



RECIRCULATED PORTION OF DRAFT ENVIRONMENTAL IMPACT REPORT

Landmark Apartments Project

Environmental Case: ENV-2013-3747-EIR

State Clearinghouse No.: 2014031014

Project Location: 11750–11770 Wilshire Boulevard; 1211–1235 Stoner Avenue; 1222 Granville Avenue, Los Angeles, California, 90025

Community Plan Area: West Los Angeles

Council District: 11 - Bonin

Project Description: In accordance with the California Environmental Quality Act (CEQA), the City of Los Angeles Planning Department (City), as Lead Agency, prepared this Recirculated Energy Analysis of the Draft EIR (Recirculated Energy Analysis) for the Landmark Apartments Project (Project). The Recirculated Energy Analysis has been prepared following the Los Angeles County Superior Court's ruling, dated June 28, 2018, which granted in part and denied in part the Petition for Writ of Mandate filed in Case No. BS168429, Golden State Environmental Justice Alliance vs. City of Los Angeles, et. al. In accordance with Public Resources Code Section 21100(b)(3) and Appendix F of the CEQA Guidelines, this analysis addresses whether the Project would result in the wasteful, inefficient, and unnecessary consumption of energy. The analysis also addresses whether the Project would result in an increase in the demand for energy that would exceed available supply or distribution infrastructure capabilities that could result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. This is the only section being recirculated under this Recirculated Portion of the Draft EIR. The Court Ruling upheld all other aspects of the EIR.

Douglas Emmett Management, LLC, proposes to construct a 34-story residential building containing up to 376 multi-family dwellings, including market-rate and affordable housing units, and almost 1 acre of privately maintained, publicly accessible open space area on a 2.8-acre site in the West Los Angeles Community Plan Area of the City of Los Angeles. Consistent with CEQA, the baseline includes an occupied 42,900-square-foot, single-story supermarket building to be demolished under the Project; a 364,791-square-foot, 17-story office building to remain; and a four-level subterranean parking structure spanning the Project Site. The existing parking structure contains 1,321 parking spaces. To support the foundation of the new residential building, the Project proposes the partial demolition and reconstruction of a portion of the four-level subterranean parking structure. Specifically, 365 existing parking spaces would be removed and 166 new spaces would be constructed, resulting in a total of 1,122 parking spaces on-site. In total, the Project would remove approximately 42,900 square feet of existing floor area and construct approximately 360,291 square feet of new floor area, resulting in an increase of 317,391 square feet of net new floor area.

PREPARED FOR:

The City of Los Angeles
Department of City Planning

PREPARED BY:

Eyestone Environmental

APPLICANT:

Douglas Emmett Management, LLC

October 2018

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Landmark Apartments

Recirculated Energy Analysis of the Draft EIR

1. Introduction and Purpose

In accordance with the California Environmental Quality Act (CEQA), the City of Los Angeles Planning Department (City), as Lead Agency, prepared this document, entitled Recirculated Energy Analysis of the Draft EIR (Recirculated Energy Analysis) for the Landmark Apartments Project (Project). The Recirculated Energy Analysis has been prepared following the Los Angeles County Superior Court’s ruling (Court Ruling), dated June 28, 2018, which granted in part and denied in part the Petition for Writ of Mandate filed in Case No. BS168429, *Golden State Environmental Justice Alliance vs. City of Los Angeles, et. al.* A copy of the Court Ruling is provided in Appendix A, of this Recirculated Energy Analysis.

The City certified the Environmental Impact Report (EIR) (SCH No. 2014031014) for the Project on February 14, 2017.¹ The EIR consists of the Draft EIR dated April 2016, the Final EIR dated September 2016 and the Errata dated October 2016. In its lawsuit challenging the City’s certification of the EIR, Petitioner Golden State Environmental Justice contended that the EIR violated CEQA by failing to adequately assess energy impacts, GHG impacts, health risk and shading impacts. In granting the petition in part, the Court ordered the City to only decertify the energy impact analysis within Section VII, Other Environmental Considerations of the Draft EIR due to an inaccurate calculation of the Project’s operational energy demand contained in that section. This inaccurate calculation was caused by an inadvertent deduction of the energy demand of the on-site office building (which will remain operational) from the Project’s overall energy demand, rather than deduction of the energy demand of the on-site supermarket (which will be demolished). This error has been corrected below in Table 2 on page 13 of this Recirculated Energy Analysis. Although the Court invalidated the energy analysis section of the Draft EIR, it determined that the remaining sections of the Draft EIR—specifically its analyses regarding GHG impacts, health risk assessments, and shading impacts—were severable and in full

¹ *The EIR was previously certified by the Deputy Advisory Agency on October 21, 2016. The Deputy Advisory Agency’s action was appealed to the City Planning Commission, which denied the appeal and certified the EIR on November 17, 2016. A second appeal was subsequently filed. The City Council denied the appeal, certified the EIR, and approved the Project on February 22, 2017.*

compliance with CEQA. Moreover, the Court Ruling did not require the City to rescind the Project approvals, each of which remains valid and in full force and effect.

This Recirculated Energy Analysis has been prepared in compliance with CEQA Guidelines Section 15088.5 and the Court Ruling. Specifically, this Recirculated Energy Analysis provides the corrected calculation for the Project's operational energy demand. As shown in below in Table 2 on page 13, the net energy demand associated with operation of the Project is calculated by deducting the energy demand associated with existing baseline uses within the Project Site (i.e., the office building, supermarket, and enclosed parking) from the energy demand associated with the Project (i.e., the new residential uses and amenities, the office building to remain, and the existing enclosed parking that will be slightly reconfigured yet remain). The determination as to whether there is sufficient capacity to meet the Project's operational energy demand remains the same as in the Draft EIR; i.e., construction and operation of the Project would not result in an increase in demand for electricity, natural gas, or transportation energy that exceeds available supply or distribution infrastructure capabilities that could result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects (Significance Threshold No. 1, below). The corrected operational energy demand calculation also does not change the determination in the Draft EIR that the Project would not cause wasteful, inefficient, or unnecessary consumption of energy during construction or operation (Significance Threshold No. 2, below).

This document does not revise the EIR in any respect other than as directed by the Court, as the Court Ruling upheld all other aspects of the EIR. As the recirculation is limited to the energy analysis only, pursuant to CEQA Guidelines Section 15088.5, subdivision (c), the rest of the Draft EIR is not being recirculated for public review and comment.

In the event that this Recirculated Energy Analysis is approved by the City, it will become part of the EIR. The analysis in this document relies on and incorporates by reference all relevant information in the EIR, its appendices and references, as well as the new or additional sources of information identified herein.

This document has been made available for public review and comment in accordance with the procedures contained in the Notice of Availability. Written comments may be submitted to Erin Strelch at the Department of City Planning at 221 N. Figueroa Street, Suite 1350, Los Angeles, CA 90012 or via email to erin.strelch@lacity.org. As CEQA Guidelines Section 15088.5, subdivision (f)(2) permits, the City requests reviewers to limit the scope of their comments to the material contained herein. The City also requests that reviewers not make new comments on matters not included herein. Responses to all comments received during the review period regarding the environmental analysis in this Recirculated Energy Analysis will be provided in a separate document—a

Partially Revised Final EIR (Partially Revised FEIR). Pursuant to CEQA Guidelines Section 15088.5, subdivision (f)(2)(ii), written responses will be prepared only to comments received regarding this Recirculated Energy Analysis.

The Partially Revised FEIR will provide the basis for City decision-makers to consider the environmental implications of the energy demands of the Project as well as possible ways to mitigate any potential significant energy impacts. The City must certify that the Recirculated Energy Analysis and Partially Revised FEIR were prepared in compliance with CEQA, were presented to the City's decision-making body, that the decision-making body reviewed and considered the information contained in the Partially Revised FEIR, and that the Partially Revised FEIR reflects the Lead Agency's independent judgment and analysis.

2. Project Summary

The Landmark Apartments Project will replace an existing supermarket building with a 34-story residential building containing up to 376 multi-family dwelling units. The proposed residential building will reach a maximum height of 349 feet above grade level.² The Project will also construct an approximate 40,000-square-foot, privately maintained, publicly accessible open space area at the northeast corner of the Project Site fronting Wilshire Boulevard, consisting of enhanced landscape and hardscape features including seating areas, pedestrian pathways, raised planters, and shade trees.

To support the foundation of the new residential building, the Project proposes the partial demolition and reconstruction of the four-level subterranean parking structure that spans much of the Project Site. The Project will retain, but not make any improvements to the existing office building and pedestrian plaza in the northwest portion of the Project Site, with no changes to existing operations therein. In total, the Project will remove approximately 42,900 square feet of existing floor area and construct approximately 360,291 square feet of new floor area, resulting in a net increase of approximately 317,391 square feet of floor area within the Project Site. With implementation of the Project, the Project Site will include a total of 717,391 square feet of developed floor area. Upon completion of the Project, the total Floor Area Ratio (FAR) on the Project Site, inclusive of the existing office building, will be 5.9:1.

