for the GHGs emitted. Annual water demand and wastewater GHG emissions due to electricity are generally calculated in CalEEMod as follows for indoor and outdoor water demand:

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

$$\text{Annual Emissions [MTCO}_2\text{e]} = \left(\sum_i (\text{Units} \times D_w \times (\text{EI}_w \div 1000) \times \text{EF}_w \times \text{GWP})_i \right) \div 2204.62 \quad [\text{Equation 5}]$$

| | | |
|---------------|---|--|
| Where: Units | = | Number of land use units (same land use type) [1000 sqft] |
| D_w | = | Water demand factor [million gallons (Mgal)/1000 sqft/year] |
| EI_w | = | Electricity intensity factor [kilowatt-hours (kWh)/Mgal] |
| 1000 | = | Conversion factor [kWh/MWh] |
| EF_w | = | GHG emission factor [pounds/MWh] |
| GWP | = | Global warming potential [$\text{CO}_2 = 1$, $\text{CH}_4 = 21$, $\text{N}_2\text{O} = 310$] |
| 2204.62 | = | Conversion factor [pounds/MT] |
| i | = | Summation index |

The CalEEMod tool calculates water demand based on annual rates in the Pacific Institute *Waste Not Want Not* report.¹⁸ The CalEEMod tool 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 CEC's estimate for energy intensity of the water use cycle in Southern California, as provided in the 2006 CEC report *Refining Estimates of Water-Related Energy Use in California*, is used to calculate the energy usage related to water supply, treatment, and distribution and wastewater treatment.¹⁹ The same electricity GHG emissions factors discussed in **Section 3.2.2(b), Operational Energy – Electricity**, are used for water and wastewater energy usage.

The emissions of GHGs associated with wastewater treatment process emissions are also calculated using the CalEEMod tool. The emissions are based on the type of treatment (e.g., aerobic, facultative lagoons, septic systems). The emissions are calculating using the default settings in CalEEMod for the type of wastewater treatment. Calculation formulas are described in detail in the *California Emissions Estimator Model User's Guide, Appendix A*.²⁰ As stated in the *User's Guide*, the GHGs emitted from each type of wastewater treatment are based on the CARB's *Local Government Operations Protocol (LGOP)*,²¹ which are in turn based on United States Environmental Protection Agency (USEPA) methodologies.²² The default CalEEMod settings for wastewater treatment are: 10.33 percent septic tank, 87.46 percent aerobic, 2.21 percent facultative lagoons and 100 percent anaerobic combustion of gas.

¹⁸ Gleick, P.H.; Haasz, D.; Henges-Jeck, C.; Srinivasan, V.; Cushing, K.K.; Mann, A. 2003. *Waste Not, Want Not: The Potential for Urban Water Conservation in California*. Published by the Pacific Institute for Studies in Development, Environment, and Security. Full report available online at: http://www.pacinst.org/reports/urban_usage/waste_not_want_not_full_report.pdf. Appendices available online at: http://www.pacinst.org/reports/urban_usage/appendices.htm.

¹⁹ California Energy Commission, *Refining Estimates of Water-Related Energy Use in California, PIER Final Project Report, CEC-500-2006-118, (2006)*.

²⁰ California Air Pollution Control Officers Association, *California Emissions Estimator Model User's Guide, (2013)*.

²¹ California Air Resources Board, *Local Government Operations Protocol, Chapter 10: Wastewater Treatment Facilities, (2008)*.

²² United States Environmental Protection Agency, *Inventory of US Greenhouse Gas Emissions and Sinks: 1990-2006, Chapter 8: Waste, (2008)*.

Table 6

Baseline Condition Water and Wastewater Greenhouse Gas Emissions

| Land Use | Indoor Water Demand ^a (gal/year) | Outdoor Water Demand ^a (gal/year) | Supply Water ^b (kWh/Mgal) | Treat Water ^b (kWh/Mgal) | Distribute Water ^b (kWh/Mgal) | Wastewater Treatment ^b (kWh/Mgal) | Annual GHG Emissions ^c (MTCO ₂ e/year) |
|---------------------------------------|--|---|---|--|---|---|---|
| General Retail | 339,452 | 208,048 | 9,727 | 111 | 1,272 | 1,911 | 3.96 |
| Storage Facility | 258,420 | – | 9,727 | 111 | 1,272 | 1,911 | 2.09 |
| Walk-in Bank Facility | 467,535 | 286,555 | 9,727 | 111 | 1,272 | 1,911 | 5.45 |
| Restaurant/Ice Cream Parlor/Fast Food | 1,534,346 | 97,934 | 9,727 | 111 | 1,272 | 1,911 | 12.97 |
| Dental Office | 231,483 | 44,092 | 9,727 | 111 | 1,272 | 1,911 | 2.13 |
| Fitness Center | 82,373 | 50,487 | 9,727 | 111 | 1,272 | 1,911 | 0.96 |
| Parking Lot | – | 542,755 | 9,727 | 111 | 1,272 | 1,911 | 3.17 |
| Total GHG Emissions | | | | | | | 31 |

^a City of Los Angeles, Department of Public Works, Bureau of Sanitation, [Sewerage Facilities Charge, Sewage Generation Factors for Residential and Commercial Categories. Provided in the L.A. CEQA Thresholds Guide, \(2006\) M.2-22-M.2-26. Water demand rates are derived based on the wastewater generation rates. Indoor and outdoor water demand rates are derived based on the ratio of indoor to outdoor water demand in CalEEMod.](#)

^b California Air Pollution Control Officers Association, California Emissions Estimator Model, <http://www.caleemod.com/>. Accessed January March 2014.

^c Totals may not add up exactly due to rounding in the modeling calculations.

Source: PCR Services Corporation, 2014. Detailed emissions calculations are provided in Appendix A.

The estimated annual emissions from water and wastewater from the Baseline Condition are provided in **Table 6, Baseline Condition Water and Wastewater Greenhouse Gas Emissions**. Detailed emissions calculations are provided in Appendix A.

(g) Operational Area and Stationary

Area sources of GHG emissions resulting from the operation of the existing land uses at the Project Site under the Baseline Condition include equipment used to maintain landscaping, such as lawnmowers and trimmers. The combustion of fossil fuels to operate these equipment results in GHG emissions of CO₂ and smaller amounts of CH₄ and N₂O. The emissions occur on-site and are a direct result of activity from the existing land uses; therefore, the GHG emissions are considered to be direct. There are no other substantial stationary sources on-site, such as generators or industrial sized boilers.

The emissions of GHGs associated with operational area sources under the Baseline Condition are calculated using the CalEEMod tool. The emissions for landscaping equipment are based on the size of the commercial and retail land uses, the GHG emission factors for fuel combustion, and the GWP values for the GHGs emitted. Annual GHG emissions from landscaping equipment in units of MTCO₂e are generally calculated in CalEEMod as follows:

Landscaping Equipment:

$$\text{Annual Emissions [MTCO}_2\text{e]} = (\sum_i (\text{Units} \times \text{EF}_{\text{LE}} \times \text{A}_{\text{LE}} \times \text{GWP})_i) \div 10^6 \quad \text{[Equation 6]}$$

- Where: Units = Number of land use units (same land use type) [1000 sqft]
- EF_{LE} = GHG emission factor [grams (g)/1000 sqft/day]
- A_{LE} = Landscaping equipment operating days per year [day/year]
- GWP = Global warming potential [CO₂ = 1, CH₄ = 21, N₂O = 310]
- 10⁶ = Conversion factor [g/MT]
- i = Summation index

The CalEEMod tool uses landscaping equipment GHG emission factors from the CARB OFFROAD2011 model and the CARB *Technical Memo: Change in Population and Activity Factors for Lawn and Garden Equipment (6/13/2003)*.²³ The CalEEMod tool estimates that landscaping equipment operate for 250 days per year in the South Coast Air Basin.

The estimated annual emissions from area and stationary sources under the Baseline Condition are provided in **Table 7, Baseline Condition Area and Stationary Source Greenhouse Gas Emissions**. Detailed emissions calculations are provided in Appendix A.

Table 7

Baseline Condition Area and Stationary Source Greenhouse Gas Emissions

| GHG Emissions Source | Annual GHG Emissions (MTCO ₂ e/year) |
|----------------------------|--|
| Landscaping Equipment | 0.004 |
| Total GHG Emissions | 0.004 |

Source: PCR Services Corporation, 2014. Detailed emissions calculations are provided in Appendix A.

(h) Summary of Baseline Condition GHG Emissions

A summary of the GHG emissions under the Baseline Condition is provided in **Table 8, Summary of Annual GHG Emissions under the Baseline Condition**.

3.3 PROJECT OPERATIONAL EMISSIONS

3.3.1 Description of Project Condition

The Project would demolish and removed the two existing structures and associated infrastructure from the Project Site. The Project would construct two buildings over a single podium structure. The North Building would include three levels (one subterranean) of entirely commercial uses. The South Building would include commercial uses on the first two levels, twelve levels of residential uses above the

²³ California Air Resources Board, *OFFROAD Modeling Change Technical Memo: Change in Population and Activity Factors for Lawn and Garden Equipment, (6/13/2003)*, http://www.arb.ca.gov/msei/2001_residential_lawn_and_garden_changes_in_eqpt_pop_and_act.pdf. Accessed November 2013.

Table 8**Summary of Annual GHG Emissions under the Baseline Conditions**

| GHG Emissions Source | Annual GHG Emissions ^a (MTCO ₂ e/year) |
|---------------------------------------|---|
| Electricity | 667,631 |
| Natural Gas | 192 |
| Mobile (Traveling) | 6,358 |
| Mobile (Idling at On-Site Drive-Thru) | 98 |
| Waste | 62 |
| Water and Wastewater | 31 |
| Area and Stationary | 0.0 |
| Total | 7,407,737 |

^a Totals may not add up exactly due to rounding in the modeling calculations.
Source: PCR Services Corporation, 2014.

commercial floors, and a rooftop restaurant/lounge level on Level 16. The Project would include 111,339 square feet of commercial retail and restaurant uses within three lower levels (one subterranean) and one rooftop level, 249 apartment units, including 28 affordable housing units, within the twelve upper levels representing 222,564 gross square feet of residential space. The Project would also provide a new, 9,134 square-foot Corner Plaza at the northeast corner of the site, a 34,050-square-foot Central Plaza, public rooftop deck/garden areas along Sunset Boulevard, a private pool and pool deck area for residents, as well as other resident-only amenities totaling approximately 6,900 square feet. Parking for all proposed uses would be provided on-site via a seven-level Parking Structure housed within the podium structure that includes 849 total parking spaces. Short- and long-term bicycle parking totaling 985 spaces would also be provided on-site, including 428 spaces for residential uses and 557 spaces for commercial uses. The total development would include up to 333,903 square feet of commercial and residential space. The square footage for each of these land uses are provided in **Table 9, Project Floor Area**.

Table 9**Project Floor Area**

| Land Use | Dwelling Units (DU) or Square Feet (sqft) |
|--|--|
| Residential | 249 DU (incl. 28 affordable units) |
| Residential Amenities (e.g., pool, etc.) | 49,840 sqft |
| Parking Structure | 305,652 sqft |
| General Retail | 51,150 sqft |
| Supermarket | 24,811 sqft |
| Walk-in Bank | 5,094 sqft |
| Quality Restaurants | 22,189 sqft |
| Dance/Yoga Studios | 8,095 sqft |

**Total Commercial Floor Area
(excluding Parking Structure)**

111,339

Source: AG-SCH 8150 Sunset Boulevard Owner LP, 2013

For the purposes of this assessment, in order to provide a comparison of the Project's GHG emissions with the Baseline Condition, and to assess future GHG emissions trends of the Project, emissions of GHGs are estimated for ~~milestone years~~ [the initial proposed construction year of 2015 through year 2025, when GHG emissions are projected to generally stabilize. Within the 2015 through 2025 period, there are several key milestone years.](#) The milestone years assessed ~~corresponds~~ [correspond](#) to the following [circumstances](#):

- 2015: Initial year of Project construction;
- 2016: Second year of Project construction;
- 2017: Expected initial operational year;
- 2020: The year in which electric utilities, including LADWP, are expected to supply 33 percent of electricity via renewable sources;
- ~~2023: The year in which the Project would meet the minimum requirements for the purchase of greenpower, carbon offsets, and/or renewable energy certificates (RECs) and would no longer be required to purchase in accordance with the USGBC LEED® Energy and Atmosphere Credit 7 [v4]; and~~
- 2025: The year in which the 2017-2025 light-duty vehicle GHG emissions and Corporate Average Fuel Economy standards are to be fully implemented [for new vehicles](#).

3.3.2 Project GHG Emission Sources and Calculation Methodology

(a) Construction

Construction of the Project would result in one-time GHG emissions of CO₂ and smaller amounts of CH₄ and N₂O from heavy-duty construction equipment, haul trucks, and worker vehicles. Construction emissions are forecasted by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying the off-road and on-road emissions factors. The emissions are estimated using the CalEEMod tool, which incorporates the CARB OFFROAD2011 and EMFAC2011 models. The output values used in this analysis are adjusted to be Project-specific based on equipment types and the construction schedule. These values are applied to the construction phasing assumptions to generate GHG emissions values for each construction year. The CalEEMod tool provides options for specifying equipment, horsepower ratings, load factors, and operational hours per day. Since a construction contractor(s) has not yet been retained for the Project, specific equipment specifications are not yet known. Therefore, recommended default equipment and vehicle horsepower ratings and load factors provided in CalEEMod are used in this assessment. This assessment also assumes equipment would operate for 8 hours during a workday.

Construction of the Project would occur over a number of phases and include activities such as demolition, debris and soil hauling, building construction, architectural coating, and paving. Information regarding the activities that would occur during these phases is provided below:

- **Demolition:** This phase is anticipated to begin in 2015 and last for approximately two months. Construction equipment would include an excavator, loader, concrete saw, haul trucks, and other construction equipment. Approximately 6,500 cubic yards (cy) of debris would be hauled off-site.
- **Grading and Excavation:** This phase is anticipated to begin after the demolition phase and last for approximately four months. Construction equipment would include a drill rig, excavator, dozer, loaders, scraper, water truck, and haul trucks. Approximately 58,500 cy of soil would be exported.
- **Building Construction:** This phase is anticipated to begin in mid-2015 and last for approximately 18 months. During this phase, the parking structure and residential and commercial buildings would be constructed. Construction equipment would include a concrete pump, generator, off-highway truck, cranes, lifts, welders, and other construction equipment.
- **Site Work/Closeout:** This phase is anticipated to begin in 2016 and last for approximately nine months. During this phase, concrete would be poured during construction of the buildings and infrastructure and surfaces would be paved. Construction equipment would include a concrete pump, concrete trucks, and paving equipment.
- **Architectural Coating:** This phase is anticipated to begin in mid-2016 and last for approximately five months. During this phase, the interior and exterior coating would be applied to the residential and commercial buildings. Coating equipment would include a mixer, mobile crane, and air compressor.

The emissions of GHGs associated with construction of the Project were calculated for each year of construction activity. Detailed emissions calculations are provided in Appendix B. Results of the GHG emissions calculations are presented in **Table 10**, *Estimated Unmitigated Project Construction Greenhouse Gas Emissions*. Although GHGs are generated during construction and are accordingly considered one-time emissions, it is important to them when assessing all of the long-term GHG emissions associated with a project.

Table 10

Estimated Unmitigated Project Construction Greenhouse Gas Emissions

| Emission Source | Annual GHG Emissions ^a (MTCO ₂ e/year) |
|----------------------------|---|
| Construction Year 1 (2015) | 1,631 |
| Construction Year 2 (2016) | 2,346 |
| Total | 3,977 |

^a Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix B.

Source: PCR Services Corporation, 2014

(b) Operational Energy – Electricity

The emissions of GHGs associated with electricity demand for the Project are calculated using the CalEEMod tool. Emissions of GHGs associated with operation of the Project are based on the size of the commercial, retail, restaurant, and residential land uses (including residential amenities such as the private pool and pool deck), the electrical demand factors for the land uses, the GHG emission factors for the electricity utility provider, and the GWP values for the GHGs emitted. Annual electricity GHG emissions are calculated using the general formula shown previously as Equation 1. For residential land uses, emission factors are specified in units of dwelling units (DU) instead of 1,000 sqft. This assessment also includes electricity-related GHG emissions from the proposed enclosed parking structure, which would include elevators, lighting, and a ventilation system.

The CalEEMod tool calculates electrical demand based on data from the CEUS, which lists energy demand by building type.²⁴ However, since the data from the CEUS is from 2002, the CalEEMod tool incorporates correction factors to account for compliance with the 2008/2010 Title 24 Building Standards Code. While, the recently amended 2013 Title 24 Building Standards Code is scheduled to go into effect on January 1, 2014, the Project would meet or exceed the amended standards via measures implemented to achieve the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design® (“LEED®”) Silver rating. The Project would be designed to incorporate Project Design Features (PDFs) that would reduce its energy demand with the goal of achieving or exceeding the requirements of the State of California Green Building Standards (CALGreen) Code, the City of Los Angeles Green Building Code, and the USGBC LEED® Silver rating. Thus, the Project would reduce its electricity demand as compared to the default electricity factors in the CalEEMod tool. The PDFs were accounted for in the CalEEMod tool by selecting the appropriate options in the “mitigation measures” section of the model. A summary of the energy-efficiency PDFs is provided below:

Green Building Measures: The Project would be designed and operated to meet or exceed the applicable requirements of the State of California Green Building Standards Code and the City of Los Angeles Green Building Code and achieve the USGBC LEED® Silver Certification. The Project would incorporate measures and performance standards to support its LEED® Silver Certification, which include but are not limited to the following:

- The Project would implement a construction waste management plan to recycle and/or salvage a minimum of 75 percent of nonhazardous construction debris or minimize the generation of construction waste to 2.5 pounds per square foot of building floor area. (LEED® Materials and Resources Credit 5 [v4]²⁵);
- The Project would be designed to optimize energy performance and reduce building energy cost by 10 percent for new construction compared to ASHRAE 90.1-2010, Appendix G and the Title 24 Building Standards Code. [The energy optimization would be achieved by incorporating energy efficient designs that may include energy efficient heating, ventilation, and air conditioning \(HVAC\) systems, energy efficient windows, energy efficient insulation, or other appropriate measures.](#)

²⁴ California Energy Commission, California Commercial End-Use Survey, <http://capabilities.itron.com/CeusWeb/ChartsSF/Default2.aspx> <http://capabilities.itron.com/CeusWeb/Chart.aspx>, Accessed March 2014 November 2013.

²⁵ The bracketed text “v4” denotes version 4 of the LEED® Building Design and Construction credits.

Prior to building permit issuance, sufficient proof of energy optimization shall be made available in accordance with LEED®, which may include building energy simulations, past energy simulation analyses for similar buildings, or published data from analyses for similar buildings. (LEED® Energy and Atmosphere Credit 2 [v4]);

- The Project would reduce emissions through the use of grid-source, renewable energy technologies and carbon mitigation projects. The Project would engage in a contract for qualified resources, for a minimum of five years, to be delivered at least annually. The contract would specify the provision of 100 percent of the Project’s energy from green power, carbon offsets, and/or RECs during the first five years of operation. The Project would commit to providing a minimum of ~~10~~ 15 percent of the Project’s energy from green power, carbon offsets, and/or RECs for two years after the minimum five year period. (LEED® Energy and Atmosphere Credit 7 [v4]); and
- The Project would reduce indoor water use by a minimum of 35 percent by installing water fixtures that exceed applicable standards. (LEED® Water Efficiency Credit 2 [v4]).

The LADWP provides electric service to the Project Site. Emission factors for GHGs due to electrical generation to serve the electrical demands of the Project were obtained from the LADWP ~~2012~~ 2013 *Power Integrated Resource Plan*, which provides a CO₂ intensity of ~~1,156~~ 1,094 pounds of CO₂ per MWh.²⁶ Currently, LADWP provides 20 percent of electricity via renewable sources.²⁷ By 2020, LADWP is expecting to ~~provide~~ meet the State’s Renewables Portfolio Standard of at least 33 percent of electricity via renewable sources ~~pursuant to the State’s Renewables Portfolio Standard~~. Based on data obtained from CARB staff, “[i]f an applicant would like to use an EF [emission factor] that represents the state’s Renewable Portfolio Standard (RPS) law and growth in electricity demand, the EF of 595 lbs CO₂/MWh may be used.”²⁸ According to CARB staff, the “EF represents a ‘marginal’ supply profile for new generation that will be added to the grid in the years 2020 and beyond, and is consistent with the methodology used in state emission rule impact assessments.”²⁹ Therefore, consistent with the CARB staff recommendation, a CO₂ intensity factor of 595 pounds of CO₂ per MWh was used for electricity emissions for years 2020 through 2025. Thus, by 2020, the CO₂ intensity should be reduced to 968 pounds of CO₂ per MWh if LADWP replaces its ~~2011~~ energy portfolio with renewable sources on a proportionate basis (e.g., calculated as a proportion where ~~1,156~~ pounds of CO₂ per MWh represents a 20 percent renewables portfolio). Emission factors for CH₄ and N₂O were obtained from the California Emissions Estimator Model (CalEEMod).³⁰ The ~~milestone year 2017~~ emissions Emissions for years 2017 through 2019 take into account the current LADWP renewable mix of approximately 20 percent (~~1,156~~ 1,094 pounds of CO₂ per MWh). ~~The milestone years 2020, 2023, and 2025 emissions take into account a renewable mix of 33 percent (968 pounds of CO₂ per MWh).~~

²⁶ Los Angeles Department of Water and Power, ~~2013~~ 2012 *Power Integrated Resource Plan*, (2013) C-1211.

²⁷ Los Angeles Department of Water and Power, ~~2013~~ 2012 *Power Integrated Resource Plan*, (2013) ES-31411.

²⁸ California Air Resources Board, *Statewide Emission Factors (EF) For Use With AB 900 Projects, March 2014. The emission factor of 595 lbs CO₂/MWh is from the California LEV III Initial Statement Of Reasons (ISOR, Dec. 7, 2011).* <http://www.arb.ca.gov/regact/2012/leviiiighg2012/leviiiighg2012.htm>, based on analysis with CA-GREET model. This document is provided in Appendix B.

²⁹ California Air Resources Board, *Statewide Emission Factors (EF) For Use With AB 900 Projects, March 2014.*

³⁰ California Air Pollution Control Officers Association, *California Emissions Estimator Model*, <http://www.caleemod.com/>. Accessed January 2014.

Table 11

Project Electrical Demand Greenhouse Gas Emissions

| Land Use | Units (DU or 1000 sqft) | Annual Electrical Demand Factor ^a (MWh/unit/year) | CO ₂ Factor ^b (pounds/MWh) | CH ₄ Factor ^c (pounds/MWh) | N ₂ O Factor ^c (pounds/MWh) | Annual GHG Emissions ^d (MTCO ₂ e/year) |
|-----------------------------|-------------------------|--|--|--|---|--|
| 2017-2019 | | | | | | |
| Residential | 249 | 3.46 | 1,156 <u>1,094</u> | 0.029 | 0.0062 | 434.17 <u>410.93</u> |
| Residential Amenities | 49.84 | 11.78 | 1,156 <u>1,094</u> | 0.029 | 0.0062 | 305.30 <u>288.96</u> |
| General Retail | 51.15 | 14.68 | 1,156 <u>1,094</u> | 0.029 | 0.0062 | 390.62 <u>369.72</u> |
| Supermarket | 24.81 | 38.63 | 1,156 <u>1,094</u> | 0.029 | 0.0062 | 455.47 <u>431.09</u> |
| Walk-in Bank | 5.09 | 13.97 | 1,156 <u>1,094</u> | 0.029 | 0.0062 | 37.02 <u>35.03</u> |
| Quality Restaurants | 22.19 | 45.92 | 1,156 <u>1,094</u> | 0.029 | 0.0062 | 511.40 <u>484.03</u> |
| Dance/Yoga Studios | 8.10 | 11.78 | 1,156 <u>1,094</u> | 0.029 | 0.0062 | 49.59 <u>46.93</u> |
| Parking Structure | 305.65 | 6.35 | 1,156 <u>1,094</u> | 0.029 | 0.0062 | 1,009.37 <u>955.35</u> |
| Total GHG Emissions | | | | | | 3,193 <u>3,022</u> |
| 2020-2025 /2023/2025 | | | | | | |
| Residential | 249 | 3.46 | 968 <u>595</u> | 0.029 | 0.0062 | 363.71 <u>223.92</u> |
| Residential Amenities | 49.84 | 11.78 | 968 <u>595</u> | 0.029 | 0.0062 | 255.75 <u>157.45</u> |
| General Retail | 51.15 | 14.68 | 968 <u>595</u> | 0.029 | 0.0062 | 327.23 <u>201.46</u> |
| Supermarket | 24.81 | 38.63 | 968 <u>595</u> | 0.029 | 0.0062 | 381.55 <u>234.90</u> |
| Walk-in Bank | 5.09 | 13.97 | 968 <u>595</u> | 0.029 | 0.0062 | 31.01 <u>19.09</u> |
| Quality Restaurants | 22.19 | 45.92 | 968 <u>595</u> | 0.029 | 0.0062 | 428.41 <u>263.75</u> |
| Dance/Yoga Studios | 8.10 | 11.78 | 968 <u>595</u> | 0.029 | 0.0062 | 41.54 <u>25.57</u> |
| Parking Structure | 305.65 | 6.35 | 968 <u>595</u> | 0.029 | 0.0062 | 845.56 <u>520.57</u> |
| Total GHG Emissions | | | | | | 2,675 <u>1,647</u> |

^a California Air Pollution Control Officers Association, California Emissions Estimator Model, <http://www.caleemod.com/>. Accessed November 2013 ~~March 2014~~. Demand factor accounts for a 10 percent reduction in Title 24 energy demand.

^b Los Angeles Department of Water and Power, ~~2013~~ 2012 Power Integrated Resource Plan, (2012) C-1241.

^c California Air Pollution Control Officers Association, California Emissions Estimator Model, <http://www.caleemod.com/>. Accessed January ~~March 2014~~.

^d Totals may not add up exactly due to rounding in the modeling calculations.

Source: PCR Services Corporation, 2014. Detailed emissions calculations are provided in Appendix B.

The estimated annual emissions from electrical demand from the Project at milestone years are provided in **Table 11, Project Electrical Demand Greenhouse Gas Emissions**. Detailed emissions calculations are provided in Appendix B.

(c) Operational Energy – Natural Gas

The emissions of GHGs associated with natural gas demand for the Project are calculated using the CalEEMod tool. Emissions of GHGs associated with operation of the Project are based on the size of the commercial, retail, restaurant, and residential land uses (including residential amenities such as the private pool and pool deck), the natural gas demand factors for the land uses, the GHG emission factors for the natural gas combustion, and the GWP values for the GHGs emitted. Annual natural gas GHG emissions are calculated using the general formula shown previously as Equation 2. For residential land uses, emission factors are specified in units of DU instead of 1,000 sqft.

The CalEEMod tool calculates natural gas demand based on data from the CEUS, which lists energy demand by building type.³¹ However, since the data from the CEUS is from 2002, the CalEEMod tool incorporates correction factors to account for compliance with the 2008/2010 Title 24 Building Standards Code. While, the recently amended 2013 Title 24 Building Standards Code is scheduled to go into effect on January 1, 2014, the Project would meet or exceed the amended standards via measures implemented to achieve the USGBC LEED® Silver rating. The Project would be designed to incorporate PDFs that would reduce its energy demand with the goal of achieving or exceeding the requirements of the CALGreen Code, the City of Los Angeles Green Building Code, and the USGBC LEED® Silver rating. Thus, the Project would reduce its natural gas demand as compared to the default electricity factors in the CalEEMod tool. The PDFs were accounted for in the CalEEMod tool by selecting the appropriate options in the “mitigation measures” section of the model. A summary of the energy-efficiency PDFs is provided above in PDF-GHG-1.

The combustion of natural gas results in relatively equal amounts of GHG emissions per unit of gas combusted in the state. Emission factors for GHGs due to natural gas combustion to serve the heating and cooking demands of the Project were obtained from the CalEEMod tool, which provides statewide emission factors.³² The emissions of GHGs due to natural gas demand would be relatively steady for the milestone years assessed (2017, 2020, 2023, and 2025).

The estimated annual emissions from natural gas combustion from the ~~Project Baseline Condition~~ are provided in **Table 12**, *Project Natural Gas Combustion Greenhouse Gas Emissions*. Detailed emissions calculations are provided in Appendix B.

Table 12

Project Natural Gas Combustion Greenhouse Gas Emissions

| Land Use | Units (DU or 1000 sqft) | Annual Natural Gas Demand Factor ^a (MMBtu/unit /year) | CO ₂ Factor ^b (pounds/ MMBtu) | CH ₄ Factor ^b (pounds/ MMBtu) | N ₂ O Factor ^b (pounds/ MMBtu) | Annual GHG Emissions ^c (MTCO ₂ e/year) |
|----------------------------|-------------------------------|--|---|---|--|--|
| Residential | 249 | 6.30 | 117.65 | 0.0023 | 0.0022 | 84.28 |
| Residential Amenities | 49.84 | 17.37 | 117.65 | 0.0023 | 0.0022 | 46.49 |
| General Retail | 51.15 | 1.58 | 117.65 | 0.0023 | 0.0022 | 4.34 |
| Supermarket | 24.81 | 21.56 | 117.65 | 0.0023 | 0.0022 | 28.71 |
| Walk-in Bank | 5.09 | 9.88 | 117.65 | 0.0023 | 0.0022 | 2.70 |
| Quality Restaurants | 22.19 | 228.49 | 117.65 | 0.0023 | 0.0022 | 272.20 |
| Dance/Yoga Studios | 8.10 | 17.37 | 117.65 | 0.0023 | 0.0022 | 7.55 |
| Total GHG Emissions | | | | | | 446 |

³¹ California Energy Commission, California Commercial End-Use Survey, <http://capabilities.itron.com/CeusWeb/ChartsSF/Default2.aspx>, <http://capabilities.itron.com/CeusWeb/Chart.aspx>, Accessed March 2014. November 2013.

³² California Air Pollution Control Officers Association, California Emissions Estimator Model, <http://www.caleemod.com/>. Accessed November 2013. March 2014.

- ^a California Air Pollution Control Officers Association, California Emissions Estimator Model, <http://www.caleemod.com/>. Accessed ~~November 2013~~ March 2014. Demand factor accounts for a 10 percent reduction in Title 24 energy demand.
- ^b California Air Pollution Control Officers Association, California Emissions Estimator Model, <http://www.caleemod.com/>. Accessed ~~January~~ March 2014.
- ^c Totals may not add up exactly due to rounding in the modeling calculations.

Source: PCR Services Corporation, 2014. Detailed emissions calculations are provided in Appendix B.

(d) Operational Mobile

Mobile source emission calculations associated with the Project Baseline Condition are calculated using the CalEEMod tool. Emissions of GHGs associated with mobile sources from operation of the Project are based on the average daily trip rate, trip distance, the GHG emission factors for the mobile sources, and the GWP values for the GHGs emitted. The types of vehicles that would visit the Site include all vehicle types including automobiles, light-duty trucks, delivery trucks, and waste haul trucks. Modeling for the Project was conducted using the vehicle fleet mix for the South Coast Air Basin as provided in EMFAC2011. Annual mobile source GHG emissions in units of MTCO₂e are generally calculated in CalEEMod using the general formula shown previously as Equation 3. For residential land uses, trip generation rates are specified in units of trips per DU instead of per 1,000 sqft.

The CalEEMod tool allows the input of several variables to quantify mobile source emissions. The number of motor vehicles that travel to and from the Project Site is based on trip generation rates as documented in the traffic study for the Project.³³ As was discussed previously, the Project traffic study³⁴ occasionally references trips on a PCE basis in order to evaluate traffic congestion on roadways. However, for the purposes of estimating emissions, this assessment uses the actual trip rates (not adjusted for PCE trip rates) and the associated emissions factors for each vehicle type, as well as the vehicle fleet mix, as provided in EMFAC2011. Trip length values are based on the residential and commercial trip distances provided in CalEEMod. CalEEMod provides trip distances for home-work, home-shopping, and home-other for residential trips and commercial-customer, commercial-work, and commercial-nonwork (e.g. delivery trips) for non-residential trips. Since the project would include both residential and commercial land uses, all of these trip lengths were included in the model. The trip distances are multiplied by the average daily trip estimates to estimate the average daily VMT. The Project would incorporate characteristics and PDFs that would reduce trips and VMT as compared to standard ITE trip generation rates. The Project characteristics listed below are consistent with the CAPCOA guidance document, *Quantifying Greenhouse Gas Mitigation Measures*,³⁵ which provides emission reduction values for recommended mitigation measures, and would reduce VMT and vehicle trips to the Project site by approximately 35.5 percent compared to a development without these characteristics. They would therefore result in a corresponding reduction in VMT and associated air pollutant emissions

³³ Hirsch/Green Transportation Consulting, Inc., *Traffic Impact Analysis Report, Proposed Mixed-Use Development, 8150 Sunset Boulevard, Hollywood, California, November 2013.*

³⁴ Hirsch/Green Transportation Consulting, Inc., *Traffic Impact Analysis Report, Proposed Mixed-Use Development, 8150 Sunset Boulevard, Hollywood, California, November 2013.*

³⁵ California Air Pollution Control Officers Association, *Quantifying Greenhouse Gas Mitigation Measures, (2010).*

Project Characteristics: The Project characteristics listed below are consistent with the CAPCOA guidance document, and would reduce vehicle trips to and from the Project site compared to a business-as-usual project without these Project characteristics. They would therefore result in a corresponding reduction in VMT and associated GHG emissions.

- **Increased Density:** Increased density, measured in terms of persons, jobs, or dwelling units per unit area, reduces emissions associated with transportation as it reduces the distance people travel for work or services and provides a foundation for the implementation of other strategies such as enhanced transit services. The Project would increase the site density to approximately 97 dwelling units per acre and 118 jobs per acre ~~(refer to Section 4.H, *Population, Housing, and Employment*, of this Draft EIR).~~
- **Location Efficiency:** Location efficiency describes the location of the Project relative to the type of urban landscape such as an urban area, compact infill, or suburban center. In general, compared to the statewide average, a project could realize VMT reductions up to 65 percent in an urban area, up to 30 percent in a compact infill area, or up to 10 percent in a suburban center from land use/location strategies. The Project Site represents an urban/compact infill location within the Hollywood community of the City of Los Angeles. The Project Site is served by existing public transportation located within a quarter-mile. The Project Site is within an active urban center with many existing off-site commercial and residential buildings and serves as an eastern gateway to the Sunset Strip. The location efficiency of the Project Site would result in synergistic benefits that would reduce vehicle trips and VMT compared to the statewide average and would result in corresponding reductions in transportation-related emissions.
- **Increased Land Use Diversity and Mixed-Uses:** The Project would co-locate complementary commercial and residential land uses in close to proximity to existing off-site commercial and residential uses. The Project would include on-site retail and residential land uses and would be located within a quarter-mile of off-site commercial and residential uses. The Project Site is also located within a quarter-mile of open space/park uses at Havenhurst Park. The increases in land use diversity and mix of uses on the Project Site would reduce vehicle trips and VMT by encouraging walking and non-automotive forms of transportation, which would result in corresponding reductions in transportation-related emissions.
- **Increased Destination Accessibility:** The Project would be located in an area that offers access to multiple other nearby destinations including the 8000 Sunset commercial center, which includes a movie theater, fitness center, restaurants, and grocery store, the Laugh Factory comedy club, and many other commercial and recreational destinations along the Sunset Strip. The access to multiple destinations in close proximity to the Project Site would reduce vehicle trips and VMT compared to the statewide average and encourage walking and non-automotive forms of transportation and would result in corresponding reductions in transportation-related emissions.
- **Increased Transit Accessibility:** The Project would be located within a quarter-mile of public transportation, including existing Metro bus routes (e.g., 2/302, 218, and 780 Rapid). The Project would provide access to on-site uses from existing pedestrian pathways. The Project would also provide approximately 985 total bicycle parking spaces (428 bicycle parking spaces for residential uses and 557 spaces for commercial uses to encourage utilization of alternative modes of transportation. The increased transit accessibility would reduce vehicle trips and VMT versus the statewide average and encourage walking and non-automotive forms of transportation and would result in corresponding reductions in transportation-related emissions.

- **Integrated Affordable and Below Market Rate Housing:** Below market rate housing provides greater opportunity for people to live closer to job centers and to accommodate more people in urban infill areas. The Project would include 28 below market rate dwelling units (approximately 11 percent of the total number of dwelling units), which would result in an increase in alternative transit usage and a corresponding reduction in transportation-related emissions.
- **Provide Pedestrian Network Improvements:** Providing pedestrian access that minimizes barriers and links the Project Site with existing or planned external streets encourages people to walk instead of drive. The Project would provide an internal pedestrian network that links to the existing off-site pedestrian network including existing off-site sidewalks, would result in a small reduction in VMT and associated transportation-related emissions.