The Project will incorporate features to support and promote environmental sustainability, including "green" principles that comply with the City of Los Angeles Green Building Code (as amended pursuant to Ordinance No. 182,849). In so doing, the new

² *Rooftop structures, including a helipad and a 9-foot screen wall to conceal future heating/ventilating/air conditioning (HVAC) and other equipment, would not exceed 380 feet above grade level.*

building will be capable of achieving at least Silver certification under the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED)-CS[®] or LEED-NC[®] Rating System as of January 1, 2011.

3. Revised Energy Analysis

In response to the Court Ruling, the analysis below has been prepared to provide a clear analysis relative to: (1) the overall demand for energy associated with the Project and associated availability of infrastructure to accommodate such demand; and (2) whether the Project would result in the inefficient, wasteful and unnecessary consumption of energy as discussed in Appendix F of the CEQA Guidelines. This analysis addresses the Project's potential energy usage, including electricity, natural gas, and transportation fuel. Energy consumption during both construction and operation is assessed. The Project's estimated energy consumption was calculated using the California Emissions Estimator Model (CalEEMod) Version 2013.2.2 and consistent with the modeling conducted for the Draft EIR (refer to the calculation worksheets included in Appendix B, of this Recirculated Energy Analysis).

a. Thresholds of Significance

With regard to potential impacts to energy infrastructure and facilities, the *L.A. CEQA Thresholds Guide* provides the following factors that may be used to assess impacts:

- The extent to which the project would require new (off-site) energy supply facilities and distribution infrastructure; or capacity-enhancing alterations to existing facilities;
- Whether and when the needed infrastructure was anticipated by adopted plans; and
- The degree to which the project design and/or operations incorporate energy conservation measures, particularly those that go beyond City requirements.

Subsequent to completion of the *L.A. CEQA Thresholds Guide*, Appendix F of the CEQA Guidelines was prepared in response to the requirement in Public Resources Code Section 21100(b)(3), which states that an EIR shall include a detailed statement setting forth "[m]itigation measures proposed to minimize significant effects of the environment, including, but not limited to, measures to reduce the wasteful, inefficient, and unnecessary consumption of energy."

In accordance with the *L.A. CEQA Thresholds Guide* and Appendix F of the CEQA Guidelines, impacts associated with energy would be significant if:

Significance Threshold No. 1—With regard to energy infrastructure, the Project would result in significant impacts if it would result in an increase in demand for electricity or natural gas or other sources of energy that exceed available supply or distribution infrastructure capabilities that could result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Significance Threshold No. 2—The Project would result in significant impacts with regard to energy use and consumption, if it would cause wasteful, inefficient, and unnecessary consumption of energy.

In accordance with Appendix F of the CEQA Guidelines and the *L.A. CEQA Thresholds Guide*, the following criteria may be considered in determining whether this threshold of significance is met:

1. The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance, and/or removal. If appropriate, the energy intensiveness of materials may be discussed;
2. The effects of the project on local and regional energy supplies and on requirements for additional capacity;
3. The effects of the project on peak and base period demands for electricity and other forms of energy;
4. The degree to which the project complies with existing energy standards;
5. The effects of the project on energy resources;
6. The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.
7. The degree to which the project design and/or operations incorporate energy-conservation measures, particularly those that go beyond City requirements.
8. Whether the Project conflicts with adopted energy conservation plans.

b. Methodology

(1) Construction

Electricity usage associated with the supply and conveyance of water used for dust control during construction (primarily related to the excavation period) was calculated using

CalEEMod. Electricity used to power lighting, electronic equipment, and other construction activities necessitating electrical power would be minimal in comparison to the operational phase of the Project. In terms of natural gas, construction activities typically do not involve the consumption of natural gas. Fuel consumption from on-site heavy-duty construction equipment was calculated based on the equipment mix and usage factors provided in the CalEEMod construction output files included in Appendix B. The total horsepower was then multiplied by fuel usage estimates per horsepower-hour included in Table A9-3-E of the South Coast Air Quality Management District's (SCAQMD) *CEQA Air Quality Handbook*. Fuel consumption from construction worker, vendor, and delivery/haul trucks was calculated using the trip rates and distances provided in the CalEEMod construction output files. Total Vehicle Miles Travelled (VMT) was then calculated for each type of construction-related trip and divided by the corresponding county-specific miles per gallon factor using the California Air Resources Board (CARB) Emission Factor (EMFAC) model. EMFAC provides the total annual VMT and fuel consumed for each vehicle type. Consistent with CalEEMod, construction worker trips were assumed to include 50 percent light duty gasoline auto and 50 percent light duty gasoline trucks. Construction vendor and delivery/haul trucks were assumed to be heavy-duty diesel trucks. Refer to Appendix B, of this Recirculated Energy Analysis, for detailed calculations.

(2) Operation

Annual consumption of electricity (including electricity usage associated with the supply and conveyance of water) and natural gas was calculated using demand factors provided in CalEEMod. Energy impacts associated with transportation during operation were also assessed. Daily trip generation used in this analysis was based on the Transportation Study (dated June 2014), prepared by Gibson Transportation Consulting, Inc. (see Appendix B-2, of this Recirculated Energy Analysis). As discussed therein, the trip generation for the Project was determined based on the Institute of Transportation Engineers trip generation factors for the applicable land uses. The daily Project-related trips were then input into CalEEMod, which calculated the annual VMT. Based on this annual VMT, gasoline and diesel consumption rates were calculated using the county-specific miles per gallon calculated using EMFAC. The vehicle fleet mix for vehicles anticipated to visit the Project Site was calculated consistent with the CalEEMod default for Los Angeles County. Supporting calculations are provided in Appendix B, of this Recirculated Energy Analysis.

The Project's estimated energy demands were analyzed relative to Los Angeles Department of Water and Power's (LADWP's) and Southern California Gas Company's (SoCalGas's) existing and planned energy supplies in 2017 (i.e., the Project buildout year) to determine if these two energy utility companies would be able to meet the Project's

energy demands.³ These calculations were used as factors to determine if the Project causes the wasteful, inefficient and/or unnecessary consumption of energy as required by Appendix F of the CEQA Guidelines.

c. Analysis of Project Impacts

(1) Project Design Features

The Project will include project design features designed to improve energy efficiency as set forth in Section IV.C, Greenhouse Gas Emissions, and Section IV.K.1, Utilities and Service Systems—Water, of the Draft EIR and Section II. Corrections and Additions to the Draft EIR of the Final EIR. These measures are provided below.

Project Design Feature C-1: The design of the new buildings shall incorporate features to be capable of achieving at least Silver certification under the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED)-CS[®] or LEED-NC[®] Rating System as of January 1, 2011. Such LEED[®] features shall include energy-efficient buildings, a pedestrian- and bicycle-friendly site design, and water conservation measures, among others.

Project Design Feature C-2: The Project would will include up to four common area gas fire pits and would not include hearths (woodstove and wood or gas fireplaces) installed in the residences.

Project Design Feature C-3: The Project would encourage carpooling and the use of electric vehicles by providing that at least 20 percent of the total code-required residential parking spaces provided shall be capable of supporting future electric vehicle supply equipment (EVSE). Plans shall indicate the proposed type and location(s) of EVSE and also include raceway method(s), wiring schematics and electrical calculations to verify that the electrical system has sufficient capacity to simultaneously charge all electric vehicles at all designated EV charging locations at their full rated amperage. Plan design shall be based upon Level 2 or greater EVSE at its maximum operating capacity. Only raceways and related components are required to be installed at the time of construction. When the application of the 20 percent results in a fractional space, round up to the next whole number. A label stating "EV CAPABLE" shall be posted in a

³ For informational purposes only, Appendix M of the Draft EIR also performed a supplemental analysis that took into account a horizon year of 2020. This analysis evaluated environmental topics that may be affected by a change in build out year. The analysis demonstrates that the conclusions regarding the potential environmental impacts of the Project would not change compared to levels analyzed in the Draft EIR if the Project buildout year were to be extended to 2020.

conspicuous place at the service panel or subpanel and next to the raceway termination point.

Project Design Feature C-4: At least 5 percent of the total code-required residential parking spaces shall be equipped with EV charging stations. Plans shall indicate the proposed type and location(s) of charging stations. Plan design shall be based on Level 2 or greater EVSE at its maximum operating capacity. When the application of the 5-percent requirement results in a fractional space, round up to the next whole number.

Project Design Feature K.1-1: The Project design shall incorporate the following design features to support water conservation:

- Use of drought-tolerant plants and indigenous species, storm water collection through a first flush filtration system of rain gardens where possible, permeable pavement wherever possible, and storm water filtration planters to collect roof water.
- Use of high-efficiency toilets (maximum 1.28 gallons per flush), including dual-flush water closets, and no-flush or waterless urinals in all non-residential restrooms as appropriate.
- Use of non-residential restroom faucets with a maximum flow rate of 0.5 gallon per minute and non-residential kitchen faucets (except restaurant kitchens) with a maximum flow rate of 1.5 gallons per minute. Use of restaurant kitchen faucets with pre-rinse self-closing spray heads with a maximum flow rate of 1.6 gallons per minute.
- Use of non-residential restroom faucets of a self-closing design (i.e., that would automatically turn off when not in use).
- Use of residential bathroom and kitchen faucets with a maximum flow rate of 1.5 gallons per minute. No more than one showerhead per shower stall, with a flow rate no greater than 2 gallons per minute.
- Use of high-efficiency clothes washers either within individual units (with water factor of 6.0 or less) and/or in common laundry rooms (commercial washers with water factor of 7.5 or less).
- Incorporation of a leak detection system for any swimming pool, Jacuzzi, or other comparable spa equipment introduced on-site.
- Use of high-efficiency Energy Star-rated dishwashers where appropriate.
- Use of weather-based irrigation controller with rain shutoff, matched precipitation(flow) rates for sprinkler heads, and rotating sprinkler nozzles or comparable technology such as drip/microspray/subsurface irrigation where appropriate.

- Installation of a separate water meter (or submeter), flow sensor, and master valve shutoff for irrigated landscape areas totaling 5,000 square feet and greater.
- Use of proper hydro-zoning and turf minimization, as feasible.

(2) Project Impacts

(a) Energy Demand Impacts

Significance Threshold No. 1: Would the Project result in an increase in demand for electricity or natural gas or other sources of energy that exceeds available supply or distribution infrastructure capabilities that could result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

The Project would consume energy during construction and operational activities. Sources of energy for these activities would include electricity usage, natural gas consumption, and transportation fuels (diesel and gasoline). The analysis below includes the Project's energy requirements and energy use efficiencies by fuel type for each stage of the Project (construction and operations).

(i) Construction

During Project construction, energy would be consumed in the form of electricity associated with the conveyance of water used for dust control and, on a limited basis, powering lights, electronic equipment, or other construction activities necessitating electrical power. As discussed below, construction activities, including the construction of new buildings and facilities, typically do not involve the consumption of natural gas. Project construction would also consume energy in the form of petroleum-based fuels associated with the use of off-road construction vehicles and equipment on the Project Site, construction worker travel to and from the Project Site, and delivery and haul truck trips (e.g., hauling of demolition material to off-site reuse and disposal facilities).

As shown in Table 1 on page 10, a total of 6,013 kWh of electricity, 69,074 gallons of gasoline, and 121,885 gallons of diesel is estimated to be consumed during Project construction.

Electricity

Electricity would be supplied to the Project Site by LADWP and would be obtained from the existing electrical lines that connect to the Project Site. Construction activities at the Project Site would require minor quantities of electricity for lighting, power tools and

Table 1
Summary of Energy Use During Project Construction^a

Fuel Type	Quantity
Electricity	
Water Consumption	6,013 kWh
Lighting, electronic equipment, and other construction activities necessitating electrical power	N/A ^b
Total Electricity	6,013 kWh
Natural Gas	0 cf^c
Transportation	
Gasoline	
On-Road Construction Equipment	69,074 gallons
Off-Road Construction Equipment	0 gallons
Total Gasoline	69,074 gallons
Diesel	
On-Road Construction Equipment	38,797 gallons
Off-Road Construction Equipment	83,087 gallons
Total Diesel	121,885 gallons
Total Transportation	190,959 gallons
<hr/> <i>cf = cubic feet</i> <i>kWh = kilowatt hours</i> ^a Detailed calculations are provided in Appendix B-1, of this Recirculated Energy Analysis. Totals may not add up due to rounding. ^b Electricity usage associated with this line item is not easily quantifiable. Such electricity demand would be temporary, limited, and would cease upon the completion of construction. In addition, electricity usage during Project construction would be lower than the existing uses (supermarket) being removed. ^c Natural gas is not typically used for construction activities. Prepared by: Eyestone Environmental, 2018.	

other support equipment. During Project construction activities, electricity usage represents 0.06 percent of the estimated net annual Project operational demand.⁴ As discussed further below, Project operational electricity demand would represent approximately 0.04 percent of the LADWP estimated peak load and LADWP's existing electrical infrastructure currently has enough capacity to provide service for operation of the Project. As such, the demand for electricity during construction activities would also be met

⁴ The percentage is derived by taking the total amount of electricity usage during construction (6,013 kWh) and dividing that number by the total amount of net electricity usage during operation (9,904,426 kWh) to arrive at 0.06 percent.

by LADWP's existing electrical infrastructure. As existing power lines are located in the vicinity of the Project site, temporary power poles may be installed to provide electricity during Project construction. Existing off-site infrastructure would not have to be expanded or newly developed to provide electrical service to the project during construction or demolition. Therefore, construction of the Project would not result in an increase in demand for electricity that would result in the need for the construction of new energy facilities or expansion of existing LADWP facilities, the construction of which could cause significant environmental effects.

With regard to existing electrical distribution lines, the Applicant would be required to coordinate electrical infrastructure removals or relocations with LADWP and comply with site-specific requirements set forth by LADWP, which would ensure that service disruptions and potential impacts associated with grading, construction, and development within LADWP easements are minimized.

Natural Gas

Construction activities, including the construction of new buildings and facilities, typically do not involve the consumption of natural gas. Accordingly, natural gas would not be supplied to support Project construction activities; thus, there would be no demand generated by Project construction. Therefore, construction of the Project would not result in an increase in demand for natural gas that would exceed available supply or distribution infrastructure capabilities that could result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Since the Project Site is located in an area already served by existing natural gas infrastructure, the Project would not require extensive off-site infrastructure improvements to serve the Project Site. However, the Project would involve installation of new natural gas connections to serve the Project Site. Construction impacts associated with the installation of natural gas connections are expected to be confined to trenching in order to place the lines below surface. In addition, prior to ground disturbance, Project contractors would notify and coordinate with SoCalGas to identify the locations and depth of all existing gas lines and avoid disruption of gas service to other properties.

Transportation Energy

The petroleum-based fuel use (i.e., gasoline and diesel) summary provided above in Table 1 on page 10 represents the amount of transportation energy that could potentially be consumed during Project construction based on a conservative set of assumptions, provided in Appendix B, of this Recirculated Energy Analysis. As shown, on- and off-road vehicles would consume an estimated 69,074 gallons of gasoline and approximately 121,885 gallons of diesel fuel throughout the Project's construction. For comparison

purposes, the gasoline usage during Project construction (69,074 gallons) would represent approximately 0.001 percent of the 2017 annual on-road gasoline-related energy consumption (7,130,604,769 gallons), and diesel usage during Project construction (121,885 gallons) would represent approximately 0.01 percent of the 2017 annual diesel fuel-related energy consumption in Los Angeles County (1,199,432,093 gallons), as shown in Appendix B, of this Recirculated Energy Analysis.⁵ Therefore, construction of the Project would not result in an increase in demand for fuel that would exceed available supply or distribution infrastructure capabilities that could result in the construction of new fuel facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

(ii) Operation

During operation of the Project, energy would be consumed for multiple purposes, including, but not limited to, heating/ventilating/air conditioning (HVAC); refrigeration; lighting; and the use of electronics, equipment, and machinery. Energy would also be consumed during Project operations related to water usage, and vehicle trips.

Electricity

Electricity would be supplied to the Project Site by LADWP and would be obtained from the existing electrical lines that connect to the Project Site. As shown in Table 2 on page 13, using demand factors provided in CalEEMod and accounting for the existing supermarket at the Project Site to be removed, the Project's net increase in operational electricity usage would result in a net reduction of 81,020 kWh per year. In addition, during peak conditions, buildout electricity demand of 2,275 kW (per day) would represent approximately 0.04 percent of the LADWP estimated peak load of 6,432 MWh (See Appendix B, of this Recirculated Energy Analysis).⁶ Therefore, during Project operations, LADWP's existing and planned electricity capacity and electricity supplies would be sufficient to support the Project's electricity demand. As such, operation of the Project would not result in an increase in demand for electricity that exceeds available supply or distribution infrastructure capabilities that could result in the construction of new facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

⁵ *Los Angeles County fuel usage for 2017 was calculated using California Air Resources Board's EMFAC emissions model for on-road vehicles.*

⁶ *California Public Utilities Commission, 2017 Report: System Efficiency of California's Electric Grid, Figure 6, p. 11.*