Emissions of GHGs from motor vehicles are dependent on model years and the specific types of vehicles that are used to travel to and from the existing Project Site. The emissions were calculated using a representative motor vehicle fleet mix for years 2017 [through 2025](#) and ~~2020~~ as provided in CalEEMod. The mobile source GHG emissions for [year 2017 were estimated based on the direct result output from the CalEEMod tool. However, the CalEEMod tool may not adequately reflect future year GHG emissions because it](#) ~~milestone years 2023 and 2025 were estimated by using the results of the 2017 model run and applying a reduction factor based on the average GHG emissions factor for the 2016 and 2023/2025 vehicle emissions standards. This was done because the CalEEMod tool does not incorporate the emission factors for the 2017-2025 vehicle emissions standards. The national policy for fuel efficiency and emissions standards for the United States auto industry requires that [new](#) passenger cars and light-duty trucks achieve an average fuel economy standard of 35.5 miles per gallon (mpg) and 250 grams of CO₂ per mile by model year 2016 (Phase I standards), based on USEPA calculation methods. In August 2012, [more stringent phased-in](#) standards were adopted for [new](#) model year 2017 through 2025 passenger cars and light-duty trucks. By 2020, [new](#) vehicles are projected to achieve 41.7 mpg (if GHG reductions are achieved exclusively through fuel economy improvements) and 213 grams of CO₂ per mile (Phase II standards). By 2023, [new](#) vehicles are projected to achieve 49.4 mpg (if GHG reductions are achieved exclusively through fuel economy improvements) and 180 grams of CO₂ per mile (Phase II standards). By 2025, [new](#) vehicles are required to achieve 54.5 mpg (if GHG reductions are achieved exclusively through fuel economy improvements) and 163 grams of CO₂ per mile (Phase II standards). [CARB staff has provided future year CO₂ emission factors for statewide on-road mobile sources that may be used for AB 900 projects if the project's mobile sources include "all vehicle classifications."](#)³⁶ [As discussed above, it was assumed that all vehicle types would visit the site. Therefore, this assessment uses the CO₂ emission factors provided by CARB staff to estimate future year \(2018 through 2025\) GHG emissions from mobile sources. Emissions of CH₄ and N₂O were estimated based on the direct result outputs from the CalEEMod tool for years 2018 through 2025. The CO₂, CH₄, and N₂O mobile source emissions were added together, using the appropriate GWP values, to obtain emissions in units of MTCO₂e.](#) ~~From a GHG emissions standpoint, the 2020, 2023, and 2025 Phase II standards are approximately 14.8 percent, 28.0 percent and 34.8 percent lower than the Phase I standards, respectively. Thus, a 14.8 percent, 28.0 percent, and 34.8 percent reduction factor was applied to the 2017 model result to estimate the 2020, 2023, and 2025 mobile source GHG emissions, respectively. The reason that the 2017 model run was used was because the 2017 model run generally coincides with the ending model year for the Phase I standards (i.e., 2016); therefore, the fleet mix would~~~~

³⁶ [California Air Resources Board, Statewide Emission Factors \(EF\) For Use With AB 900 Projects, March 2014.](#)

~~generally reflect the appropriate vehicle turnover rates for older vehicles that are replaced with newer vehicles meeting the adopted newer emissions standards.~~

The estimated annual emissions from mobile sources from the Project are provided in **Table 13**, *Project Mobile Source Greenhouse Gas Emissions*. Detailed emissions calculations are provided in Appendix B.

(e) Operational Waste

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

Table 13

Project Mobile Source Greenhouse Gas Emissions

| Land Use | Fleet Mix Year (All Vehicle Classes) | Estimated Annual VMT | CO ₂ Emission Factor (grams/mile) | Annual GHG Emissions (MTCO ₂ e/year) |
|---|---|----------------------------|---|--|
| Project Site | 2017 | 12,427,524 | CalEEMod ¹ | 5,414 |
| Project Site | 2018 | 12,427,524 | 430 | 5,348 |
| Project Site | 2019 | 12,427,524 | 423 | 5,261 |
| Project Site | 2020 | 12,427,524 | 415 | 5,161 |
| Project Site | 2021 | 12,427,524 | 408 | 5,074 |
| Project Site | 2022 | 12,427,524 | 400 | 4,975 |
| Project Site | 2023 | 12,427,524 | 391 | 4,862 |
| Project Site | 2024 | 12,427,524 | 384 | 4,775 |
| Project Site | 2025 | 12,427,524 | 375 | 4,663 |
| 2017 (Full Implementation of Pavley Phase I) | | | | |
| Project Site | 2017 (All Vehicle Classes) | | 12,427,524 | 5,414.21 |
| Total GHG Emissions | | | | 5,414 |
| 2020 (Partial Implementation of Pavley Phase II) | | | | |
| Project Site | 2020 (All Vehicle Classes) | | 12,427,524 | 4,612.73 |
| Total GHG Emissions | | | | 4,613 |
| 2023 (Partial Implementation of Pavley Phase II) | | | | |
| Project Site | 2023 (All Vehicle Classes) | | 12,427,524 | 3,898.08 |
| Total GHG Emissions | | | | 3,898 |
| 2025 (Full Implementation of Pavley Phase II) | | | | |
| Project Site | 2025 (All Vehicle Classes) | | 12,427,524 | 3,529.93 |
| Total GHG Emissions | | | | 3,530 |

Source: PCR Services Corporation, 2014. Detailed emissions calculations are provided in Appendix B.

¹ [Mobile source GHG emissions for 2017 are based on the direct model result output from CalEEMod.](#)

Emissions of GHGs associated with solid waste disposal under the Project are calculated using the CalEEMod tool. The emissions are based on the size of the commercial, retail, restaurant, and residential land uses, the waste disposal rate for the land uses, the waste diversion rate, the GHG emission factors for solid waste decomposition, and the GWP values for the GHGs emitted. Annual waste disposal GHG emissions in units of MTCO₂e are generally calculated in CalEEMod using the general formula shown previously as Equation 4.

The CalEEMod tool 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. Annual waste disposal rates used in CalEEMod are based on data from CalRecycle. The total amount of waste disposed was reduced by the diversion rate for the City of Los Angeles of 60 percent, according to

the most recent data available.³⁷ The GHG emission factors, particularly for CH₄, 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, are used in this assessment.

The estimated annual emissions from solid waste disposal from the Project are provided in **Table 14, Project Solid Waste Disposal Greenhouse Gas Emissions**. The emissions of GHGs due to waste generation would be relatively steady for the milestone years assessed (~~2017, 2020, 2023, and 2025~~). Detailed emissions calculations are provided in Appendix B.

Table 14**Project Solid Waste Disposal Greenhouse Gas Emissions**

| Land Use | Waste Diversion ^a | Waste Disposal Rate after Diversion ^b (tons/year) | Landfill Gas (no capture) ^c | Landfill Gas (capture with flaring) ^c | Annual GHG Emissions ^d (MTCO ₂ e/year) |
|----------------------------|------------------------------|--|--|--|--|
| Residential | 60% | 222.30 | 6% | 94% | 101.13 |
| General Retail | 60% | 75.95 | 6% | 94% | 34.55 |
| Supermarket | 60% | 165.78 | 6% | 94% | 75.42 |
| Walk-in Bank | 60% | 7.56 | 6% | 94% | 3.44 |
| Quality Restaurants | 60% | 434.76 | 6% | 94% | 197.78 |
| Dance/Yoga Studios | 60% | 12.02 | 6% | 94% | 5.47 |
| Total GHG Emissions | | | | | 418 |

^a County of Los Angeles, Countywide Integrated Waste Management Plan, 2012 Annual Report (2013).

^b Waste generation factors for residential units are based on factors provided in the L.A. CEQA Threshold Guide, (2006) M.3-2. Generation factors for others uses are from the CalRecycle (formerly Integrated Waste Management Board), Targeted Statewide Waste Characterization Study: Waste Disposal and Diversion Findings for Selected Industry Groups, June (2006) 12.

^c California Air Pollution Control Officers Association, California Emissions Estimator Model, <http://www.caleemod.com/>. Accessed January March 2014. Waste disposal rate is based on the rates provided in CalEEMod minus the amount of waste diverted based on data from the City of Los Angeles. Landfill gas no capture and capture with flaring percentages are based on CalEEMod default statewide average values.

^d Totals may not add up exactly due to rounding in the modeling calculations.

Source: PCR Services Corporation, 2014. Detailed emissions calculations are provided in Appendix B.

(f) Operational Water and Wastewater

Water and wastewater generated from the existing land uses under the Project would require energy to supply, distribute and treat. The combustion of fossil fuels to produce electricity as well as the wastewater treatment process results in GHG emissions of CO₂ and smaller amounts of CH₄ and N₂O.

The emissions of GHGs associated with water demand and wastewater generation under the Project are calculated using the CalEEMod tool. The emissions are based on the size of the commercial, retail,

³⁷ County of Los Angeles, Countywide Integrated Waste Management Plan, 2012 Annual Report (2013).

restaurant, and residential land uses, the water demand factors, the electrical intensity factors for water supply, treatment, and distribution and for wastewater treatment, the GHG emission factors for the electricity utility provider, and the GWP values for the GHGs emitted. Annual water demand and wastewater GHG emissions due to electricity are generally calculated in CalEEMod using the general formula shown previously as Equation 5.

The CalEEMod tool calculates water demand based on annual rates in the Pacific Institute *Waste Not Want Not* report.³⁸ The CalEEMod tool 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 Project would incorporate PDFs to reduce indoor and outdoor water usage, as summarized previous in PDF-GHG-1. Implementation of these PDFs would reduce indoor water usage by approximately 35 percent compared to typical usage values for developments meeting the minimum requirements. These water reduction factors have been accounted for in the CalEEMod tool.

The CEC's estimate for energy intensity of the water use cycle in Southern California, as provided in the 2006 CEC report *Refining Estimates of Water-Related Energy Use in California*, is used to calculate the energy usage related to water supply, treatment, and distribution and wastewater treatment.³⁹ The same electricity GHG emissions factors discussed in **Section 3.3.2(b)**, *Operational Energy – Electricity*, are used for water and wastewater energy usage.

The emissions of GHGs associated with wastewater treatment process emissions are also calculated using the CalEEMod tool. The emissions are based on the type of treatment (e.g., aerobic, facultative lagoons, septic systems). The emissions are calculating using the default settings in CalEEMod for the type of wastewater treatment. Calculation formulas are described in detail in the *California Emissions Estimator Model User's Guide, Appendix A*.⁴⁰ As stated in the *User's Guide*, the GHGs emitted from each type of wastewater treatment are based on the CARB's *Local Government Operations Protocol (LGOP)*,⁴¹ which are in turn based on United States Environmental Protection Agency (USEPA) methodologies.⁴² The default CalEEMod settings for wastewater treatment are: 10.33 percent septic tank, 87.46 percent aerobic, 2.21 percent facultative lagoons and 100 percent anaerobic combustion of gas.

The estimated annual emissions from water and wastewater from the Project are provided in **Table 15**, *Project Water and Wastewater Greenhouse Gas Emissions*. Detailed emissions calculations are provided in Appendix B.

³⁸ Gleick, P.H.; Haasz, D.; Henges-Jeck, C.; Srinivasan, V.; Cushing, K.K.; Mann, A. 2003. *Waste Not, Want Not: The Potential for Urban Water Conservation in California*. Published by the Pacific Institute for Studies in Development, Environment, and Security. Full report available online at: http://www.pacinst.org/reports/urban_usage/waste_not_want_not_full_report.pdf. Appendices available online at: http://www.pacinst.org/reports/urban_usage/appendices.htm.

³⁹ California Energy Commission, *Refining Estimates of Water-Related Energy Use in California, PIER Final Project Report, CEC-500-2006-118, (2006)*.

⁴⁰ California Air Pollution Control Officers Association, *California Emissions Estimator Model User's Guide, (2013)*.

⁴¹ California Air Resources Board, *Local Government Operations Protocol, Chapter 10: Wastewater Treatment Facilities, (2008)*.

⁴² United States Environmental Protection Agency, *Inventory of US Greenhouse Gas Emissions and Sinks: 1990-2006, Chapter 8: Waste, (2008)*.

Table 15

Project Water and Wastewater Greenhouse Gas Emissions

| Land Use | Indoor Water Demand ^a (gal/year) | Outdoor Water Demand ^a (gal/year) | Supply Water ^b (kWh/Mgal) | Treat Water ^b (kWh/Mgal) | Distribute Water ^b (kWh/Mgal) | Wastewater Treatment ^b (kWh/Mgal) | Annual GHG Emissions ^c (MTCO ₂ e/year) |
|---|--|---|---|--|---|---|---|
| 2017-2019 (CO ₂ Intensity Factor: 1,156 1,094 pounds per MWh) | | | | | | | |
| Residential | 5,423,736 | 5,260,435 | 9,727 | 111 | 1,272 | 1,911 | 73.26 69.70 |
| General Retail | 770,487 | 726,505 | 9,727 | 111 | 1,272 | 1,911 | 10.29 9.79 |
| Supermarket | 584,769 | 27,821 | 9,727 | 111 | 1,272 | 1,911 | 4.75 4.53 |
| Walk-in Bank | 76,784 | 72,402 | 9,727 | 111 | 1,272 | 1,911 | 1.03 0.98 |
| Quality Restaurants | 1,900,314 | 186,605 | 9,727 | 111 | 1,272 | 1,911 | 16.01 15.27 |
| Dance/Yoga Studios | 121,942 | 114,982 | 9,727 | 111 | 1,272 | 1,911 | 1.63 1.55 |
| Parking Structure | - | 2,856,125 | 9,727 | 111 | 1,272 | 1,911 | 16.67 15.78 |
| Total GHG Emissions | | | | | | | 124 118 |
| 2020-2025/2023/2025 (CO ₂ Intensity Factor: 968 595 pounds per MWh) | | | | | | | |
| Residential | 5,423,736 | 5,260,435 | 9,727 | 111 | 1,272 | 1,911 | 62.46 41.04 |
| General Retail | 770,487 | 726,505 | 9,727 | 111 | 1,272 | 1,911 | 8.77 5.77 |
| Supermarket | 584,769 | 27,821 | 9,727 | 111 | 1,272 | 1,911 | 4.10 2.80 |
| Walk-in Bank | 76,784 | 72,402 | 9,727 | 111 | 1,272 | 1,911 | 0.87 0.57 |
| Quality Restaurants | 1,900,314 | 186,605 | 9,727 | 111 | 1,272 | 1,911 | 13.78 9.39 |
| Dance/Yoga Studios | 121,942 | 114,982 | 9,727 | 111 | 1,272 | 1,911 | 1.39 0.91 |
| Parking Structure | - | 2,856,125 | 9,727 | 111 | 1,272 | 1,911 | 13.97 8.60 |
| Total GHG Emissions | | | | | | | 105 69 |

^a City of Los Angeles, Department of Public Works, Bureau of Sanitation, [Sewerage Facilities Charge, Sewage Generation Factors for Residential and Commercial Categories. Provided in the L.A. CEQA Thresholds Guide, \(2006\) M.2-22-M.2-26. Water demand rates are derived based on the wastewater generation rates.](#) Indoor and outdoor water demand rates are derived based on the ratio of indoor to outdoor water demand in CalEEMod.

^b California Air Pollution Control Officers Association, California Emissions Estimator Model, <http://www.caleemod.com/>. Accessed November 2013 ~~March 2014~~.

^c Totals may not add up exactly due to rounding in the modeling calculations.

Source: PCR Services Corporation, 2014. Detailed emissions calculations are provided in Appendix B.

(g) Operational Area and Stationary

Area sources of GHG emissions resulting from operation of the Project include equipment used to maintain landscaping, such as lawnmowers and trimmers. The combustion of fossil fuels to operate these equipment results in GHG emissions of CO₂ and smaller amounts of CH₄ and N₂O. There are no other substantial stationary sources on-site, such as generators or industrial sized boilers. Residential hearths would not be installed in the Project's residential uses.

The emissions of GHGs associated with operational area sources under the Project are calculated using the CalEEMod tool. The emissions for landscaping equipment are based on the size of the commercial, retail, restaurant, and residential land uses, the GHG emission factors for fuel combustion, and the GWP values for the GHGs emitted. Annual GHG emissions from landscaping equipment in units of MTCO_{2e} are generally calculated in CalEEMod using the general formula shown previously as Equation 6. The CalEEMod tool uses landscaping equipment GHG emission factors from the CARB OFFROAD2011 model and the CARB *Technical Memo: Change in Population and Activity Factors for Lawn and Garden Equipment (6/13/2003)*.⁴³ The CalEEMod tool estimates that landscaping equipment operate for 250 days per year in the South Coast Air Basin.

The estimated annual emissions from area and stationary sources under the Project are provided in **Table 16, Project Area and Stationary Source Greenhouse Gas Emissions**. Detailed emissions calculations are provided in Appendix B.

Table 16

Project Area and Stationary Source Greenhouse Gas Emissions

| GHG Emissions Source | Annual GHG Emissions (MTCO _{2e} /year) |
|----------------------------|--|
| Landscaping Equipment | 4.29 |
| Total GHG Emissions | 4 |

Source: PCR Services Corporation, 2014. Detailed emissions calculations are provided in Appendix B.

(h) Summary of Project GHG Emissions

A summary of the GHG emissions under the Project is provided in **Table 17, Summary of Annual GHG Emissions under the Project**.

⁴³ California Air Resources Board, *OFFROAD Modeling Change Technical Memo: Change in Population and Activity Factors for Lawn and Garden Equipment, (6/13/2003)*, http://www.arb.ca.gov/msei/2001_residential_lawn_and_garden_changes_in_eqpt_pop_and_act.pdf. Accessed November 2013.

Table 17

Summary of Annual GHG Emissions under the Project

| GHG Emissions Source | Annual GHG Emissions ^a (MTCO ₂ e/year) | | | | | | | | | | |
|---|---|-------------------|--------------|--------------|--------------|--------------|--------------|-------------------|-------------------|--------------|--------------|
| | 2015 | 2016 ^b | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 ^c | 2023 ^c | 2024 | 2025 |
| Construction | 1,631 | 2,346 | = | = | = | = | = | = | = | = | = |
| Electricity | = | 252 | 3,022 | 3,022 | 3,022 | 1,647 | 1,647 | 1,647 | 1,647 | 1,647 | 1,647 |
| Electricity (Green Power/RECs) | = | (252) | (3,022) | (3,022) | (3,022) | (1,647) | (1,647) | (247) | (247) | = | = |
| Natural Gas | = | 37 | 446 | 446 | 446 | 446 | 446 | 446 | 446 | 446 | 446 |
| Mobile | = | 451 | 5,414 | 5,348 | 5,261 | 5,161 | 5,074 | 4,975 | 4,862 | 4,775 | 4,663 |
| Waste | = | 35 | 418 | 418 | 418 | 418 | 418 | 418 | 418 | 418 | 418 |
| Water and Wastewater | = | 10 | 118 | 118 | 118 | 69 | 69 | 69 | 69 | 69 | 69 |
| Area and Stationary | = | 0.3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Total (with Greenpower/RECs) | 1,631 | 2,879 | 6,400 | 6,334 | 6,247 | 6,098 | 6,011 | 7,312 | 7,199 | 7,359 | 7,247 |
| Construction | 1,631 | 2,346 | - | | | - | | | - | | - |
| Electricity | - | 266 | 3,193 | | | 2,675 | | | 2,675 | | 2,675 |
| Electricity (100% Green Power/RECs) | - | (266) | (3,193) | | | (2,675) | | | - | | - |
| Natural Gas | - | 37 | 446 | | | 446 | | | 446 | | 446 |
| Mobile | - | 451 | 5,414 | | | 4,613 | | | 3,898 | | 3,530 |
| Waste | - | 35 | 418 | | | 418 | | | 418 | | 418 |
| Water and Wastewater | - | 10 | 124 | | | 105 | | | 105 | | 105 |
| Area and Stationary | - | <1 | 4 | | | 4 | | | 4 | | 4 |
| Total (with Greenpower/RECs) | 1,631 | 2,880 | 6,406 | | | 5,586 | | | 7,546 | | 7,178 |

^a Totals may not add up exactly due to rounding in the modeling calculations.

^b Based on the expected construction schedule, the Project could be operational during the last month of year 2016. Therefore, estimated operational emissions associated with approximately one month of operational activity are included for year 2016.

^c The purchase of a minimum of 15 percent of the Project's annual electricity use in 2022 and 2023 would result in a GHG emissions reduction of approximately 247 MTCO₂e.

Source: PCR Services Corporation, 2014.

4.0 COMPARISON OF PROJECT TO BASELINE CONDITION

Table 18, *Evaluation of Net GHG Emissions for the Project*, provides a summary of the determination of net additional GHG emissions comparing the existing site GHG emissions and the Project GHG emissions including construction-related emissions. The GHG emissions trends are also presented graphically in **Figure 3**, *Greenhouse Gas Emissions – Baseline and Future Project Year Trends*.

Based on these GHG emissions estimates, the Project would not result in net additional contemporaneous GHG emissions compared to the baseline annual operational emissions at any time ~~with the exception of a slight increase in GHG emissions in year 2023 if the Project does not continue its purchase of green power, carbon offsets, and/or RECs beyond the minimum of five years as required under the LEED® Energy and Atmosphere Credit.~~

The Project shall commit to extending its contract to purchase at least ~~10~~ 15 percent of its electricity from green power, carbon offsets, and/or RECs for at least an additional two years beyond the minimum five year requirement. Based on the anticipated operational year of 2017 (first full calendar year), the Project would not result in net contemporaneous GHG emissions compared to the Baseline Condition, taking into account the additional two years of green power, carbon offsets, and/or RECs of at least ~~10~~ 15 percent of the Project's electricity. Therefore, this analysis demonstrates that the Project meets the GHG emissions requirements of the "Jobs and Economic Improvement through Environmental Leadership Act" (Public Resources Code Section 21178 et seq.) and would result in no net GHG emissions.

Table 18

Evaluation of Net GHG Emissions for the Project

| GHG Emissions Source | Annual GHG Emissions ^a (MTCO ₂ e/year) | | | | | | | | | | |
|--|---|-------------------|-------------------|----------------|----------------|----------------|----------------|--------------|--------------------------|--------------|--------------|
| | 2015 | 2016 ^c | 2017 ^d | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 |
| Baseline Annual Operations^b | 7,372 | 7,372 | 7,372 | 7,372 | 7,372 | 7,372 | 7,372 | 7,372 | 7,372 | 7,372 | 7,372 |
| Project | | | | | | | | | | | |
| Construction | 1,631 | 2,346 | = | = | = | = | = | = | = | = | = |
| Electricity | = | 252 | 3,022 | 3,022 | 3,022 | 1,647 | 1,647 | 1,647 | 1,647 | 1,647 | 1,647 |
| Electricity (Green Power/RECs) | = | (252) | (3,022) | (3,022) | (3,022) | (1,647) | (1,647) | (247) | (247) | = | = |
| Natural Gas | = | 37 | 446 | 446 | 446 | 446 | 446 | 446 | 446 | 446 | 446 |
| Mobile | = | 451 | 5,414 | 5,348 | 5,261 | 5,161 | 5,074 | 4,975 | 4,862 | 4,775 | 4,663 |
| Waste | = | 35 | 418 | 418 | 418 | 418 | 418 | 418 | 418 | 418 | 418 |
| Water & Wastewater Area and Stationary | = | 10 | 118 | 118 | 118 | 69 | 69 | 69 | 69 | 69 | 69 |
| Total (with Greenpower/RECs) | 1,631 | 2,879 | 6,400 | 6,334 | 6,247 | 6,098 | 6,011 | 7,312 | 7,199 | 7,359 | 7,247 |
| Net Change | (5,741) | (4,492) | (972) | (1,042) | (1,129) | (1,277) | (1,364) | (64) | (176) | (16) | (128) |
| Exceeds Baseline? | No | No | No | No | No | No | No | No | No | No | No |
| Baseline Annual Operations^b | 7,407 | 7,407 | 7,407 | | | 7,407 | | | 7,407 | | 7,407 |
| Project | | | | | | | | | | | |
| Construction | 1,631 | 2,346 | - | | | - | | | - | | - |
| Electricity | - | 266 | 3,193 | | | 2,675 | | | 2,675 | | 2,675 |
| Electricity (100% Green Power/RECs) | - | (266) | (3,193) | | | (2,675) | | | - | | - |
| Natural Gas | - | 37 | 446 | | | 446 | | | 446 | | 446 |
| Mobile | - | 451 | 5,414 | | | 4,613 | | | 3,898 | | 3,530 |
| Waste | - | 35 | 418 | | | 418 | | | 418 | | 418 |
| Water and Wastewater | - | 10 | | | | 105 | | | 105 | | 105 |
| Area and Stationary | - | <1 | 4 | | | 4 | | | 4 | | 4 |
| Total (with Greenpower/RECs) | 1,631 | 2,880 | 6,406 | | | 5,586 | | | 7,546 | | 7,178 |
| Net Change | (5,776) | (4,528) | (1,001) | | | (1,821) | | | 139 | | (229) |
| Net Change with Greenpower/RECs Extension for Two Years (10% minimum) | | | | | | | | | (129)^e | | |
| Exceeds Baseline? | No | No | No | | | No | | | No | | No |

^a Totals may not add up exactly due to rounding in the modeling calculations.

^b As of December 30, 2013, 5,761 square feet of the existing 80,000 square feet is unoccupied due to expired lease agreements or because the Applicant bought out the lease in order to facilitate the proposed development. The Applicant may sign new lease agreements or extend existing lease agreements at any time for the full 80,000 square feet retail space without the need for discretionary approvals.

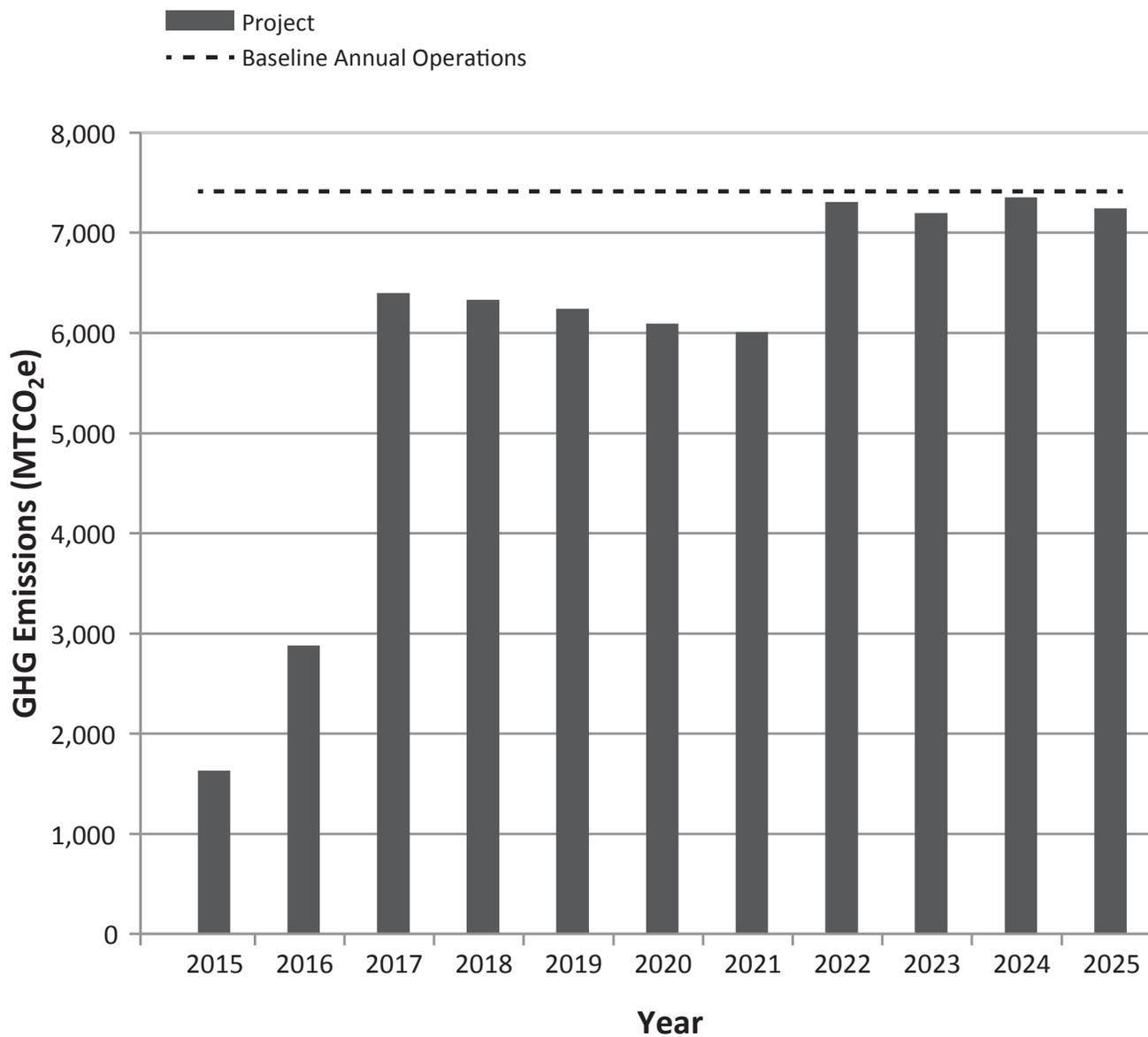
^c Based on the expected construction schedule, the Project would be operational during the last month of year 2016. Therefore, estimated operational

emissions associated with approximately one month of operational activity are included for year 2016.

^d *Year 2017 is expected to be the first full year of Project operations.*

^e *The purchase of a minimum of ~~10~~ 15 percent of the Project's annual electricity use in 2022 and 2023 would result in a GHG emissions reduction of approximately ~~268~~ 247 MTCO₂e.*

Source: PCR Services Corporation, 2014.



2015-2016: Project Construction

2017-2019: Project Operations (100% greenpower/offsets/RECs)

2020-2021: Project Operations (100% greenpower/offsets/RECs, 33% RPS, Pavley Phase II - partial implementation)

2022-2023: Project Operations (At least 15% greenpower/offsets/RECs, 33% RPS, Pavley Phase II - partial implementation)

2024-2025: Project Operations (33% RPS, Pavley Phase II - full implementation)



Greenhouse Gas Emissions – Baseline and Future Project Year Trends

8150 Sunset Boulevard Mixed-Use Project
Greenhouse Gas Emissions Methodology and Documentation
Source: PCR Services Corporation, 2014.

APPENDIX A

BASELINE CONDITION GREENHOUSE GAS EMISSIONS

8150 Sunset Boulevard Mixed-Use Project

Draft EIR

Appendix A, Baseline Condition Greenhouse Gas Emissions

- A.1 Baseline Condition – Trip Generation Rates
- A.2 Baseline Condition GHG Emissions – Electricity
- A.3 Baseline Condition GHG Emissions – Natural Gas
- A.4 Baseline Condition GHG Emissions – On-Site Mobile Source Queuing at existing Fast Food Drive-Thru
- A.5 Baseline Condition GHG Emissions – CalEEMod Outputs for Mobile, Area, Waste, and Water
- A.6 Baseline Condition – Solid Waste Disposal Rates
- A.7 Baseline Condition – Water Demand Rates

Appendix A.1

Baseline Condition – Trip Generation Rates

8150 SUNSET BOULEVARD MIXED USE PROJECT
Draft Environmental Impact Report

Trip Generation Rates
Baseline Condition

| Land Use | Value | Units | Land Use | Value | Units |
|--|--------|---------------------|--|--------|----------------------|
| General Retail | 14.647 | 1000 sf | Fast Food Restaurant without Drive-Thru | 3.720 | 1000 sf |
| Land Use Trips | | 625 trips | Land Use Trips | | 2,664 trips |
| Less Land Use and Transportation Reductions ¹ | 16.49% | (103) trips | Less Land Use and Transportation Reductions ¹ | 16.49% | (439) trips |
| Net Existing Trips | | 522 trips | Net Existing Trips | | 2,225 trips |
| Net Existing Trip Rate (trips/1000 sf) | | 35.64 trips/1000 sf | Net Existing Trip Rate (trips/1000 sf) | | 598.12 trips/1000 sf |
| Storage Facility | 27.625 | 1000 sf | Net Existing Trip Rate (trips/1000 sf) | | 372.87 |
| Land Use Trips | | 69 trips | Fast Food Restaurant with Drive-Thru | 5.070 | 1000 sf |
| Less Land Use and Transportation Reductions ¹ | 16.49% | (11) trips | Land Use Trips | | 2,515 trips |
| Net Existing Trips | | 58 trips | Less Land Use and Transportation Reductions ¹ | 16.49% | (415) trips |
| Net Existing Trip Rate (trips/1000 sf) | | 2.10 trips/1000 sf | Net Existing Trips | | 2,100 trips |
| Walk-in Bank Facility | 20.172 | 1000 sf | Net Existing Trip Rate (trips/1000 sf) | | 414.20 trips/1000 sf |
| Land Use Trips | | 1,860 trips | Dental Office | 2.360 | 1000 sf |
| Less Land Use and Transportation Reductions ¹ | 16.49% | (307) trips | Land Use Trips | | 85 trips |
| Net Existing Trips | | 1,553 trips | Less Land Use and Transportation Reductions ¹ | 16.49% | (14) trips |
| Net Existing Trip Rate (trips/1000 sf) | | 76.99 trips/1000 sf | Net Existing Trips | | 71 trips |
| Fast Food without Drive-Thru Restaurant | 2.056 | 1000 sf | Net Existing Trip Rate (trips/1000 sf) | | 30.08 trips/1000 sf |
| Land Use Trips | | 196 trips | Fitness Center | 3.550 | 1000 sf |
| Less Land Use and Transportation Reductions ¹ | 16.49% | (32) trips | Land Use Trips | | 117 trips |
| Net Existing Trips | | 164 trips | Less Land Use and Transportation Reductions ¹ | 16.49% | (19) trips |
| Net Existing Trip Rate (trips/1000 sf) | | 79.77 trips/1000 sf | Net Existing Trips | | 98 trips |
| Ice Cream Parlor | 0.800 | 1000 sf | Net Existing Trip Rate (trips/1000 sf) | | 27.61 trips/1000 sf |
| Land Use Trips | | 76 trips | Note: | | |
| Less Land Use and Transportation Reductions ¹ | 16.49% | (13) trips | 1. Based on the estimated VMT reductions calculated using the methodology described in the CAPCOA guidance document, Quantifying Greenhouse Gas Mitigation Measures (August 2010). For the purposes of estimating transportation-related emissions in the CalEEMod software, the percent reductions were applied to the trip rates rather than the trip lengths to simplify the process (this results in the same end-result VMT). | | |
| Net Existing Trips | | 63 trips | | | |
| Net Existing Trip Rate (trips/1000 sf) | | 78.75 trips/1000 sf | | | |

Source: PCR Services Corporation, 2014.

Appendix A.2

Baseline Condition GHG Emissions – Electricity

8150 SUNSET BOULEVARD MIXED USE PROJECT
Greenhouse Gas Emissions Methodology and Documentation

Baseline Condition Electrical Demand Factors

| End Use | End-Use Floor Stock (1000 sqft) | Annual Energy Usage ¹ (GWh/year) | Per Unit Annual Energy Usage (MWh/1000 sqft/year) |
|--------------|------------------------------------|--|--|
| Health | 106,471 | 2,161 | 20.30 |
| Restaurant | 61,623 | 2,846 | 46.18 |
| Retail | 309,601 | 4,755 | 15.36 |
| Small Office | 157,884 | 2,091 | 13.24 |
| Warehouse | 353,765 | 1,517 | 4.29 |

Notes:

1. California Energy Commission, *California Commercial End Use Survey*, <http://capabilities.itron.com/CeusWeb/ChartsSF/Default2.aspx>. Accessed March 2014. Factors are based on the Southern California Edison (SCE) sector as representative of the Project Site location.

Source: PCR Services Corporation, 2014.

Baseline Condition Electrical Demand Greenhouse Gas Emissions

| Land Use | Units (1000 sqft) | Per Unit Annual Energy Usage (MWh/1000 sqft/year) | CO2 Factor ¹ (pounds/MWh) | CH4 Factor ² (pounds/MWh) | N2O Factor ² (pounds/MWh) | Annual GHG Emissions (MTCO2e/year) |
|---|----------------------|--|---|---|---|---------------------------------------|
| General Retail | 14.65 | 15.36 | 1,094 | 0.029 | 0.0062 | 111.89 |
| Storage Facility | 27.63 | 4.29 | 1,094 | 0.029 | 0.0062 | 58.92 |
| Walk-in Bank Facility | 20.17 | 13.24 | 1,094 | 0.029 | 0.0062 | 132.88 |
| Restaurant | 2.06 | 46.18 | 1,094 | 0.029 | 0.0062 | 47.23 |
| Ice Cream Parlor | 0.80 | 46.18 | 1,094 | 0.029 | 0.0062 | 18.38 |
| Fast Food Restaurant with Drive-Thru | 5.07 | 46.18 | 1,094 | 0.029 | 0.0062 | 116.46 |
| Fast Food Restaurant without Drive-Thru | 3.72 | 46.18 | 1,094 | 0.029 | 0.0062 | 85.45 |
| Dental Office | 2.36 | 20.30 | 1,094 | 0.029 | 0.0062 | 23.82 |
| Fitness Center | 3.55 | 20.30 | 1,094 | 0.029 | 0.0062 | 35.84 |
| Total GHG Emissions | 80.00 | | | | | 630.86 |

Notes:

1. Los Angeles Department of Water and Power, *2013 Power Integrated Resource Plan*, (2013).
2. California Air Pollution Control Officers Association, *California Emissions Estimator Model*, <http://www.caleemod.com/>. Accessed March 2014.