Table 2
Summary of Annual Net New Energy Use During Project Operation^a

Column A	Column B	Column C	Column D
	Estimated Energy Demand		
Source	Baseline/Existing Improvements (Office Building, Supermarket & Enclosed Parking)^c	Project Buildout (New Residential Uses & Amenities, Office Building to Remain and Reconfigured Enclosed Parking)^{c, d}	Net Change (Buildout less Baseline) (Column C – Column B)
Electricity			
Building	10,430,470 kWh	10,104,476 kWh	(325,994) kWh
Water ^b	256,625 kWh	501,599 kWh	244,974 kWh
Total Electricity	10,687,095 kWh	10,606,075 kWh	(81,020) kWh
Natural Gas			
Building	4,640,201 cf	6,984,640 cf	2,344,439 cf
Total Natural Gas	4,640,201 cf	6,984,640 cf	2,344,439 cf
Transportation			
Gasoline	743,945 gallons	776,766 gallons	32,821 gallons
Diesel	125,138 gallons	130,659 gallons	5,521 gallons
Total Transportation	869,083 gallons	907,425 gallons	38,342 gallons
<p><i>cf = cubic feet</i> <i>kWh = kilowatt hours</i></p> <p>^a Detailed calculations are provided in Appendix B, of this Recirculated Energy Analysis. Totals may not add up due to rounding.</p> <p>^b Water usage is based on data provided in Table IV.K.1-5 of the Draft EIR and accounts for the increase of 351 gpd for the increase of open space provided in Errata 1 to the Landmark Apartments FEIR. The estimate of water usage for Project buildout conservatively does not account for water conservation features. The City of Los Angeles Green Building Code (Chapter IX, Article 9, of the LAMC) requires newly constructed non-residential and high-rise residential buildings to reduce indoor water use by at least 20 percent by: (1) using water saving fixtures or flow restrictions; and/or (2) demonstrating a 20-percent reduction in baseline water use.</p> <p>^c The Enclosed Parking under existing conditions is the existing, four level subterranean parking garage that serves the Project Site. Under the Project, this parking area would be retained but would be reconfigured to provide for the footings and other design elements associated with the new residential building above.</p> <p>^d Residential amenities include a lounge, fitness center, recreation room, bicycle storage, and approximately one acre of publicly accessible open space.</p> <p>Table prepared by: Eyestone Environmental, 2018.</p>			

Natural Gas

As shown in Table 2, when accounting for the existing supermarket to be removed, the Project's net increase in natural gas demand would be 2,344,439 cf per year, or

approximately 6,423 cf per day. SoCalGas indicated that the natural gas infrastructure that services the Project Site has adequate capacity to serve the Project.⁷ Based on the 2016 California Gas Report, the California Energy and Electric Utilities estimates natural gas consumption within SoCalGas' planning area will be approximately 2.65 billion cf/day in 2017.⁸ The demand associated with the Project represents approximately 0.0002 percent of the 2017 forecasted consumption in the SoCalGas planning area. Therefore, SoCalGas's existing and planned natural gas supplies infrastructure would be sufficient to support the Project's net increase in demand for natural gas. As such, operation of the Project would not result in an increase in demand for natural gas that exceeds available supply or distribution infrastructure capabilities that could result in the construction of new facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Transportation Energy

The petroleum-based fuel use summary provided in Table 2 on page 13 represents the amount of transportation energy that could potentially be consumed during Project operation based on a conservative set of assumptions, provided in Appendix B of the Draft EIR. As shown in Table 2, on- and off-road vehicles would consume an estimated 32,821 net new gallons of gasoline and approximately 5,521 net new gallons of diesel fuel per year during Project operation as compared to existing conditions. For comparison purposes, the fuel usage during Project operation would represent approximately 0.0005 percent of the 2017 annual on-road gasoline-related and diesel fuel-related energy consumption in Los Angeles County, as shown in Appendix B, of this Recirculated Energy Analysis. Therefore, operation of the Project would not result in an increase in demand for fuel that would result in the construction of new fuel facilities or expansion of existing facilities, the construction of which could cause significant environmental effects

(iii) Conclusion Regarding Significance Threshold No. 1

As demonstrated in the analysis above, construction and operation of the Project would not result in an increase in demand for electricity, natural gas, or transportation energy that exceeds available supply or distribution infrastructure capabilities that could result in the demand for the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. Therefore, Project impacts related to energy infrastructure and facilities would be less than significant.

⁷ *Written correspondence from Zakee Singleton, Pipeline Planning Assistant, Southern California Gas Company, January 7, 2014. See Appendix C of the Initial Study (Draft EIR, Appendix A).*

⁸ *California Gas and Electric Utilities, 2016 California Gas Report p. 96.*

(b) *Energy Efficiency*

Significance Threshold No. 2: Would the Project cause wasteful, inefficient, and unnecessary use of energy?

(i) *Construction*

As discussed above and shown in Table 1 on page 10, a total of 6,013 kWh of electricity, 69,074 gallons of gasoline, and 121,885 gallons of diesel is estimated to be consumed during Project construction.

Electricity

During construction of the Project, electricity would be consumed to supply and convey water for dust control and, on a limited basis, may be used to power lighting, electric equipment, and other construction activities necessitating electrical power. As discussed above, electricity would be supplied to the Project Site by LADWP and would be obtained from the existing electrical lines that connect to the Project Site. This would be consistent with suggested measures in the *L.A. CEQA Thresholds Guide* to use electricity from power poles rather than temporary gasoline or diesel powered generators.

As shown in Table 1, a total of approximately 6,013 kWh of electricity is anticipated to be consumed during Project construction. The electricity demand at any given time would vary throughout the construction period based on the construction activities being performed, and would cease upon completion of construction. When not in use, electric equipment would be powered off so as to avoid unnecessary energy consumption. The City of Los Angeles Green Building Code also includes requirements regarding construction waste disposal and recycling.

Construction electricity usage would be a fraction of the existing electricity usage at the Project Site for removed existing uses (1,680,390 kWh/yr for the supermarket). See Appendix B, of this Recirculated Energy Analysis. In addition, although Title 24 requirements typically apply to energy usage for buildings, long-term construction lighting (greater than 120 days) providing illumination for the Project Site and staging areas would also comply with applicable Title 24 requirements (includes limits on the wattage allowed per specific area), which would result in the conservation of energy. As such, the demand for electricity during construction would not cause wasteful, inefficient, and unnecessary use of energy.

Natural Gas

Construction activities, including the construction of new buildings and facilities, typically do not involve the consumption of natural gas. In addition, construction would

result in the reduction of natural gas usage due to removal of existing uses (922,963 cubic feet/year for the supermarket). See Appendix B, of this Recirculated Energy Analysis. Accordingly, natural gas would not be supplied to support Project construction activities; thus there would be no demand generated by construction. As such, construction would not cause wasteful, inefficient, and unnecessary use of natural gas.

Transportation Energy

The petroleum-based fuel use summary provided above in Table 1 on page 10 represents the amount of transportation energy that could potentially be consumed during Project construction based on a conservative set of assumptions, provided in Appendix B, of this Recirculated Energy Analysis. As shown, on- and off-road vehicles would consume an estimated 69,074 gallons of gasoline and approximately 121,885 gallons of diesel fuel throughout the Project's construction. For comparison purposes, the gasoline usage during Project construction (69,074 gallons) would represent approximately 0.001 percent of the 2017 annual on-road gasoline-related energy consumption (7,130,604,769 gallons) and diesel usage during Project construction (121,885 gallons) would represent approximately 0.01 percent of the 2017 annual diesel fuel-related energy consumption in Los Angeles County (1,199,432,093 gallons), as shown in Appendix B, of this Recirculated Energy Analysis.⁹

Trucks and equipment used during proposed construction activities would comply with CARB's anti-idling regulations as well as the In-Use Off-Road Diesel-Fueled Fleets regulation. In addition to reducing criteria pollutant emissions, compliance with the anti-idling and emissions regulations would also result in efficient use of construction-related energy and reduce fuel consumption. In addition, on-road vehicles (i.e., haul trucks, worker vehicles) would be subject to Federal fuel efficiency requirements. Therefore, Project construction activities would comply with existing energy standards with regard to transportation fuel consumption. As such, the demand for petroleum-based fuel during construction would not cause wasteful, inefficient, and unnecessary use of energy.

(ii) Operation

The Project would comply with applicable regulatory requirements for the design of new buildings, including the provisions set forth in the CALGreen Code and California's Building Energy Efficiency Standards, which have been incorporated into the City of Los Angeles Green Building Code. "Green" principles are incorporated throughout the Project to comply with the City of Los Angeles Green Building Code (as amended pursuant to Ordinance No. 182,849). In so doing, the design of the new buildings would incorporate

⁹ Los Angeles County fuel usage for 2017 was calculated using California Air Resources Board's EMFAC emissions model for on-road vehicles.

features to be capable of achieving at least Silver certification under the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED)-CS[®] or LEED-NC[®] Rating System as of January 1, 2011. Such LEED[®] features would include energy-efficient buildings, a pedestrian- and bicycle-friendly site design, and water conservation measures among others.

The analysis below evaluates the energy use efficiencies by fuel type for the Project. Since the existing 364,791-square-foot office building and subterranean parking structure would remain under the Project, this analysis focuses on the proposed uses (i.e., the residential building and privately maintained, publicly accessible open space) to determine the efficacy of project design features and project characteristics. The results of the analysis are presented in Table 3 on page 18.

Electricity

Electricity usage would be reduced through the implementation of a variety of energy conservation measures. The Project would comply with applicable provisions of the 2013 CALGreen Code, in accordance with the City of Los Angeles Green Building Code (Chapter IX, Article 9, of the Los Angeles Municipal Code, as amended pursuant to City of Los Angeles Ordinance No. 182,849). The City of Los Angeles Green Building Code includes a variety of measures for energy reduction, renewable energy, water usage, and waste disposal and recycling. The Project Applicant would also implement Project Design Feature C-1, which would require the Project to incorporate features capable of achieving LEED Silver Certification, which would include use of Energy Star-labeled products and appliances where appropriate, use of light emitting diode (LED) lighting or other energy-efficient lighting technologies where appropriate, incorporation of passive energy efficiency strategies (e.g., roof overhangs, porches, and inner courtyards), and implementation of water conservation features, among others. As shown in Table 3, project design features would result in an approximate four percent reduction in electricity usage associated with new land uses.