Source: PCR Services Corporation, 2014.

Appendix A.3

Baseline Condition GHG Emissions – Natural Gas

8150 SUNSET BOULEVARD MIXED USE PROJECT
Greenhouse Gas Emissions Methodology and Documentation

Baseline Condition Natural Gas Combustion Factors

| End Use | End-Use Floor Stock (1000 sqft) | Annual Energy Usage ¹ (10,000 therms/year) | Million British thermal units [MMBtu] per Year | Per Unit Annual Energy Usage (MMBtu/1000 sqft/year) |
|--------------|------------------------------------|--|---|--|
| Health | 106,471 | 7,274 | 7,274,000 | 68.32 |
| Restaurant | 61,623 | 15,353 | 15,353,000 | 249.14 |
| Retail | 309,601 | 762 | 762,000 | 2.46 |
| Small Office | 157,884 | 1,271 | 1,271,000 | 8.05 |
| Warehouse | 353,765 | 869 | 869,000 | 2.46 |

Notes:

1. California Energy Commission, *California Commercial End Use Survey*, <http://capabilities.itron.com/CeusWeb/ChartsSF/Default2.aspx>. Accessed March 2014. Factors are based on the Southern California Edison (SCE) sector as representative of the Project Site location.

Source: PCR Services Corporation, 2014.

Baseline Condition Natural Gas Demand Greenhouse Gas Emissions

| Land Use | Units (1000 sqft) | Per Unit Annual Energy Usage (MMBtu/1000 sqft/year) | CO2 Factor ¹ (pounds/MMBtu) | CH4 Factor ¹ (pounds/MMBtu) | N2O Factor ¹ (pounds/MMBtu) | Annual GHG Emissions (MTCO2e/year) |
|---|----------------------|--|---|---|---|---------------------------------------|
| General Retail | 14.65 | 2.46 | 117.65 | 0.0023 | 0.0022 | 1.94 |
| Storage Facility | 27.63 | 2.46 | 117.65 | 0.0023 | 0.0022 | 3.64 |
| Walk-in Bank Facility | 20.17 | 8.05 | 117.65 | 0.0023 | 0.0022 | 8.72 |
| Restaurant | 2.06 | 249.14 | 117.65 | 0.0023 | 0.0022 | 27.50 |
| Ice Cream Parlor | 0.80 | 249.14 | 117.65 | 0.0023 | 0.0022 | 10.70 |
| Fast Food Restaurant with Drive-Thru | 5.07 | 249.14 | 117.65 | 0.0023 | 0.0022 | 67.82 |
| Fast Food Restaurant without Drive-Thru | 3.72 | 249.14 | 117.65 | 0.0023 | 0.0022 | 49.76 |
| Dental Office | 2.36 | 68.32 | 117.65 | 0.0023 | 0.0022 | 8.66 |
| Fitness Center | 3.55 | 68.32 | 117.65 | 0.0023 | 0.0022 | 13.02 |
| Total GHG Emissions | 80.00 | | | | | 191.75 |

Notes:

1. California Air Pollution Control Officers Association, California Emissions Estimator Model, <http://www.caleemod.com/>. Accessed March 2014.

Source: PCR Services Corporation, 2014.

Appendix A.4

**Baseline Condition GHG Emissions – On-Site Mobile Source
Queuing at existing Fast Food Drive-Thru**

8150 SUNSET BOULEVARD MIXED USE PROJECT
Draft Environmental Impact Report

Baseline Condition - Estimated Fast Food with Drive-Thru On-Site Idling Emissions

| Existing Land Use | Size (sf) | Daily Trips ¹ | Percent Using Drive-Thru ² | Drive-Thru Daily Trips | Idling Minutes per Drive-Thru Trip ³ | Total Idling Hours per Day | Total Idling Hours per Year |
|---------------------------|-----------|--------------------------|---------------------------------------|------------------------|---|----------------------------|-----------------------------|
| Fast Food with Drive-Thru | 5,070 | 2,515 | 57% | 1,434 | 2 | 48 | 17,442 |

Notes:

- Hirsch/Green Transportation Consulting, Inc., Traffic Impact Analysis Report, Proposed Mixed-Use Development, 8150 Sunset Boulevard, Hollywood, California, November 2013.
- The NPD Group, Drive-Thru Windows Still Put the Fast in Fast Food Restaurants, Reports NPD, May 2012, https://www.npd.com/wps/portal/npd/us/news/press-releases/pr_120530a/. Accessed December 2013. A value of 57 percent was used corresponding to the drive-thru percentage for hamburger fast food restaurants.
- QSR Magazine, 2012 QSR Drive-Thru Study, <http://www.qsrmagazine.com/print/50631>. Accessed December 2013. Based on the study, an average wait time of 129.75 seconds was recorded for Wendy's, which was faster than other hamburger fast food restaurants. In order not to overestimate emissions from the existing fast food restaurant and thus not overestimate the amount of existing emissions credits, a value of 120 second (or 2 minutes) was used in this assessment.

| Emission Factors (grams/mile @ 5 MPH) ¹ | Air Basin VMT (miles per day) | Emission Rates (grams per mile) | | | |
|---|----------------------------------|---------------------------------------|-----------------|------------------|-------------------|
| | | CO ₂ | CH ₄ | N ₂ O | CO ₂ e |
| 2013 LDA Gas | 474,344.67 | 1,013.04 | – | 0.0092 | – |
| 2013 LDA Diesel | 1,518.49 | 399.09 | – | 0.0110 | – |
| 2013 LDT1 Gas | 54,821.31 | 1,185.50 | – | 0.0273 | – |
| 2013 LDT1 Diesel | 71.68 | 385.81 | – | 0.0115 | – |
| 2013 LDT2 Gas | 165,153.32 | 1,420.34 | – | 0.0187 | – |
| 2013 LDT2 Diesel | 73.55 | 391.63 | – | 0.0113 | – |
| Weighted Average | | 1,121.81 | 0.0570 | 0.0129 | 1,127.00 |
| | | Emission Rates (grams per hour) | | | |
| Weighted Average | | 5,609.03 | 0.2850 | 0.0644 | 5,634.99 |
| | | Emission Rates (metric tons per hour) | | | |
| Weighted Average | | 5.61E-03 | 2.85E-07 | 6.44E-08 | 5.63E-03 |

Note:

- California Air Resources Board, EMFAC2011, <http://www.arb.ca.gov/msei/modeling.htm>. Accessed December 2013. Emission factors are based on running exhaust emissions from EMFAC2011 for Years 2013, LDA, LDT1, and LDT2 at 5 miles per hour per CARB guidance.

| Existing Land Use | Emissions (metric tons per year) | | | |
|---------------------------|----------------------------------|-----------------|------------------|-------------------|
| | CO ₂ | CH ₄ | N ₂ O | CO ₂ e |
| Fast Food with Drive-Thru | 97.83 | 0.0050 | 0.0011 | 98.28 |

Source: PCR Services Corporation, 2014.

EMFAC2011 Emission Rates

Region Type: Air Basin

Region: South Coast

Calendar Year: 2013

Season: Annual

Vehicle Classification: EMFAC2011 Categories

| Region | CalYr | Season | Veh_Class | Fuel | MdlYr | Speed (miles/hr) | VMT (miles/day) | ROG_RUNEX (gms/mile) | TOG_RUNEX (gms/mile) | CO_RUNEX (gms/mile) | NOX_RUNEX (gms/mile) | CO2_RUNEX (gms/mile) | CO2_RUNEX(Pavley I+LCFS) (gms/mile) | PM10_RUNEX (gms/mile) | PM2_5_RUNEX (gms/mile) | SOX_RUNEX (gms/mile) |
|-------------|-------|--------|-----------|------|------------|---------------------|--------------------|-------------------------|-------------------------|------------------------|-------------------------|-------------------------|--|--------------------------|---------------------------|-------------------------|
| South Coast | 2013 | Annual | LDA | GAS | Aggregated | 5 | 474344.67 | 0.237076095 | 0.333857713 | 3.137562711 | 0.220739842 | 1101.868558 | 1013.041646 | 0.012494462 | 0.011427214 | 0.0036094 |
| South Coast | 2013 | Annual | LDA | DSL | Aggregated | 5 | 1518.493 | 0.169760222 | 0.193260717 | 1.091999023 | 0.880313341 | 452.3122042 | 399.0904211 | 0.128349403 | 0.118081457 | 0.0031967 |
| South Coast | 2013 | Annual | LDT1 | GAS | Aggregated | 5 | 54821.314 | 0.595923234 | 0.777769465 | 8.343011389 | 0.657325778 | 1268.639344 | 1185.498091 | 0.028630856 | 0.026224635 | 0.0041729 |
| South Coast | 2013 | Annual | LDT1 | DSL | Aggregated | 5 | 71.676197 | 0.297942256 | 0.339187445 | 1.772520941 | 1.223692682 | 431.7922214 | 385.8110745 | 0.251489648 | 0.231370475 | 0.0033402 |
| South Coast | 2013 | Annual | LDT2 | GAS | Aggregated | 5 | 165153.32 | 0.293968262 | 0.426849124 | 4.132392612 | 0.45042172 | 1503.999815 | 1420.341119 | 0.013225691 | 0.012137507 | 0.0049172 |
| South Coast | 2013 | Annual | LDT2 | DSL | Aggregated | 5 | 73.549358 | 0.225335426 | 0.256529401 | 1.425179668 | 1.196024554 | 432.8498527 | 391.6300667 | 0.18435689 | 0.169608344 | 0.00328 |

Title : LDA; LDT CH4
 Version : Emfac2011-LDV V2.50.58.094 Sp: Trip Assign Santa Clara County
 Run Date : 2013/12/06 12:22:08
 Scen Year: 2013 -- All model years in the range 1969 to 2013 selected
 Season : Annual
 Area : South Coast

 Year: 2013 -- Model Years 1969 to 2013 Inclusive -- Annual
 Emfac2011-LDV Emission Factors: V2.50.58.094 Sp: Trip Assign Santa Clara County

South Coast Basin Average Basin Average

Table 1: Running Exhaust Emissions (grams/mile; grams/idle-hour)

Pollutant Name: Methane

Temperature: 60F Relative Humidity: 30%

| Speed MPH | LDA NCAT | LDA CAT | LDA DSL | LDA ALL | LDT1 NCAT | LDT1 CAT | LDT1 DSL | LDT1 ALL | LDT2 NCAT | LDT2 CAT | LDT2 DSL | LDT2 ALL | ALL NCAT | ALL CAT | ALL DSL | ALL ALL |
|--------------|-------------|------------|------------|------------|--------------|-------------|-------------|-------------|--------------|-------------|-------------|-------------|-------------|------------|------------|------------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | 0.776 | 0.049 | 0.008 | 0.052 | 0.805 | 0.073 | 0.014 | 0.08 | 0.795 | 0.062 | 0.01 | 0.065 | 0.784 | 0.054 | 0.008 | 0.057 |

EMFAC2011 Emissions Inventory

Region Type: Air Basin

Region: South Coast

Calendar Year: 2013

Season: Annual

Vehicle Classification: EMFAC2011 Categories

| Region | CalYr | Season | Veh_Class | Fuel | MdlYr | Speed (miles/hr) | Population (vehicles) | VMT (miles/day) | Trips (trips/day) | Fuel_GAS (1000 gallon) | Fuel_DSL (1000 gallons/day) | Fuel_DSL (gallons/day) | Fuel_DSL (gallons/mil) | Fuel_DSL (gallons/veh-hour) |
|-------------|-------|--------|-----------|------|------------|---------------------|--------------------------|--------------------|----------------------|---------------------------|--------------------------------|---------------------------|---------------------------|--------------------------------|
| South Coast | 2013 | Annual | LDA | DSL | Aggregated | Aggregated | 19553.64 | 604666.77 | 112931.86 | 0 | 20.087031 | 20087.031 | 0.03322 | 0.0428033 |
| South Coast | 2013 | Annual | LDT1 | DSL | Aggregated | Aggregated | 968.62073 | 29350.192 | 5088.5683 | 0 | 1.0187834 | 1018.7834 | 0.0347113 | 0.0438245 |
| South Coast | 2013 | Annual | LDT2 | DSL | Aggregated | Aggregated | 886.19568 | 30108.384 | 4994.3971 | 0 | 1.0262687 | 1026.2687 | 0.0340858 | 0.0482525 |

Appendix A.5

**Baseline Condition GHG Emissions – CalEEMod Outputs for
Mobile, Area, Waste, and Water**

8150 Sunset Blvd Mixed Use Project - BASELINE

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 | 20.17 | 1000sqft | 0.46 | 20,172.00 | 0 |
| Medical Office Building | 2.36 | 1000sqft | 0.05 | 2,360.00 | 0 |
| Unrefrigerated Warehouse-No Rail | 27.63 | 1000sqft | 0.63 | 27,625.00 | 0 |
| Parking Lot | 58.11 | 1000sqft | 0.73 | 58,109.00 | 0 |
| Fast Food Restaurant w/o Drive Thru | 6.58 | 1000sqft | 0.15 | 6,576.00 | 0 |
| Fast Food Restaurant with Drive Thru | 5.07 | 1000sqft | 0.12 | 5,070.00 | 0 |
| Health Club | 3.55 | 1000sqft | 0.08 | 3,550.00 | 0 |
| Strip Mall | 14.65 | 1000sqft | 0.34 | 14,647.00 | 0 |

1.2 Other Project Characteristics

| | | | | | |
|---------------------------------|---|---------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 31 |
| Climate Zone | 11 | Operational Year | 2013 | | |
| Utility Company | Los Angeles Department of Water & Power | | | | |
| CO2 Intensity (lb/MW hr) | 1094 | CH4 Intensity (lb/MW hr) | 0.029 | N2O Intensity (lb/MW hr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: Los Angeles Department of Water and Power, 2013 Power Integrated Resource Plan, (2013).

Land Use - General Retail (14.647 ksf); Storage Facility (27.625); Walk-in Bank Facility (20.172); Fast Food w/o Drive-Thru (2.056+0.800+3.720); Fast Food w/ Drive-Thru (5.070); Dental Office (2.360); Fitness Center (3.550); Parking Lot (58.109).

Vehicle Trips - Refer to "Trip Generation Rate" worksheet provided in this Appendix.

Energy Use - .

Water And Wastewater - Refer to "Baseline Condition Water Demand Rates" worksheet provided in this Appendix.

Solid Waste - Refer to "Baseline Condition Solid Waste Disposal Rates" worksheet provided in this Appendix. Solid waste rate is based on existing site-wide rate and not broken down by land use type and is inclusive of 60% diversion.

| Table Name | Column Name | Default Value | New Value |
|---------------------------|--------------------------|---------------|-----------|
| tblLandUse | LandUseSquareFeet | 20,170.00 | 20,172.00 |
| tblLandUse | LandUseSquareFeet | 27,630.00 | 27,625.00 |
| tblLandUse | LandUseSquareFeet | 58,110.00 | 58,109.00 |
| tblLandUse | LandUseSquareFeet | 6,580.00 | 6,576.00 |
| tblLandUse | LandUseSquareFeet | 14,650.00 | 14,647.00 |
| tblLandUse | LotAcreage | 1.33 | 0.73 |
| tblProjectCharacteristics | CO2IntensityFactor | 1227.89 | 1094 |
| tblProjectCharacteristics | OperationalYear | 2014 | 2013 |
| tblSolidWaste | SolidWasteGenerationRate | 75.79 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 58.40 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 18.76 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 20.23 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 25.49 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 15.38 | 136.86 |
| tblSolidWaste | SolidWasteGenerationRate | 25.97 | 0.00 |
| tblVehicleTrips | ST_TR | 696.00 | 372.87 |
| tblVehicleTrips | ST_TR | 722.03 | 414.20 |
| tblVehicleTrips | ST_TR | 2.37 | 76.99 |
| tblVehicleTrips | ST_TR | 20.87 | 27.61 |
| tblVehicleTrips | ST_TR | 8.96 | 30.08 |
| tblVehicleTrips | ST_TR | 42.04 | 35.64 |
| tblVehicleTrips | ST_TR | 2.59 | 2.10 |
| tblVehicleTrips | SU_TR | 500.00 | 372.87 |
| tblVehicleTrips | SU_TR | 542.72 | 414.20 |
| tblVehicleTrips | SU_TR | 0.98 | 76.99 |

| | | | |
|-----------------|---------------------|--------------|------------|
| tblVehicleTrips | SU_TR | 26.73 | 27.61 |
| tblVehicleTrips | SU_TR | 1.55 | 30.08 |
| tblVehicleTrips | SU_TR | 20.43 | 35.64 |
| tblVehicleTrips | SU_TR | 2.59 | 2.10 |
| tblVehicleTrips | WD_TR | 716.00 | 372.87 |
| tblVehicleTrips | WD_TR | 496.12 | 414.20 |
| tblVehicleTrips | WD_TR | 11.01 | 76.99 |
| tblVehicleTrips | WD_TR | 32.93 | 27.61 |
| tblVehicleTrips | WD_TR | 36.13 | 30.08 |
| tblVehicleTrips | WD_TR | 44.32 | 35.64 |
| tblVehicleTrips | WD_TR | 2.59 | 2.10 |
| tblWater | IndoorWaterUseRate | 1,997,251.83 | 866,380.00 |
| tblWater | IndoorWaterUseRate | 1,538,915.92 | 667,966.00 |
| tblWater | IndoorWaterUseRate | 3,584,889.70 | 467,535.00 |
| tblWater | IndoorWaterUseRate | 209,958.16 | 82,737.00 |
| tblWater | IndoorWaterUseRate | 296,134.07 | 231,483.00 |
| tblWater | IndoorWaterUseRate | 1,085,162.44 | 339,452.00 |
| tblWater | IndoorWaterUseRate | 6,389,437.50 | 258,420.00 |
| tblWater | OutdoorWaterUseRate | 127,484.16 | 55,299.00 |
| tblWater | OutdoorWaterUseRate | 98,228.68 | 42,635.00 |
| tblWater | OutdoorWaterUseRate | 2,197,190.46 | 286,555.00 |
| tblWater | OutdoorWaterUseRate | 128,684.03 | 50,487.00 |
| tblWater | OutdoorWaterUseRate | 56,406.49 | 44,092.00 |
| tblWater | OutdoorWaterUseRate | 0.00 | 542,755.00 |
| tblWater | OutdoorWaterUseRate | 665,099.56 | 208,048.00 |

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 | tons/yr | | | | | | | | | | MT/yr | | | | | |
|-------------|---------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|------------|------------|--------|--------|------------|
| | 5.1530 | 11.7901 | 49.3490 | 0.0741 | 5.0317 | 0.2112 | 5.2429 | 1.3460 | 0.1938 | 1.5398 | 0.0000 | 6,350.8869 | 6,350.8869 | 0.3311 | 0.0000 | 6,357.8407 |
| Unmitigated | 5.1530 | 11.7901 | 49.3490 | 0.0741 | 5.0317 | 0.2112 | 5.2429 | 1.3460 | 0.1938 | 1.5398 | 0.0000 | 6,350.8869 | 6,350.8869 | 0.3311 | 0.0000 | 6,357.8407 |
| Mitigated | 5.1530 | 11.7901 | 49.3490 | 0.0741 | 5.0317 | 0.2112 | 5.2429 | 1.3460 | 0.1938 | 1.5398 | 0.0000 | 6,350.8869 | 6,350.8869 | 0.3311 | 0.0000 | 6,357.8407 |

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|--------------------------------------|-------------------------|----------|----------|-------------|------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Fast Food Restaurant w/o Drive Thru | 2,453.48 | 2,453.48 | 2453.48 | 4,443,368 | 4,443,368 |
| Fast Food Restaurant with Drive Thru | 2,099.99 | 2,099.99 | 2099.99 | 2,210,007 | 2,210,007 |
| General Office Building | 1,552.89 | 1,552.89 | 1552.89 | 5,002,569 | 5,002,569 |
| Health Club | 98.02 | 98.02 | 98.02 | 209,633 | 209,633 |
| Medical Office Building | 70.99 | 70.99 | 70.99 | 184,135 | 184,135 |
| Parking Lot | 0.00 | 0.00 | 0.00 | | |
| Strip Mall | 522.13 | 522.13 | 522.13 | 993,394 | 993,394 |
| Unrefrigerated Warehouse-No Rail | 58.02 | 58.02 | 58.02 | 248,670 | 248,670 |
| Total | 6,855.52 | 6,855.52 | 6,855.52 | 13,291,777 | 13,291,777 |

4.3 Trip Type Information

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|---------------------------------|------------|------------|-------------|------------|------------|-------------|----------------|----------|---------|
| | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Fast Food Restaurant w/o Drive | 16.60 | 8.40 | 6.90 | 1.50 | 79.50 | 19.00 | 51 | 37 | 12 |
| Fast Food Restaurant with Drive | 16.60 | 8.40 | 6.90 | 2.20 | 78.80 | 19.00 | 29 | 21 | 50 |
| 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 |
| Medical Office Building | 16.60 | 8.40 | 6.90 | 29.60 | 51.40 | 19.00 | 60 | 30 | 10 |
| Parking Lot | 16.60 | 8.40 | 6.90 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |
| Strip Mall | 16.60 | 8.40 | 6.90 | 16.60 | 64.40 | 19.00 | 45 | 40 | 15 |
| Unrefrigerated Warehouse-No | 16.60 | 8.40 | 6.90 | 59.00 | 0.00 | 41.00 | 92 | 5 | 3 |

| LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.517496 | 0.060616 | 0.179855 | 0.141540 | 0.041435 | 0.006630 | 0.014687 | 0.026300 | 0.001931 | 0.002544 | 0.004287 | 0.000607 | 0.002072 |

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 | | | | | |
| Unmitigated | 0.5940 | 2.0000e-005 | 1.8600e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | 3.4300e-003 | 3.4300e-003 | 1.0000e-005 | 0.0000 | 3.6500e-003 |
| Mitigated | 0.5940 | 2.0000e-005 | 1.8600e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | 3.4300e-003 | 3.4300e-003 | 1.0000e-005 | 0.0000 | 3.6500e-003 |

6.2 Area by SubCategory

Unmitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|--------------------|--------------------|--------------------|---------------|--------------------|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 0.0947 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.4991 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 1.9000e-004 | 2.0000e-005 | 1.8600e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | 3.4300e-003 | 3.4300e-003 | 1.0000e-005 | 0.0000 | 3.6500e-003 |
| Total | 0.5940 | 2.0000e-005 | 1.8600e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | 3.4300e-003 | 3.4300e-003 | 1.0000e-005 | 0.0000 | 3.6500e-003 |

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 | 0.0947 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.4991 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 1.9000e-004 | 2.0000e-005 | 1.8600e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | 3.4300e-003 | 3.4300e-003 | 1.0000e-005 | 0.0000 | 3.6500e-003 |
| Total | 0.5940 | 2.0000e-005 | 1.8600e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | 3.4300e-003 | 3.4300e-003 | 1.0000e-005 | 0.0000 | 3.6500e-003 |

7.0 Water Detail

7.1 Mitigation Measures Water

| | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------|--------|-------------|---------|
| Category | MT/yr | | | |
| Unmitigated | 26.5333 | 0.0956 | 2.3800e-003 | 29.2801 |
| Mitigated | 26.5333 | 0.0956 | 2.3800e-003 | 29.2786 |

7.2 Water by Land Use

Unmitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|--|---------------------|----------------|---------------|--------------------|----------------|
| Land Use | Mgal | MT/yr | | | |
| Fast Food Restaurant w/o Drive-Thru | 0.86638 / 0.055299 | 6.1778 | 0.0284 | 7.0000e-004 | 6.9906 |
| Fast Food Restaurant with Drive-Thru | 0.667966 / 0.042635 | 4.7630 | 0.0219 | 5.4000e-004 | 5.3896 |
| General Office Building | 0.467535 / 0.286555 | 4.7491 | 0.0154 | 3.8000e-004 | 5.1909 |
| Health Club | 0.082737 / 0.050487 | 0.8392 | 2.7200e-003 | 7.0000e-005 | 0.9174 |
| Medical Office Building | 0.231483 / 0.044092 | 1.8122 | 7.5900e-003 | 1.9000e-004 | 2.0298 |
| Parking Lot | 0 / 0.542755 | 2.9923 | 8.0000e-005 | 2.0000e-005 | 2.9990 |
| Strip Mall | 0.339452 / 0.208048 | 3.4480 | 0.0112 | 2.8000e-004 | 3.7688 |
| Unrefrigerated Warehouse-No Drive-Thru | 0.25842 / 0 | 1.7517 | 8.4600e-003 | 2.1000e-004 | 1.9940 |
| Total | | 26.5333 | 0.0956 | 2.3900e-003 | 29.2801 |

Mitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|----------|--------------------|-----------|-----|-----|------|
| Land Use | Mgal | MT/yr | | | |

| | | | | | |
|--|---------------------|----------------|---------------|--------------------|----------------|
| Fast Food Restaurant w/o Drive-Thru | 0.86638 / 0.055299 | 6.1778 | 0.0284 | 7.0000e-004 | 6.9902 |
| Fast Food Restaurant with Drive-Thru | 0.667966 / 0.042635 | 4.7630 | 0.0219 | 5.4000e-004 | 5.3893 |
| General Office Building | 0.467535 / 0.286555 | 4.7491 | 0.0154 | 3.8000e-004 | 5.1907 |
| Health Club | 0.082737 / 0.050487 | 0.8392 | 2.7200e-003 | 7.0000e-005 | 0.9173 |
| Medical Office Building | 0.231483 / 0.044092 | 1.8122 | 7.5900e-003 | 1.9000e-004 | 2.0297 |
| Parking Lot | 0 / 0.542755 | 2.9923 | 8.0000e-005 | 2.0000e-005 | 2.9990 |
| Strip Mall | 0.339452 / 0.208048 | 3.4480 | 0.0112 | 2.8000e-004 | 3.7686 |
| Unrefrigerated Warehouse-No Drive-Thru | 0.25842 / 0 | 1.7517 | 8.4600e-003 | 2.1000e-004 | 1.9939 |
| Total | | 26.5333 | 0.0956 | 2.3900e-003 | 29.2786 |

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

| | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------|--------|--------|---------|
| | MT/yr | | | |
| Mitigated | 27.7813 | 1.6418 | 0.0000 | 62.2598 |
| Unmitigated | 27.7813 | 1.6418 | 0.0000 | 62.2598 |

8.2 Waste by Land Use

Unmitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|-------------------------------------|----------------|-----------|--------|--------|--------|
| Land Use | tons | MT/yr | | | |
| Fast Food Restaurant w/o Drive-Thru | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

| | | | | | |
|--|--------|----------------|---------------|---------------|----------------|
| Fast Food Restaurant with Drive-Thru | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| General Office Building | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Health Club | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Medical Office Building | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Strip Mall | 136.86 | 27.7813 | 1.6418 | 0.0000 | 62.2598 |
| Unrefrigerated Warehouse-No Drive-Thru | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 27.7813 | 1.6418 | 0.0000 | 62.2598 |

Mitigated

| Land Use | Waste Disposed tons | Total CO2 MT/yr | CH4 MT/yr | N2O MT/yr | CO2e MT/yr |
|--|------------------------|--------------------|---------------|---------------|----------------|
| Fast Food Restaurant w/o Drive-Thru | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Fast Food Restaurant with Drive-Thru | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| General Office Building | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Health Club | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Medical Office Building | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Strip Mall | 136.86 | 27.7813 | 1.6418 | 0.0000 | 62.2598 |
| Unrefrigerated Warehouse-No Drive-Thru | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 27.7813 | 1.6418 | 0.0000 | 62.2598 |

9.0 Operational Offroad

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

10.0 Vegetation

Appendix A.6

Baseline Condition – Solid Waste Disposal Rates

8150 SUNSET BOULEVARD MIXED USE PROJECT
Greenhouse Gas Emissions Methodology and Documentation

Baseline Condition Solid Waste Disposal Rates

| Land Use | Existing Site Employees | Waste Generation Factor ¹ (lbs/employees/year) | Waste Before Diversion (tons/year) | Building Area (1000 sqft) | Waste Disposal Rate ² (tons/1000 sqft/year) | Waste Diversion Rate ³ (%) | Waste Disposal Rate after Diversion (tons/year) |
|--------------------------------------|-------------------------|--|---------------------------------------|------------------------------|---|--|--|
| Retail/Commercial | 128 | 3,714 | 237.70 | 68.35 | 3.48 | 60% | 95.08 |
| Restaurant/Fast Food | 32 | 6,528 | 104.45 | 11.65 | 8.97 | 60% | 41.78 |
| Total from Existing Land Uses | | | 342.14 | 80.000 | 4.28 | 60% | 136.86 |

Notes:

1. CalRecycle (formerly Integrated Waste Management Board), Targeted Statewide Waste Characterization Study: Waste Disposal and Diversion Findings for Selected Industry Groups, (2006) 12.
2. Converted waste generation factor into units of tons/1000 sqft/year.
3. Los Angeles County, Countywide Integrated Waste Management Plan, 2012 Annual Report, (2012) 17. According to the 2012 Annual Report, "for the purpose of long-term disposal capacity planning, a countywide diversion rate of 60 percent was assumed for 2012." The same diversion rate of 60 percent was assumed for the baseline condition.

Source: PCR Services Corporation, 2014.

Baseline Condition Solid Waste Greenhouse Gas Emissions

Refer to CalEEMod output files.

Appendix A.7

Baseline Condition – Water Demand Rates

8150 SUNSET BOULEVARD MIXED USE PROJECT
Greenhouse Gas Emissions Methodology and Documentation

Baseline Condition Water Demand Rates

| Land Use | Units (1000 sqft) | Default Rates in CalEEMod | | | Percent of Total | |
|---|----------------------|--|---|--|----------------------------|-----------------------------|
| | | Based on CalEEMod Land Use Type | Indoor Water Demand Rate ¹ (gal/1000 sqft/year) | Outdoor Water Demand Rate ¹ (gal/1000 sqft/year) | Indoor Water Demand (%) | Outdoor Water Demand (%) |
| General Retail | 14.65 | Strip mall | 74,073 | 45,399 | 62% | 38% |
| Storage Facility | 27.63 | Unrefrigerated warehouse | 231,250 | - | 100% | 0% |
| Walk-in Bank Facility | 20.17 | Bank/General office building | 177,734 | 108,934 | 62% | 38% |
| Restaurant | 2.06 | Fast food restaurant w/o drive through | 303,534 | 19,374 | 94% | 6% |
| Ice Cream Parlor | 0.80 | Fast food restaurant w/o drive through | 303,534 | 19,374 | 94% | 6% |
| Fast Food Restaurant with Drive-Thru | 5.07 | Fast food restaurant w/ drive through | 303,534 | 19,374 | 94% | 6% |
| Fast Food Restaurant without Drive-Thru | 3.72 | Fast food restaurant w/o drive through | 303,534 | 19,374 | 94% | 6% |
| Dental Office | 2.36 | Medical office building | 125,481 | 23,901 | 84% | 16% |
| Fitness Center | 3.55 | Health club | 59,143 | 36,249 | 62% | 38% |
| Parking | 58.11 | Parking Lot | - | - | 0% | 100% |

| Land Use | Units (1000 sqft) | Baseline Condition Water Demand Rates | | | | | |
|---|----------------------|---|--|---|--|---|----------------------------------|
| | | Wastewater Generation ² (gal/1000 sqft/day) | Water Demand ³ (gal/day) | Total Water Demand ³ (gal/1000 sqft/year) | Indoor Water Demand ⁴ (gal/year) | Outdoor Water Demand ⁴ (gal/year) | Total Water Demand (gal/year) |
| General Retail | 14.65 | 80 | 1,500 | 37,380 | 339,452 | 208,048 | 547,500 |
| Storage Facility | 27.63 | 20 | 707 | 9,355 | 258,420 | - | 258,420 |
| Walk-in Bank Facility | 20.17 | 80 | 2,066 | 37,383 | 467,535 | 286,555 | 754,090 |
| Restaurant | 2.06 | | | | | | |
| Ice Cream Parlor | 0.80 | | | | | | |
| Fast Food Restaurant with Drive-Thru | 5.07 | 300 | 4,472 | 140,158 | 1,534,346 | 97,934 | 1,632,280 |
| Fast Food Restaurant without Drive-Thru | 3.72 | | | | | | |
| Dental Office | 2.36 | 250 | 755 | 116,769 | 231,483 | 44,092 | 275,575 |
| Fitness Center | 3.55 | 80 | 364 | 37,425 | 82,373 | 50,487 | 132,860 |
| Parking | 58.11 | 20 | 1,488 | 9,340 | - | 542,755 | 542,755 |
| Total Water Demand | | | | | 2,913,609 | 1,229,871 | 4,143,480 |

Notes:

1. Gleick, P.H.; Haasz, D.; Henges-Jeck, C.; Srinivasan, V.; Cushing, K.K.; Mann, A. 2003. Waste Not, Want Not: The Potential for Urban Water Conservation in California. Published by the Pacific Institute for Studies in Development, Environment, and Security. Full report available online at: http://www.pacinst.org/reports/urban_usage/waste_not_want_not_full_report.pdf. Appendices available online at: http://www.pacinst.org/reports/urban_usage/appendices.htm. Accessed March 2014.
2. City of Los Angeles Department of Public Works, Bureau of Sanitation, Sewerage Facilities Charge, Sewage Generation Factors for Residential and Commercial Categories. Provided in the L.A. CEQA Thresholds Guide, (2006) M.2-22-M.2-26.
3. Water demand rates are calculated based on the wastewater generation rates and increasing the factor to account for absorption, evaporation, consumption, irrigation, and other losses and converting to units of gallons/day and gallons/1000 sqft/year.
4. Indoor and outdoor water demand rates are derived based on the ratio of indoor to outdoor water demand in CalEEMod.

Source: PCR Services Corporation, 2014.

Baseline Condition Water and Wastewater Greenhouse Gas Emissions

Refer to CalEEMod output files.

APPENDIX B

PROJECT GREENHOUSE GAS EMISSIONS

8150 Sunset Boulevard Mixed-Use Project

Draft EIR

Appendix B, Project Greenhouse Gas Emissions

- B.1 California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects (March 2014)
- B.2 Summary of Greenhouse Gas Emissions
- B.3 Project GHG Emissions – CalEEMod Inputs and Outputs for Construction
- B.4 Project – Trip Generation Rates
- B.5 Project GHG Emissions – CalEEMod Outputs for Electricity, Natural Gas, Mobile, Area, Waste, and Water (2017)
- B.6 Project GHG Emissions – Mobile Source CO₂ Emissions (2018-2025)
- B.7 Project GHG Emissions – CalEEMod Outputs for Mobile CH₄ and N₂O (2018-2020), Electricity, Natural Gas, Mobile, Area, Waste, and Water (2018-2020+)
- B.8 Project GHG Emissions – CalEEMod Outputs for Mobile CH₄ and N₂O (2021-2025)
- B.9 Project – Solid Waste Disposal Rates
- B.10 Project – Water Demand Rates

Appendix B.1

**California Air Resources Board, Statewide Emission Factors (EF)
For Use With AB 900 Projects (March 2014)**

**California Air Resources Board
March 2014**

Statewide Emission Factors (EF) For Use With AB 900 Projects

Mobile Source Emissions

Project applicants under AB 900 may use default GHG EFs from CalEEMod. However, ARB acknowledges that CalEEMod does not contain the latest emission regulations. New ARB EF estimates are based on the EMFAC2011 on-road inventory and include current emission reduction rules such as Pavley I, LCFS, and Advanced Clean Cars (LEV III) to reflect the entire “on road” fleet statewide.

If an AB 900 project applicant does not wish to use CalEEMod EFs, and the project’s mobile sources include “all vehicle classifications,” the EFs provided in Figure 1 and Table 1 should be used.

Figure 1: Statewide On-Road CO₂ EFs¹ for Mobile Sources

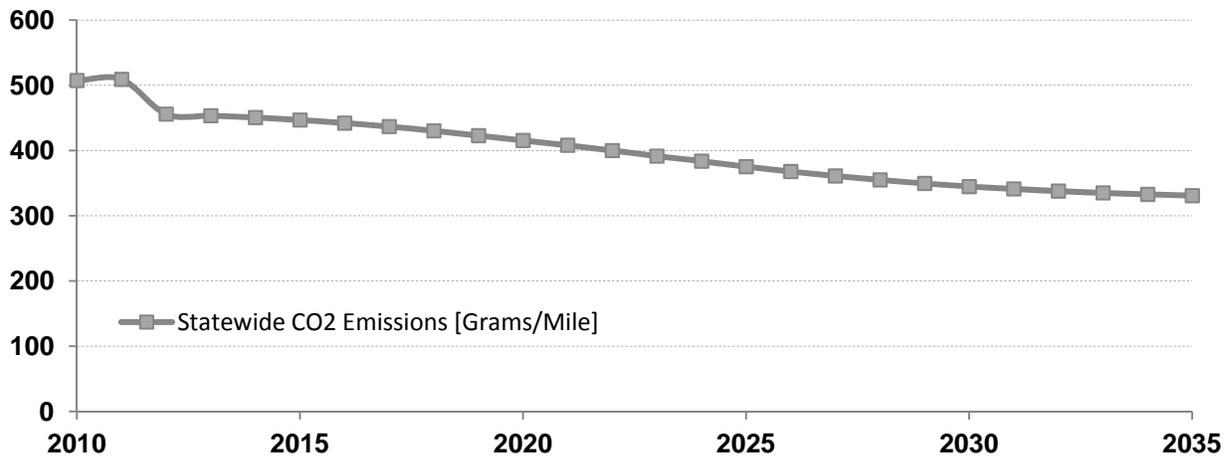


Table 1: Statewide On-Road CO₂ EFs¹ for Mobile Sources

| Year | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| g CO ₂ /mile | 507 | 509 | 456 | 453 | 451 | 447 | 442 | 437 | 430 | 423 | 415 | 408 | 400 |

| Year | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| g CO ₂ /mile | 391 | 384 | 375 | 368 | 361 | 355 | 350 | 345 | 341 | 338 | 335 | 333 | 331 |

¹ California Air Resources Board: <http://www.arb.ca.gov/msei/modeling.htm>, (base EMFAC2011), ARB staff analysis adjusts this base model to account for new rules.

California Air Resources Board
March 2014

Electricity Emissions

An AB 900 project applicant may use their electric utility provider's EFs and electricity intensities for today's electric supply generation. Applicants within the Los Angeles Department of Water and Power (LADWP) area may use the latest published electricity intensities². The most recent intensity factor is 1,094 lbs CO₂/MWh (2012).

If an applicant would like to use an EF that represents the state's Renewable Portfolio Standard (RPS) law and growth in electricity demand, the EF of 595 lbs CO₂/MWh may be used³. This EF represents a "marginal" supply profile for new generation that will be added to the grid in the years 2020 and beyond, and is consistent with the methodology used in state emission rule impact assessments. ARB believes this marginal profile is reflective of expected new generation plans in any electric utility territory in California.

For years up to 2019, use the existing LADWP electricity intensity.

² LADWP "2013 Power Integrated Resource Plan", page C-12

³ LEV III Initial Statement Of Reasons (ISOR, Dec. 7, 2011), <http://www.arb.ca.gov/regact/2012/leviiighg2012/leviiighg2012.htm>, based on analysis with CA-GREET model.

Appendix B.2
Summary of Greenhouse Gas Emissions

8150 SUNSET BOULEVARD MIXED USE PROJECT
Greenhouse Gas Emissions Methodology and Documentation

Summary of Estimated Unmitigated Annual GHG Emissions

| Source | Baseline | Project GHG Emissions ^a | | | | | | | | | | |
|---|-------------------------------|------------------------------------|-------------------|-------------------|----------------|----------------|----------------|----------------|--------------|--------------|--------------|--------------|
| | GHG Emissions ^{a, b} | 2015 | 2016 ^c | 2017 ^d | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 |
| Baseline Condition | | | | | | | | | | | | |
| Area | 0.0 | | | | | | | | | | | |
| Energy - Natural Gas | 192 | | | | | | | | | | | |
| Energy - Electricity | 631 | | | | | | | | | | | |
| Water | 31 | | | | | | | | | | | |
| Waste | 62 | | | | | | | | | | | |
| Mobile - Traveling | 6,358 | | | | | | | | | | | |
| Mobile - On-site Drive-Thru Idling | 98 | | | | | | | | | | | |
| Subtotal | 7,372 | 7,372 | 7,372 | 7,372 | 7,372 | 7,372 | 7,372 | 7,372 | 7,372 | 7,372 | 7,372 | 7,372 |
| Project | | | | | | | | | | | | |
| Construction | | 1,631 | 2,346 | - | - | - | - | - | - | - | - | - |
| Area | | | 0.3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Energy - Natural Gas | | | 37 | 446 | 446 | 446 | 446 | 446 | 446 | 446 | 446 | 446 |
| Energy - Electricity | | | 252 | 3,022 | 3,022 | 3,022 | 3,022 | 1,647 | 1,647 | 1,647 | 1,647 | 1,647 |
| Energy Reduction from Green Power/RECs | | | (252) | (3,022) | (3,022) | (3,022) | (1,647) | (1,647) | (247) | (247) | - | - |
| Water | | | 10 | 118 | 118 | 118 | 69 | 69 | 69 | 69 | 69 | 69 |
| Waste | | | 35 | 418 | 418 | 418 | 418 | 418 | 418 | 418 | 418 | 418 |
| Mobile | | | 451 | 5,414 | 5,348 | 5,261 | 5,161 | 5,074 | 4,975 | 4,862 | 4,775 | 4,663 |
| Subtotal (with Green Power/RECs) | | 1,631 | 2,879 | 6,400 | 6,334 | 6,247 | 6,098 | 6,011 | 7,312 | 7,199 | 7,359 | 7,247 |
| Net Change from Baseline Condition | | (5,741) | (4,492) | (972) | (1,038) | (1,125) | (1,274) | (1,361) | (60) | (173) | (13) | (125) |
| Exceeds Baseline? | | No | No | No | No | No | No | No | No | No | No | No |

Notes:

- a Totals may not add up exactly due to rounding in the modeling calculations.
- b As of December 30, 2013, 5,761 square feet of the existing 80,000 square feet is unoccupied due to expired lease agreements or because the Applicant bought out the lease in order to facilitate the proposed development. The Applicant may sign new lease agreements or extend existing lease agreements at any time for the full 80,000 square feet retail space without the need for discretionary approvals.
- c Based on the expected construction schedule, the Project could be operational during the last month of year 2016. Therefore, estimated operational emissions associated with approximately one month of operational activity are included for year 2016.
- d Year 2017 is expected to be the first full year of Project operations.

Source: PCR Services Corporation, 2014.

Appendix B.3

Project GHG Emissions – CalEEMod Inputs and Outputs for Construction

**8150 Sunset Boulevard Mixed-Use Project
Construction Emissions**

Construction Schedule and California Emissions Estimator Model (CalEEMod) Inputs

| Construction Activity Phase | Model Run Phase | Start Date | End Date | No. Work Days | Demo Tons | Demo Truck Total One-Way Trips | Export CY | Import CY | Haul Truck Total One-Way Trips | Vendor One-Way Trips/Day | Worker One-Way Trips/Day |
|-----------------------------|-----------------------|------------|------------|---------------|-----------|--------------------------------|-----------|-----------|--------------------------------|--------------------------|--------------------------|
| Demolition | Demolition | 1/5/2015 | 3/10/2015 | 47 | 3,250 | 321 | | | | 0 | 13 |
| Grading/Excavation | Grading | 3/11/2015 | 7/15/2015 | 91 | | | 58,500 | | 11,700 | 0 | 15 |
| Building Construction | Building Construction | 5/21/2015 | 12/2/2016 | 402 | | | | | | 95 | 346 |
| Sitework/Closeout | Building Construction | 3/11/2016 | 12/2/2016 | 191 | | | | | | 95 | 346 |
| Architectural Coating | Architectural Coating | 4/29/2016 | 10/19/2016 | 124 | | | | | | 0 | 69 |

Source: PCR Service Corporation, (2014). Construction schedule, equipment, and model inputs are adapted for use in the California Emissions Estimator Model (CalEEMod) based on data provided by the Project Management Consultant (AMA Management [An Anthony Mason Associates, Inc. Company]).

**8150 Sunset Boulevard Mixed-Use Project
Construction Emissions**

Construction Equipment and California Emissions Estimator Model (CalEEMod) Inputs

| Construction Activity Phase | Heavy-Duty Equipment | No. of HD Equip | Hours of Operation/Day | Hours of Operation/Week |
|-----------------------------|------------------------------|-----------------|------------------------|-------------------------|
| Demolition | Concrete/Industrial Saws | 1 | 8 | 40 |
| | Excavators | 1 | 8 | 40 |
| | Other Construction Equipment | 2 | 8 | 40 |
| | Tractors/Loaders/Backhoes | 1 | 8 | 40 |
| Grading/Excavation | Bore/Drill Rigs | 1 | 8 | 40 |
| | Excavators | 1 | 8 | 40 |
| | Rubber Tired Dozers | 1 | 8 | 40 |
| | Scrapers | 1 | 8 | 40 |
| | Tractors/Loaders/Backhoes | 2 | 8 | 40 |
| Building Construction | Aerial Lifts | 2 | 8 | 40 |
| | Cranes | 2 | 8 | 40 |
| | Generator Sets | 1 | 8 | 40 |
| | Off-Highway Trucks | 1 | 8 | 40 |
| | Other Construction Equipment | 4 | 8 | 40 |
| | Pumps | 1 | 8 | 40 |
| | Welders | 1 | 8 | 40 |
| Sitework/Closeout | Off-Highway Trucks | 2 | 8 | 40 |
| | Paving Equipment | 1 | 8 | 40 |
| | Pumps | 1 | 8 | 40 |
| Architectural Coating | Air Compressors | 2 | 8 | 40 |

Source: PCR Service Corporation, (2014). Construction schedule, equipment, and model inputs are adapted for use in the California Emissions Estimator Model (CalEEMod) based on data provided by the Project Management Consultant (AMA Management [An Anthony Mason Associates, Inc. Company]).

8150 Sunset Blvd - Construction South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|--------------------------------|--------|---------------|-------------|--------------------|------------|
| General Office Building | 5.09 | 1000sqft | 0.12 | 5,094.00 | 0 |
| Enclosed Parking with Elevator | 305.65 | 1000sqft | 0.00 | 305,652.00 | 0 |
| Health Club | 8.10 | 1000sqft | 0.19 | 8,095.00 | 0 |
| Quality Restaurant | 22.19 | 1000sqft | 0.25 | 22,189.00 | 0 |
| Apartments High Rise | 249.00 | Dwelling Unit | 1.00 | 222,564.00 | 528 |
| Strip Mall | 51.15 | 1000sqft | 0.50 | 51,150.00 | 0 |
| Supermarket | 24.81 | 1000sqft | 0.50 | 24,811.00 | 0 |

1.2 Other Project Characteristics

| | | | | | |
|---------------------------------|---|---------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 31 |
| Climate Zone | 11 | Operational Year | | 2014 | |
| Utility Company | Los Angeles Department of Water & Power | | | | |
| CO2 Intensity (lb/MW hr) | 1094 | CH4 Intensity (lb/MW hr) | 0.029 | N2O Intensity (lb/MW hr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: Los Angeles Department of Water and Power, 2013 Power Integrated Resource Plan, (2013).

Land Use - Unit sizes are based on the planned building square footage and dwelling units for the 8150 Sunset Boulevard Mixed Use Project; Population 528 is based on the average household size for the Hollywood Community Plan Area (2.12 persons per household).

Construction Phase - Estimated Construction Start/End: Jan 2015/Dec 2016.

Off-road Equipment - Air compressors.

Off-road Equipment - Cranes, Lifts, Generator, Off-Highway (Concrete) Truck, Pump, Concrete Grinder (Other), Placing Boom (Other), Power Screed (Other), Finishing Machine (Other), Welder.

Off-road Equipment - Excavator, Tractor/Loader/Backhoe, Concrete/Industrial Saw, Concrete Breaker (Other), Chipper (Other).

Off-road Equipment - Crane, Lift.

Off-road Equipment - Drill Rig, Excavator, Rubber Tired Dozer, Tractors/Loaders/Backhoes, Scraper.

Off-road Equipment - Pump, Off-Highway (Concrete) Truck, Paving Equipment.

Demolition - Demolition Debris: 6,500 cubic yards, equivalent to about 3.250 tons of waste (Midwest Research Institute, Gap Filling PM10 Emission Factors for Selected Open Area Dust Sources, 1988).

Grading - Export: 58,500 cubic yards, Total Acres Disturbed: 2.56 acres.

Architectural Coating - Residential: Interior ($222,564 \times 2.7 \times 0.75 = 450,692$), Exterior ($222,564 \times 2.7 \times 0.25 = 150,231$); Commercial: Interior ($111,308 \times 2 \times 0.75 = 166,962$), Exterior ($111,308 \times 2 \times 0.25 = 55,654$) + Exterior Parking ($305,652 \times 0.06 = 18,339$)

Construction Off-road Equipment Mitigation - Fugitive Dust Mitigation per SCAQMD Rule 403 (water/stabilize unpaved roads and exposed areas three times per day, 61% PM10 and PM2.5 reduction).

Trips and VMT - Assumes 10 cy haul trucks during grading phase (11,700 one-way trips total).

| Table Name | Column Name | Default Value | New Value |
|-------------------------|-----------------------------------|---------------|------------|
| tblArchitecturalCoating | ConstArea_Nonresidential_Exterior | 208,496.00 | 73,993.00 |
| tblArchitecturalCoating | ConstArea_Nonresidential_Interior | 625,487.00 | 166,962.00 |
| tblConstructionPhase | NumDays | 10.00 | 124.00 |
| tblConstructionPhase | NumDays | 220.00 | 402.00 |
| tblConstructionPhase | NumDays | 220.00 | 191.00 |
| tblConstructionPhase | NumDays | 20.00 | 47.00 |
| tblConstructionPhase | NumDays | 6.00 | 91.00 |
| tblConstructionPhase | PhaseEndDate | 5/25/2017 | 10/19/2016 |
| tblConstructionPhase | PhaseEndDate | 1/27/2017 | 12/2/2016 |
| tblConstructionPhase | PhaseEndDate | 8/28/2017 | 12/2/2016 |
| tblConstructionPhase | PhaseStartDate | 12/3/2016 | 4/29/2016 |
| tblConstructionPhase | PhaseStartDate | 7/16/2015 | 5/21/2015 |
| tblConstructionPhase | PhaseStartDate | 12/3/2016 | 3/11/2016 |
| tblGrading | AcresOfGrading | 91.00 | 2.56 |
| tblGrading | MaterialExported | 0.00 | 58,500.00 |
| tblLandUse | LandUseSquareFeet | 5,090.00 | 5,094.00 |
| tblLandUse | LandUseSquareFeet | 305,650.00 | 305,652.00 |

| | | | |
|---------------------------|----------------------------|------------|------------|
| tblLandUse | LandUseSquareFeet | 8,100.00 | 8,095.00 |
| tblLandUse | LandUseSquareFeet | 22,190.00 | 22,189.00 |
| tblLandUse | LandUseSquareFeet | 249,000.00 | 222,564.00 |
| tblLandUse | LandUseSquareFeet | 24,810.00 | 24,811.00 |
| tblLandUse | LotAcreage | 7.02 | 0.00 |
| tblLandUse | LotAcreage | 0.51 | 0.25 |
| tblLandUse | LotAcreage | 4.02 | 1.00 |
| tblLandUse | LotAcreage | 1.17 | 0.50 |
| tblLandUse | LotAcreage | 0.57 | 0.50 |
| tblLandUse | Population | 712.00 | 528.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 1.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 8.00 |
| tblOffRoadEquipment | UsageHours | 7.00 | 8.00 |
| tblProjectCharacteristics | CO2IntensityFactor | 1227.89 | 1156 |
| tblTripsAndVMT | HaulingTripNumber | 7,938.00 | 11,700.00 |

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 | | | | | |
| 2015 | 1.1960 | 12.0379 | 9.5263 | 0.0181 | 0.7799 | 0.5158 | 1.2957 | 0.2822 | 0.4813 | 0.7635 | 0.0000 | 1,626.1560 | 1,626.1560 | 0.2274 | 0.0000 | 1,630.93 |
| 2016 | 3.9462 | 14.1230 | 13.9253 | 0.0273 | 0.9932 | 0.6378 | 1.6309 | 0.2663 | 0.6001 | 0.8664 | 0.0000 | 2,338.8653 | 2,338.8653 | 0.3368 | 0.0000 | 2,345.94 |
| Total | 5.1421 | 26.1609 | 23.4515 | 0.0454 | 1.7731 | 1.1536 | 2.9266 | 0.5485 | 1.0814 | 1.6299 | 0.0000 | 3,965.0212 | 3,965.0212 | 0.5642 | 0.0000 | 3,976.8690 |

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 | | | | | |
| 2015 | 1.1960 | 12.0379 | 9.5263 | 0.0181 | 0.5887 | 0.5158 | 1.1045 | 0.1868 | 0.4813 | 0.6680 | 0.0000 | 1,626.1551 | 1,626.1551 | 0.2274 | 0.0000 | 1,630.9305 |
| 2016 | 3.9462 | 14.1230 | 13.9252 | 0.0273 | 0.9932 | 0.6378 | 1.6309 | 0.2663 | 0.6001 | 0.8664 | 0.0000 | 2,338.8639 | 2,338.8639 | 0.3368 | 0.0000 | 2,345.9363 |
| Total | 5.1421 | 26.1609 | 23.4515 | 0.0454 | 1.5819 | 1.1536 | 2.7354 | 0.4530 | 1.0814 | 1.5344 | 0.0000 | 3,965.0190 | 3,965.0190 | 0.5642 | 0.0000 | 3,976.8668 |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------------------|-------------|-------------|-------------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Percent Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 10.78 | 0.00 | 6.53 | 17.41 | 0.00 | 5.86 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

3.0 Construction Detail

Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|--------------|-----------------------|-----------------------|------------|------------|---------------|----------|-------------------|
| 1 | Demolition | Demolition | 1/5/2015 | 3/10/2015 | 5 | 47 | |
| 2 | Grading/Excavation | Grading | 3/11/2015 | 7/15/2015 | 5 | 91 | |
| 3 | Building Construction | Building Construction | 5/21/2015 | 12/2/2016 | 5 | 402 | |
| 4 | Sitework/Closeout | Building Construction | 3/11/2016 | 12/2/2016 | 5 | 191 | |
| 5 | Architectural Coating | Architectural Coating | 4/29/2016 | 10/19/2016 | 5 | 124 | |

Residential Indoor: 450,692; Residential Outdoor: 150,231; Non-Residential Indoor: 166,962; Non-Residential Outdoor: 73,993

OffRoad Equipment

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|------------|------------------------------|--------|-------------|-------------|-------------|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Excavators | 1 | 8.00 | 162 | 0.38 |
| Demolition | Other Construction Equipment | 2 | 8.00 | 171 | 0.42 |

| | | | | | |
|-----------------------|------------------------------|---|------|-----|------|
| Demolition | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Grading/Excavation | Bore/Drill Rigs | 1 | 8.00 | 205 | 0.50 |
| Grading/Excavation | Excavators | 1 | 8.00 | 162 | 0.38 |
| Grading/Excavation | Rubber Tired Dozers | 1 | 8.00 | 255 | 0.40 |
| Grading/Excavation | Scrapers | 1 | 8.00 | 361 | 0.48 |
| Grading/Excavation | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Building Construction | Aerial Lifts | 2 | 8.00 | 62 | 0.31 |
| Building Construction | Cranes | 2 | 8.00 | 226 | 0.29 |
| Building Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Building Construction | Off-Highway Trucks | 1 | 8.00 | 400 | 0.38 |
| Building Construction | Other Construction Equipment | 4 | 8.00 | 171 | 0.42 |
| Building Construction | Pumps | 1 | 8.00 | 84 | 0.74 |
| Building Construction | Welders | 1 | 8.00 | 46 | 0.45 |
| Sitework/Closeout | Off-Highway Trucks | 2 | 8.00 | 400 | 0.38 |
| Sitework/Closeout | Paving Equipment | 1 | 8.00 | 130 | 0.36 |
| Sitework/Closeout | Pumps | 1 | 8.00 | 84 | 0.74 |
| Architectural Coating | Air Compressors | 2 | 8.00 | 78 | 0.48 |

Trips and VMT

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|-----------------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Demolition | 5 | 13.00 | 0.00 | 321.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading/Excavation | 6 | 15.00 | 0.00 | 11,700.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 12 | 346.00 | 95.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Sitework/Closeout | 4 | 346.00 | 95.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 2 | 69.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Clean Paved Roads

3.2 Demolition - 2015

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 | | | | | 0.0348 | 0.0000 | 0.0348 | 5.2700e-003 | 0.0000 | 5.2700e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0682 | 0.6833 | 0.4285 | 6.3000e-004 | | 0.0405 | 0.0405 | | 0.0380 | 0.0380 | 0.0000 | 58.9674 | 58.9674 | 0.0152 | 0.0000 | 59.2863 |
| Total | 0.0682 | 0.6833 | 0.4285 | 6.3000e-004 | 0.0348 | 0.0405 | 0.0753 | 5.2700e-003 | 0.0380 | 0.0433 | 0.0000 | 58.9674 | 58.9674 | 0.0152 | 0.0000 | 59.2863 |

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 | 3.2400e-003 | 0.0526 | 0.0376 | 1.2000e-004 | 2.7500e-003 | 8.7000e-004 | 3.6200e-003 | 7.5000e-004 | 8.0000e-004 | 1.5600e-003 | 0.0000 | 10.9322 | 10.9322 | 9.0000e-005 | 0.0000 | 10.9340 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.3600e-003 | 2.0000e-003 | 0.0208 | 4.0000e-005 | 3.3500e-003 | 3.0000e-005 | 3.3800e-003 | 8.9000e-004 | 3.0000e-005 | 9.2000e-004 | 0.0000 | 3.2526 | 3.2526 | 1.8000e-004 | 0.0000 | 3.2564 |
| Total | 4.6000e-003 | 0.0546 | 0.0583 | 1.6000e-004 | 6.1000e-003 | 9.0000e-004 | 7.0000e-003 | 1.6400e-003 | 8.3000e-004 | 2.4800e-003 | 0.0000 | 14.1847 | 14.1847 | 2.7000e-004 | 0.0000 | 14.1904 |

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 | | | | | 0.0136 | 0.0000 | 0.0136 | 2.0500e-003 | 0.0000 | 2.0500e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0682 | 0.6833 | 0.4285 | 6.3000e-004 | | 0.0405 | 0.0405 | | 0.0380 | 0.0380 | 0.0000 | 58.9673 | 58.9673 | 0.0152 | 0.0000 | 59.2863 |
| Total | 0.0682 | 0.6833 | 0.4285 | 6.3000e-004 | 0.0136 | 0.0405 | 0.0541 | 2.0500e-003 | 0.0380 | 0.0400 | 0.0000 | 58.9673 | 58.9673 | 0.0152 | 0.0000 | 59.2863 |

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 | 3.2400e-003 | 0.0526 | 0.0376 | 1.2000e-004 | 2.7500e-003 | 8.7000e-004 | 3.6200e-003 | 7.5000e-004 | 8.0000e-004 | 1.5600e-003 | 0.0000 | 10.9322 | 10.9322 | 9.0000e-005 | 0.0000 | 10.9340 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.3600e-003 | 2.0000e-003 | 0.0208 | 4.0000e-005 | 3.3500e-003 | 3.0000e-005 | 3.3800e-003 | 8.9000e-004 | 3.0000e-005 | 9.2000e-004 | 0.0000 | 3.2526 | 3.2526 | 1.8000e-004 | 0.0000 | 3.2564 |
| Total | 4.6000e-003 | 0.0546 | 0.0583 | 1.6000e-004 | 6.1000e-003 | 9.0000e-004 | 7.0000e-003 | 1.6400e-003 | 8.3000e-004 | 2.4800e-003 | 0.0000 | 14.1847 | 14.1847 | 2.7000e-004 | 0.0000 | 14.1904 |

3.3 Grading/Excavation - 2015

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 | | | | | 0.2787 | 0.0000 | 0.2787 | 0.1513 | 0.0000 | 0.1513 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.1929 | 2.3080 | 1.5003 | 2.0000e-003 | | 0.1083 | 0.1083 | | 0.0996 | 0.0996 | 0.0000 | 190.8931 | 190.8931 | 0.0570 | 0.0000 | 192.0899 |
| Total | 0.1929 | 2.3080 | 1.5003 | 2.0000e-003 | 0.2787 | 0.1083 | 0.3870 | 0.1513 | 0.0996 | 0.2509 | 0.0000 | 190.8931 | 190.8931 | 0.0570 | 0.0000 | 192.0899 |

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 | 0.1181 | 1.9177 | 1.3686 | 4.3200e-003 | 0.1003 | 0.0318 | 0.1320 | 0.0275 | 0.0292 | 0.0567 | 0.0000 | 398.4618 | 398.4618 | 3.1400e-003 | 0.0000 | 398.5277 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 3.0500e-003 | 4.4700e-003 | 0.0464 | 9.0000e-005 | 7.4900e-003 | 7.0000e-005 | 7.5600e-003 | 1.9900e-003 | 6.0000e-005 | 2.0500e-003 | 0.0000 | 7.2663 | 7.2663 | 4.1000e-004 | 0.0000 | 7.2750 |
| Total | 0.1212 | 1.9222 | 1.4150 | 4.4100e-003 | 0.1078 | 0.0318 | 0.1396 | 0.0295 | 0.0293 | 0.0588 | 0.0000 | 405.7281 | 405.7281 | 3.5500e-003 | 0.0000 | 405.8026 |

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 | | | | | 0.1087 | 0.0000 | 0.1087 | 0.0590 | 0.0000 | 0.0590 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.1929 | 2.3080 | 1.5003 | 2.0000e-003 | | 0.1083 | 0.1083 | | 0.0996 | 0.0996 | 0.0000 | 190.8929 | 190.8929 | 0.0570 | 0.0000 | 192.0897 |
| Total | 0.1929 | 2.3080 | 1.5003 | 2.0000e-003 | 0.1087 | 0.1083 | 0.2170 | 0.0590 | 0.0996 | 0.1586 | 0.0000 | 190.8929 | 190.8929 | 0.0570 | 0.0000 | 192.0897 |

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 | 0.1181 | 1.9177 | 1.3686 | 4.3200e-003 | 0.1003 | 0.0318 | 0.1320 | 0.0275 | 0.0292 | 0.0567 | 0.0000 | 398.4618 | 398.4618 | 3.1400e-003 | 0.0000 | 398.5277 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 3.0500e-003 | 4.4700e-003 | 0.0464 | 9.0000e-005 | 7.4900e-003 | 7.0000e-005 | 7.5600e-003 | 1.9900e-003 | 6.0000e-005 | 2.0500e-003 | 0.0000 | 7.2663 | 7.2663 | 4.1000e-004 | 0.0000 | 7.2750 |
| Total | 0.1212 | 1.9222 | 1.4150 | 4.4100e-003 | 0.1078 | 0.0318 | 0.1396 | 0.0295 | 0.0293 | 0.0588 | 0.0000 | 405.7281 | 405.7281 | 3.5500e-003 | 0.0000 | 405.8026 |

3.4 Building Construction - 2015

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.6079 | 6.1052 | 3.2742 | 5.4800e-003 | | 0.3184 | 0.3184 | | 0.2990 | 0.2990 | 0.0000 | 507.4316 | 507.4316 | 0.1334 | 0.0000 | 510.2337 |
| Total | 0.6079 | 6.1052 | 3.2742 | 5.4800e-003 | | 0.3184 | 0.3184 | | 0.2990 | 0.2990 | 0.0000 | 507.4316 | 507.4316 | 0.1334 | 0.0000 | 510.2337 |

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0769 | 0.7823 | 0.9573 | 1.6600e-003 | 0.0470 | 0.0131 | 0.0602 | 0.0134 | 0.0121 | 0.0255 | 0.0000 | 152.4103 | 152.4103 | 1.2100e-003 | 0.0000 | 152.4357 |
| Worker | 0.1244 | 0.1823 | 1.8926 | 3.7600e-003 | 0.3056 | 2.7400e-003 | 0.3083 | 0.0812 | 2.5100e-003 | 0.0837 | 0.0000 | 296.5409 | 296.5409 | 0.0168 | 0.0000 | 296.8928 |
| Total | 0.2013 | 0.9646 | 2.8499 | 5.4200e-003 | 0.3526 | 0.0159 | 0.3685 | 0.0946 | 0.0146 | 0.1092 | 0.0000 | 448.9511 | 448.9511 | 0.0180 | 0.0000 | 449.3285 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.6079 | 6.1052 | 3.2742 | 5.4800e-003 | | 0.3184 | 0.3184 | | 0.2990 | 0.2990 | 0.0000 | 507.4310 | 507.4310 | 0.1334 | 0.0000 | 510.2330 |
| Total | 0.6079 | 6.1052 | 3.2742 | 5.4800e-003 | | 0.3184 | 0.3184 | | 0.2990 | 0.2990 | 0.0000 | 507.4310 | 507.4310 | 0.1334 | 0.0000 | 510.2330 |

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0769 | 0.7823 | 0.9573 | 1.6600e-003 | 0.0470 | 0.0131 | 0.0602 | 0.0134 | 0.0121 | 0.0255 | 0.0000 | 152.4103 | 152.4103 | 1.2100e-003 | 0.0000 | 152.4357 |
| Worker | 0.1244 | 0.1823 | 1.8926 | 3.7600e-003 | 0.3056 | 2.7400e-003 | 0.3083 | 0.0812 | 2.5100e-003 | 0.0837 | 0.0000 | 296.5409 | 296.5409 | 0.0168 | 0.0000 | 296.8928 |
| Total | 0.2013 | 0.9646 | 2.8499 | 5.4200e-003 | 0.3526 | 0.0159 | 0.3685 | 0.0946 | 0.0146 | 0.1092 | 0.0000 | 448.9511 | 448.9511 | 0.0180 | 0.0000 | 449.3285 |

3.4 Building Construction - 2016

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.8461 | 8.5294 | 4.8003 | 8.2000e-003 | | 0.4394 | 0.4394 | | 0.4124 | 0.4124 | 0.0000 | 753.1327 | 753.1327 | 0.1976 | 0.0000 | 757.2817 |
| Total | 0.8461 | 8.5294 | 4.8003 | 8.2000e-003 | | 0.4394 | 0.4394 | | 0.4124 | 0.4124 | 0.0000 | 753.1327 | 753.1327 | 0.1976 | 0.0000 | 757.2817 |

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.1016 | 1.0336 | 1.3323 | 2.4800e-003 | 0.0704 | 0.0164 | 0.0868 | 0.0201 | 0.0150 | 0.0351 | 0.0000 | 225.6254 | 225.6254 | 1.6400e-003 | 0.0000 | 225.6598 |
| Worker | 0.1676 | 0.2462 | 2.5583 | 5.6200e-003 | 0.4574 | 3.8900e-003 | 0.4613 | 0.1215 | 3.5800e-003 | 0.1251 | 0.0000 | 428.5517 | 428.5517 | 0.0231 | 0.0000 | 429.0364 |
| Total | 0.2691 | 1.2797 | 3.8906 | 8.1000e-003 | 0.5279 | 0.0202 | 0.5481 | 0.1416 | 0.0186 | 0.1602 | 0.0000 | 654.1771 | 654.1771 | 0.0247 | 0.0000 | 654.6962 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.8461 | 8.5294 | 4.8003 | 8.2000e-003 | | 0.4394 | 0.4394 | | 0.4124 | 0.4124 | 0.0000 | 753.1318 | 753.1318 | 0.1976 | 0.0000 | 757.2808 |
| Total | 0.8461 | 8.5294 | 4.8003 | 8.2000e-003 | | 0.4394 | 0.4394 | | 0.4124 | 0.4124 | 0.0000 | 753.1318 | 753.1318 | 0.1976 | 0.0000 | 757.2808 |

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.1016 | 1.0336 | 1.3323 | 2.4800e-003 | 0.0704 | 0.0164 | 0.0868 | 0.0201 | 0.0150 | 0.0351 | 0.0000 | 225.6254 | 225.6254 | 1.6400e-003 | 0.0000 | 225.6598 |
| Worker | 0.1676 | 0.2462 | 2.5583 | 5.6200e-003 | 0.4574 | 3.8900e-003 | 0.4613 | 0.1215 | 3.5800e-003 | 0.1251 | 0.0000 | 428.5517 | 428.5517 | 0.0231 | 0.0000 | 429.0364 |
| Total | 0.2691 | 1.2797 | 3.8906 | 8.1000e-003 | 0.5279 | 0.0202 | 0.5481 | 0.1416 | 0.0186 | 0.1602 | 0.0000 | 654.1771 | 654.1771 | 0.0247 | 0.0000 | 654.6962 |

3.5 Sitework/Closeout - 2016

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.2731 | 2.8822 | 1.5770 | 3.5200e-003 | | 0.1291 | 0.1291 | | 0.1215 | 0.1215 | 0.0000 | 326.9135 | 326.9135 | 0.0876 | 0.0000 | 328.7521 |
| Total | 0.2731 | 2.8822 | 1.5770 | 3.5200e-003 | | 0.1291 | 0.1291 | | 0.1215 | 0.1215 | 0.0000 | 326.9135 | 326.9135 | 0.0876 | 0.0000 | 328.7521 |

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0805 | 0.8191 | 1.0559 | 1.9700e-003 | 0.0558 | 0.0130 | 0.0688 | 0.0159 | 0.0119 | 0.0279 | 0.0000 | 178.8152 | 178.8152 | 1.3000e-003 | 0.0000 | 178.8424 |
| Worker | 0.1328 | 0.1951 | 2.0275 | 4.4600e-003 | 0.3625 | 3.0900e-003 | 0.3656 | 0.0963 | 2.8400e-003 | 0.0991 | 0.0000 | 339.6406 | 339.6406 | 0.0183 | 0.0000 | 340.0247 |
| Total | 0.2133 | 1.0142 | 3.0834 | 6.4300e-003 | 0.4184 | 0.0161 | 0.4344 | 0.1122 | 0.0148 | 0.1270 | 0.0000 | 518.4557 | 518.4557 | 0.0196 | 0.0000 | 518.8671 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.2731 | 2.8822 | 1.5770 | 3.5200e-003 | | 0.1291 | 0.1291 | | 0.1215 | 0.1215 | 0.0000 | 326.9131 | 326.9131 | 0.0876 | 0.0000 | 328.7517 |
| Total | 0.2731 | 2.8822 | 1.5770 | 3.5200e-003 | | 0.1291 | 0.1291 | | 0.1215 | 0.1215 | 0.0000 | 326.9131 | 326.9131 | 0.0876 | 0.0000 | 328.7517 |

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0805 | 0.8191 | 1.0559 | 1.9700e-003 | 0.0558 | 0.0130 | 0.0688 | 0.0159 | 0.0119 | 0.0279 | 0.0000 | 178.8152 | 178.8152 | 1.3000e-003 | 0.0000 | 178.8424 |
| Worker | 0.1328 | 0.1951 | 2.0275 | 4.4600e-003 | 0.3625 | 3.0900e-003 | 0.3656 | 0.0963 | 2.8400e-003 | 0.0991 | 0.0000 | 339.6406 | 339.6406 | 0.0183 | 0.0000 | 340.0247 |
| Total | 0.2133 | 1.0142 | 3.0834 | 6.4300e-003 | 0.4184 | 0.0161 | 0.4344 | 0.1122 | 0.0148 | 0.1270 | 0.0000 | 518.4557 | 518.4557 | 0.0196 | 0.0000 | 518.8671 |

3.6 Architectural Coating - 2016

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Archit. Coating | 2.2664 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0609 | 0.3922 | 0.3115 | 4.9000e-004 | | 0.0325 | 0.0325 | | 0.0325 | 0.0325 | 0.0000 | 42.2138 | 42.2138 | 4.9800e-003 | 0.0000 | 42.3183 |
| Total | 2.3274 | 0.3922 | 0.3115 | 4.9000e-004 | | 0.0325 | 0.0325 | | 0.0325 | 0.0325 | 0.0000 | 42.2138 | 42.2138 | 4.9800e-003 | 0.0000 | 42.3183 |

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 0.0172 | 0.0253 | 0.2625 | 5.8000e-004 | 0.0469 | 4.0000e-004 | 0.0473 | 0.0125 | 3.7000e-004 | 0.0128 | 0.0000 | 43.9725 | 43.9725 | 2.3700e-003 | 0.0000 | 44.0222 |
| Total | 0.0172 | 0.0253 | 0.2625 | 5.8000e-004 | 0.0469 | 4.0000e-004 | 0.0473 | 0.0125 | 3.7000e-004 | 0.0128 | 0.0000 | 43.9725 | 43.9725 | 2.3700e-003 | 0.0000 | 44.0222 |

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 | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Archit. Coating | 2.2664 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0609 | 0.3922 | 0.3115 | 4.9000e-004 | | 0.0325 | 0.0325 | | 0.0325 | 0.0325 | 0.0000 | 42.2138 | 42.2138 | 4.9800e-003 | 0.0000 | 42.3183 |
| Total | 2.3274 | 0.3922 | 0.3115 | 4.9000e-004 | | 0.0325 | 0.0325 | | 0.0325 | 0.0325 | 0.0000 | 42.2138 | 42.2138 | 4.9800e-003 | 0.0000 | 42.3183 |

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 0.0172 | 0.0253 | 0.2625 | 5.8000e-004 | 0.0469 | 4.0000e-004 | 0.0473 | 0.0125 | 3.7000e-004 | 0.0128 | 0.0000 | 43.9725 | 43.9725 | 2.3700e-003 | 0.0000 | 44.0222 |
| Total | 0.0172 | 0.0253 | 0.2625 | 5.8000e-004 | 0.0469 | 4.0000e-004 | 0.0473 | 0.0125 | 3.7000e-004 | 0.0128 | 0.0000 | 43.9725 | 43.9725 | 2.3700e-003 | 0.0000 | 44.0222 |

Appendix B.4
Project – Trip Generation Rates

8150 SUNSET BOULEVARD MIXED USE PROJECT
Draft Environmental Impact Report

Trip Generation Rates
Project

| Land Use | Value | Units | Land Use | Value | Units |
|--|--------|---------------------|---|--------|---------------------|
| Residential | | 249 DU | Quality Restaurants | 22.189 | 1000 sf |
| Land Use Trips | | 1,656 trips | Land Use Trips | | 1,979 trips |
| Less Land Use and Transportation Reductions ¹ | 34.49% | (571) trips | Less Land Use and Transportation Reductions ¹ | 34.49% | (683) trips |
| Net Existing Trips | | 1,085 trips | Net Existing Trips | | 1,296 trips |
| Net Existing Trip Rate (trips/DU) | | 4.36 trips/DU | Net Existing Trip Rate (trips/1000 sf) | | 58.41 trips/1000 sf |
| General Retail | | 51.150 1000 sf | Dance/Yoga Studios | 8.095 | 1000 sf |
| Land Use Trips | | 2,178 trips | Land Use Trips | | 263 trips |
| Less Land Use and Transportation Reductions ¹ | 34.49% | (751) trips | Less Land Use and Transportation Reductions ¹ | 34.49% | (91) trips |
| Net Existing Trips | | 1,427 trips | Net Existing Trips | | 172 trips |
| Net Existing Trip Rate (trips/1000 sf) | | 27.90 trips/1000 sf | Net Existing Trip Rate (trips/1000 sf) | | 21.25 trips/1000 sf |
| Supermarket | | 24.811 1000 sf | <p>Note:</p> <p>1. Based on the estimated VMT reductions calculated using the methodology described in the CAPCOA guidance document, Quantifying Greenhouse Gas Mitigation Measures (August 2010). For the purposes of estimating transportation-related emissions in the CalEEMod software, the percent reductions were applied to the trip rates rather than the trip lengths to simplify the process (this results in the same end-result VMT).</p> <p>Source: PCR Services Corporation, 2014.</p> | | |
| Land Use Trips | | 2,556 trips | | | |
| Less Land Use and Transportation Reductions ¹ | 34.49% | (882) trips | | | |
| Net Existing Trips | | 1,674 trips | | | |
| Net Existing Trip Rate (trips/1000 sf) | | 67.47 trips/1000 sf | | | |
| Walk-in Bank | | 5.094 1000 sf | | | |
| Land Use Trips | | 750 trips | | | |
| Less Land Use and Transportation Reductions ¹ | 34.49% | (259) trips | | | |
| Net Existing Trips | | 491 trips | | | |
| Net Existing Trip Rate (trips/1000 sf) | | 96.39 trips/1000 sf | | | |

Appendix B.5

**Project GHG Emissions – CalEEMod Outputs for Electricity,
Natural Gas, Mobile, Area, Waste, and Water (2017)**

8150 Sunset Blvd Mixed Use Project - PROJECT (2017)

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 | 5.09 | 1000sqft | 0.12 | 5,094.00 | 0 |
| Enclosed Parking with Elevator | 305.65 | 1000sqft | 0.00 | 305,652.00 | 0 |
| Health Club | 8.10 | 1000sqft | 0.19 | 8,095.00 | 0 |
| Quality Restaurant | 22.19 | 1000sqft | 0.25 | 22,189.00 | 0 |
| User Defined Recreational | 49.84 | User Defined Unit | 0.00 | 49,840.00 | 0 |
| Apartments High Rise | 249.00 | Dwelling Unit | 1.00 | 191,324.00 | 528 |
| Strip Mall | 51.15 | 1000sqft | 0.50 | 51,150.00 | 0 |
| Supermarket | 24.81 | 1000sqft | 0.50 | 24,811.00 | 0 |

1.2 Other Project Characteristics

| | | | | | |
|---------------------------------|---|---------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 31 |
| Climate Zone | 11 | | | Operational Year | 2017 |
| Utility Company | Los Angeles Department of Water & Power | | | | |
| CO2 Intensity (lb/MW hr) | 1094 | CH4 Intensity (lb/MW hr) | 0.029 | N2O Intensity (lb/MW hr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: LADWP "2013 Power Integrated Resource Plan," page C-12.