Also note that LADWP is required to procure at least 33 percent of their energy portfolio from renewable sources by 2020. The current sources procured by LADWP include wind, solar, and geothermal sources. These sources account for 29 percent of LADWP's overall energy mix in 2016, the most recent year for which data are available.¹⁰ This represents the available off-site renewable sources of energy that would meet the Project's energy demand. Furthermore, the Project would comply with Section 110.10 of Title 24, which includes mandatory requirements for solar-ready buildings, and would

¹⁰ *California Energy Commission, Utility Annual Power Content Labels for 2016, www.energy.ca.gov/pcl/labels/2016_index.html.*

Table 3
Summary of Energy Efficiency for the Project (New Uses Only) Operation^a

Column A	Column B	Column C	Column D	Column E
	Estimated Energy Demand^b			
Source	New Residential Uses and Amenities Without Project Design Features	New Residential Uses and Amenities With Project Design Features	Reduction (Column C – Column B)	Percent Reduction (Column D ÷ Column B)
Electricity^c				
Building	1,413,850 kWh/yr	1,354,396 kWh/yr	(59,454 kWh/yr)	(4%)
Water ^d	257,208 kWh/yr	205,766 kWh/yr	(51,442 kWh/yr)	(20%)
Total Electricity	1,671,058 kWh/yr	1,560,162 kWh/yr	(110,895 kWh/yr)	(7%)
Natural Gas				
Building	3,561,727 cf/yr	3,267,402 cf/yr	(294,325 cf/yr)	(8%)
Total Natural Gas	3,561,727 cf/yr	3,267,402 cf/yr	(294,325 cf/yr)	(8%)
Transportation				
Gasoline	450,102 gal/yr	376,008 gal/yr	(74,094 gal/yr)	(16%)
Diesel	75,711 gal/yr	63,248 gal/yr	(12,463 gal/yr)	(16%)
Total Transportation	525,813 gal/yr	439,256 gal/yr	(86,557 gal/yr)	(16%)
<p>cf/yr = cubic feet per year gal/yr = gallons per year kWh/yr = kilowatt hours per year</p> <p>^a Detailed calculations are provided in Appendix B-3, of this Recirculated Energy Analysis. New uses include the proposed 376 dwelling units and 5,410 square feet of residential amenities.</p> <p>^b Electricity and natural gas estimates assume compliance with applicable CALGreen requirements and implementation of PDF C-1 (specific mandatory requirements of being capable of achieving LEED Silver Certified). Transportation fuel estimates include project characteristics consistent with CAPCOA guidance measures. In addition, PDF C-2 prohibits the use of natural gas-fueled fireplaces in the proposed residential units.</p> <p>^c PDF C-3 states that the Project would provide at least 20 percent EV ready charging stations and PDF C-4 states that the Project would provide 5 percent of the parking spaces with EV charging stations. Providing infrastructure for EV including the charging stations in itself does not result in additional electricity usage. These project design features were not included in the electricity calculation for the Project electricity usage.</p> <p>^d Water usage is based on data provided in Table IV.K.1-5 of the Draft EIR and accounts for the increase of 351 gpd for the increase of open space provided in Errata 1 to the Landmark Apartments FEIR. The estimate of water usage for New Construction with Project Design Features accounts for water conservation features. The City of Los Angeles Green Building Code (Chapter IX, Article 9, of the LAMC) requires newly constructed non-residential and high-rise residential buildings to reduce indoor water use by at least 20 percent by: (1) using water saving fixtures or flow restrictions; and/or (2) demonstrating a 20-percent reduction in baseline water use. Calculations assume compliance with PDF K.1-1 provided in Section IV.K.1, Utilities and Service System—Water, of the Draft EIR.</p> <p>Source: Eyestone Environmental, 2018.</p>				

specifically include 2,700 square feet of solar panels, or 25 percent of the roof area. As such, the Project would not preclude the potential use of alternate fuels.

Based on the above, the demand for electricity during operation would not cause wasteful, inefficient, and unnecessary use of energy.

Natural Gas

As discussed above, in addition to complying with applicable regulatory requirements regarding energy conservation (e.g., CALGreen), the Project would implement project design features to further reduce energy use. The Project Applicant would implement Project Design Feature C-1, which would require the Project to incorporate features capable of achieving for LEED Silver Certification. Furthermore, the Project Applicant would implement Project Design Feature C-2, which provides that the Project would prohibit the use of natural gas-fueled fireplaces in the proposed residential units. As shown in Table 3 on page 18, project design features would result in an approximate eight percent reduction in natural gas usage associated with new land uses. As such, the demand for natural gas during operation would not cause wasteful, inefficient, and unnecessary use of energy.

Transportation Energy

The Project's high density design and location to job centers and retail uses would allow for more residents to live closer to work and shopping areas, reducing the vehicle miles travelled. The design, which includes dedicated bicycle parking facilities, an expansive publically-accessible open space area, and an improved streetscape with pedestrian amenities, also encourages non-automotive forms of transportation such as walking or biking to destinations. In addition, the Project is in close proximity to public transit opportunities. Specifically, 13 bus lines serve the Project vicinity. The Project Site is also located along a designated Comprehensive Transit Enhanced Street in Mobility Plan 2035 (i.e., Wilshire Boulevard).¹¹ The trip-generation estimate accounts for a 15-percent reduction for close proximity of transit. In addition, over 4 percent of the total residential units would be set aside for very low-income residents (16 of the 376 units). CalEEMod applies a percent vehicle miles traveled (VMT) reduction equal to the percentage of units that are deed-restricted below market housing times 4 percent. As shown in Table 3, the Project would result in an approximate 16 percent reduction in transportation fuel consumption through the reduction of VMT.

¹¹ *The City of LA Mobility Plan 2035 includes a measure to implement the Transit Enhanced Network (TEN). Transit enhanced streets are intended to provide reliable and frequent transit service, reduce single-occupancy vehicle trips and receive a number of enhancements to improve performance and walking experience.*

In addition, vehicles travelling to and from the Project Site would comply with Corporate Average Fuel Economy (CAFE) fuel economy regulations that reduce GHG emissions from motor vehicles. Project-related vehicle trips would also comply with Pavley and Low Carbon Fuel Standards, which are designed to reduce vehicle GHG emissions but would also result in fuel savings in addition to CAFE standards.

Based on the above, the demand for transportation energy during operation would not cause wasteful, inefficient, and unnecessary use of energy.

(iii) Effects of the Project on Energy Resources

LADWP's electricity generation is derived from a mix of non-renewable and renewable sources such as coal, natural gas, solar, geothermal wind and hydropower. The LADWP's most recently adopted 2017 Power Strategic Long-Term Resources Plan identifies adequate resources (natural gas, coal) to support future generation capacity.

Natural gas supplied to the Southern California is mainly sourced from out of state with a small portion originating in California. Sources of natural gas for the Southern California region are obtained from locations throughout the western United States, as well as Canada.¹² According to the U.S. Energy Information Administration (EIA), the United States currently has over 80 years of natural gas reserves based on 2015 consumption.¹³ Compliance with energy standards is expected to result in more efficient use of natural gas (lower consumption) in future years. Therefore, Project construction and operation activities would have a negligible effect on natural gas supply.

Transportation fuels (gasoline and diesel) are produced from crude oil, which is imported from various regions around the world. Based on current proven reserves, crude oil production would be sufficient to meet over 50 years of consumption.¹⁴ The Project would also comply with CAFE fuel economy standards, which would result in more efficient use of transportation fuels (lower consumption). Therefore, Project construction and operation activities would have a negligible effect on the transportation fuel supply.

One of the objectives of SB 350 is to increase procurement of California's electricity from renewable sources from 33 percent to 50 percent by 2030. Accordingly, LADWP is required to procure at least 50 percent of their energy portfolio from renewable sources by

¹² *California Gas and Electric Utilities, 2016 California Gas Report.*

¹³ *U.S. Energy Information Administration, Frequently Asked Questions, www.eia.gov/tools/faqs/faq.php?id=58&t=8, accessed July 5, 2018.*

¹⁴ *BP Global, Oil Reserves, www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil/oil-reserves.html, accessed July 5, 2018.*

2030. The current sources of renewable energy procured by LADWP include wind, solar, and geothermal sources. These sources account for 29 percent of LADWP's overall energy mix in 2016, the most recent year for which data are available.¹⁵ This represents the available off-site renewable sources of energy that would meet the Project's energy demand.