Land Use - Unit sizes are based on the planned building square footage and dwelling units for the 8150 Sunset Boulevard Mixed Use Project; Population 528 is based on the average household size for the Hollywood Community Plan Area (2.12 persons per household); User Defined Residential=Residential Amenities/Roof Decks.

Vehicle Trips - Refer to "Trip Generation Rate" worksheet provided in this Appendix.

Woodstoves - No residential wood-stoves; No residential hearths.

Energy Use - CalEEMod default energy demand rates. User Defined Recreational=Residential Amenities/Roof Deck (factors are from Health Club/Racquet Club).

Water And Wastewater - Refer to "Project Water Demand Rates" worksheet provided in this Appendix.

Solid Waste - Refer to "Project Solid Waste Disposal Rates" worksheet provided in this Appendix. Solid waste rate is inclusive of 60% diversion.

Energy Mitigation - LEED v4 Credits: EAc2 (exceed Title 24 by 10%); EAc5 (1% renewable energy generation); Energy Efficient Appliances.

Water Mitigation - LEED v4 Credits: WEc2 (reduce indoor water demand by 35%).

| Table Name | Column Name | Default Value | New Value |
|---------------|-------------------|---------------|------------|
| tblEnergyUse | LightingElect | 0.00 | 3.55 |
| tblEnergyUse | NT24E | 0.00 | 5.75 |
| tblEnergyUse | NT24NG | 0.00 | 4.45 |
| tblEnergyUse | T24E | 0.00 | 2.75 |
| tblEnergyUse | T24NG | 0.00 | 14.36 |
| tblFireplaces | FireplaceDayYear | 25.00 | 0.00 |
| tblFireplaces | FireplaceHourDay | 3.00 | 0.00 |
| tblFireplaces | FireplaceWoodMass | 1,019.20 | 0.00 |
| tblFireplaces | NumberGas | 211.65 | 0.00 |
| tblFireplaces | NumberNoFireplace | 24.90 | 0.00 |
| tblFireplaces | NumberWood | 12.45 | 0.00 |
| tblLandUse | LandUseSquareFeet | 5,090.00 | 5,094.00 |
| tblLandUse | LandUseSquareFeet | 305,650.00 | 305,652.00 |
| tblLandUse | LandUseSquareFeet | 8,100.00 | 8,095.00 |
| tblLandUse | LandUseSquareFeet | 22,190.00 | 22,189.00 |
| tblLandUse | LandUseSquareFeet | 0.00 | 49,840.00 |
| tblLandUse | LandUseSquareFeet | 249,000.00 | 191,324.00 |
| tblLandUse | LandUseSquareFeet | 24,810.00 | 24,811.00 |
| tblLandUse | LotAcreage | 7.02 | 0.00 |
| tblLandUse | LotAcreage | 0.51 | 0.25 |
| tblLandUse | LotAcreage | 4.02 | 1.00 |

| | | | |
|---------------------------|--------------------------|---------------|--------------|
| tblLandUse | LotAcreage | 1.17 | 0.50 |
| tblLandUse | LotAcreage | 0.57 | 0.50 |
| tblLandUse | Population | 712.00 | 528.00 |
| tblProjectCharacteristics | CO2IntensityFactor | 1227.89 | 1094 |
| tblProjectCharacteristics | OperationalYear | 2014 | 2017 |
| tblSolidWaste | SolidWasteGenerationRate | 114.54 | 222.30 |
| tblSolidWaste | SolidWasteGenerationRate | 4.73 | 7.56 |
| tblSolidWaste | SolidWasteGenerationRate | 46.17 | 12.02 |
| tblSolidWaste | SolidWasteGenerationRate | 20.25 | 434.76 |
| tblSolidWaste | SolidWasteGenerationRate | 53.71 | 75.95 |
| tblSolidWaste | SolidWasteGenerationRate | 139.93 | 165.78 |
| tblVehicleTrips | ST_TR | 7.16 | 4.36 |
| tblVehicleTrips | ST_TR | 2.37 | 96.39 |
| tblVehicleTrips | ST_TR | 20.87 | 21.25 |
| tblVehicleTrips | ST_TR | 94.36 | 58.41 |
| tblVehicleTrips | ST_TR | 42.04 | 27.90 |
| tblVehicleTrips | ST_TR | 177.59 | 67.47 |
| tblVehicleTrips | SU_TR | 6.07 | 4.36 |
| tblVehicleTrips | SU_TR | 0.98 | 96.39 |
| tblVehicleTrips | SU_TR | 26.73 | 21.25 |
| tblVehicleTrips | SU_TR | 72.16 | 58.41 |
| tblVehicleTrips | SU_TR | 20.43 | 27.90 |
| tblVehicleTrips | SU_TR | 166.44 | 67.47 |
| tblVehicleTrips | WD_TR | 6.59 | 4.36 |
| tblVehicleTrips | WD_TR | 11.01 | 96.39 |
| tblVehicleTrips | WD_TR | 32.93 | 21.25 |
| tblVehicleTrips | WD_TR | 89.95 | 58.41 |
| tblVehicleTrips | WD_TR | 44.32 | 27.90 |
| tblVehicleTrips | WD_TR | 102.24 | 67.47 |
| tblWater | IndoorWaterUseRate | 16,223,352.38 | 8,344,210.00 |

| | | | |
|---------------|---------------------|---------------|--------------|
| tblWater | IndoorWaterUseRate | 904,664.78 | 118,128.00 |
| tblWater | IndoorWaterUseRate | 479,059.47 | 187,603.00 |
| tblWater | IndoorWaterUseRate | 6,735,413.08 | 2,923,560.00 |
| tblWater | IndoorWaterUseRate | 3,788,809.47 | 1,185,365.00 |
| tblWater | IndoorWaterUseRate | 3,058,284.41 | 899,644.00 |
| tblWater | OutdoorWaterUseRate | 10,227,765.63 | 5,260,435.00 |
| tblWater | OutdoorWaterUseRate | 0.00 | 2,856,125.00 |
| tblWater | OutdoorWaterUseRate | 554,471.96 | 72,402.00 |
| tblWater | OutdoorWaterUseRate | 293,617.09 | 114,982.00 |
| tblWater | OutdoorWaterUseRate | 429,919.98 | 186,605.00 |
| tblWater | OutdoorWaterUseRate | 2,322,173.55 | 726,505.00 |
| tblWater | OutdoorWaterUseRate | 94,586.12 | 27,821.00 |
| tblWoodstoves | NumberCatalytic | 12.45 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 12.45 | 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 | 3.0754 | 0.0303 | 2.5998 | 1.4000e-004 | | 0.0141 | 0.0141 | | 0.0141 | 0.0141 | 0.0000 | 4.2061 | 4.2061 | 4.2400e-003 | 0.0000 | 4.2952 |
| Energy | 0.0467 | 0.4196 | 0.3200 | 2.5500e-003 | | 0.0323 | 0.0323 | | 0.0323 | 0.0323 | 0.0000 | 3,681.6102 | 3,681.6102 | 0.0942 | 0.0261 | 3,691.6888 |
| Mobile | 3.3237 | 7.9638 | 32.3937 | 0.0700 | 4.7091 | 0.1033 | 4.8124 | 1.2601 | 0.0951 | 1.3552 | 0.0000 | 5,409.5979 | 5,409.5979 | 0.2198 | 0.0000 | 5,414.2143 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 186.4208 | 0.0000 | 186.4208 | 11.0172 | 0.0000 | 417.7811 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 4.3332 | 139.2213 | 143.5545 | 0.4488 | 0.0113 | 156.4728 |
| Total | 6.4457 | 8.4136 | 35.3135 | 0.0727 | 4.7091 | 0.1497 | 4.8588 | 1.2601 | 0.1415 | 1.4016 | 190.7540 | 9,234.6355 | 9,425.3895 | 11.7842 | 0.0374 | 9,684.4521 |

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 | 3.0754 | 0.0303 | 2.5998 | 1.4000e-004 | | 0.0141 | 0.0141 | | 0.0141 | 0.0141 | 0.0000 | 4.2061 | 4.2061 | 4.2400e-003 | 0.0000 | 4.2952 |
| Energy | 0.0448 | 0.4028 | 0.3084 | 2.4400e-003 | | 0.0310 | 0.0310 | | 0.0310 | 0.0310 | 0.0000 | 3,458.7992 | 3,458.7992 | 0.0884 | 0.0247 | 3,468.3036 |
| Mobile | 3.3237 | 7.9638 | 32.3937 | 0.0700 | 4.7091 | 0.1033 | 4.8124 | 1.2601 | 0.0951 | 1.3552 | 0.0000 | 5,409.5979 | 5,409.5979 | 0.2198 | 0.0000 | 5,414.2143 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 186.4208 | 0.0000 | 186.4208 | 11.0172 | 0.0000 | 417.7811 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 2.8166 | 106.3417 | 109.1582 | 0.2921 | 7.4100e-003 | 117.5909 |
| Total | 6.4439 | 8.3969 | 35.3019 | 0.0726 | 4.7091 | 0.1484 | 4.8575 | 1.2601 | 0.1402 | 1.4003 | 189.2374 | 8,978.9449 | 9,168.1823 | 11.6218 | 0.0321 | 9,422.1851 |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------------------|-------------|-------------|-------------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Percent Reduction | 0.03 | 0.20 | 0.03 | 0.15 | 0.00 | 0.87 | 0.03 | 0.00 | 0.92 | 0.09 | 0.80 | 2.77 | 2.73 | 1.38 | 14.22 | 2.71 |

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 | 3.3237 | 7.9638 | 32.3937 | 0.0700 | 4.7091 | 0.1033 | 4.8124 | 1.2601 | 0.0951 | 1.3552 | 0.0000 | 5,409.5979 | 5,409.5979 | 0.2198 | 0.0000 | 5,414.2143 |
| Unmitigated | 3.3237 | 7.9638 | 32.3937 | 0.0700 | 4.7091 | 0.1033 | 4.8124 | 1.2601 | 0.0951 | 1.3552 | 0.0000 | 5,409.5979 | 5,409.5979 | 0.2198 | 0.0000 | 5,414.2143 |

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|--------------------------------|-------------------------|-----------------|-----------------|-------------------|-------------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Apartments High Rise | 1,085.64 | 1,085.64 | 1085.64 | 3,709,797 | 3,709,797 |
| Enclosed Parking with Elevator | 0.00 | 0.00 | 0.00 | | |
| General Office Building | 490.63 | 490.63 | 490.63 | 1,580,530 | 1,580,530 |
| Health Club | 172.13 | 172.13 | 172.13 | 368,136 | 368,136 |
| Quality Restaurant | 1,296.12 | 1,296.12 | 1296.12 | 1,845,194 | 1,845,194 |
| Strip Mall | 1,427.09 | 1,427.09 | 1427.09 | 2,715,165 | 2,715,165 |
| Supermarket | 1,673.93 | 1,673.93 | 1673.93 | 2,208,703 | 2,208,703 |
| User Defined Recreational | 0.00 | 0.00 | 0.00 | | |
| Total | 6,145.52 | 6,145.52 | 6,145.52 | 12,427,524 | 12,427,524 |

4.3 Trip Type Information

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|--------------------------------|------------|------------|-------------|-----------|------------|-------------|----------------|----------|---------|
| | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C- | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Apartments 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 |
| Quality Restaurant | 16.60 | 8.40 | 6.90 | 12.00 | 69.00 | 19.00 | 38 | 18 | 44 |
| 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 |
| User Defined Recreational | 16.60 | 8.40 | 6.90 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

| LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.513125 | 0.060112 | 0.180262 | 0.139218 | 0.042100 | 0.006630 | 0.016061 | 0.030999 | 0.001941 | 0.002506 | 0.004348 | 0.000594 | 0.002104 |

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable Energy

Install Energy Efficient Appliances

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------------|---------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|-------------|-------------|------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Electricity Mitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 3,015.2373 | 3,015.2373 | 0.0799 | 0.0165 | 3,022.0422 |
| Electricity Unmitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 3,219.4124 | 3,219.4124 | 0.0853 | 0.0177 | 3,226.6781 |
| NaturalGas Mitigated | 0.0448 | 0.4028 | 0.3084 | 2.4400e-003 | | 0.0310 | 0.0310 | | 0.0310 | 0.0310 | 0.0000 | 443.5620 | 443.5620 | 8.5000e-003 | 8.1300e-003 | 446.2614 |
| NaturalGas Unmitigated | 0.0467 | 0.4196 | 0.3200 | 2.5500e-003 | | 0.0323 | 0.0323 | | 0.0323 | 0.0323 | 0.0000 | 462.1978 | 462.1978 | 8.8600e-003 | 8.4700e-003 | 465.0106 |

5.2 Energy by Land Use - Natural Gas

Unmitigated

| | Natural Gas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|-----------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|--------------------|--------------------|-----------------|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Enclosed Parking with Elevator | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| General Office Building | 55677.4 | 3.0000e-004 | 2.7300e-003 | 2.2900e-003 | 2.0000e-005 | | 2.1000e-004 | 2.1000e-004 | | 2.1000e-004 | 2.1000e-004 | 0.0000 | 2.9712 | 2.9712 | 6.0000e-005 | 5.0000e-005 | 2.9892 |
| Health Club | 152267 | 8.2000e-004 | 7.4600e-003 | 6.2700e-003 | 4.0000e-005 | | 5.7000e-004 | 5.7000e-004 | | 5.7000e-004 | 5.7000e-004 | 0.0000 | 8.1255 | 8.1255 | 1.6000e-004 | 1.5000e-004 | 8.1750 |
| Quality Restaurant | 5.17026e+006 | 0.0279 | 0.2534 | 0.2129 | 1.5200e-003 | | 0.0193 | 0.0193 | | 0.0193 | 0.0193 | 0.0000 | 275.9047 | 275.9047 | 5.2900e-003 | 5.0600e-003 | 277.5838 |
| Strip Mall | 86955 | 4.7000e-004 | 4.2600e-003 | 3.5800e-003 | 3.0000e-005 | | 3.2000e-004 | 3.2000e-004 | | 3.2000e-004 | 3.2000e-004 | 0.0000 | 4.6403 | 4.6403 | 9.0000e-005 | 9.0000e-005 | 4.6685 |
| Supermarket | 560480 | 3.0200e-003 | 0.0275 | 0.0231 | 1.6000e-004 | | 2.0900e-003 | 2.0900e-003 | | 2.0900e-003 | 2.0900e-003 | 0.0000 | 29.9094 | 29.9094 | 5.7000e-004 | 5.5000e-004 | 30.0914 |
| User Defined Recreational | 937490 | 5.0600e-003 | 0.0460 | 0.0386 | 2.8000e-004 | | 3.4900e-003 | 3.4900e-003 | | 3.4900e-003 | 3.4900e-003 | 0.0000 | 50.0281 | 50.0281 | 9.6000e-004 | 9.2000e-004 | 50.3325 |
| Apartments High Rise | 1.69813e+006 | 9.1600e-003 | 0.0783 | 0.0333 | 5.0000e-004 | | 6.3300e-003 | 6.3300e-003 | | 6.3300e-003 | 6.3300e-003 | 0.0000 | 90.6187 | 90.6187 | 1.7400e-003 | 1.6600e-003 | 91.1702 |
| Total | | 0.0467 | 0.4196 | 0.3200 | 2.5500e-003 | | 0.0323 | 0.0323 | | 0.0323 | 0.0323 | 0.0000 | 462.1978 | 462.1978 | 8.8700e-003 | 8.4800e-003 | 465.0106 |

Mitigated

| | Natural Gas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|-----------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|--------------------|--------------------|-----------------|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| General Office Building | 50308.3 | 2.7000e-004 | 2.4700e-003 | 2.0700e-003 | 1.0000e-005 | | 1.9000e-004 | 1.9000e-004 | | 1.9000e-004 | 1.9000e-004 | 0.0000 | 2.6846 | 2.6846 | 5.0000e-005 | 5.0000e-005 | 2.7010 |
| Health Club | 140643 | 7.6000e-004 | 6.8900e-003 | 5.7900e-003 | 4.0000e-005 | | 5.2000e-004 | 5.2000e-004 | | 5.2000e-004 | 5.2000e-004 | 0.0000 | 7.5052 | 7.5052 | 1.4000e-004 | 1.4000e-004 | 7.5509 |
| Quality Restaurant | 5.0699e+006 | 0.0273 | 0.2485 | 0.2088 | 1.4900e-003 | | 0.0189 | 0.0189 | | 0.0189 | 0.0189 | 0.0000 | 270.5491 | 270.5491 | 5.1900e-003 | 4.9600e-003 | 272.1956 |
| Strip Mall | 80765.8 | 4.4000e-004 | 3.9600e-003 | 3.3300e-003 | 2.0000e-005 | | 3.0000e-004 | 3.0000e-004 | | 3.0000e-004 | 3.0000e-004 | 0.0000 | 4.3100 | 4.3100 | 8.0000e-005 | 8.0000e-005 | 4.3362 |
| Supermarket | 534801 | 2.8800e-003 | 0.0262 | 0.0220 | 1.6000e-004 | | 1.9900e-003 | 1.9900e-003 | | 1.9900e-003 | 1.9900e-003 | 0.0000 | 28.5390 | 28.5390 | 5.5000e-004 | 5.2000e-004 | 28.7127 |
| User Defined Recreational | 865920 | 4.6700e-003 | 0.0425 | 0.0357 | 2.5000e-004 | | 3.2300e-003 | 3.2300e-003 | | 3.2300e-003 | 3.2300e-003 | 0.0000 | 46.2088 | 46.2088 | 8.9000e-004 | 8.5000e-004 | 46.4900 |
| Apartments High Rise | 1.5697e+006 | 8.4600e-003 | 0.0723 | 0.0308 | 4.6000e-004 | | 5.8500e-003 | 5.8500e-003 | | 5.8500e-003 | 5.8500e-003 | 0.0000 | 83.7652 | 83.7652 | 1.6100e-003 | 1.5400e-003 | 84.2750 |
| Enclosed Parking with Elevator | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 0.0448 | 0.4028 | 0.3084 | 2.4300e-003 | | 0.0310 | 0.0310 | | 0.0310 | 0.0310 | 0.0000 | 443.5619 | 443.5619 | 8.5100e-003 | 8.1400e-003 | 446.2614 |

5.3 Energy by Land Use - Electricity

Unmitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|-----------------|-------------------|---------------|---------------|-------------------|
| Land Use | kWh/yr | MT/yr | | | |
| Apartments High Rise | 866836 | 430.1502 | 0.0114 | 2.3600e-003 | 431.1210 |
| Enclosed Parking with Elevator | 2.06009e+006 | 1,022.2808 | 0.0271 | 5.6100e-003 | 1,024.5879 |
| General Office Building | 74015.8 | 36.7289 | 9.7000e-004 | 2.0000e-004 | 36.8118 |
| Health Club | 97544.8 | 48.4046 | 1.2800e-003 | 2.7000e-004 | 48.5139 |
| Quality Restaurant | 1.04089e+006 | 516.5189 | 0.0137 | 2.8300e-003 | 517.6846 |
| Strip Mall | 775946 | 385.0475 | 0.0102 | 2.1100e-003 | 385.9165 |
| Supermarket | 971847 | 482.2596 | 0.0128 | 2.6400e-003 | 483.3480 |
| User Defined Recreational | 600572 | 298.0219 | 7.9000e-003 | 1.6300e-003 | 298.6945 |
| Total | | 3,219.4124 | 0.0853 | 0.0177 | 3,226.6781 |

Mitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|-----------------|-------------------|---------------|---------------|-------------------|
| Land Use | kWh/yr | MT/yr | | | |
| Apartments High Rise | 826241 | 410.0054 | 0.0109 | 2.2500e-003 | 410.9307 |
| Enclosed Parking with Elevator | 1.92088e+006 | 953.1965 | 0.0253 | 5.2300e-003 | 955.3477 |
| General Office Building | 70441.5 | 34.9552 | 9.3000e-004 | 1.9000e-004 | 35.0341 |
| Health Club | 94365.4 | 46.8270 | 1.2400e-003 | 2.6000e-004 | 46.9327 |
| Quality Restaurant | 973220 | 482.9409 | 0.0128 | 2.6500e-003 | 484.0309 |
| Strip Mall | 743373 | 368.8841 | 9.7800e-003 | 2.0200e-003 | 369.7166 |
| Supermarket | 866775 | 430.1199 | 0.0114 | 2.3600e-003 | 431.0907 |
| User Defined Recreational | 580997 | 288.3083 | 7.6400e-003 | 1.5800e-003 | 288.9590 |
| Total | | 3,015.2373 | 0.0799 | 0.0165 | 3,022.0422 |

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 | 3.0754 | 0.0303 | 2.5998 | 1.4000e-004 | | 0.0141 | 0.0141 | | 0.0141 | 0.0141 | 0.0000 | 4.2061 | 4.2061 | 4.2400e-003 | 0.0000 | 4.2952 |
| Unmitigated | 3.0754 | 0.0303 | 2.5998 | 1.4000e-004 | | 0.0141 | 0.0141 | | 0.0141 | 0.0141 | 0.0000 | 4.2061 | 4.2061 | 4.2400e-003 | 0.0000 | 4.2952 |

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 | 0.6158 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 2.3782 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Hearth | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 0.0813 | 0.0303 | 2.5998 | 1.4000e-004 | | 0.0141 | 0.0141 | | 0.0141 | 0.0141 | 0.0000 | 4.2061 | 4.2061 | 4.2400e-003 | 0.0000 | 4.2952 |
| Total | 3.0753 | 0.0303 | 2.5998 | 1.4000e-004 | | 0.0141 | 0.0141 | | 0.0141 | 0.0141 | 0.0000 | 4.2061 | 4.2061 | 4.2400e-003 | 0.0000 | 4.2952 |

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 | 0.6158 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 2.3782 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Hearth | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 0.0813 | 0.0303 | 2.5998 | 1.4000e-004 | | 0.0141 | 0.0141 | | 0.0141 | 0.0141 | 0.0000 | 4.2061 | 4.2061 | 4.2400e-003 | 0.0000 | 4.2952 |
| Total | 3.0753 | 0.0303 | 2.5998 | 1.4000e-004 | | 0.0141 | 0.0141 | | 0.0141 | 0.0141 | 0.0000 | 4.2061 | 4.2061 | 4.2400e-003 | 0.0000 | 4.2952 |

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

| | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------|--------|-------------|----------|
| Category | MT/yr | | | |
| Mitigated | 109.1582 | 0.2921 | 7.4100e-003 | 117.5909 |
| Unmitigated | 143.5545 | 0.4488 | 0.0113 | 156.4728 |

7.2 Water by Land Use

Unmitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|---------------------|-----------------|---------------|---------------|-----------------|
| Land Use | Mgal | MT/yr | | | |
| Apartments High Rise | 8.34421 / 5.26044 | 85.5640 | 0.2741 | 6.8700e-003 | 93.4512 |
| Enclosed Parking with Elevator | 0 / 2.85613 | 15.7462 | 4.2000e-004 | 9.0000e-005 | 15.7817 |
| General Office Building | 0.118128 / 0.072402 | 1.1999 | 3.8800e-003 | 1.0000e-004 | 1.3115 |
| Health Club | 0.187603 / 0.114982 | 1.9056 | 6.1600e-003 | 1.5000e-004 | 2.0829 |
| Quality Restaurant | 2.92356 / 0.186605 | 20.8466 | 0.0958 | 2.3600e-003 | 23.5894 |
| Strip Mall | 1.18537 / 0.726505 | 12.0405 | 0.0389 | 9.8000e-004 | 13.1607 |
| Supermarket | 0.899644 / 0.027821 | 6.2518 | 0.0295 | 7.2000e-004 | 7.0954 |
| User Defined Recreational | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 143.5546 | 0.4487 | 0.0113 | 156.4728 |

Mitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|----------------------|-----------------|---------------|--------------------|-----------------|
| Land Use | Mgal | MT/yr | | | |
| Apartments High Rise | 5.42374 / 5.26044 | 64.5507 | 0.1784 | 4.5200e-003 | 69.6976 |
| Enclosed Parking with Elevator | 0 / 2.85613 | 15.7462 | 4.2000e-004 | 9.0000e-005 | 15.7817 |
| General Office Building | 0.0767832 / 0.072402 | 0.9024 | 2.5300e-003 | 6.0000e-005 | 0.9753 |
| Health Club | 0.121942 / 0.114982 | 1.4332 | 4.0100e-003 | 1.0000e-004 | 1.5488 |
| Quality Restaurant | 1.90031 / 0.186605 | 13.4842 | 0.0623 | 1.5300e-003 | 15.2669 |
| Strip Mall | 0.770487 / 0.726505 | 9.0554 | 0.0253 | 6.4000e-004 | 9.7863 |
| Supermarket | 0.584769 / 0.027821 | 3.9862 | 0.0192 | 4.7000e-004 | 4.5344 |
| User Defined Recreational | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 109.1583 | 0.2921 | 7.4100e-003 | 117.5909 |

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

| | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------|---------|--------|----------|
| | MT/yr | | | |
| Mitigated | 186.4208 | 11.0172 | 0.0000 | 417.7811 |
| Unmitigated | 186.4208 | 11.0172 | 0.0000 | 417.7811 |

8.2 Waste by Land Use

Unmitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|----------------|-----------------|----------------|---------------|-----------------|
| Land Use | tons | MT/yr | | | |
| Apartments High Rise | 222.3 | 45.1249 | 2.6668 | 0.0000 | 101.1278 |
| Enclosed Parking with Elevator | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| General Office Building | 7.56 | 1.5346 | 0.0907 | 0.0000 | 3.4392 |
| Health Club | 12.02 | 2.4400 | 0.1442 | 0.0000 | 5.4681 |
| Quality Restaurant | 434.76 | 88.2524 | 5.2156 | 0.0000 | 197.7792 |
| Strip Mall | 75.95 | 15.4172 | 0.9111 | 0.0000 | 34.5509 |
| Supermarket | 165.78 | 33.6518 | 1.9888 | 0.0000 | 75.4160 |
| User Defined Recreational | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 186.4208 | 11.0172 | 0.0000 | 417.7811 |

Mitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|----------------|-----------------|----------------|---------------|-----------------|
| Land Use | tons | MT/yr | | | |
| Apartments High Rise | 222.3 | 45.1249 | 2.6668 | 0.0000 | 101.1278 |
| Enclosed Parking with Elevator | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| General Office Building | 7.56 | 1.5346 | 0.0907 | 0.0000 | 3.4392 |
| Health Club | 12.02 | 2.4400 | 0.1442 | 0.0000 | 5.4681 |
| Quality Restaurant | 434.76 | 88.2524 | 5.2156 | 0.0000 | 197.7792 |
| Strip Mall | 75.95 | 15.4172 | 0.9111 | 0.0000 | 34.5509 |
| Supermarket | 165.78 | 33.6518 | 1.9888 | 0.0000 | 75.4160 |
| User Defined Recreational | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 186.4208 | 11.0172 | 0.0000 | 417.7811 |

9.0 Operational Offroad

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

10.0 Vegetation

Appendix B.6

Project GHG Emissions – Mobile Source CO2 Emissions (2018-2025)

**City of Los Angeles
8150 Sunset Mixed-Use Project
Greenhouse Gas Assessment**

**Estimated GHG Emissions from Mobile Sources for Future Years with
Latest Emissions Regulations Not Included in CalEEMod (EMFAC2011)**

| Year | Estimated Project VMT (miles) | CO2 Emission Factor ¹ (g CO2/mile) | GHG Emissions (metric tons/year) ² | | | |
|------|-------------------------------------|---|---|-----------------|------------------|----------|
| | | | CO2 (GWP 1) | CH4 (GWP 21) | N2O (GWP 310) | CO2e |
| 2018 | 12,427,524 | 430 | 5,343.84 | 0.2048 | - | 5,348.14 |
| 2019 | 12,427,524 | 423 | 5,256.84 | 0.1917 | - | 5,260.87 |
| 2020 | 12,427,524 | 415 | 5,157.42 | 0.1815 | - | 5,161.23 |
| 2021 | 12,427,524 | 408 | 5,070.43 | 0.1739 | - | 5,074.08 |
| 2022 | 12,427,524 | 400 | 4,971.01 | 0.1668 | - | 4,974.51 |
| 2023 | 12,427,524 | 391 | 4,859.16 | 0.1597 | - | 4,862.52 |
| 2024 | 12,427,524 | 384 | 4,772.17 | 0.1557 | - | 4,775.44 |
| 2025 | 12,427,524 | 375 | 4,660.32 | 0.1511 | - | 4,663.49 |

Source: PCR Services Corporation, 2014.

- California Air Resources Board: <http://www.arb.ca.gov/msei/modeling.htm>, (base EMFAC2011),
ARB staff analysis adjusts this base model to account for new rules.
- CO2 emissions are calculated based on the CO2 emission factor from ARB staff analysis and VMT estimated from CalEEMod.
CH4 and N2O emissions are from CalEEMod (N2O emissions are less than 0.0001 metric tons/year).
GWP = global warming potential

Appendix B.7

Project GHG Emissions – CalEEMod Outputs for Mobile CH₄ and N₂O (2018-2020), Electricity, Natural Gas, Mobile, Area, Waste, and Water (2018-2020+)

8150 Sunset Blvd Mixed Use Project - PROJECT (2018)

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 | 5.09 | 1000sqft | 0.12 | 5,094.00 | 0 |
| Enclosed Parking with Elevator | 305.65 | 1000sqft | 0.00 | 305,652.00 | 0 |
| Health Club | 8.10 | 1000sqft | 0.19 | 8,095.00 | 0 |
| Quality Restaurant | 22.19 | 1000sqft | 0.25 | 22,189.00 | 0 |
| User Defined Recreational | 49.84 | User Defined Unit | 0.00 | 49,840.00 | 0 |
| Apartments High Rise | 249.00 | Dwelling Unit | 1.00 | 191,324.00 | 528 |
| Strip Mall | 51.15 | 1000sqft | 0.50 | 51,150.00 | 0 |
| Supermarket | 24.81 | 1000sqft | 0.50 | 24,811.00 | 0 |

1.2 Other Project Characteristics

| | | | | | |
|---------------------------------|---|---------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 31 |
| Climate Zone | 11 | | | Operational Year | 2018 |
| Utility Company | Los Angeles Department of Water & Power | | | | |
| CO2 Intensity (lb/MW hr) | 1094 | CH4 Intensity (lb/MW hr) | 0.029 | N2O Intensity (lb/MW hr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: LADWP "2013 Power Integrated Resource Plan," page C-12.

Land Use - Unit sizes are based on the planned building square footage and dwelling units for the 8150 Sunset Boulevard Mixed Use Project; Population 528 is based on the average household size for the Hollywood Community Plan Area (2.12 persons per household); User Defined Residential=Residential Amenities/Roof Decks.

Vehicle Trips - Refer to "Trip Generation Rate" worksheet provided in this Appendix.

Woodstoves - No residential wood-stoves; No residential hearths.

Energy Use - CalEEMod default energy demand rates. User Defined Recreational=Residential Amenities/Roof Deck (factors are from Health Club/Racquet Club).

Water And Wastewater - Refer to "Project Water Demand Rates" worksheet provided in this Appendix.

Solid Waste - Refer to "Project Solid Waste Disposal Rates" worksheet provided in this Appendix. Solid waste rate is inclusive of 60% diversion.

Energy Mitigation - LEED v4 Credits: EAc2 (exceed Title 24 by 10%); EAc5 (1% renewable energy generation); Energy Efficient Appliances.

Water Mitigation - LEED v4 Credits: Wec2 (reduce indoor water demand by 35%).

| Table Name | Column Name | Default Value | New Value |
|---------------|-------------------|---------------|------------|
| tblEnergyUse | LightingElect | 0.00 | 3.55 |
| tblEnergyUse | NT24E | 0.00 | 5.75 |
| tblEnergyUse | NT24NG | 0.00 | 4.45 |
| tblEnergyUse | T24E | 0.00 | 2.75 |
| tblEnergyUse | T24NG | 0.00 | 14.36 |
| tblFireplaces | FireplaceDayYear | 25.00 | 0.00 |
| tblFireplaces | FireplaceHourDay | 3.00 | 0.00 |
| tblFireplaces | FireplaceWoodMass | 1,019.20 | 0.00 |
| tblFireplaces | NumberGas | 211.65 | 0.00 |
| tblFireplaces | NumberNoFireplace | 24.90 | 0.00 |
| tblFireplaces | NumberWood | 12.45 | 0.00 |
| tblLandUse | LandUseSquareFeet | 5,090.00 | 5,094.00 |
| tblLandUse | LandUseSquareFeet | 305,650.00 | 305,652.00 |
| tblLandUse | LandUseSquareFeet | 8,100.00 | 8,095.00 |
| tblLandUse | LandUseSquareFeet | 22,190.00 | 22,189.00 |
| tblLandUse | LandUseSquareFeet | 0.00 | 49,840.00 |
| tblLandUse | LandUseSquareFeet | 249,000.00 | 191,324.00 |
| tblLandUse | LandUseSquareFeet | 24,810.00 | 24,811.00 |
| tblLandUse | LotAcreage | 7.02 | 0.00 |
| tblLandUse | LotAcreage | 0.51 | 0.25 |
| tblLandUse | LotAcreage | 4.02 | 1.00 |

| | | | |
|---------------------------|--------------------------|---------------|--------------|
| tblLandUse | LotAcreage | 1.17 | 0.50 |
| tblLandUse | LotAcreage | 0.57 | 0.50 |
| tblLandUse | Population | 712.00 | 528.00 |
| tblProjectCharacteristics | CO2IntensityFactor | 1227.89 | 1094 |
| tblProjectCharacteristics | OperationalYear | 2014 | 2018 |
| tblSolidWaste | SolidWasteGenerationRate | 114.54 | 222.30 |
| tblSolidWaste | SolidWasteGenerationRate | 4.73 | 7.56 |
| tblSolidWaste | SolidWasteGenerationRate | 46.17 | 12.02 |
| tblSolidWaste | SolidWasteGenerationRate | 20.25 | 434.76 |
| tblSolidWaste | SolidWasteGenerationRate | 53.71 | 75.95 |
| tblSolidWaste | SolidWasteGenerationRate | 139.93 | 165.78 |
| tblVehicleTrips | ST_TR | 7.16 | 4.36 |
| tblVehicleTrips | ST_TR | 2.37 | 96.39 |
| tblVehicleTrips | ST_TR | 20.87 | 21.25 |
| tblVehicleTrips | ST_TR | 94.36 | 58.41 |
| tblVehicleTrips | ST_TR | 42.04 | 27.90 |
| tblVehicleTrips | ST_TR | 177.59 | 67.47 |
| tblVehicleTrips | SU_TR | 6.07 | 4.36 |
| tblVehicleTrips | SU_TR | 0.98 | 96.39 |
| tblVehicleTrips | SU_TR | 26.73 | 21.25 |
| tblVehicleTrips | SU_TR | 72.16 | 58.41 |
| tblVehicleTrips | SU_TR | 20.43 | 27.90 |
| tblVehicleTrips | SU_TR | 166.44 | 67.47 |
| tblVehicleTrips | WD_TR | 6.59 | 4.36 |
| tblVehicleTrips | WD_TR | 11.01 | 96.39 |
| tblVehicleTrips | WD_TR | 32.93 | 21.25 |
| tblVehicleTrips | WD_TR | 89.95 | 58.41 |
| tblVehicleTrips | WD_TR | 44.32 | 27.90 |
| tblVehicleTrips | WD_TR | 102.24 | 67.47 |
| tblWater | IndoorWaterUseRate | 16,223,352.38 | 8,344,210.00 |

| | | | |
|---------------|---------------------|---------------|--------------|
| tblWater | IndoorWaterUseRate | 904,664.78 | 118,128.00 |
| tblWater | IndoorWaterUseRate | 479,059.47 | 187,603.00 |
| tblWater | IndoorWaterUseRate | 6,735,413.08 | 2,923,560.00 |
| tblWater | IndoorWaterUseRate | 3,788,809.47 | 1,185,365.00 |
| tblWater | IndoorWaterUseRate | 3,058,284.41 | 899,644.00 |
| tblWater | OutdoorWaterUseRate | 10,227,765.63 | 5,260,435.00 |
| tblWater | OutdoorWaterUseRate | 0.00 | 2,856,125.00 |
| tblWater | OutdoorWaterUseRate | 554,471.96 | 72,402.00 |
| tblWater | OutdoorWaterUseRate | 293,617.09 | 114,982.00 |
| tblWater | OutdoorWaterUseRate | 429,919.98 | 186,605.00 |
| tblWater | OutdoorWaterUseRate | 2,322,173.55 | 726,505.00 |
| tblWater | OutdoorWaterUseRate | 94,586.12 | 27,821.00 |
| tblWoodstoves | NumberCatalytic | 12.45 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 12.45 | 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 | 3.0743 | 0.0301 | 2.5921 | 1.4000e-004 | | 0.0141 | 0.0141 | | 0.0141 | 0.0141 | 0.0000 | 4.2061 | 4.2061 | 4.1900e-003 | 0.0000 | 4.2941 |
| Energy | 0.0467 | 0.4196 | 0.3200 | 2.5500e-003 | | 0.0323 | 0.0323 | | 0.0323 | 0.0323 | 0.0000 | 3,681.6102 | 3,681.6102 | 0.0942 | 0.0261 | 3,691.6888 |
| Mobile | 3.0933 | 7.4148 | 30.0819 | 0.0701 | 4.7096 | 0.1007 | 4.8103 | 1.2603 | 0.0928 | 1.3531 | 0.0000 | 5,252.1884 | 5,252.1884 | 0.2048 | 0.0000 | 5,256.4894 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 186.4208 | 0.0000 | 186.4208 | 11.0172 | 0.0000 | 417.7811 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 4.3332 | 139.2213 | 143.5545 | 0.4488 | 0.0113 | 156.4728 |
| Total | 6.2143 | 7.8645 | 32.9940 | 0.0728 | 4.7096 | 0.1471 | 4.8568 | 1.2603 | 0.1392 | 1.3995 | 190.7540 | 9,077.2261 | 9,267.9801 | 11.7691 | 0.0374 | 9,526.7262 |

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 | 3.0743 | 0.0301 | 2.5921 | 1.4000e-004 | | 0.0141 | 0.0141 | | 0.0141 | 0.0141 | 0.0000 | 4.2061 | 4.2061 | 4.1900e-003 | 0.0000 | 4.2941 |
| Energy | 0.0448 | 0.4028 | 0.3084 | 2.4400e-003 | | 0.0310 | 0.0310 | | 0.0310 | 0.0310 | 0.0000 | 3,458.7992 | 3,458.7992 | 0.0884 | 0.0247 | 3,468.3036 |
| Mobile | 3.0933 | 7.4148 | 30.0819 | 0.0701 | 4.7096 | 0.1007 | 4.8103 | 1.2603 | 0.0928 | 1.3531 | 0.0000 | 5,252.1884 | 5,252.1884 | 0.2048 | 0.0000 | 5,256.4894 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 186.4208 | 0.0000 | 186.4208 | 11.0172 | 0.0000 | 417.7811 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 2.8166 | 106.3417 | 109.1582 | 0.2921 | 7.4100e-003 | 117.5909 |
| Total | 6.2124 | 7.8477 | 32.9824 | 0.0727 | 4.7096 | 0.1458 | 4.8555 | 1.2603 | 0.1379 | 1.3982 | 189.2374 | 8,821.5355 | 9,010.7729 | 11.6067 | 0.0321 | 9,264.4591 |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------------------|-------------|-------------|-------------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Percent Reduction | 0.03 | 0.21 | 0.04 | 0.15 | 0.00 | 0.88 | 0.03 | 0.00 | 0.93 | 0.09 | 0.80 | 2.82 | 2.78 | 1.38 | 14.22 | 2.75 |

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 | | | | | |
| Unmitigated | 3.0933 | 7.4148 | 30.0819 | 0.0701 | 4.7096 | 0.1007 | 4.8103 | 1.2603 | 0.0928 | 1.3531 | 0.0000 | 5,252.1884 | 5,252.1884 | 0.2048 | 0.0000 | 5,256.4894 |
| Mitigated | 3.0933 | 7.4148 | 30.0819 | 0.0701 | 4.7096 | 0.1007 | 4.8103 | 1.2603 | 0.0928 | 1.3531 | 0.0000 | 5,252.1884 | 5,252.1884 | 0.2048 | 0.0000 | 5,256.4894 |

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|--------------------------------|-------------------------|-----------------|-----------------|-------------------|-------------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Apartments High Rise | 1,085.64 | 1,085.64 | 1085.64 | 3,709,797 | 3,709,797 |
| Enclosed Parking with Elevator | 0.00 | 0.00 | 0.00 | | |
| General Office Building | 490.63 | 490.63 | 490.63 | 1,580,530 | 1,580,530 |
| Health Club | 172.13 | 172.13 | 172.13 | 368,136 | 368,136 |
| Quality Restaurant | 1,296.12 | 1,296.12 | 1296.12 | 1,845,194 | 1,845,194 |
| Strip Mall | 1,427.09 | 1,427.09 | 1427.09 | 2,715,165 | 2,715,165 |
| Supermarket | 1,673.93 | 1,673.93 | 1673.93 | 2,208,703 | 2,208,703 |
| User Defined Recreational | 0.00 | 0.00 | 0.00 | | |
| Total | 6,145.52 | 6,145.52 | 6,145.52 | 12,427,524 | 12,427,524 |

4.3 Trip Type Information

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|--------------------------------|------------|------------|-------------|-----------|------------|-------------|----------------|----------|---------|
| | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C- | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Apartments 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 |
| Quality Restaurant | 16.60 | 8.40 | 6.90 | 12.00 | 69.00 | 19.00 | 38 | 18 | 44 |
| 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 |
| User Defined Recreational | 16.60 | 8.40 | 6.90 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

| LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.512137 | 0.059943 | 0.180601 | 0.139123 | 0.042256 | 0.006647 | 0.016115 | 0.031670 | 0.001940 | 0.002502 | 0.004362 | 0.000588 | 0.002117 |

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable Energy

Install Energy Efficient Appliances

| | ROG | NOx | CO | SO2 | Fugitive 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 | | | | | |
| NaturalGas Mitigated | 0.0448 | 0.4028 | 0.3084 | 2.4400e-003 | | 0.0310 | 0.0310 | | 0.0310 | 0.0310 | 0.0000 | 443.5620 | 443.5620 | 8.5000e-003 | 8.1300e-003 | 446.2614 |
| NaturalGas Unmitigated | 0.0467 | 0.4196 | 0.3200 | 2.5500e-003 | | 0.0323 | 0.0323 | | 0.0323 | 0.0323 | 0.0000 | 462.1978 | 462.1978 | 8.8600e-003 | 8.4700e-003 | 465.0106 |
| Electricity Mitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 3,015.2373 | 3,015.2373 | 0.0799 | 0.0165 | 3,022.0422 |
| Electricity Unmitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 3,219.4124 | 3,219.4124 | 0.0853 | 0.0177 | 3,226.6781 |

5.2 Energy by Land Use - Natural Gas

Unmitigated

| | Natural Gas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|-----------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|--------------------|--------------------|-----------------|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Enclosed Parking with Elevator | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| General Office Building | 55677.4 | 3.0000e-004 | 2.7300e-003 | 2.2900e-003 | 2.0000e-005 | | 2.1000e-004 | 2.1000e-004 | | 2.1000e-004 | 2.1000e-004 | 0.0000 | 2.9712 | 2.9712 | 6.0000e-005 | 5.0000e-005 | 2.9892 |
| Health Club | 152267 | 8.2000e-004 | 7.4600e-003 | 6.2700e-003 | 4.0000e-005 | | 5.7000e-004 | 5.7000e-004 | | 5.7000e-004 | 5.7000e-004 | 0.0000 | 8.1255 | 8.1255 | 1.6000e-004 | 1.5000e-004 | 8.1750 |
| Quality Restaurant | 5.17026e+006 | 0.0279 | 0.2534 | 0.2129 | 1.5200e-003 | | 0.0193 | 0.0193 | | 0.0193 | 0.0193 | 0.0000 | 275.9047 | 275.9047 | 5.2900e-003 | 5.0600e-003 | 277.5838 |
| Strip Mall | 86955 | 4.7000e-004 | 4.2600e-003 | 3.5800e-003 | 3.0000e-005 | | 3.2000e-004 | 3.2000e-004 | | 3.2000e-004 | 3.2000e-004 | 0.0000 | 4.6403 | 4.6403 | 9.0000e-005 | 9.0000e-005 | 4.6685 |
| Supermarket | 560480 | 3.0200e-003 | 0.0275 | 0.0231 | 1.6000e-004 | | 2.0900e-003 | 2.0900e-003 | | 2.0900e-003 | 2.0900e-003 | 0.0000 | 29.9094 | 29.9094 | 5.7000e-004 | 5.5000e-004 | 30.0914 |
| User Defined Recreational | 937490 | 5.0600e-003 | 0.0460 | 0.0386 | 2.8000e-004 | | 3.4900e-003 | 3.4900e-003 | | 3.4900e-003 | 3.4900e-003 | 0.0000 | 50.0281 | 50.0281 | 9.6000e-004 | 9.2000e-004 | 50.3325 |
| Apartments High Rise | 1.69813e+006 | 9.1600e-003 | 0.0783 | 0.0333 | 5.0000e-004 | | 6.3300e-003 | 6.3300e-003 | | 6.3300e-003 | 6.3300e-003 | 0.0000 | 90.6187 | 90.6187 | 1.7400e-003 | 1.6600e-003 | 91.1702 |
| Total | | 0.0467 | 0.4196 | 0.3200 | 2.5500e-003 | | 0.0323 | 0.0323 | | 0.0323 | 0.0323 | 0.0000 | 462.1978 | 462.1978 | 8.8700e-003 | 8.4800e-003 | 465.0106 |

Mitigated

| | Natural Gas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|-----------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|--------------------|--------------------|-----------------|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| General Office Building | 50308.3 | 2.7000e-004 | 2.4700e-003 | 2.0700e-003 | 1.0000e-005 | | 1.9000e-004 | 1.9000e-004 | | 1.9000e-004 | 1.9000e-004 | 0.0000 | 2.6846 | 2.6846 | 5.0000e-005 | 5.0000e-005 | 2.7010 |
| Health Club | 140643 | 7.6000e-004 | 6.8900e-003 | 5.7900e-003 | 4.0000e-005 | | 5.2000e-004 | 5.2000e-004 | | 5.2000e-004 | 5.2000e-004 | 0.0000 | 7.5052 | 7.5052 | 1.4000e-004 | 1.4000e-004 | 7.5509 |
| Quality Restaurant | 5.0699e+006 | 0.0273 | 0.2485 | 0.2088 | 1.4900e-003 | | 0.0189 | 0.0189 | | 0.0189 | 0.0189 | 0.0000 | 270.5491 | 270.5491 | 5.1900e-003 | 4.9600e-003 | 272.1956 |
| Strip Mall | 80765.8 | 4.4000e-004 | 3.9600e-003 | 3.3300e-003 | 2.0000e-005 | | 3.0000e-004 | 3.0000e-004 | | 3.0000e-004 | 3.0000e-004 | 0.0000 | 4.3100 | 4.3100 | 8.0000e-005 | 8.0000e-005 | 4.3362 |
| Supermarket | 534801 | 2.8800e-003 | 0.0262 | 0.0220 | 1.6000e-004 | | 1.9900e-003 | 1.9900e-003 | | 1.9900e-003 | 1.9900e-003 | 0.0000 | 28.5390 | 28.5390 | 5.5000e-004 | 5.2000e-004 | 28.7127 |
| User Defined Recreational | 865920 | 4.6700e-003 | 0.0425 | 0.0357 | 2.5000e-004 | | 3.2300e-003 | 3.2300e-003 | | 3.2300e-003 | 3.2300e-003 | 0.0000 | 46.2088 | 46.2088 | 8.9000e-004 | 8.5000e-004 | 46.4900 |
| Apartments High Rise | 1.5697e+006 | 8.4600e-003 | 0.0723 | 0.0308 | 4.6000e-004 | | 5.8500e-003 | 5.8500e-003 | | 5.8500e-003 | 5.8500e-003 | 0.0000 | 83.7652 | 83.7652 | 1.6100e-003 | 1.5400e-003 | 84.2750 |
| Enclosed Parking with Elevator | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 0.0448 | 0.4028 | 0.3084 | 2.4300e-003 | | 0.0310 | 0.0310 | | 0.0310 | 0.0310 | 0.0000 | 443.5619 | 443.5619 | 8.5100e-003 | 8.1400e-003 | 446.2614 |

5.3 Energy by Land Use - Electricity

Unmitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|-----------------|-------------------|---------------|---------------|-------------------|
| Land Use | kWh/yr | MT/yr | | | |
| Apartments High Rise | 866836 | 430.1502 | 0.0114 | 2.3600e-003 | 431.1210 |
| Enclosed Parking with Elevator | 2.06009e+006 | 1,022.2808 | 0.0271 | 5.6100e-003 | 1,024.5879 |
| General Office Building | 74015.8 | 36.7289 | 9.7000e-004 | 2.0000e-004 | 36.8118 |
| Health Club | 97544.8 | 48.4046 | 1.2800e-003 | 2.7000e-004 | 48.5139 |
| Quality Restaurant | 1.04089e+006 | 516.5189 | 0.0137 | 2.8300e-003 | 517.6846 |
| Strip Mall | 775946 | 385.0475 | 0.0102 | 2.1100e-003 | 385.9165 |
| Supermarket | 971847 | 482.2596 | 0.0128 | 2.6400e-003 | 483.3480 |
| User Defined Recreational | 600572 | 298.0219 | 7.9000e-003 | 1.6300e-003 | 298.6945 |
| Total | | 3,219.4124 | 0.0853 | 0.0177 | 3,226.6781 |

Mitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|-----------------|-------------------|---------------|---------------|-------------------|
| Land Use | kWh/yr | MT/yr | | | |
| Apartments High Rise | 826241 | 410.0054 | 0.0109 | 2.2500e-003 | 410.9307 |
| Enclosed Parking with Elevator | 1.92088e+006 | 953.1965 | 0.0253 | 5.2300e-003 | 955.3477 |
| General Office Building | 70441.5 | 34.9552 | 9.3000e-004 | 1.9000e-004 | 35.0341 |
| Health Club | 94365.4 | 46.8270 | 1.2400e-003 | 2.6000e-004 | 46.9327 |
| Quality Restaurant | 973220 | 482.9409 | 0.0128 | 2.6500e-003 | 484.0309 |
| Strip Mall | 743373 | 368.8841 | 9.7800e-003 | 2.0200e-003 | 369.7166 |
| Supermarket | 866775 | 430.1199 | 0.0114 | 2.3600e-003 | 431.0907 |
| User Defined Recreational | 580997 | 288.3083 | 7.6400e-003 | 1.5800e-003 | 288.9590 |
| Total | | 3,015.2373 | 0.0799 | 0.0165 | 3,022.0422 |

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 | | | | | |
| Unmitigated | 3.0743 | 0.0301 | 2.5921 | 1.4000e-004 | | 0.0141 | 0.0141 | | 0.0141 | 0.0141 | 0.0000 | 4.2061 | 4.2061 | 4.1900e-003 | 0.0000 | 4.2941 |
| Mitigated | 3.0743 | 0.0301 | 2.5921 | 1.4000e-004 | | 0.0141 | 0.0141 | | 0.0141 | 0.0141 | 0.0000 | 4.2061 | 4.2061 | 4.1900e-003 | 0.0000 | 4.2941 |

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 | 0.6158 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 2.3782 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Hearth | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 0.0803 | 0.0301 | 2.5921 | 1.4000e-004 | | 0.0141 | 0.0141 | | 0.0141 | 0.0141 | 0.0000 | 4.2061 | 4.2061 | 4.1900e-003 | 0.0000 | 4.2941 |
| Total | 3.0743 | 0.0301 | 2.5921 | 1.4000e-004 | | 0.0141 | 0.0141 | | 0.0141 | 0.0141 | 0.0000 | 4.2061 | 4.2061 | 4.1900e-003 | 0.0000 | 4.2941 |

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 | 0.6158 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 2.3782 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Hearth | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 0.0803 | 0.0301 | 2.5921 | 1.4000e-004 | | 0.0141 | 0.0141 | | 0.0141 | 0.0141 | 0.0000 | 4.2061 | 4.2061 | 4.1900e-003 | 0.0000 | 4.2941 |
| Total | 3.0743 | 0.0301 | 2.5921 | 1.4000e-004 | | 0.0141 | 0.0141 | | 0.0141 | 0.0141 | 0.0000 | 4.2061 | 4.2061 | 4.1900e-003 | 0.0000 | 4.2941 |

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

| | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------|--------|-------------|----------|
| Category | MT/yr | | | |
| Unmitigated | 143.5545 | 0.4488 | 0.0113 | 156.4728 |
| Mitigated | 109.1582 | 0.2921 | 7.4100e-003 | 117.5909 |

7.2 Water by Land Use

Unmitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|---------------------|-----------------|---------------|---------------|-----------------|
| Land Use | Mgal | MT/yr | | | |
| Apartments High Rise | 8.34421 / 5.26044 | 85.5640 | 0.2741 | 6.8700e-003 | 93.4512 |
| Enclosed Parking with Elevator | 0 / 2.85613 | 15.7462 | 4.2000e-004 | 9.0000e-005 | 15.7817 |
| General Office Building | 0.118128 / 0.072402 | 1.1999 | 3.8800e-003 | 1.0000e-004 | 1.3115 |
| Health Club | 0.187603 / 0.114982 | 1.9056 | 6.1600e-003 | 1.5000e-004 | 2.0829 |
| Quality Restaurant | 2.92356 / 0.186605 | 20.8466 | 0.0958 | 2.3600e-003 | 23.5894 |
| Strip Mall | 1.18537 / 0.726505 | 12.0405 | 0.0389 | 9.8000e-004 | 13.1607 |
| Supermarket | 0.899644 / 0.027821 | 6.2518 | 0.0295 | 7.2000e-004 | 7.0954 |
| User Defined Recreational | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 143.5546 | 0.4487 | 0.0113 | 156.4728 |

Mitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|----------------------|-----------------|---------------|--------------------|-----------------|
| Land Use | Mgal | MT/yr | | | |
| Apartments High Rise | 5.42374 / 5.26044 | 64.5507 | 0.1784 | 4.5200e-003 | 69.6976 |
| Enclosed Parking with Elevator | 0 / 2.85613 | 15.7462 | 4.2000e-004 | 9.0000e-005 | 15.7817 |
| General Office Building | 0.0767832 / 0.072402 | 0.9024 | 2.5300e-003 | 6.0000e-005 | 0.9753 |
| Health Club | 0.121942 / 0.114982 | 1.4332 | 4.0100e-003 | 1.0000e-004 | 1.5488 |
| Quality Restaurant | 1.90031 / 0.186605 | 13.4842 | 0.0623 | 1.5300e-003 | 15.2669 |
| Strip Mall | 0.770487 / 0.726505 | 9.0554 | 0.0253 | 6.4000e-004 | 9.7863 |
| Supermarket | 0.584769 / 0.027821 | 3.9862 | 0.0192 | 4.7000e-004 | 4.5344 |
| User Defined Recreational | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 109.1583 | 0.2921 | 7.4100e-003 | 117.5909 |

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

| | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------|---------|--------|----------|
| | MT/yr | | | |
| Mitigated | 186.4208 | 11.0172 | 0.0000 | 417.7811 |
| Unmitigated | 186.4208 | 11.0172 | 0.0000 | 417.7811 |

8.2 Waste by Land Use

Unmitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|----------------|-----------------|----------------|---------------|-----------------|
| Land Use | tons | MT/yr | | | |
| Apartments High Rise | 222.3 | 45.1249 | 2.6668 | 0.0000 | 101.1278 |
| Enclosed Parking with Elevator | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| General Office Building | 7.56 | 1.5346 | 0.0907 | 0.0000 | 3.4392 |
| Health Club | 12.02 | 2.4400 | 0.1442 | 0.0000 | 5.4681 |
| Quality Restaurant | 434.76 | 88.2524 | 5.2156 | 0.0000 | 197.7792 |
| Strip Mall | 75.95 | 15.4172 | 0.9111 | 0.0000 | 34.5509 |
| Supermarket | 165.78 | 33.6518 | 1.9888 | 0.0000 | 75.4160 |
| User Defined Recreational | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 186.4208 | 11.0172 | 0.0000 | 417.7811 |

Mitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|----------------|-----------------|----------------|---------------|-----------------|
| Land Use | tons | MT/yr | | | |
| Apartments High Rise | 222.3 | 45.1249 | 2.6668 | 0.0000 | 101.1278 |
| Enclosed Parking with Elevator | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| General Office Building | 7.56 | 1.5346 | 0.0907 | 0.0000 | 3.4392 |
| Health Club | 12.02 | 2.4400 | 0.1442 | 0.0000 | 5.4681 |
| Quality Restaurant | 434.76 | 88.2524 | 5.2156 | 0.0000 | 197.7792 |
| Strip Mall | 75.95 | 15.4172 | 0.9111 | 0.0000 | 34.5509 |
| Supermarket | 165.78 | 33.6518 | 1.9888 | 0.0000 | 75.4160 |
| User Defined Recreational | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 186.4208 | 11.0172 | 0.0000 | 417.7811 |

9.0 Operational Offroad

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

10.0 Vegetation

8150 Sunset Blvd Mixed Use Project - PROJECT (2019)

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 | 5.09 | 1000sqft | 0.12 | 5,094.00 | 0 |
| Enclosed Parking with Elevator | 305.65 | 1000sqft | 0.00 | 305,652.00 | 0 |
| Health Club | 8.10 | 1000sqft | 0.19 | 8,095.00 | 0 |
| Quality Restaurant | 22.19 | 1000sqft | 0.25 | 22,189.00 | 0 |
| User Defined Recreational | 49.84 | User Defined Unit | 0.00 | 49,840.00 | 0 |
| Apartments High Rise | 249.00 | Dwelling Unit | 1.00 | 191,324.00 | 528 |
| Strip Mall | 51.15 | 1000sqft | 0.50 | 51,150.00 | 0 |
| Supermarket | 24.81 | 1000sqft | 0.50 | 24,811.00 | 0 |

1.2 Other Project Characteristics

| | | | | | |
|---------------------------------|---|---------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 31 |
| Climate Zone | 11 | | | Operational Year | 2019 |
| Utility Company | Los Angeles Department of Water & Power | | | | |
| CO2 Intensity (lb/MW hr) | 1094 | CH4 Intensity (lb/MW hr) | 0.029 | N2O Intensity (lb/MW hr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: LADWP "2013 Power Integrated Resource Plan," page C-12.

Land Use - Unit sizes are based on the planned building square footage and dwelling units for the 8150 Sunset Boulevard Mixed Use Project; Population 528 is based on the average household size for the Hollywood Community Plan Area (2.12 persons per household); User Defined Residential=Residential Amenities/Roof Decks.

Vehicle Trips - Refer to "Trip Generation Rate" worksheet provided in this Appendix.

Vehicle Emission Factors -

Woodstoves - No residential wood-stoves; No residential hearths.

Energy Use - CalEEMod default energy demand rates. User Defined Recreational=Residential Amenities/Roof Deck (factors are from Health Club/Racquet Club).

Water And Wastewater - Refer to "Project Water Demand Rates" worksheet provided in this Appendix.

Solid Waste - Refer to "Project Solid Waste Disposal Rates" worksheet provided in this Appendix. Solid waste rate is inclusive of 60% diversion.

Energy Mitigation - LEED v4 Credits: EAc2 (exceed Title 24 by 10%); EAc5 (1% renewable energy generation); Energy Efficient Appliances.

Water Mitigation - LEED v4 Credits: WEc2 (reduce indoor water demand by 35%).

| Table Name | Column Name | Default Value | New Value |
|---------------|-------------------|---------------|------------|
| tblEnergyUse | LightingElect | 0.00 | 3.55 |
| tblEnergyUse | NT24E | 0.00 | 5.75 |
| tblEnergyUse | NT24NG | 0.00 | 4.45 |
| tblEnergyUse | T24E | 0.00 | 2.75 |
| tblEnergyUse | T24NG | 0.00 | 14.36 |
| tblFireplaces | FireplaceDayYear | 25.00 | 0.00 |
| tblFireplaces | FireplaceHourDay | 3.00 | 0.00 |
| tblFireplaces | FireplaceWoodMass | 1,019.20 | 0.00 |
| tblFireplaces | NumberGas | 211.65 | 0.00 |
| tblFireplaces | NumberNoFireplace | 24.90 | 0.00 |
| tblFireplaces | NumberWood | 12.45 | 0.00 |
| tblLandUse | LandUseSquareFeet | 5,090.00 | 5,094.00 |
| tblLandUse | LandUseSquareFeet | 305,650.00 | 305,652.00 |
| tblLandUse | LandUseSquareFeet | 8,100.00 | 8,095.00 |
| tblLandUse | LandUseSquareFeet | 22,190.00 | 22,189.00 |
| tblLandUse | LandUseSquareFeet | 0.00 | 49,840.00 |
| tblLandUse | LandUseSquareFeet | 249,000.00 | 191,324.00 |
| tblLandUse | LandUseSquareFeet | 24,810.00 | 24,811.00 |
| tblLandUse | LotAcreage | 7.02 | 0.00 |
| tblLandUse | LotAcreage | 0.51 | 0.25 |

| | | | |
|---------------------------|--------------------------|---------|--------|
| tblLandUse | LotAcreage | 4.02 | 1.00 |
| tblLandUse | LotAcreage | 1.17 | 0.50 |
| tblLandUse | LotAcreage | 0.57 | 0.50 |
| tblLandUse | Population | 712.00 | 528.00 |
| tblProjectCharacteristics | CO2IntensityFactor | 1227.89 | 1094 |
| tblProjectCharacteristics | OperationalYear | 2014 | 2019 |
| tblSolidWaste | SolidWasteGenerationRate | 114.54 | 222.30 |
| tblSolidWaste | SolidWasteGenerationRate | 4.73 | 7.56 |
| tblSolidWaste | SolidWasteGenerationRate | 46.17 | 12.02 |
| tblSolidWaste | SolidWasteGenerationRate | 20.25 | 434.76 |
| tblSolidWaste | SolidWasteGenerationRate | 53.71 | 75.95 |
| tblSolidWaste | SolidWasteGenerationRate | 139.93 | 165.78 |
| tblVehicleTrips | ST_TR | 7.16 | 4.36 |
| tblVehicleTrips | ST_TR | 2.37 | 96.39 |
| tblVehicleTrips | ST_TR | 20.87 | 21.25 |
| tblVehicleTrips | ST_TR | 94.36 | 58.41 |
| tblVehicleTrips | ST_TR | 42.04 | 27.90 |
| tblVehicleTrips | ST_TR | 177.59 | 67.47 |
| tblVehicleTrips | SU_TR | 6.07 | 4.36 |
| tblVehicleTrips | SU_TR | 0.98 | 96.39 |
| tblVehicleTrips | SU_TR | 26.73 | 21.25 |
| tblVehicleTrips | SU_TR | 72.16 | 58.41 |
| tblVehicleTrips | SU_TR | 20.43 | 27.90 |
| tblVehicleTrips | SU_TR | 166.44 | 67.47 |
| tblVehicleTrips | WD_TR | 6.59 | 4.36 |
| tblVehicleTrips | WD_TR | 11.01 | 96.39 |
| tblVehicleTrips | WD_TR | 32.93 | 21.25 |
| tblVehicleTrips | WD_TR | 89.95 | 58.41 |
| tblVehicleTrips | WD_TR | 44.32 | 27.90 |
| tblVehicleTrips | WD_TR | 102.24 | 67.47 |

| | | | |
|---------------|---------------------|---------------|--------------|
| tblWater | IndoorWaterUseRate | 16,223,352.38 | 8,344,210.00 |
| tblWater | IndoorWaterUseRate | 904,664.78 | 118,128.00 |
| tblWater | IndoorWaterUseRate | 479,059.47 | 187,603.00 |
| tblWater | IndoorWaterUseRate | 6,735,413.08 | 2,923,560.00 |
| tblWater | IndoorWaterUseRate | 3,788,809.47 | 1,185,365.00 |
| tblWater | IndoorWaterUseRate | 3,058,284.41 | 899,644.00 |
| tblWater | OutdoorWaterUseRate | 10,227,765.63 | 5,260,435.00 |
| tblWater | OutdoorWaterUseRate | 0.00 | 2,856,125.00 |
| tblWater | OutdoorWaterUseRate | 554,471.96 | 72,402.00 |
| tblWater | OutdoorWaterUseRate | 293,617.09 | 114,982.00 |
| tblWater | OutdoorWaterUseRate | 429,919.98 | 186,605.00 |
| tblWater | OutdoorWaterUseRate | 2,322,173.55 | 726,505.00 |
| tblWater | OutdoorWaterUseRate | 94,586.12 | 27,821.00 |
| tblWoodstoves | NumberCatalytic | 12.45 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 12.45 | 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 | 3.0736 | 0.0300 | 2.5866 | 1.4000e-004 | | 0.0142 | 0.0142 | | 0.0142 | 0.0142 | 0.0000 | 4.2061 | 4.2061 | 4.1500e-003 | 0.0000 | 4.2933 |
| Energy | 0.0467 | 0.4196 | 0.3200 | 2.5500e-003 | | 0.0323 | 0.0323 | | 0.0323 | 0.0323 | 0.0000 | 3,681.6102 | 3,681.6102 | 0.0942 | 0.0261 | 3,691.6888 |
| Mobile | 2.9104 | 6.9514 | 28.1442 | 0.0700 | 4.7101 | 0.0991 | 4.8092 | 1.2604 | 0.0914 | 1.3518 | 0.0000 | 5,092.3246 | 5,092.3246 | 0.1917 | 0.0000 | 5,096.3500 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 186.4208 | 0.0000 | 186.4208 | 11.0172 | 0.0000 | 417.7811 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 4.3332 | 139.2213 | 143.5545 | 0.4488 | 0.0113 | 156.4728 |
| Total | 6.0306 | 7.4010 | 31.0508 | 0.0727 | 4.7101 | 0.1456 | 4.8556 | 1.2604 | 0.1378 | 1.3982 | 190.7540 | 8,917.3622 | 9,108.1163 | 11.7559 | 0.0374 | 9,366.5858 |

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 | 3.0736 | 0.0300 | 2.5866 | 1.4000e-004 | | 0.0142 | 0.0142 | | 0.0142 | 0.0142 | 0.0000 | 4.2061 | 4.2061 | 4.1500e-003 | 0.0000 | 4.2933 |
| Energy | 0.0448 | 0.4028 | 0.3084 | 2.4400e-003 | | 0.0310 | 0.0310 | | 0.0310 | 0.0310 | 0.0000 | 3,458.7992 | 3,458.7992 | 0.0884 | 0.0247 | 3,468.3036 |
| Mobile | 2.9104 | 6.9514 | 28.1442 | 0.0700 | 4.7101 | 0.0991 | 4.8092 | 1.2604 | 0.0914 | 1.3518 | 0.0000 | 5,092.3246 | 5,092.3246 | 0.1917 | 0.0000 | 5,096.3500 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 186.4208 | 0.0000 | 186.4208 | 11.0172 | 0.0000 | 417.7811 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 2.8166 | 106.3417 | 109.1582 | 0.2921 | 7.4100e-003 | 117.5909 |
| Total | 6.0288 | 7.3842 | 31.0392 | 0.0726 | 4.7101 | 0.1443 | 4.8543 | 1.2604 | 0.1365 | 1.3969 | 189.2374 | 8,661.6717 | 8,850.9091 | 11.5935 | 0.0321 | 9,104.3188 |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------------------|-------------|-------------|-------------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Percent Reduction | 0.03 | 0.23 | 0.04 | 0.15 | 0.00 | 0.89 | 0.03 | 0.00 | 0.94 | 0.09 | 0.80 | 2.87 | 2.82 | 1.38 | 14.22 | 2.80 |

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|---------|--------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|--------|------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 2.9104 | 6.9514 | 28.1442 | 0.0700 | 4.7101 | 0.0991 | 4.8092 | 1.2604 | 0.0914 | 1.3518 | 0.0000 | 5,092.3246 | 5,092.3246 | 0.1917 | 0.0000 | 5,096.3500 |
| Unmitigated | 2.9104 | 6.9514 | 28.1442 | 0.0700 | 4.7101 | 0.0991 | 4.8092 | 1.2604 | 0.0914 | 1.3518 | 0.0000 | 5,092.3246 | 5,092.3246 | 0.1917 | 0.0000 | 5,096.3500 |

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|--------------------------------|-------------------------|-----------------|-----------------|-------------------|-------------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Apartments High Rise | 1,085.64 | 1,085.64 | 1,085.64 | 3,709,797 | 3,709,797 |
| Enclosed Parking with Elevator | 0.00 | 0.00 | 0.00 | | |
| General Office Building | 490.63 | 490.63 | 490.63 | 1,580,530 | 1,580,530 |
| Health Club | 172.13 | 172.13 | 172.13 | 368,136 | 368,136 |
| Quality Restaurant | 1,296.12 | 1,296.12 | 1,296.12 | 1,845,194 | 1,845,194 |
| Strip Mall | 1,427.09 | 1,427.09 | 1,427.09 | 2,715,165 | 2,715,165 |
| Supermarket | 1,673.93 | 1,673.93 | 1,673.93 | 2,208,703 | 2,208,703 |
| User Defined Recreational | 0.00 | 0.00 | 0.00 | | |
| Total | 6,145.52 | 6,145.52 | 6,145.52 | 12,427,524 | 12,427,524 |

4.3 Trip Type Information

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|--------------------------------|------------|------------|-------------|------------|------------|-------------|----------------|----------|---------|
| | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Apartments 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 |
| Quality Restaurant | 16.60 | 8.40 | 6.90 | 12.00 | 69.00 | 19.00 | 38 | 18 | 44 |
| 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 |
| User Defined Recreational | 16.60 | 8.40 | 6.90 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

| LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.511108 | 0.059746 | 0.180859 | 0.139188 | 0.042462 | 0.006666 | 0.016153 | 0.032295 | 0.001940 | 0.002496 | 0.004377 | 0.000582 | 0.002128 |