With regard to on-site renewable energy sources, there are no substantial local sources of alternative energy in proximity to the Project Site to which the Project could connect. Additionally, locations for the placement of solar panels in arrays large enough to generate significant power do not exist on-site. The roof of the residential tower located on the northern portion of the Project Site contains the only viable location for solar panels. The northwestern portion of the Project Site is occupied by the existing office tower, which has a high parapet wall and mechanical equipment, leaving little space for solar panels. In addition, the majority of the surface level of the Project Site would be occupied by a more than 40,000 square foot privately maintained, publicly accessible open space area. It would not be feasible to accommodate solar panels within the open space area while also providing passive recreational facilities for the community in accordance with the Project objectives. The residential building's podium would house the proposed pool and outdoor activity area, making solar placement impractical in that location. The residential tower roof would be occupied by mechanical equipment, elevator and stair penthouses, and a fire helipad, which would restrict exposed area suitable for placement of solar areas to approximately 2,700 square feet or less. It is estimated that a 2,700-square-foot solar area would be capable of generating no more than approximately one to two percent of the residential building's energy needs. Therefore, such an area would not generate enough energy to offset meaningfully the energy use on the Project Site.

Due to the Project Site's location, other on-site renewable energy sources would not be feasible to install on-site as there are no local sources of energy from the following sources: biodiesel, biomass hydroelectric and small hydroelectric, digester gas, methane, fuel cells, landfill gas, municipal solid waste, ocean thermal, ocean wave, and tidal current technologies, or multi-fuel facilities using renewable fuels. Furthermore, wind-powered energy is not viable on the Project Site due to the lack of sufficient wind in the Los Angeles basin. Specifically, based on a map of California's wind resource potential, the Project Site is not identified as an area with wind resource potential.¹⁶

¹⁵ *California Energy Commission, Utility Annual Power Content Labels for 2016, www.energy.ca.gov/pcl/labels/2016_index.html.*

¹⁶ *CEC, Wind Resource Area & Wind Resources, www.energy.ca.gov/maps/renewable/wind.html, updated April 3, 2018.*

(iv) Conclusion

As demonstrated in the analysis above, the Project would not cause wasteful, inefficient, and unnecessary consumption of energy during construction or operation. The Project's energy usage during peak and base periods would also be consistent with electricity and natural gas future projections for the region. As shown in Table 3 on page 18, the project design features would reduce electricity demand by 7 percent, natural gas demand by 8 percent and transportation energy demand by 16 percent. Therefore, the demand for energy during operation would not cause wasteful, inefficient, and unnecessary use of energy.

Appendices

Appendix A

Court Ruling

SUPERIOR COURT OF CALIFORNIA, COUNTY OF LOS ANGELES

DATE: 06/28/18

DEPT. G

HONORABLE Torribio, John A.

JUDGE

A. PEREZ

DEPUTY CLERK

HONORABLE

JUDGE PRO TEM

ELECTRONIC RECORDING MONITOR

T. KEARNS

Deputy Sheriff

NONE

Reporter

9:00 am

BS168429

Plaintiff NO APPEARANCE
Counsel

GOLDEN STATE ENVIRONMENTAL
JUSTICE ALLIANCE ETC.

Defendant NO APPEARANCE
Counsel

VS.
CITY OF LOS ANGELES, ET AL

CEQA

NATURE OF PROCEEDINGS:

RULING ON SUBMITTED MATTER;

THE COURT HAVING PREVIOUSLY TAKEN THE MATTER UNDER
SUBMISSION ON 4/17/18 NOW RULES AS FOLLOWS:

PETITIONER GOLDEN STATE ENVIRONMENTAL JUSTICE
ALLIANCE'S PETITION FOR WRIT OF MANDATE IS GRANTED
IN PART AND DENIED IN PART, AS MORE FULLY REFLECTED
IN THE ORDER FILED THIS DATE.

PURSUANT TO CENTER FOR BIOLOGICAL DIVERSITY V.
CALIFORNIA DEPT. OF FISH AND GAME (2017) 17 CAL. APP.
5TH 1245 AND PUB. RES. CODE 21168.9(A), THIS COURT
ORDERS PARTIAL DECERTIFICATION OF THE EIR ASSOCIATED
WITH THE ENERGY IMPACT ANALYSIS ONLY.

THE COURT FINDS THAT THE VOIDED PORTION IS SEVERABLE,
AND THE REMAINING ANALYSES REGARDING THE GHG IMPACTS,
HEALTH RISK ASSESSMENTS, AND SHADING IMPACTS ARE IN
FULL COMPLIANCE WITH CEQA.

A COPY OF THIS MINUTE ORDER AND THE ORDER IS SENT VIA
U.S. MAIL AS FOLLOWS:

HANNAH BENTLEY, ESQ.
BLUM COLLINS, LLP
707 WILSHIRE BOULEVARD, SUITE 4880
LOS ANGELES, CA 90017

SUPERIOR COURT OF CALIFORNIA, COUNTY OF LOS ANGELES

DATE: 06/28/18

DEPT. G

HONORABLE Torribio, John A.

JUDGE A. PEREZ

DEPUTY CLERK

HONORABLE

JUDGE PRO TEM

ELECTRONIC RECORDING MONITOR

T. KEARNS

Deputy Sheriff

NONE

Reporter

9:00 am

BS168429

Plaintiff NO APPEARANCE
Counsel

GOLDEN STATE ENVIRONMENTAL
JUSTICE ALLIANCE ETC.

Defendant NO APPEARANCE
Counsel

VS.
CITY OF LOS ANGELES, ET AL

CEQA

NATURE OF PROCEEDINGS:

ANNA C. SHIMKO, ESQ.
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SAN FRANCISCO, CA 94105

DALE J. GOLDSMITH, ESQ. ✓
ARMBRUSTER GOLDSMITH & DELVAC, LLP
12100 WILSHIRE BOULEVARD, SUITE 1600
LOS ANGELES, CA 90025

<p align="center">MINUTES ENTERED 06/28/18 COUNTY CLERK</p>

1
2 SUPERIOR COURT FOR THE STATE OF CALIFORNIA
3 FOR THE COUNTY OF LOS ANGELES

4 SOUTHEAST DISTRICT/NORWALK COURT

FILED
Superior Court of California
County of Los Angeles

JUN 28 2018

Sherri R. Carter, Executive Officer/Clerk
By ANA PEREZ Deputy

7 GOLDEN STATE ENVIROMENTAL JUSTICE) Case No.: BS168429
8 ALLIANCE) ORDER/RULING
9 Plaintiff,)
10 vs.)
11 CITY OF LOS ANGELES)
12 Defendant)

13
14 **Petitioner Golden State Environmental Justice Alliance's petition for writ of mandate is**
15 **GRANTED in part and DENIED in part, as more fully reflected below.**

16 Petitioner Golden State Environmental Justice Alliance seeks a peremptory writ of mandate,
17 setting aside City of Los Angeles's approval of the EIR.

18 JUDICIAL NOTICE is taken of Petitioner and Respondent's Exhibits.

19 PROJECT DESCRIPTION:

20 The Landmark Apartment Project is a 34-story residential building with 376 units, located along
21 Wilshire Boulevard, bounded by Wilshire to the north, Texas Avenue to the south, Stoner
22 Avenue to the east, and Granville Avenue to the west, in West Los Angeles. (18 AR 946.)

23 STANDARD:

24 Where a writ is issued for the purpose of inquiring into the validity of any final administrative
25 order or decision made as the result of a proceeding in which by law a hearing is required to be
26 given, evidence is required to be taken, and discretion in the determination of facts is vested in
27 the inferior tribunal, corporation, board, or officer, the case shall be heard by the court sitting
28 without a jury. (CCP 1094.5.)

With narrow exceptions, CEQA requires an EIR whenever a public agency proposes to approve
or to carry out a project that may have a significant effect on the environment. (Pub. Res. Code
21100.)

1
2 Pub. Res. Code 21168.5 provides that a court's inquiry in an action to set aside an agency's
3 Abuse of discretion is established if the agency has not proceeded in a manner required by law or
4 if the determination or decision is not supported by substantial evidence. As a result of this
5 standard, the court does not pass upon the correctness of the EIR's environmental conclusions,
6 but only upon its sufficiency as an informative document. (Laurel Heights Improvement Assn.
7 v. Regents of University of California (1988) 47 Cal. 3d 376, 392.)

8 ALLEGED CEQA VIOLATIONS:

9
10 Petitioner contends City violated CEQA by failing to adequately assess: 1) energy impacts; 2)
11 GHG impacts; 3) health risk assessments; and 4) shading impacts.

12 Energy Impacts

13
14 The data in an environmental impact report (EIR) must not only be sufficient in quantity, it must
15 be presented in a manner calculated to adequately inform the public and decision makers, who
16 may not be previously familiar with the details of the project. Information scattered here and
17 there in EIR appendices, or a report buried in an appendix, is not a substitute for a good faith
18 reasoned analysis. (Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho
19 Cordova (2007) 40 Cal. 4th 412, 442.)

20
21 “Potentially significant energy implications of a project shall be considered in an EIR to the
22 extent relevant and applicable to the project.” (California Clean Energy Committee v. City of
23 Woodland (2014) 225 Cal.App.4th 173, 209.)

24
25 The DEIR asserts, “As shown in Table VII-2, due to the removal of the existing on-site
26 supermarket, the Project is expected to result in a net reduction in energy use of approximately
27 4,586,301 kWh of electricity per year, 49,839 cubic feet of natural gas per month, 18,153 gallons
28 of diesel fuel per year, and 107,921 gallons of gasoline per year. As such, the Project would
have a beneficial impact with regard to energy consumption.” (40 AR 1761-62.)