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable Energy

Install Energy Efficient Appliances

| Category | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------------|---------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|-------------|-------------|------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Electricity Mitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 3,015.2373 | 3,015.2373 | 0.0799 | 0.0165 | 3,022.0422 |
| Electricity Unmitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 3,219.4124 | 3,219.4124 | 0.0853 | 0.0177 | 3,226.6781 |
| NaturalGas Mitigated | 0.0448 | 0.4028 | 0.3084 | 2.4400e-003 | | 0.0310 | 0.0310 | | 0.0310 | 0.0310 | 0.0000 | 443.5620 | 443.5620 | 8.5000e-003 | 8.1300e-003 | 446.2614 |
| NaturalGas Unmitigated | 0.0467 | 0.4196 | 0.3200 | 2.5500e-003 | | 0.0323 | 0.0323 | | 0.0323 | 0.0323 | 0.0000 | 462.1978 | 462.1978 | 8.8600e-003 | 8.4700e-003 | 465.0106 |

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 | | | | | |
| Enclosed Parking with Elevator | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| General Office Building | 55677.4 | 3.0000e-004 | 2.7300e-003 | 2.2900e-003 | 2.0000e-005 | | 2.1000e-004 | 2.1000e-004 | | 2.1000e-004 | 2.1000e-004 | 0.0000 | 2.9712 | 2.9712 | 6.0000e-005 | 5.0000e-005 | 2.9892 |
| Health Club | 152267 | 8.2000e-004 | 7.4600e-003 | 6.2700e-003 | 4.0000e-005 | | 5.7000e-004 | 5.7000e-004 | | 5.7000e-004 | 5.7000e-004 | 0.0000 | 8.1255 | 8.1255 | 1.6000e-004 | 1.5000e-004 | 8.1750 |
| Quality Restaurant | 5.17026e+006 | 0.0279 | 0.2534 | 0.2129 | 1.5200e-003 | | 0.0193 | 0.0193 | | 0.0193 | 0.0193 | 0.0000 | 275.9047 | 275.9047 | 5.2900e-003 | 5.0600e-003 | 277.5838 |
| Strip Mall | 86955 | 4.7000e-004 | 4.2600e-003 | 3.5800e-003 | 3.0000e-005 | | 3.2000e-004 | 3.2000e-004 | | 3.2000e-004 | 3.2000e-004 | 0.0000 | 4.6403 | 4.6403 | 9.0000e-005 | 9.0000e-005 | 4.6685 |
| Supermarket | 560480 | 3.0200e-003 | 0.0275 | 0.0231 | 1.6000e-004 | | 2.0900e-003 | 2.0900e-003 | | 2.0900e-003 | 2.0900e-003 | 0.0000 | 29.9094 | 29.9094 | 5.7000e-004 | 5.5000e-004 | 30.0914 |
| User Defined Recreational | 937490 | 5.0600e-003 | 0.0460 | 0.0386 | 2.8000e-004 | | 3.4900e-003 | 3.4900e-003 | | 3.4900e-003 | 3.4900e-003 | 0.0000 | 50.0281 | 50.0281 | 9.6000e-004 | 9.2000e-004 | 50.3325 |
| Apartments High Rise | 1.69813e+006 | 9.1600e-003 | 0.0783 | 0.0333 | 5.0000e-004 | | 6.3300e-003 | 6.3300e-003 | | 6.3300e-003 | 6.3300e-003 | 0.0000 | 90.6187 | 90.6187 | 1.7400e-003 | 1.6600e-003 | 91.1702 |
| Total | | 0.0467 | 0.4196 | 0.3200 | 2.5500e-003 | | 0.0323 | 0.0323 | | 0.0323 | 0.0323 | 0.0000 | 462.1978 | 462.1978 | 8.8700e-003 | 8.4800e-003 | 465.0106 |

Mitigated

| | Natural Gas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|-----------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|--------------------|--------------------|-----------------|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| General Office Building | 50308.3 | 2.7000e-004 | 2.4700e-003 | 2.0700e-003 | 1.0000e-005 | | 1.9000e-004 | 1.9000e-004 | | 1.9000e-004 | 1.9000e-004 | 0.0000 | 2.6846 | 2.6846 | 5.0000e-005 | 5.0000e-005 | 2.7010 |
| Health Club | 140643 | 7.6000e-004 | 6.8900e-003 | 5.7900e-003 | 4.0000e-005 | | 5.2000e-004 | 5.2000e-004 | | 5.2000e-004 | 5.2000e-004 | 0.0000 | 7.5052 | 7.5052 | 1.4000e-004 | 1.4000e-004 | 7.5509 |
| Quality Restaurant | 5.0699e+006 | 0.0273 | 0.2485 | 0.2088 | 1.4900e-003 | | 0.0189 | 0.0189 | | 0.0189 | 0.0189 | 0.0000 | 270.5491 | 270.5491 | 5.1900e-003 | 4.9600e-003 | 272.1956 |
| Strip Mall | 80765.8 | 4.4000e-004 | 3.9600e-003 | 3.3300e-003 | 2.0000e-005 | | 3.0000e-004 | 3.0000e-004 | | 3.0000e-004 | 3.0000e-004 | 0.0000 | 4.3100 | 4.3100 | 8.0000e-005 | 8.0000e-005 | 4.3362 |
| Supermarket | 534801 | 2.8800e-003 | 0.0262 | 0.0220 | 1.6000e-004 | | 1.9900e-003 | 1.9900e-003 | | 1.9900e-003 | 1.9900e-003 | 0.0000 | 28.5390 | 28.5390 | 5.5000e-004 | 5.2000e-004 | 28.7127 |
| User Defined Recreational | 865920 | 4.6700e-003 | 0.0425 | 0.0357 | 2.5000e-004 | | 3.2300e-003 | 3.2300e-003 | | 3.2300e-003 | 3.2300e-003 | 0.0000 | 46.2088 | 46.2088 | 8.9000e-004 | 8.5000e-004 | 46.4900 |
| Apartments High Rise | 1.5697e+006 | 8.4600e-003 | 0.0723 | 0.0308 | 4.6000e-004 | | 5.8500e-003 | 5.8500e-003 | | 5.8500e-003 | 5.8500e-003 | 0.0000 | 83.7652 | 83.7652 | 1.6100e-003 | 1.5400e-003 | 84.2750 |
| Enclosed Parking with Elevator | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 0.0448 | 0.4028 | 0.3084 | 2.4300e-003 | | 0.0310 | 0.0310 | | 0.0310 | 0.0310 | 0.0000 | 443.5619 | 443.5619 | 8.5100e-003 | 8.1400e-003 | 446.2614 |

5.3 Energy by Land Use - Electricity

Unmitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|-----------------|-------------------|---------------|---------------|-------------------|
| Land Use | kWh/yr | MT/yr | | | |
| Apartments High Rise | 866836 | 430.1502 | 0.0114 | 2.3600e-003 | 431.1210 |
| Enclosed Parking with Elevator | 2.06009e+006 | 1,022.2808 | 0.0271 | 5.6100e-003 | 1,024.5879 |
| General Office Building | 74015.8 | 36.7289 | 9.7000e-004 | 2.0000e-004 | 36.8118 |
| Health Club | 97544.8 | 48.4046 | 1.2800e-003 | 2.7000e-004 | 48.5139 |
| Quality Restaurant | 1.04089e+006 | 516.5189 | 0.0137 | 2.8300e-003 | 517.6846 |
| Strip Mall | 775946 | 385.0475 | 0.0102 | 2.1100e-003 | 385.9165 |
| Supermarket | 971847 | 482.2596 | 0.0128 | 2.6400e-003 | 483.3480 |
| User Defined Recreational | 600572 | 298.0219 | 7.9000e-003 | 1.6300e-003 | 298.6945 |
| Total | | 3,219.4124 | 0.0853 | 0.0177 | 3,226.6781 |

Mitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|-----------------|-------------------|---------------|---------------|-------------------|
| Land Use | kWh/yr | MT/yr | | | |
| Apartments High Rise | 826241 | 410.0054 | 0.0109 | 2.2500e-003 | 410.9307 |
| Enclosed Parking with Elevator | 1.92088e+006 | 953.1965 | 0.0253 | 5.2300e-003 | 955.3477 |
| General Office Building | 70441.5 | 34.9552 | 9.3000e-004 | 1.9000e-004 | 35.0341 |
| Health Club | 94365.4 | 46.8270 | 1.2400e-003 | 2.6000e-004 | 46.9327 |
| Quality Restaurant | 973220 | 482.9409 | 0.0128 | 2.6500e-003 | 484.0309 |
| Strip Mall | 743373 | 368.8841 | 9.7800e-003 | 2.0200e-003 | 369.7166 |
| Supermarket | 866775 | 430.1199 | 0.0114 | 2.3600e-003 | 431.0907 |
| User Defined Recreational | 580997 | 288.3083 | 7.6400e-003 | 1.5800e-003 | 288.9590 |
| Total | | 3,015.2373 | 0.0799 | 0.0165 | 3,022.0422 |

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 | 3.0736 | 0.0300 | 2.5866 | 1.4000e-004 | | 0.0142 | 0.0142 | | 0.0142 | 0.0142 | 0.0000 | 4.2061 | 4.2061 | 4.1500e-003 | 0.0000 | 4.2933 |
| Unmitigated | 3.0736 | 0.0300 | 2.5866 | 1.4000e-004 | | 0.0142 | 0.0142 | | 0.0142 | 0.0142 | 0.0000 | 4.2061 | 4.2061 | 4.1500e-003 | 0.0000 | 4.2933 |

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 | 0.6158 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 2.3782 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Hearth | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 0.0796 | 0.0300 | 2.5866 | 1.4000e-004 | | 0.0142 | 0.0142 | | 0.0142 | 0.0142 | 0.0000 | 4.2061 | 4.2061 | 4.1500e-003 | 0.0000 | 4.2933 |
| Total | 3.0736 | 0.0300 | 2.5866 | 1.4000e-004 | | 0.0142 | 0.0142 | | 0.0142 | 0.0142 | 0.0000 | 4.2061 | 4.2061 | 4.1500e-003 | 0.0000 | 4.2933 |

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 | 0.6158 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 2.3782 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Hearth | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 0.0796 | 0.0300 | 2.5866 | 1.4000e-004 | | 0.0142 | 0.0142 | | 0.0142 | 0.0142 | 0.0000 | 4.2061 | 4.2061 | 4.1500e-003 | 0.0000 | 4.2933 |
| Total | 3.0736 | 0.0300 | 2.5866 | 1.4000e-004 | | 0.0142 | 0.0142 | | 0.0142 | 0.0142 | 0.0000 | 4.2061 | 4.2061 | 4.1500e-003 | 0.0000 | 4.2933 |

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

| | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------|--------|-------------|----------|
| Category | MT/yr | | | |
| Mitigated | 109.1582 | 0.2921 | 7.4100e-003 | 117.5909 |
| Unmitigated | 143.5545 | 0.4488 | 0.0113 | 156.4728 |

7.2 Water by Land Use

Unmitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|---------------------|-----------------|---------------|---------------|-----------------|
| Land Use | Mgal | MT/yr | | | |
| Apartments High Rise | 8.34421 / 5.26044 | 85.5640 | 0.2741 | 6.8700e-003 | 93.4512 |
| Enclosed Parking with Elevator | 0 / 2.85613 | 15.7462 | 4.2000e-004 | 9.0000e-005 | 15.7817 |
| General Office Building | 0.118128 / 0.072402 | 1.1999 | 3.8800e-003 | 1.0000e-004 | 1.3115 |
| Health Club | 0.187603 / 0.114982 | 1.9056 | 6.1600e-003 | 1.5000e-004 | 2.0829 |
| Quality Restaurant | 2.92356 / 0.186605 | 20.8466 | 0.0958 | 2.3600e-003 | 23.5894 |
| Strip Mall | 1.18537 / 0.726505 | 12.0405 | 0.0389 | 9.8000e-004 | 13.1607 |
| Supermarket | 0.899644 / 0.027821 | 6.2518 | 0.0295 | 7.2000e-004 | 7.0954 |
| User Defined Recreational | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 143.5546 | 0.4487 | 0.0113 | 156.4728 |

Mitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|----------------------|-----------------|---------------|--------------------|-----------------|
| Land Use | Mgal | MT/yr | | | |
| Apartments High Rise | 5.42374 / 5.26044 | 64.5507 | 0.1784 | 4.5200e-003 | 69.6976 |
| Enclosed Parking with Elevator | 0 / 2.85613 | 15.7462 | 4.2000e-004 | 9.0000e-005 | 15.7817 |
| General Office Building | 0.0767832 / 0.072402 | 0.9024 | 2.5300e-003 | 6.0000e-005 | 0.9753 |
| Health Club | 0.121942 / 0.114982 | 1.4332 | 4.0100e-003 | 1.0000e-004 | 1.5488 |
| Quality Restaurant | 1.90031 / 0.186605 | 13.4842 | 0.0623 | 1.5300e-003 | 15.2669 |
| Strip Mall | 0.770487 / 0.726505 | 9.0554 | 0.0253 | 6.4000e-004 | 9.7863 |
| Supermarket | 0.584769 / 0.027821 | 3.9862 | 0.0192 | 4.7000e-004 | 4.5344 |
| User Defined Recreational | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 109.1583 | 0.2921 | 7.4100e-003 | 117.5909 |

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

| | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------|---------|--------|----------|
| | MT/yr | | | |
| Mitigated | 186.4208 | 11.0172 | 0.0000 | 417.7811 |
| Unmitigated | 186.4208 | 11.0172 | 0.0000 | 417.7811 |

8.2 Waste by Land Use

Unmitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|----------------|-----------------|----------------|---------------|-----------------|
| Land Use | tons | MT/yr | | | |
| Apartments High Rise | 222.3 | 45.1249 | 2.6668 | 0.0000 | 101.1278 |
| Enclosed Parking with Elevator | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| General Office Building | 7.56 | 1.5346 | 0.0907 | 0.0000 | 3.4392 |
| Health Club | 12.02 | 2.4400 | 0.1442 | 0.0000 | 5.4681 |
| Quality Restaurant | 434.76 | 88.2524 | 5.2156 | 0.0000 | 197.7792 |
| Strip Mall | 75.95 | 15.4172 | 0.9111 | 0.0000 | 34.5509 |
| Supermarket | 165.78 | 33.6518 | 1.9888 | 0.0000 | 75.4160 |
| User Defined Recreational | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 186.4208 | 11.0172 | 0.0000 | 417.7811 |

Mitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|----------------|-----------------|----------------|---------------|-----------------|
| Land Use | tons | MT/yr | | | |
| Apartments High Rise | 222.3 | 45.1249 | 2.6668 | 0.0000 | 101.1278 |
| Enclosed Parking with Elevator | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| General Office Building | 7.56 | 1.5346 | 0.0907 | 0.0000 | 3.4392 |
| Health Club | 12.02 | 2.4400 | 0.1442 | 0.0000 | 5.4681 |
| Quality Restaurant | 434.76 | 88.2524 | 5.2156 | 0.0000 | 197.7792 |
| Strip Mall | 75.95 | 15.4172 | 0.9111 | 0.0000 | 34.5509 |
| Supermarket | 165.78 | 33.6518 | 1.9888 | 0.0000 | 75.4160 |
| User Defined Recreational | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 186.4208 | 11.0172 | 0.0000 | 417.7811 |

9.0 Operational Offroad

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

10.0 Vegetation

8150 Sunset Blvd Mixed Use Project - PROJECT (2020)

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 | 5.09 | 1000sqft | 0.12 | 5,094.00 | 0 |
| Enclosed Parking with Elevator | 305.65 | 1000sqft | 0.00 | 305,652.00 | 0 |
| Health Club | 8.10 | 1000sqft | 0.19 | 8,095.00 | 0 |
| Quality Restaurant | 22.19 | 1000sqft | 0.25 | 22,189.00 | 0 |
| User Defined Recreational | 49.84 | User Defined Unit | 0.00 | 49,840.00 | 0 |
| Apartments High Rise | 249.00 | Dwelling Unit | 1.00 | 191,324.00 | 528 |
| Strip Mall | 51.15 | 1000sqft | 0.50 | 51,150.00 | 0 |
| Supermarket | 24.81 | 1000sqft | 0.50 | 24,811.00 | 0 |

1.2 Other Project Characteristics

| | | | | | |
|---------------------------------|---|---------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 31 |
| Climate Zone | 11 | | | Operational Year | 2020 |
| Utility Company | Los Angeles Department of Water & Power | | | | |
| CO2 Intensity (lb/MW hr) | 595 | CH4 Intensity (lb/MW hr) | 0.029 | N2O Intensity (lb/MW hr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: California Air Resources Board, LEV III Initial Statement Of Reasons (ISOR, Dec. 7, 2011), <http://www.arb.ca.gov/regact/2012/leviiiighg2012/leviiiighg2012.htm>, based on analysis with CA-GREET model.

Land Use - Unit sizes are based on the planned building square footage and dwelling units for the 8150 Sunset Boulevard Mixed Use Project; Population 528 is based on the average household size for the Hollywood Community Plan Area (2.12 persons per household); User Defined Residential=Residential Amenities/Roof Decks.

Vehicle Trips - Refer to "Trip Generation Rate" worksheet provided in this Appendix.

Woodstoves - No residential wood-stoves; No residential hearths.

Energy Use - CalEEMod default energy demand rates. User Defined Recreational=Residential Amenities/Roof Deck (factors are from Health Club/Racquet Club).

Water And Wastewater - Refer to "Project Water Demand Rates" worksheet provided in this Appendix.

Solid Waste - Refer to "Project Solid Waste Disposal Rates" worksheet provided in this Appendix. Solid waste rate is inclusive of 60% diversion.

Energy Mitigation - LEED v4 Credits: EAc2 (exceed Title 24 by 10%); EAc5 (1% renewable energy generation); Energy Efficient Appliances.

Water Mitigation - LEED v4 Credits: WEC2 (reduce indoor water demand by 35%).

| Table Name | Column Name | Default Value | New Value |
|---------------|-------------------|---------------|------------|
| tblEnergyUse | LightingElect | 0.00 | 3.55 |
| tblEnergyUse | NT24E | 0.00 | 5.75 |
| tblEnergyUse | NT24NG | 0.00 | 4.45 |
| tblEnergyUse | T24E | 0.00 | 2.75 |
| tblEnergyUse | T24NG | 0.00 | 14.36 |
| tblFireplaces | FireplaceDayYear | 25.00 | 0.00 |
| tblFireplaces | FireplaceHourDay | 3.00 | 0.00 |
| tblFireplaces | FireplaceWoodMass | 1,019.20 | 0.00 |
| tblFireplaces | NumberGas | 211.65 | 0.00 |
| tblFireplaces | NumberNoFireplace | 24.90 | 0.00 |
| tblFireplaces | NumberWood | 12.45 | 0.00 |
| tblLandUse | LandUseSquareFeet | 5,090.00 | 5,094.00 |
| tblLandUse | LandUseSquareFeet | 305,650.00 | 305,652.00 |
| tblLandUse | LandUseSquareFeet | 8,100.00 | 8,095.00 |
| tblLandUse | LandUseSquareFeet | 22,190.00 | 22,189.00 |
| tblLandUse | LandUseSquareFeet | 0.00 | 49,840.00 |
| tblLandUse | LandUseSquareFeet | 249,000.00 | 191,324.00 |
| tblLandUse | LandUseSquareFeet | 24,810.00 | 24,811.00 |
| tblLandUse | LotAcreage | 7.02 | 0.00 |
| tblLandUse | LotAcreage | 0.51 | 0.25 |
| tblLandUse | LotAcreage | 4.02 | 1.00 |

| | | | |
|---------------------------|--------------------------|---------------|--------------|
| tblLandUse | LotAcreage | 1.17 | 0.50 |
| tblLandUse | LotAcreage | 0.57 | 0.50 |
| tblLandUse | Population | 712.00 | 528.00 |
| tblProjectCharacteristics | CO2IntensityFactor | 1227.89 | 595 |
| tblProjectCharacteristics | OperationalYear | 2014 | 2020 |
| tblSolidWaste | SolidWasteGenerationRate | 114.54 | 22.30 |
| tblSolidWaste | SolidWasteGenerationRate | 4.73 | 7.56 |
| tblSolidWaste | SolidWasteGenerationRate | 46.17 | 12.02 |
| tblSolidWaste | SolidWasteGenerationRate | 20.25 | 434.76 |
| tblSolidWaste | SolidWasteGenerationRate | 53.71 | 75.95 |
| tblSolidWaste | SolidWasteGenerationRate | 139.93 | 165.78 |
| tblVehicleTrips | ST_TR | 7.16 | 4.36 |
| tblVehicleTrips | ST_TR | 2.37 | 96.39 |
| tblVehicleTrips | ST_TR | 20.87 | 21.25 |
| tblVehicleTrips | ST_TR | 94.36 | 58.41 |
| tblVehicleTrips | ST_TR | 42.04 | 27.90 |
| tblVehicleTrips | ST_TR | 177.59 | 67.47 |
| tblVehicleTrips | SU_TR | 6.07 | 4.36 |
| tblVehicleTrips | SU_TR | 0.98 | 96.39 |
| tblVehicleTrips | SU_TR | 26.73 | 21.25 |
| tblVehicleTrips | SU_TR | 72.16 | 58.41 |
| tblVehicleTrips | SU_TR | 20.43 | 27.90 |
| tblVehicleTrips | SU_TR | 166.44 | 67.47 |
| tblVehicleTrips | WD_TR | 6.59 | 4.36 |
| tblVehicleTrips | WD_TR | 11.01 | 96.39 |
| tblVehicleTrips | WD_TR | 32.93 | 21.25 |
| tblVehicleTrips | WD_TR | 89.95 | 58.41 |
| tblVehicleTrips | WD_TR | 44.32 | 27.90 |
| tblVehicleTrips | WD_TR | 102.24 | 67.47 |
| tblWater | IndoorWaterUseRate | 16,223,352.38 | 8,344,210.00 |

| | | | |
|---------------|---------------------|---------------|--------------|
| tblWater | IndoorWaterUseRate | 904,664.78 | 118,128.00 |
| tblWater | IndoorWaterUseRate | 479,059.47 | 187,603.00 |
| tblWater | IndoorWaterUseRate | 6,735,413.08 | 2,923,560.00 |
| tblWater | IndoorWaterUseRate | 3,788,809.47 | 1,185,365.00 |
| tblWater | IndoorWaterUseRate | 3,058,284.41 | 899,644.00 |
| tblWater | OutdoorWaterUseRate | 10,227,765.63 | 5,260,435.00 |
| tblWater | OutdoorWaterUseRate | 0.00 | 2,856,125.00 |
| tblWater | OutdoorWaterUseRate | 554,471.96 | 72,402.00 |
| tblWater | OutdoorWaterUseRate | 293,617.09 | 114,982.00 |
| tblWater | OutdoorWaterUseRate | 429,919.98 | 186,605.00 |
| tblWater | OutdoorWaterUseRate | 2,322,173.55 | 726,505.00 |
| tblWater | OutdoorWaterUseRate | 94,586.12 | 27,821.00 |
| tblWoodstoves | NumberCatalytic | 12.45 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 12.45 | 0.00 |
| tblWoodstoves | WoodstoveDayYear | 25.00 | 0.00 |
| tblWoodstoves | WoodstoveWoodMass | 999.60 | 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 | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 2.7702 | 6.3577 | 26.6237 | 0.0701 | 4.7103 | 0.0965 | 4.8069 | 1.2605 | 0.0890 | 1.3495 | 0.0000 | 4,920.9131 | 4,920.9131 | 0.1815 | 0.0000 | 4,924.7251 |
| Unmitigated | 2.7702 | 6.3577 | 26.6237 | 0.0701 | 4.7103 | 0.0965 | 4.8069 | 1.2605 | 0.0890 | 1.3495 | 0.0000 | 4,920.91 | 4,920.9131 | 0.1815 | 0.0000 | 4,924.7251 |

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|--------------------------------|-------------------------|-----------------|-----------------|-------------------|-------------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Apartments High Rise | 1,085.64 | 1,085.64 | 1085.64 | 3,709,797 | 3,709,797 |
| Enclosed Parking with Elevator | 0.00 | 0.00 | 0.00 | | |
| General Office Building | 490.63 | 490.63 | 490.63 | 1,580,530 | 1,580,530 |
| Health Club | 172.13 | 172.13 | 172.13 | 368,136 | 368,136 |
| Quality Restaurant | 1,296.12 | 1,296.12 | 1296.12 | 1,845,194 | 1,845,194 |
| Strip Mall | 1,427.09 | 1,427.09 | 1427.09 | 2,715,165 | 2,715,165 |
| Supermarket | 1,673.93 | 1,673.93 | 1673.93 | 2,208,703 | 2,208,703 |
| User Defined Recreational | 0.00 | 0.00 | 0.00 | | |
| Total | 6,145.52 | 6,145.52 | 6,145.52 | 12,427,524 | 12,427,524 |

4.3 Trip Type Information

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|--------------------------------|------------|------------|-------------|-----------|------------|-------------|----------------|----------|---------|
| | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C- | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Apartments 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 |
| Quality Restaurant | 16.60 | 8.40 | 6.90 | 12.00 | 69.00 | 19.00 | 38 | 18 | 44 |
| 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 |
| User Defined Recreational | 16.60 | 8.40 | 6.90 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

| LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.510092 | 0.059583 | 0.181091 | 0.139410 | 0.042694 | 0.006692 | 0.016202 | 0.032692 | 0.001943 | 0.002491 | 0.004392 | 0.000576 | 0.002140 |

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable Energy

Install Energy Efficient Appliances

5.3 Energy by Land Use - Electricity

Unmitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|-----------------|-------------------|---------------|---------------|-------------------|
| Land Use | kWh/yr | MT/yr | | | |
| Apartments High Rise | 866836 | 233.9482 | 0.0114 | 2.3600e-003 | 234.9190 |
| Enclosed Parking with Elevator | 2.06009e+006 | 555.9937 | 0.0271 | 5.6100e-003 | 558.3008 |
| General Office Building | 74015.8 | 19.9759 | 9.7000e-004 | 2.0000e-004 | 20.0588 |
| Health Club | 97544.8 | 26.3261 | 1.2800e-003 | 2.7000e-004 | 26.4354 |
| Quality Restaurant | 1.04089e+006 | 280.9221 | 0.0137 | 2.8300e-003 | 282.0878 |
| Strip Mall | 775946 | 209.4180 | 0.0102 | 2.1100e-003 | 210.2870 |
| Supermarket | 971847 | 262.2893 | 0.0128 | 2.6400e-003 | 263.3777 |
| User Defined Recreational | 600572 | 162.0869 | 7.9000e-003 | 1.6300e-003 | 162.7594 |
| Total | | 1,750.9601 | 0.0853 | 0.0177 | 1,758.2259 |

Mitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|-----------------|-------------------|---------------|---------------|-------------------|
| Land Use | kWh/yr | MT/yr | | | |
| Apartments High Rise | 826241 | 222.9920 | 0.0109 | 2.2500e-003 | 223.9173 |
| Enclosed Parking with Elevator | 1.92088e+006 | 518.4204 | 0.0253 | 5.2300e-003 | 520.5716 |
| General Office Building | 70441.5 | 19.0113 | 9.3000e-004 | 1.9000e-004 | 19.0902 |
| Health Club | 94365.4 | 25.4681 | 1.2400e-003 | 2.6000e-004 | 25.5737 |
| Quality Restaurant | 973220 | 262.6598 | 0.0128 | 2.6500e-003 | 263.7498 |
| Strip Mall | 743373 | 200.6271 | 9.7800e-003 | 2.0200e-003 | 201.4596 |
| Supermarket | 866775 | 233.9318 | 0.0114 | 2.3600e-003 | 234.9025 |
| User Defined Recreational | 580997 | 156.8039 | 7.6400e-003 | 1.5800e-003 | 157.4546 |
| Total | | 1,639.9143 | 0.0799 | 0.0165 | 1,646.7192 |

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

| | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------|--------|-------------|---------|
| Category | MT/yr | | | |
| Mitigated | 60.6532 | 0.2921 | 7.4100e-003 | 69.0859 |
| Unmitigated | 80.0523 | 0.4488 | 0.0113 | 92.9706 |

7.2 Water by Land Use

Unmitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|------------------------|----------------|---------------|---------------|----------------|
| Land Use | Mgal | MT/yr | | | |
| Apartments High Rise | 8.34421 / 5.26044 | 47.7436 | 0.2741 | 6.8700e-003 | 55.6308 |
| Enclosed Parking with Elevator | 0 / 2.85613 | 8.5640 | 4.2000e-004 | 9.0000e-005 | 8.5995 |
| General Office Building | 0.118128 / 0.072402 | 0.6697 | 3.8800e-003 | 1.0000e-004 | 0.7813 |
| Health Club | 0.187603 / 0.114982 | 1.0636 | 6.1600e-003 | 1.5000e-004 | 1.2409 |
| Quality Restaurant | 2.92356 / 0.186605 | 11.7610 | 0.0958 | 2.3600e-003 | 14.5038 |
| Strip Mall | 1.18537 / 0.726505 | 6.7201 | 0.0389 | 9.8000e-004 | 7.8403 |
| Supermarket | 0.899644 / 0.027821 | 3.5304 | 0.0295 | 7.2000e-004 | 4.3740 |
| User Defined Recreational | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 80.0523 | 0.4487 | 0.0113 | 92.9706 |

Mitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|----------------------|----------------|---------------|--------------------|----------------|
| Land Use | Mgal | MT/yr | | | |
| Apartments High Rise | 5.42374 / 5.26044 | 35.8924 | 0.1784 | 4.5200e-003 | 41.0393 |
| Enclosed Parking with Elevator | 0 / 2.85613 | 8.5640 | 4.2000e-004 | 9.0000e-005 | 8.5995 |
| General Office Building | 0.0767832 / 0.072402 | 0.5019 | 2.5300e-003 | 6.0000e-005 | 0.5748 |
| Health Club | 0.121942 / 0.114982 | 0.7971 | 4.0100e-003 | 1.0000e-004 | 0.9128 |
| Quality Restaurant | 1.90031 / 0.186605 | 7.6087 | 0.0623 | 1.5300e-003 | 9.3914 |
| Strip Mall | 0.770487 / 0.726505 | 5.0365 | 0.0253 | 6.4000e-004 | 5.7674 |
| Supermarket | 0.584769 / 0.027821 | 2.2526 | 0.0192 | 4.7000e-004 | 2.8008 |
| User Defined Recreational | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 60.6532 | 0.2921 | 7.4100e-003 | 69.0859 |

Appendix B.8

Project GHG Emissions – CalEEMod Outputs for Mobile CH4 and N2O (2021-2025)

8150 Sunset Blvd Mixed Use Project - PROJECT (2021)

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 | 5.09 | 1000sqft | 0.12 | 5,094.00 | 0 |
| Enclosed Parking with Elevator | 305.65 | 1000sqft | 0.00 | 305,652.00 | 0 |
| Health Club | 8.10 | 1000sqft | 0.19 | 8,095.00 | 0 |
| Quality Restaurant | 22.19 | 1000sqft | 0.25 | 22,189.00 | 0 |
| User Defined Recreational | 49.84 | User Defined Unit | 0.00 | 49,840.00 | 0 |
| Apartments High Rise | 249.00 | Dwelling Unit | 1.00 | 191,324.00 | 528 |
| Strip Mall | 51.15 | 1000sqft | 0.50 | 51,150.00 | 0 |
| Supermarket | 24.81 | 1000sqft | 0.50 | 24,811.00 | 0 |

1.2 Other Project Characteristics

| | | | | | |
|---------------------------------|---|---------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 31 |
| Climate Zone | 11 | | | Operational Year | 2021 |
| Utility Company | Los Angeles Department of Water & Power | | | | |
| CO2 Intensity (lb/MW hr) | 595 | CH4 Intensity (lb/MW hr) | 0.029 | N2O Intensity (lb/MW hr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: California Air Resources Board, LEV III Initial Statement Of Reasons (ISOR, Dec. 7, 2011), <http://www.arb.ca.gov/regact/2012/leviiiighg2012/leviiiighg2012.htm>, based on analysis with CA-GREET model.

Land Use - Unit sizes are based on the planned building square footage and dwelling units for the 8150 Sunset Boulevard Mixed Use Project; Population 528 is based on the average household size for the Hollywood Community Plan Area (2.12 persons per household); User Defined Residential=Residential Amenities/Roof Decks.

Vehicle Trips - Refer to "Trip Generation Rate" worksheet provided in this Appendix.

Vehicle Emission Factors -

Woodstoves - No residential wood-stoves; No residential hearths.

Energy Use - CalEEMod default energy demand rates. User Defined Recreational=Residential Amenities/Roof Deck (factors are from Health Club/Racquet Club).

Water And Wastewater - Refer to "Project Water Demand Rates" worksheet provided in this Appendix.

Solid Waste - Refer to "Project Solid Waste Disposal Rates" worksheet provided in this Appendix. Solid waste rate is inclusive of 60% diversion.

Energy Mitigation - LEED v4 Credits: EAc2 (exceed Title 24 by 10%); EAc5 (1% renewable energy generation); Energy Efficient Appliances.

Water Mitigation - LEED v4 Credits: WEc2 (reduce indoor water demand by 35%).

| Table Name | Column Name | Default Value | New Value |
|---------------------------|--------------------|---------------|------------|
| tblLandUse | LandUseSquareFeet | 5,090.00 | 5,094.00 |
| tblLandUse | LandUseSquareFeet | 305,650.00 | 305,652.00 |
| tblLandUse | LandUseSquareFeet | 8,100.00 | 8,095.00 |
| tblLandUse | LandUseSquareFeet | 22,190.00 | 22,189.00 |
| tblLandUse | LandUseSquareFeet | 0.00 | 49,840.00 |
| tblLandUse | LandUseSquareFeet | 249,000.00 | 191,324.00 |
| tblLandUse | LandUseSquareFeet | 24,810.00 | 24,811.00 |
| tblLandUse | LotAcreage | 7.02 | 0.00 |
| tblLandUse | LotAcreage | 0.51 | 0.25 |
| tblLandUse | LotAcreage | 4.02 | 1.00 |
| tblLandUse | LotAcreage | 1.17 | 0.50 |
| tblLandUse | LotAcreage | 0.57 | 0.50 |
| tblLandUse | Population | 712.00 | 528.00 |
| tblProjectCharacteristics | CO2IntensityFactor | 1227.89 | 595 |
| tblProjectCharacteristics | OperationalYear | 2014 | 2021 |
| tblVehicleTrips | ST_TR | 7.16 | 4.36 |
| tblVehicleTrips | ST_TR | 2.37 | 96.39 |
| tblVehicleTrips | ST_TR | 20.87 | 21.25 |
| tblVehicleTrips | ST_TR | 94.36 | 58.41 |
| tblVehicleTrips | ST_TR | 42.04 | 27.90 |

| | | | |
|-----------------|-------|--------|-------|
| tblVehicleTrips | ST_TR | 177.59 | 67.47 |
| tblVehicleTrips | SU_TR | 6.07 | 4.36 |
| tblVehicleTrips | SU_TR | 0.98 | 96.39 |
| tblVehicleTrips | SU_TR | 26.73 | 21.25 |
| tblVehicleTrips | SU_TR | 72.16 | 58.41 |
| tblVehicleTrips | SU_TR | 20.43 | 27.90 |
| tblVehicleTrips | SU_TR | 166.44 | 67.47 |
| tblVehicleTrips | WD_TR | 6.59 | 4.36 |
| tblVehicleTrips | WD_TR | 11.01 | 96.39 |
| tblVehicleTrips | WD_TR | 32.93 | 21.25 |
| tblVehicleTrips | WD_TR | 89.95 | 58.41 |
| tblVehicleTrips | WD_TR | 44.32 | 27.90 |
| tblVehicleTrips | WD_TR | 102.24 | 67.47 |

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|---------|--------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|--------|------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 2.6592 | 5.7901 | 25.4054 | 0.0704 | 4.7110 | 0.0946 | 4.8057 | 1.2608 | 0.0873 | 1.3481 | 0.0000 | 4,883.9803 | 4,883.9803 | 0.1739 | 0.0000 | 4,887.6328 |
| Unmitigated | 2.6592 | 5.7901 | 25.4054 | 0.0704 | 4.7110 | 0.0946 | 4.8057 | 1.2608 | 0.0873 | 1.3481 | 0.0000 | 4,883.9803 | 4,883.9803 | 0.1739 | 0.0000 | 4,887.6328 |

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|--------------------------------|-------------------------|-----------------|-----------------|-------------------|-------------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Apartments High Rise | 1,085.64 | 1,085.64 | 1085.64 | 3,709,797 | 3,709,797 |
| Enclosed Parking with Elevator | 0.00 | 0.00 | 0.00 | | |
| General Office Building | 490.63 | 490.63 | 490.63 | 1,580,530 | 1,580,530 |
| Health Club | 172.13 | 172.13 | 172.13 | 368,136 | 368,136 |
| Quality Restaurant | 1,296.12 | 1,296.12 | 1296.12 | 1,845,194 | 1,845,194 |
| Strip Mall | 1,427.09 | 1,427.09 | 1427.09 | 2,715,165 | 2,715,165 |
| Supermarket | 1,673.93 | 1,673.93 | 1673.93 | 2,208,703 | 2,208,703 |
| User Defined Recreational | 0.00 | 0.00 | 0.00 | | |
| Total | 6,145.52 | 6,145.52 | 6,145.52 | 12,427,524 | 12,427,524 |

4.3 Trip Type Information

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|--------------------------------|------------|------------|-------------|-----------|------------|-------------|----------------|----------|---------|
| | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C- | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Apartments 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 |
| Quality Restaurant | 16.60 | 8.40 | 6.90 | 12.00 | 69.00 | 19.00 | 38 | 18 | 44 |
| 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 |
| User Defined Recreational | 16.60 | 8.40 | 6.90 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

| LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.507717 | 0.059700 | 0.181648 | 0.140055 | 0.042936 | 0.006749 | 0.016265 | 0.033349 | 0.001955 | 0.002502 | 0.004345 | 0.000573 | 0.002206 |

8150 Sunset Blvd Mixed Use Project - PROJECT (2022)

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 | 5.09 | 1000sqft | 0.12 | 5,094.00 | 0 |
| Enclosed Parking with Elevator | 305.65 | 1000sqft | 0.00 | 305,652.00 | 0 |
| Health Club | 8.10 | 1000sqft | 0.19 | 8,095.00 | 0 |
| Quality Restaurant | 22.19 | 1000sqft | 0.25 | 22,189.00 | 0 |
| User Defined Recreational | 49.84 | User Defined Unit | 0.00 | 49,840.00 | 0 |
| Apartments High Rise | 249.00 | Dwelling Unit | 1.00 | 191,324.00 | 528 |
| Strip Mall | 51.15 | 1000sqft | 0.50 | 51,150.00 | 0 |
| Supermarket | 24.81 | 1000sqft | 0.50 | 24,811.00 | 0 |

1.2 Other Project Characteristics

| | | | | | |
|---------------------------------|---|---------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 31 |
| Climate Zone | 11 | | | Operational Year | 2022 |
| Utility Company | Los Angeles Department of Water & Power | | | | |
| CO2 Intensity (lb/MW hr) | 595 | CH4 Intensity (lb/MW hr) | 0.029 | N2O Intensity (lb/MW hr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: California Air Resources Board, LEV III Initial Statement Of Reasons (ISOR, Dec. 7, 2011), <http://www.arb.ca.gov/regact/2012/leviiiighg2012/leviiiighg2012.htm>, based on analysis with CA-GREET model.