29
30 City and Real Party admit that Table VII-2 mistakenly subtracted the energy usage of the
31 “existing office building” (which was to remain operational on the site), instead of the energy
32 usage data of the “supermarket.” (Opposition, 12:19; Motion, 5:11-14; Compare DEIR, Table
33 VII-2, 40 AR 1762 with Appendix L, Energy Use Worksheets, 56 AR 3082.)

34
35 Evidence which is clearly erroneous or inaccurate does not constitute substantial evidence. (Pub.
36 Res. Code 20180(e)(2); CEQA Guidelines 15384(a).)

37
38 In opposition, City contends that Petitioner failed to exhaust its administrative remedies, and that
39 there is no evidence that this error was prejudicial. With respect to the exhaustion, City contends
40 that Petitioner did not raise the “calculation error” in the underlying proceedings. However,
41 while some courts have interpreted the exhaustion requirement to mean that the “exact issue”
42 raised in the litigation must have been presented to the agency, other courts have found the

1 specific-objection requirement satisfied if the issue was raised in some form. (See Santa Clarita
2 Org. for Planning the Env't v. City of Santa Clarita (2011) 197 Cal.App.4th 1042; Save Our
3 Residential Environment v. City of West Hollywood (1992) 9 Cal. App. 4th 1745, 1750 – “the
4 substance of the issue” was raised which “fairly apprised” the city and developer.)

5 Here, in its comments to the Planning Commission, Petitioner objected that the “DEIR did not
6 contain an adequate analysis of the Project’s energy impacts” and “does not comply with
7 Vineyard Area Citizens v. City of Rancho Cordova (2007) 40 Cal.4th 412, 442.” (301 AR 8278.)
8 The court finds that the “substance of the issue” was raised which “fairly apprised” City of
9 Petitioner’s objections regarding the DEIR’s inadequate energy impact analysis.

10 With respect to prejudice, an error is prejudicial if the failure to include relevant information
11 precludes informed decisionmaking and informed public participation, thereby thwarting the
12 statutory goals of the environmental impact report process.” (San Joaquin Raptor/Wildlife
13 Rescue Center v. County of Stanislaus (1994) 27 Cal.App.4th 713, 721–722.)

14 Here, the DEIR directed the public to Table VII-2, and concludes that “the Project is expected to
15 result in a net reduction in energy use of approximately 4,586,301 kWh of electricity per year,
16 49,839 cubic feet of natural gas per month, 18,153 gallons of diesel fuel per year, and 107,921
17 gallons of gasoline per year.” (40 AR 1761-62.) This net reduction in energy use corresponds to
18 the “Project Less Existing” column in Table VII-2. The “Existing” column in Table VII-2
19 contains the incorrect energy use data for the “General Office Building” and not the
20 “supermarket.” (Compare AR 1762, Table VII-2 with AR 3082.) When one deducts the
21 “Existing” numbers from the “Project” numbers (with and/or without regulatory compliance),
22 they do not correspond with the “Project Less Existing” column.

23 City and Real Parties contend that the mistake “did not affect the energy impact analysis or
24 energy use efficiency or energy use capacity determinations.” (Response Suppl. Brief, 6:22-24.)
25 However, it is unclear how the DEIR arrived at the “net reduction in energy use” contained in the
26 “Project Less Existing” column of Table VII-2. This court heard arguments at the hearing and
27 invited supplemental briefs to help this court understand how the net reductions were unaffected
28 by the mistake.

29 City and Real Parties’ supplemental brief states that the correct “supermarket” data is in DEIR
30 Appendix D, “as noted in the Joint Opposition Brief on page 12 and FN #6.” (Response Suppl.
31 Brief, Fn. 8.) This court then referred to the Joint Opposition at Fn. 6, which referred the court to
32 AR 2074. While AR 2074 does contain various “supermarket” numbers, it is unclear how these
33 numbers correspond to Table VII-2. This court attempted to plug in the “supermarket” numbers
34 in place of the erroneous “general office” numbers listed under the “Existing” column of Table
35 VII-2 in an attempt to replicate the numbers listed in the “Project Less Existing” column of Table
36 VII-2. However, this court was unable to do so using the “supermarket” numbers in AR 2074
37 because those numbers are not broken down into sub-categories such as “Mobile, Natural Gas,
38 and Electricity” that correlate with the sub-categories in Table VII-2.

1 Information scattered here and there in EIR appendices, or a report buried in an appendix, is not
2 a substitute for a good faith reasoned analysis. (Vineyard Area Citizens for Responsible Growth,
3 Inc. v. City of Rancho Cordova (2007) 40 Cal. 4th 412, 442.)

4 It is still unclear how the DEIR arrived at a “net reduction in energy” of “4,586,301 kWh of
5 electricity per year, 49,839 cubic feet of natural gas per month, 18,153 gallons of diesel fuel per
6 year, and 107,921 gallons of gasoline per year.” (40 AR 1761-62.)

7 City and Real Parties state that the “DEIR Section VI contains a full impact analysis,” citing AR
8 1743-1745. (Response Suppl. Brief, 11:11-17.) However, AR 1743 also utilized the wrong
9 erroneous figures for the “existing supermarket.” It again references “81,152... 482,448....
10 309,770... and 6,272,243,” which are numbers that correspond to the “general office,” not the
11 “supermarket.”

12 This court specifically inquired how City arrived at the net reduction percentages of 5-17% in
13 Table VII-2. (Tentative Ruling, Page 5.)

14 Even after oral arguments and supplemental briefs, it is unclear how the DEIR concluded that the
15 Project’s net reduction in energy are between 5% and 17%. If this court is unable to make this
16 determination (even after oral arguments, a direct invitation to identify evidence in the
17 administrative record, and supplemental briefs), how is the public expected to understand City’s
18 analysis using the erroneous information contained in Table VII-2 and DEIR Section VI?

19 Like in *McQueen v. Bd. of Directors*, there is lack of notice due to the incomplete and
20 misleading calculations. “It would require the public to ferret out the true nature of the public
21 agency's project and its possible environmental consequences. However, public reaction to a
22 proposed project is no substitute for adequate consideration of environmental concerns by the
23 lead public agency.” (*McQueen v. Bd. of Directors* (1988) 202 Cal.App.3d 1136, 1150.)

24 City then hypothesizes that the supermarket use could be extremely inefficient and the Project
25 could be very efficient, so even if the supermarket’s overall energy use was lower than the
26 Project, the comparison would not indicate that the Project’s use of energy would be inefficient
27 use. (Opposition, 13:10-12.) This theory does not constitute evidence, much less substantial
28 evidence because admittedly, Table VII-2 contained the wrong figures. Evidence which is
clearly erroneous or inaccurate does not constitute substantial evidence. (Pub. Res. Code
20180(e)(2); CEQA Guidelines 15384(a).)

This flaw permeates the DEIR’s conclusions regarding energy use (See AR 1761-1763, 1765).

Accordingly, the court finds that the error is prejudicial because “the failure to include relevant
information precludes informed decisionmaking and informed public participation.” (*San
Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 721–
722.) The court finds the error is not insubstantial or de minimis because the public is unable to
replicate the results using the “supermarket” numbers in AR 2074.

1 GHG Impacts

2 A lead agency enjoys substantial discretion in its choice of methodology. But when the agency
3 chooses to rely completely on a single quantitative method to justify a no-significance finding,
4 the California Environmental Quality Act, Pub. Resources Code, § 21000 et seq., demands the
5 agency research and document the quantitative parameters essential to that method. (Newhall
Ranch, *supra*, 62 Cal.4th at 228.)

6 The EIR analyzed the Project’s compliance with “Executive Orders S-3-05 and B-30-15, SB
7 375, SCAG’s Sustainable Communities Strategy; and the City of Los Angeles Green Building
Ordinance.” (AR 1179.)

8 Petitioner contends that these executive orders are not “regulatory programs,” however, Newhall
9 Ranch upheld use of AB 32 despite it not qualifying as a regulatory program. (Newhall Ranch,
10 *supra*, 62 Cal.4th at 223 – “That guideline, however, does not expressly or impliedly prohibit a
11 lead agency from using the Assembly Bill 32 goals themselves to determine whether the project’s
12 projected greenhouse gas emissions are significant.... DFW’s choice to use that criterion does
13 not violate CEQA.”) Further, Petitioner ignores City’s use of SCAG 2012 – 2025 Regional
Transportation Plan/Sustainable Communities Strategy, which qualifies as a regulatory program
because SCAG is the functional equivalent of a state agency.

14 Alternatively, Petitioner contends City’s “no action taken” scenario did not differ from that
15 rejected by the Supreme Court decision in Newhall (2015) 62 Cal.4th 204.

16 Here, Petitioner contends the City gave itself credit for banning hearths in the apartment units,
17 leading to a supposed 85.4% reduction in GHG emissions from “Area Sources.” (23 AR 1174,
18 23 AR 1175 (Table IV.C.6, first line). According to Petitioner, hearths would be prohibited
under the SCAQMD rules, and could not have been installed in an apartment building tower.
(301 AR 8276-8277.)