Land Use - Unit sizes are based on the planned building square footage and dwelling units for the 8150 Sunset Boulevard Mixed Use Project; Population 528 is based on the average household size for the Hollywood Community Plan Area (2.12 persons per household); User Defined Residential=Residential Amenities/Roof Decks.

Vehicle Trips - Refer to "Trip Generation Rate" worksheet provided in this Appendix.

Vehicle Emission Factors -

Woodstoves - No residential wood-stoves; No residential hearths.

Energy Use - CalEEMod default energy demand rates. User Defined Recreational=Residential Amenities/Roof Deck (factors are from Health Club/Racquet Club).

Water And Wastewater - Refer to "Project Water Demand Rates" worksheet provided in this Appendix.

Solid Waste - Refer to "Project Solid Waste Disposal Rates" worksheet provided in this Appendix. Solid waste rate is inclusive of 60% diversion.

Energy Mitigation - LEED v4 Credits: EAc2 (exceed Title 24 by 10%); EAc5 (1% renewable energy generation); Energy Efficient Appliances.

Water Mitigation - LEED v4 Credits: WEc2 (reduce indoor water demand by 35%).

| Table Name | Column Name | Default Value | New Value |
|---------------------------|--------------------|---------------|------------|
| tblLandUse | LandUseSquareFeet | 5,090.00 | 5,094.00 |
| tblLandUse | LandUseSquareFeet | 305,650.00 | 305,652.00 |
| tblLandUse | LandUseSquareFeet | 8,100.00 | 8,095.00 |
| tblLandUse | LandUseSquareFeet | 22,190.00 | 22,189.00 |
| tblLandUse | LandUseSquareFeet | 0.00 | 49,840.00 |
| tblLandUse | LandUseSquareFeet | 249,000.00 | 191,324.00 |
| tblLandUse | LandUseSquareFeet | 24,810.00 | 24,811.00 |
| tblLandUse | LotAcreage | 7.02 | 0.00 |
| tblLandUse | LotAcreage | 0.51 | 0.25 |
| tblLandUse | LotAcreage | 4.02 | 1.00 |
| tblLandUse | LotAcreage | 1.17 | 0.50 |
| tblLandUse | LotAcreage | 0.57 | 0.50 |
| tblLandUse | Population | 712.00 | 528.00 |
| tblProjectCharacteristics | CO2IntensityFactor | 1227.89 | 595 |
| tblProjectCharacteristics | OperationalYear | 2014 | 2022 |
| tblVehicleTrips | ST_TR | 7.16 | 4.36 |
| tblVehicleTrips | ST_TR | 2.37 | 96.39 |
| tblVehicleTrips | ST_TR | 20.87 | 21.25 |
| tblVehicleTrips | ST_TR | 94.36 | 58.41 |
| tblVehicleTrips | ST_TR | 42.04 | 27.90 |

| | | | |
|-----------------|-------|--------|-------|
| tblVehicleTrips | ST_TR | 177.59 | 67.47 |
| tblVehicleTrips | SU_TR | 6.07 | 4.36 |
| tblVehicleTrips | SU_TR | 0.98 | 96.39 |
| tblVehicleTrips | SU_TR | 26.73 | 21.25 |
| tblVehicleTrips | SU_TR | 72.16 | 58.41 |
| tblVehicleTrips | SU_TR | 20.43 | 27.90 |
| tblVehicleTrips | SU_TR | 166.44 | 67.47 |
| tblVehicleTrips | WD_TR | 6.59 | 4.36 |
| tblVehicleTrips | WD_TR | 11.01 | 96.39 |
| tblVehicleTrips | WD_TR | 32.93 | 21.25 |
| tblVehicleTrips | WD_TR | 89.95 | 58.41 |
| tblVehicleTrips | WD_TR | 44.32 | 27.90 |
| tblVehicleTrips | WD_TR | 102.24 | 67.47 |

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|---------|--------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|--------|------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 2.5590 | 5.4216 | 24.2725 | 0.0705 | 4.7116 | 0.0951 | 4.8067 | 1.2610 | 0.0878 | 1.3487 | 0.0000 | 4,841.5271 | 4,841.5271 | 0.1668 | 0.0000 | 4,845.0287 |
| Unmitigated | 2.5590 | 5.4216 | 24.2725 | 0.0705 | 4.7116 | 0.0951 | 4.8067 | 1.2610 | 0.0878 | 1.3487 | 0.0000 | 4,841.5271 | 4,841.5271 | 0.1668 | 0.0000 | 4,845.0287 |

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|--------------------------------|-------------------------|-----------------|-----------------|-------------------|-------------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Apartments High Rise | 1,085.64 | 1,085.64 | 1085.64 | 3,709,797 | 3,709,797 |
| Enclosed Parking with Elevator | 0.00 | 0.00 | 0.00 | | |
| General Office Building | 490.63 | 490.63 | 490.63 | 1,580,530 | 1,580,530 |
| Health Club | 172.13 | 172.13 | 172.13 | 368,136 | 368,136 |
| Quality Restaurant | 1,296.12 | 1,296.12 | 1296.12 | 1,845,194 | 1,845,194 |
| Strip Mall | 1,427.09 | 1,427.09 | 1427.09 | 2,715,165 | 2,715,165 |
| Supermarket | 1,673.93 | 1,673.93 | 1673.93 | 2,208,703 | 2,208,703 |
| User Defined Recreational | 0.00 | 0.00 | 0.00 | | |
| Total | 6,145.52 | 6,145.52 | 6,145.52 | 12,427,524 | 12,427,524 |

4.3 Trip Type Information

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|--------------------------------|------------|------------|-------------|-----------|------------|-------------|----------------|----------|---------|
| | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C- | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Apartments 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 |
| Quality Restaurant | 16.60 | 8.40 | 6.90 | 12.00 | 69.00 | 19.00 | 38 | 18 | 44 |
| 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 |
| User Defined Recreational | 16.60 | 8.40 | 6.90 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

| LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.505577 | 0.059791 | 0.182076 | 0.140653 | 0.043205 | 0.006799 | 0.016326 | 0.033954 | 0.001968 | 0.002512 | 0.004300 | 0.000570 | 0.002269 |

8150 Sunset Blvd Mixed Use Project - PROJECT (2023)

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 | 5.09 | 1000sqft | 0.12 | 5,094.00 | 0 |
| Enclosed Parking with Elevator | 305.65 | 1000sqft | 0.00 | 305,652.00 | 0 |
| Health Club | 8.10 | 1000sqft | 0.19 | 8,095.00 | 0 |
| Quality Restaurant | 22.19 | 1000sqft | 0.25 | 22,189.00 | 0 |
| User Defined Recreational | 49.84 | User Defined Unit | 0.00 | 49,840.00 | 0 |
| Apartments High Rise | 249.00 | Dwelling Unit | 1.00 | 191,324.00 | 528 |
| Strip Mall | 51.15 | 1000sqft | 0.50 | 51,150.00 | 0 |
| Supermarket | 24.81 | 1000sqft | 0.50 | 24,811.00 | 0 |

1.2 Other Project Characteristics

| | | | | | |
|---------------------------------|---|---------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 31 |
| Climate Zone | 11 | | | Operational Year | 2023 |
| Utility Company | Los Angeles Department of Water & Power | | | | |
| CO2 Intensity (lb/MW hr) | 595 | CH4 Intensity (lb/MW hr) | 0.029 | N2O Intensity (lb/MW hr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: California Air Resources Board, LEV III Initial Statement Of Reasons (ISOR, Dec. 7, 2011), <http://www.arb.ca.gov/regact/2012/leviiiighg2012/leviiiighg2012.htm>, based on analysis with CA-GREET model.

Land Use - Unit sizes are based on the planned building square footage and dwelling units for the 8150 Sunset Boulevard Mixed Use Project; Population 528 is based on the average household size for the Hollywood Community Plan Area (2.12 persons per household); User Defined Residential=Residential Amenities/Roof Decks.

Vehicle Trips - Refer to "Trip Generation Rate" worksheet provided in this Appendix.

Vehicle Emission Factors -

Woodstoves - No residential wood-stoves; No residential hearths.

Energy Use - CalEEMod default energy demand rates. User Defined Recreational=Residential Amenities/Roof Deck (factors are from Health Club/Racquet Club).

Water And Wastewater - Refer to "Project Water Demand Rates" worksheet provided in this Appendix.

Solid Waste - Refer to "Project Solid Waste Disposal Rates" worksheet provided in this Appendix. Solid waste rate is inclusive of 60% diversion.

Energy Mitigation - LEED v4 Credits: EAc2 (exceed Title 24 by 10%); EAc5 (1% renewable energy generation); Energy Efficient Appliances.

Water Mitigation - LEED v4 Credits: Wec2 (reduce indoor water demand by 35%)

| Table Name | Column Name | Default Value | New Value |
|---------------------------|--------------------|---------------|------------|
| tblLandUse | LandUseSquareFeet | 5,090.00 | 5,094.00 |
| tblLandUse | LandUseSquareFeet | 305,650.00 | 305,652.00 |
| tblLandUse | LandUseSquareFeet | 8,100.00 | 8,095.00 |
| tblLandUse | LandUseSquareFeet | 22,190.00 | 22,189.00 |
| tblLandUse | LandUseSquareFeet | 0.00 | 49,840.00 |
| tblLandUse | LandUseSquareFeet | 249,000.00 | 191,324.00 |
| tblLandUse | LandUseSquareFeet | 24,810.00 | 24,811.00 |
| tblLandUse | LotAcreage | 7.02 | 0.00 |
| tblLandUse | LotAcreage | 0.51 | 0.25 |
| tblLandUse | LotAcreage | 4.02 | 1.00 |
| tblLandUse | LotAcreage | 1.17 | 0.50 |
| tblLandUse | LotAcreage | 0.57 | 0.50 |
| tblLandUse | Population | 712.00 | 528.00 |
| tblProjectCharacteristics | CO2IntensityFactor | 1227.89 | 595 |
| tblProjectCharacteristics | OperationalYear | 2014 | 2023 |
| tblVehicleTrips | ST_TR | 7.16 | 4.36 |
| tblVehicleTrips | ST_TR | 2.37 | 96.39 |
| tblVehicleTrips | ST_TR | 20.87 | 21.25 |
| tblVehicleTrips | ST_TR | 94.36 | 58.41 |
| tblVehicleTrips | ST_TR | 42.04 | 27.90 |

| | | | |
|-----------------|-------|--------|-------|
| tblVehicleTrips | ST_TR | 177.59 | 67.47 |
| tblVehicleTrips | SU_TR | 6.07 | 4.36 |
| tblVehicleTrips | SU_TR | 0.98 | 96.39 |
| tblVehicleTrips | SU_TR | 26.73 | 21.25 |
| tblVehicleTrips | SU_TR | 72.16 | 58.41 |
| tblVehicleTrips | SU_TR | 20.43 | 27.90 |
| tblVehicleTrips | SU_TR | 166.44 | 67.47 |
| tblVehicleTrips | WD_TR | 6.59 | 4.36 |
| tblVehicleTrips | WD_TR | 11.01 | 96.39 |
| tblVehicleTrips | WD_TR | 32.93 | 21.25 |
| tblVehicleTrips | WD_TR | 89.95 | 58.41 |
| tblVehicleTrips | WD_TR | 44.32 | 27.90 |
| tblVehicleTrips | WD_TR | 102.24 | 67.47 |

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|---------|--------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|--------|------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 2.4510 | 4.7705 | 23.2352 | 0.0706 | 4.7122 | 0.0955 | 4.8078 | 1.2612 | 0.0882 | 1.3494 | 0.0000 | 4,799.0718 | 4,799.0718 | 0.1597 | 0.0000 | 4,802.4256 |
| Unmitigated | 2.4510 | 4.7705 | 23.2352 | 0.0706 | 4.7122 | 0.0955 | 4.8078 | 1.2612 | 0.0882 | 1.3494 | 0.0000 | 4,799.0718 | 4,799.0718 | 0.1597 | 0.0000 | 4,802.4256 |

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|--------------------------------|-------------------------|-----------------|-----------------|-------------------|-------------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Apartments High Rise | 1,085.64 | 1,085.64 | 1085.64 | 3,709,797 | 3,709,797 |
| Enclosed Parking with Elevator | 0.00 | 0.00 | 0.00 | | |
| General Office Building | 490.63 | 490.63 | 490.63 | 1,580,530 | 1,580,530 |
| Health Club | 172.13 | 172.13 | 172.13 | 368,136 | 368,136 |
| Quality Restaurant | 1,296.12 | 1,296.12 | 1296.12 | 1,845,194 | 1,845,194 |
| Strip Mall | 1,427.09 | 1,427.09 | 1427.09 | 2,715,165 | 2,715,165 |
| Supermarket | 1,673.93 | 1,673.93 | 1673.93 | 2,208,703 | 2,208,703 |
| User Defined Recreational | 0.00 | 0.00 | 0.00 | | |
| Total | 6,145.52 | 6,145.52 | 6,145.52 | 12,427,524 | 12,427,524 |

4.3 Trip Type Information

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|--------------------------------|------------|------------|-------------|-----------|------------|-------------|----------------|----------|---------|
| | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C- | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Apartments 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 |
| Quality Restaurant | 16.60 | 8.40 | 6.90 | 12.00 | 69.00 | 19.00 | 38 | 18 | 44 |
| 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 |
| User Defined Recreational | 16.60 | 8.40 | 6.90 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

| LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.503640 | 0.059862 | 0.182421 | 0.141149 | 0.043488 | 0.006857 | 0.016394 | 0.034533 | 0.001981 | 0.002521 | 0.004259 | 0.000566 | 0.002330 |

8150 Sunset Blvd Mixed Use Project - PROJECT (2024)

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 | 5.09 | 1000sqft | 0.12 | 5,094.00 | 0 |
| Enclosed Parking with Elevator | 305.65 | 1000sqft | 0.00 | 305,652.00 | 0 |
| Health Club | 8.10 | 1000sqft | 0.19 | 8,095.00 | 0 |
| Quality Restaurant | 22.19 | 1000sqft | 0.25 | 22,189.00 | 0 |
| User Defined Recreational | 49.84 | User Defined Unit | 0.00 | 49,840.00 | 0 |
| Apartments High Rise | 249.00 | Dwelling Unit | 1.00 | 191,324.00 | 528 |
| Strip Mall | 51.15 | 1000sqft | 0.50 | 51,150.00 | 0 |
| Supermarket | 24.81 | 1000sqft | 0.50 | 24,811.00 | 0 |

1.2 Other Project Characteristics

| | | | | | |
|---------------------------------|---|---------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 31 |
| Climate Zone | 11 | | | Operational Year | 2024 |
| Utility Company | Los Angeles Department of Water & Power | | | | |
| CO2 Intensity (lb/MW hr) | 595 | CH4 Intensity (lb/MW hr) | 0.029 | N2O Intensity (lb/MW hr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: California Air Resources Board, LEV III Initial Statement Of Reasons (ISOR, Dec. 7, 2011), <http://www.arb.ca.gov/regact/2012/leviiiighg2012/leviiiighg2012.htm>, based on analysis with CA-GREET model.

Land Use - Unit sizes are based on the planned building square footage and dwelling units for the 8150 Sunset Boulevard Mixed Use Project; Population 528 is based on the average household size for the Hollywood Community Plan Area (2.12 persons per household); User Defined Residential=Residential Amenities/Roof Decks.

Vehicle Trips - Refer to "Trip Generation Rate" worksheet provided in this Appendix.

Vehicle Emission Factors -

Woodstoves - No residential wood-stoves; No residential hearths.

Energy Use - CalEEMod default energy demand rates. User Defined Recreational=Residential Amenities/Roof Deck (factors are from Health Club/Racquet Club).

Water And Wastewater - Refer to "Project Water Demand Rates" worksheet provided in this Appendix.

Solid Waste - Refer to "Project Solid Waste Disposal Rates" worksheet provided in this Appendix. Solid waste rate is inclusive of 60% diversion.

Energy Mitigation - LEED v4 Credits: EAc2 (exceed Title 24 by 10%); EAc5 (1% renewable energy generation); Energy Efficient Appliances.

Water Mitigation - LEED v4 Credits: WEc2 (reduce indoor water demand by 35%)

| Table Name | Column Name | Default Value | New Value |
|---------------------------|--------------------|---------------|------------|
| tblLandUse | LandUseSquareFeet | 5,090.00 | 5,094.00 |
| tblLandUse | LandUseSquareFeet | 305,650.00 | 305,652.00 |
| tblLandUse | LandUseSquareFeet | 8,100.00 | 8,095.00 |
| tblLandUse | LandUseSquareFeet | 22,190.00 | 22,189.00 |
| tblLandUse | LandUseSquareFeet | 0.00 | 49,840.00 |
| tblLandUse | LandUseSquareFeet | 249,000.00 | 191,324.00 |
| tblLandUse | LandUseSquareFeet | 24,810.00 | 24,811.00 |
| tblLandUse | LotAcreage | 7.02 | 0.00 |
| tblLandUse | LotAcreage | 0.51 | 0.25 |
| tblLandUse | LotAcreage | 4.02 | 1.00 |
| tblLandUse | LotAcreage | 1.17 | 0.50 |
| tblLandUse | LotAcreage | 0.57 | 0.50 |
| tblLandUse | Population | 712.00 | 528.00 |
| tblProjectCharacteristics | CO2IntensityFactor | 1227.89 | 595 |
| tblProjectCharacteristics | OperationalYear | 2014 | 2024 |
| tblVehicleTrips | ST_TR | 7.16 | 4.36 |
| tblVehicleTrips | ST_TR | 2.37 | 96.39 |
| tblVehicleTrips | ST_TR | 20.87 | 21.25 |
| tblVehicleTrips | ST_TR | 94.36 | 58.41 |
| tblVehicleTrips | ST_TR | 42.04 | 27.90 |

| | | | |
|-----------------|-------|--------|-------|
| tblVehicleTrips | ST_TR | 177.59 | 67.47 |
| tblVehicleTrips | SU_TR | 6.07 | 4.36 |
| tblVehicleTrips | SU_TR | 0.98 | 96.39 |
| tblVehicleTrips | SU_TR | 26.73 | 21.25 |
| tblVehicleTrips | SU_TR | 72.16 | 58.41 |
| tblVehicleTrips | SU_TR | 20.43 | 27.90 |
| tblVehicleTrips | SU_TR | 166.44 | 67.47 |
| tblVehicleTrips | WD_TR | 6.59 | 4.36 |
| tblVehicleTrips | WD_TR | 11.01 | 96.39 |
| tblVehicleTrips | WD_TR | 32.93 | 21.25 |
| tblVehicleTrips | WD_TR | 89.95 | 58.41 |
| tblVehicleTrips | WD_TR | 44.32 | 27.90 |
| tblVehicleTrips | WD_TR | 102.24 | 67.47 |

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|---------|--------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|--------|------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 2.3741 | 4.6662 | 22.4547 | 0.0711 | 4.7127 | 0.0968 | 4.8095 | 1.2614 | 0.0893 | 1.3507 | 0.0000 | 4,788.4622 | 4,788.4622 | 0.1557 | 0.0000 | 4,791.7311 |
| Unmitigated | 2.3741 | 4.6662 | 22.4547 | 0.0711 | 4.7127 | 0.0968 | 4.8095 | 1.2614 | 0.0893 | 1.3507 | 0.0000 | 4,788.4622 | 4,788.4622 | 0.1557 | 0.0000 | 4,791.7311 |

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|--------------------------------|-------------------------|-----------------|-----------------|-------------------|-------------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Apartments High Rise | 1,085.64 | 1,085.64 | 1085.64 | 3,709,797 | 3,709,797 |
| Enclosed Parking with Elevator | 0.00 | 0.00 | 0.00 | | |
| General Office Building | 490.63 | 490.63 | 490.63 | 1,580,530 | 1,580,530 |
| Health Club | 172.13 | 172.13 | 172.13 | 368,136 | 368,136 |
| Quality Restaurant | 1,296.12 | 1,296.12 | 1296.12 | 1,845,194 | 1,845,194 |
| Strip Mall | 1,427.09 | 1,427.09 | 1427.09 | 2,715,165 | 2,715,165 |
| Supermarket | 1,673.93 | 1,673.93 | 1673.93 | 2,208,703 | 2,208,703 |
| User Defined Recreational | 0.00 | 0.00 | 0.00 | | |
| Total | 6,145.52 | 6,145.52 | 6,145.52 | 12,427,524 | 12,427,524 |

4.3 Trip Type Information

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|--------------------------------|------------|------------|-------------|-----------|------------|-------------|----------------|----------|---------|
| | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C- | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Apartments 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 |
| Quality Restaurant | 16.60 | 8.40 | 6.90 | 12.00 | 69.00 | 19.00 | 38 | 18 | 44 |
| 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 |
| User Defined Recreational | 16.60 | 8.40 | 6.90 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

| LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.501876 | 0.060003 | 0.182696 | 0.141577 | 0.043728 | 0.006899 | 0.016470 | 0.035064 | 0.001992 | 0.002524 | 0.004224 | 0.000562 | 0.002383 |

8150 Sunset Blvd Mixed Use Project - PROJECT (2025)

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 | 5.09 | 1000sqft | 0.12 | 5,094.00 | 0 |
| Enclosed Parking with Elevator | 305.65 | 1000sqft | 0.00 | 305,652.00 | 0 |
| Health Club | 8.10 | 1000sqft | 0.19 | 8,095.00 | 0 |
| Quality Restaurant | 22.19 | 1000sqft | 0.25 | 22,189.00 | 0 |
| User Defined Recreational | 49.84 | User Defined Unit | 0.00 | 49,840.00 | 0 |
| Apartments High Rise | 249.00 | Dwelling Unit | 1.00 | 191,324.00 | 528 |
| Strip Mall | 51.15 | 1000sqft | 0.50 | 51,150.00 | 0 |
| Supermarket | 24.81 | 1000sqft | 0.50 | 24,811.00 | 0 |

1.2 Other Project Characteristics

| | | | | | |
|---------------------------------|---|---------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 31 |
| Climate Zone | 11 | | | Operational Year | 2025 |
| Utility Company | Los Angeles Department of Water & Power | | | | |
| CO2 Intensity (lb/MW hr) | 595 | CH4 Intensity (lb/MW hr) | 0.029 | N2O Intensity (lb/MW hr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: California Air Resources Board, LEV III Initial Statement Of Reasons (ISOR, Dec. 7, 2011), <http://www.arb.ca.gov/regact/2012/leviiiighg2012/leviiiighg2012.htm>, based on analysis with CA-GREET model.

Land Use - Unit sizes are based on the planned building square footage and dwelling units for the 8150 Sunset Boulevard Mixed Use Project; Population 528 is based on the average household size for the Hollywood Community Plan Area (2.12 persons per household).; User Defined Residential=Residential Vehicle Trips - Refer to "Trip Generation Rate" worksheet provided in this Appendix.

Woodstoves - No residential wood-stoves; No residential hearths.

Energy Use - CalEEMod default energy demand rates. User Defined Recreational=Residential Amenities/Roof Deck (factors are from Health Club/Racquet Club).

Water And Wastewater - Refer to "Project Water Demand Rates" worksheet provided in this Appendix.

Solid Waste - Refer to "Project Solid Waste Disposal Rates" worksheet provided in this Appendix. Solid waste rate is inclusive of 60% diversion.

Energy Mitigation - LEED v4 Credits: EAc2 (exceed Title 24 by 10%); EAc5 (1% renewable energy generation); Energy Efficient Appliances.

Water Mitigation - LEED v4 Credits: WEc2 (reduce indoor water demand by 35%).

| Table Name | Column Name | Default Value | New Value |
|---------------------------|--------------------|---------------|------------|
| tblLandUse | LandUseSquareFeet | 5,090.00 | 5,094.00 |
| tblLandUse | LandUseSquareFeet | 305,650.00 | 305,652.00 |
| tblLandUse | LandUseSquareFeet | 8,100.00 | 8,095.00 |
| tblLandUse | LandUseSquareFeet | 22,190.00 | 22,189.00 |
| tblLandUse | LandUseSquareFeet | 0.00 | 49,840.00 |
| tblLandUse | LandUseSquareFeet | 249,000.00 | 191,324.00 |
| tblLandUse | LandUseSquareFeet | 24,810.00 | 24,811.00 |
| tblLandUse | LotAcreage | 7.02 | 0.00 |
| tblLandUse | LotAcreage | 0.51 | 0.25 |
| tblLandUse | LotAcreage | 4.02 | 1.00 |
| tblLandUse | LotAcreage | 1.17 | 0.50 |
| tblLandUse | LotAcreage | 0.57 | 0.50 |
| tblLandUse | Population | 712.00 | 528.00 |
| tblProjectCharacteristics | CO2IntensityFactor | 1227.89 | 595 |
| tblProjectCharacteristics | OperationalYear | 2014 | 2025 |
| tblVehicleTrips | ST_TR | 7.16 | 4.36 |
| tblVehicleTrips | ST_TR | 2.37 | 96.39 |
| tblVehicleTrips | ST_TR | 20.87 | 21.25 |
| tblVehicleTrips | ST_TR | 94.36 | 58.41 |
| tblVehicleTrips | ST_TR | 42.04 | 27.90 |
| tblVehicleTrips | ST_TR | 177.59 | 67.47 |
| tblVehicleTrips | SU_TR | 6.07 | 4.36 |

| | | | |
|-----------------|-------|--------|-------|
| tblVehicleTrips | SU_TR | 0.98 | 96.39 |
| tblVehicleTrips | SU_TR | 26.73 | 21.25 |
| tblVehicleTrips | SU_TR | 72.16 | 58.41 |
| tblVehicleTrips | SU_TR | 20.43 | 27.90 |
| tblVehicleTrips | SU_TR | 166.44 | 67.47 |
| tblVehicleTrips | WD_TR | 6.59 | 4.36 |
| tblVehicleTrips | WD_TR | 11.01 | 96.39 |
| tblVehicleTrips | WD_TR | 32.93 | 21.25 |
| tblVehicleTrips | WD_TR | 89.95 | 58.41 |
| tblVehicleTrips | WD_TR | 44.32 | 27.90 |
| tblVehicleTrips | WD_TR | 102.24 | 67.47 |

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|---------|--------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|--------|------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 2.3059 | 4.5524 | 21.7904 | 0.0712 | 4.7133 | 0.0978 | 4.8111 | 1.2616 | 0.0902 | 1.3518 | 0.0000 | 4,759.8130 | 4,759.8130 | 0.1511 | 0.0000 | 4,762.9868 |
| Unmitigated | 2.3059 | 4.5524 | 21.7904 | 0.0712 | 4.7133 | 0.0978 | 4.8111 | 1.2616 | 0.0902 | 1.3518 | 0.0000 | 4,759.8130 | 4,759.8130 | 0.1511 | 0.0000 | 4,762.9868 |

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|--------------------------------|-------------------------|-----------------|-----------------|-------------------|-------------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Apartments High Rise | 1,085.64 | 1,085.64 | 1085.64 | 3,709,797 | 3,709,797 |
| Enclosed Parking with Elevator | 0.00 | 0.00 | 0.00 | | |
| General Office Building | 490.63 | 490.63 | 490.63 | 1,580,530 | 1,580,530 |
| Health Club | 172.13 | 172.13 | 172.13 | 368,136 | 368,136 |
| Quality Restaurant | 1,296.12 | 1,296.12 | 1296.12 | 1,845,194 | 1,845,194 |
| Strip Mall | 1,427.09 | 1,427.09 | 1427.09 | 2,715,165 | 2,715,165 |
| Supermarket | 1,673.93 | 1,673.93 | 1673.93 | 2,208,703 | 2,208,703 |
| User Defined Recreational | 0.00 | 0.00 | 0.00 | | |
| Total | 6,145.52 | 6,145.52 | 6,145.52 | 12,427,524 | 12,427,524 |

4.3 Trip Type Information

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|--------------------------------|------------|------------|-------------|------------|------------|-------------|----------------|----------|---------|
| | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Apartments 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 |
| Quality Restaurant | 16.60 | 8.40 | 6.90 | 12.00 | 69.00 | 19.00 | 38 | 18 | 44 |
| 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 |
| User Defined Recreational | 16.60 | 8.40 | 6.90 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

| LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.500116 | 0.060136 | 0.182997 | 0.141937 | 0.043982 | 0.006974 | 0.016541 | 0.035595 | 0.002005 | 0.002529 | 0.004193 | 0.000558 | 0.002437 |

Appendix B.9
Project – Solid Waste Disposal Rates

8150 SUNSET BOULEVARD MIXED USE PROJECT
Greenhouse Gas Emissions Methodology and Documentation

Project Solid Waste Disposal Rates

| Land Use | Project Units | Waste Generation Factor ^{1,2} | Waste Before Diversion (tons/year) | Building Units (DU or 1000 sqft) | Waste Disposal Rate ³ (tons/unit/year) | Waste Diversion Rate ⁴ (%) | Waste Disposal Rate after Diversion (tons/year) |
|----------------------|--------------------------------|---|------------------------------------|----------------------------------|---|---------------------------------------|---|
| Residential | (DU) 249 (employees) | (lbs/DU/day) 12.23 (lbs/employees/year) | 555.76 | 249 | 2.23 | 60% | 222.30 |
| General Retail | | | | 51.15 | 3.71 | 60% | 75.95 |
| Walk-in Bank | 129 | 3,714 | 239 | 5.09 | 3.71 | 60% | 7.56 |
| Dance/Yoga Studios | | | | 8.10 | 3.71 | 60% | 12.02 |
| Supermarket | 50 | 16,578 | 414.45 | 24.811 | 16.70 | 60% | 165.78 |
| Quality Restaurant | 333 | 6,528 | 1,086.91 | 22.189 | 48.98 | 60% | 434.76 |
| Total Project | | | | | | | 918.38 |

Notes:

1. Residential uses: City of Los Angeles, L.A. CEQA Thresholds Guide, (2006) M.3-2.
2. Non-residential uses: CalRecycle (formerly Integrated Waste Management Board), Targeted Statewide Waste Characterization Study: Waste Disposal and Diversion Findings for Selected Industry Groups, (2006) 12.
3. Converted waste generation factor into units of tons/DU or 1000 sqft/year.
4. Los Angeles County, Countywide Integrated Waste Management Plan, 2012 Annual Report, (2012) 17. According to the 2012 Annual Report, "for the purpose of long-term disposal capacity planning, a countywide diversion rate of 60 percent was assumed for 2012." The same diversion rate of 60 percent was assumed for the project.

Source: PCR Services Corporation, 2014.

Project Solid Waste Greenhouse Gas Emissions

Refer to CalEEMod output files.

Appendix B.10
Project – Water Demand Rates

8150 SUNSET BOULEVARD MIXED USE PROJECT
Greenhouse Gas Emissions Methodology and Documentation

Project Water Demand Rates

| Land Use | Units (DU or 1000 sqft) | Default Rates in CalEEMod | | | Percent of Total | |
|-----------------------|----------------------------|---------------------------------------|---|--|-------------------------------|--------------------------------|
| | | Based on CalEEMod Land Use Type | Indoor Water Demand Rate ¹ (gal/unit/year) | Outdoor Water Demand Rate ¹ (gal/unit/year) | Indoor Water Demand (%) | Outdoor Water Demand (%) |
| Residential/Amenities | 249 | Apartments | 65,154 | 41,075 | 61.3% | 38.7% |
| General Retail | 51.15 | Strip mall | 74,073 | 45,399 | 62.0% | 38.0% |
| Supermarket | 24.81 | Supermarket | 123,268 | 3,812 | 97.0% | 3.0% |
| Walk-in Bank | 5.09 | Bank/General office bldg | 177,734 | 108,934 | 62.0% | 38.0% |
| Quality Restaurant | 22.19 | Quality Restaurant | 303,534 | 19,374 | 94.0% | 6.0% |
| Dance/Yoga Studios | 8.10 | Health club | 59,143 | 36,249 | 62.0% | 38.0% |
| Parking | 305.65 | Parking Lot | - | - | 0.0% | 100.0% |

| Land Use | Units (DU or 1000 sqft) | Project-Specific Water Demand Rates | | | | | | |
|---------------------------|----------------------------|--|--|--|--|---|---|---|
| | | Wastewater Generation ² (gal/DU or 1000 sqft/day) | Water Demand ³ (gal/day) | Total Water Demand Rate ³ (gal/unit/year) | Indoor Water Demand Rate ⁴ (gal/year) | Outdoor Water Demand Rate ⁴ (gal/year) | Indoor Water Demand Reduction (%) | Reduced Indoor Water Demand Rate (gal/year) |
| Residential/Amenities | 249 | | 37,274 | 54,637 | 8,344,210 | 5,260,435 | 35% | 5,423,736 |
| <i>Studio</i> | 73 | 80 | 7,475 | | | | | - |
| <i>One Bedroom</i> | 130 | 120 | 19,968 | | | | | |
| <i>Two Bedroom</i> | 38 | 160 | 7,782 | | | | | |
| <i>Three Bedroom</i> | 8 | 200 | 2,048 | | | | | |
| General Retail | 51.15 | 80.00 | 5,238 | 37,378 | 1,185,365 | 726,505 | 35% | 770,487 |
| Supermarket | 24.81 | 80.00 | 2,541 | 37,381 | 899,644 | 27,821 | 35% | 584,769 |
| Walk-in Bank | 5.09 | 80.00 | 522 | 37,403 | 118,128 | 72,402 | 35% | 76,784 |
| Quality Restaurant | 22.19 | 300.00 | 8,521 | 140,167 | 2,923,560 | 186,605 | 35% | 1,900,314 |
| Dance/Yoga Studios | 8.10 | 80.00 | 829 | 37,379 | 187,603 | 114,982 | 35% | 121,942 |
| Parking | 305.65 | 20.00 | 7,825 | 9,344 | - | 2,856,125 | 35% | - |
| Total Water Demand | | | | | 13,658,510 | 9,244,875 | | 8,878,031 |

Notes:

- Gleick, P.H.; Haasz, D.; Henges-Jeck, C.; Srinivasan, V.; Cushing, K.K.; Mann, A. 2003. Waste Not, Want Not: The Potential for Urban Water Conservation in California. Published by the Pacific Institute for Studies in Development, Environment, and Security. Full report available online at: http://www.pacinst.org/reports/urban_usage/waste_not_want_not_full_report.pdf. Appendices available online at: http://www.pacinst.org/reports/urban_usage/appendices.htm. Accessed March 2014.
- City of Los Angeles Department of Public Works, Bureau of Sanitation, Sewerage Facilities Charge, Sewage Generation Factors for Residential and Commercial Categories. Provided in the L.A. CEQA Thresholds Guide, (2006) M.2-22-M.2-26.
- Water demand rates are calculated based on the wastewater generation rates and increasing the factor to account for absorption, evaporation, consumption, irrigation, and other losses and converting to units of gallons/day and gallons/1000 sqft/year.
- Indoor and outdoor water demand rates are derived based on the ratio of indoor to outdoor water demand in CalEEMod.

Source: PCR Services Corporation, 2014.

Project Water and Wastewater Greenhouse Gas Emissions

Refer to CalEEMod output files.