19 However, in opposition, City points out that wood burning hearths are banned by SCAQMD
20 Rule 445(d), but gas hearths are allowed. Therefore, banning hearths will lead to reduced GHG
21 emissions. The GHG reduction credit for banning gas hearths is 2.5 percent, not 85.4 percent as
22 suggested by Petitioner. (AR 10945.) The court finds substantial evidence supports City’s
conclusions.

23 Health Risk Assessments

24 Petitioner contends City failed to do a health risk assessment, citing AR 1120. Petitioner’s
25 expert found a cancer risk of 658.2 in a million for children 25 meters from the site, 982 in a
26 million for infants, and a total residential cancer risk of 1040 in a million. (301 AR 8340.)

27 The court finds that substantial evidence in the record exists to support City’s conclusion. City’s
28 environmental consultant, Eystone Environmental, prepared a Health Risk Assessment, and
concluded that the “Project would not emit carcinogenic or toxic air contaminants that result in

1 impacts which exceed the maximum individual cancer risk... Project-related toxic emission
2 impacts would be less than significant.” (AR 10979.)

3 Shading Impacts

4
5 Petitioner contends shade would obscure the balconies of the northernmost Barrington Plaza
6 residential building for more than 3 hours between 9 a.m. and 3 p.m. (21 AR 1059), which is a
7 significant impact under the Los Angeles City CEQA Thresholds Guide. (21 AR 1045.)

8 However, under SB 743 and the City’s CEQA Thresholds Guide, shade is an impact type within
9 the Aesthetics and Visual Resources category that are not to be considered a significant impact.
10 (L.A. CEQA Thresholds Guide Section A.3; RJN, Ex. B, ZIF 2452.) Accordingly, the court
11 finds that the City’s determination that shading impacts are not significant impacts is supported
12 by state and City law.

13 Improper Delegation

14 If a nonelected decisionmaking body of a local lead agency certifies an environmental impact
15 report, that certification may be appealed to the agency’s elected decisionmaking body. (Pub.
16 Res. Code 21151(c).) “For example, certification of an EIR for a tentative subdivision map by a
17 city’s planning commission may be appealed to the city council.” (CEQA Guidelines 15090(b);
18 see also Greenbaum v. City of Los Angeles (1984) 153 Cal.App.4th 357, 403.)

19 The court finds no error in City’s use of a Deputy Advisory Agency (“DAA”). The DAA is a
20 decision-making body authorized to approve a vesting tentative map, which is a discretionary
21 approval to which CEQA attaches. (AR 75; LAMC 17.03.) Pursuant to this authority, the DAA
22 certified the FEIR for the Project and applied the FEIR to its approval. (AR 75-76.) The City
23 Council was charged with independently reviewing, considering, and certifying the FEIR as part
24 of its approval of the Project, including the Ordinance for the vesting zone change. (AR 7, 214-
25 321.)

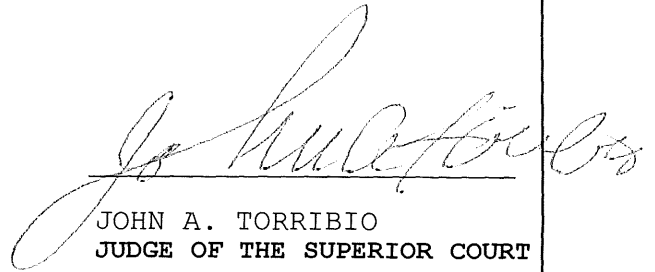
26 Accordingly, Petitioner’s petition for writ of mandate is GRANTED in part and DENIED in part.

27 Pursuant to Center for Biological Diversity v. California Dept. of Fish and Game (2017) 17
28 Cal.App.5th 1245 and Pub. Res. Code 21168.9(a), this court orders partial decertification of the
EIR associated with the energy impact analysis only.

The court finds that the voided portion is severable, and the remaining analyses regarding the
GHG impacts, health risk assessments, and shading impacts are in full compliance with CEQA.

1 IT IS SO ORDERED.

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3
4 Dated: JUN 28 2018


JOHN A. TORRIBIO
JUDGE OF THE SUPERIOR COURT

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Appendix B

Technical Appendix for Energy Calculations

Landmark Apartments

Technical Appendix for Energy Calculations

- Appendix B-1: Energy Demand Analysis
- Appendix B-2: Table 6 of the Transportation Study
- Appendix B-3: Energy Efficiency Analysis

Landmark Apartments

Technical Appendix for Energy Calculations

- Appendix B-1: Energy Demand Analysis
 - Summary of Construction and Operation Energy Demand
 - Construction
 - Calculation of Diesel Usage for Offroad Equipment
 - EMFAC Emission Inventory
 - Calculation of Gasoline and Diesel Usage Onroad Vehicles
 - Electricity Demand for Water Usage During Control of Fugitive Dust
 - CalEEMod Output File (Construction)
 - Operation
 - Summary of Existing Energy Demand
 - Summary of Buildout Energy Demand
 - Peak Electricity Demand
 - Calculation of Vehicular Trips and VMT Reduction Measures
 - EMFAC Emission Inventory
 - CalEEMod Output File (Existing)
 - CalEEMod Output File (Buildout)

Landmark - Energy Calculations

Summary of Energy Use During Construction ***

Electricity	
Water Consumption	6,013 kWh
Total:	6,013 kWh
Gasoline	
On Road	69,074 Gallons
Off Road	0
Total:	69,074 Gallons
Diesel	
On Road	38,797 Gallons
Off Road	83,087 Gallons
Total:	121,885 Gallons
Total Mobile	190,959 Gallons

Summary of Energy Use During Operations

	Baseline (Existing)	Buildout	Net (Buildout - Baseline)
Electricity			
Electricity (building)	10,430,470	10,104,476 kWh/year	(325,994)
Electricity (water)	256,625	501,599 kWh/year	244,974
Electricity Total	10,687,095	10,606,075 kWh/year	(81,020)
Natural Gas	4,640,201	6,984,640 cu ft/year	2,344,439
Mobile			
Gasoline	743,945	776,766 Gallons/year	32,821
Diesel	125,138	130,659 Gallons/year	5,521
Mobile Total	869,083	907,425 Gallons/year	38,342

Baseline (Existing) includes supermarket, office use, and parking structure.

Buildout includes office use, parking structure, new apartments, and retail.

Net (Buildout - Baseline) equals Buildout (office use, parking structure, new apartments, and retail) minus Baseline (supermarket, office use, and parking structure). The Net (Buildout - Baseline) is equivalent to proposed new apartments and retail minus existing supermarket, since office use and parking structure remain under the Project.

*** Note: Totals may not add up due to rounding.

Calculation of Diesel Usage During Construction (Offroad Equipment):									
Phase Name	Off Road Equipment Type	Units	Hours	HP	Load Factor	Avg. Daily Factor	Number of Days	Diesel Fuel Usage	
Demolition	Air Compressors	3	8	78	0.48	0.6	22	593	
Demolition	Concrete/Industrial Saws	3	8	81	0.73	0.6	22	937	
Demolition	Cranes	1	8	226	0.29	0.6	22	346	
Demolition	Excavators	2	8	162	0.38	0.6	22	650	
Demolition	Rubber Tired Dozers	0	8	255	0.4	0.6	22	0	
Demolition	Rubber Tired Loaders	2	8	199	0.36	0.6	22	757	
Demolition	Tractors/Loaders/Backhoes	0	8	97	0.37	0.6	22	0	
Demolition	Welders	1	8	46	0.45	0.6	22	109	
Grading	Bore/Drill Rigs	2	8	205	0.5	0.6	20	984	
Grading	Cranes	2	8	226	0.29	0.6	20	629	
Grading	Excavators	1	8	162	0.38	0.6	20	295	
Grading	Graders	0	8	174	0.41	0.6	20	0	
Grading	Plate Compactors	2	8	8	0.43	0.6	20	33	
Grading	Rubber Tired Dozers	0	8	255	0.4	0.6	20	0	
Grading	Tractors/Loaders/Backhoes	0	7	97	0.37	0.6	20	0	
Parking Structural Upg	Cement and Mortar Mixers	2	8	9	0.56	0.6	44	106	
Parking Structural Upg	Concrete/Industrial Saws	1	8	81	0.73	0.6	44	624	
Parking Structural Upg	Cranes	1	8	226	0.29	0.6	44	692	
Parking Structural Upg	Graders	0	8	174	0.41	0.6	44	0	
Parking Structural Upg	Plate Compactors	2	8	8	0.43	0.6	44	73	
Parking Structural Upg	Pumps	2	8	84	0.74	0.6	44	1313	
Parking Structural Upg	Scrapers	0	8	361	0.48	0.6	44	0	
Parking Structural Upg	Tractors/Loaders/Backhoes	0	7	97	0.37	0.6	44	0	
Parking Structural Upg	Welders	2	8	46	0.45	0.6	44	437	
Building Construction	Aerial Lifts	4	8	62	0.31	0.6	478	8820	
Building Construction	Air Compressors	3	8	78	0.48	0.6	478	12885	
Building Construction	Cement and Mortar Mixers	2	8	9	0.56	0.6	478	1156	
Building Construction	Cranes	2	8	226	0.29	0.6	478	15037	
Building Construction	Forklifts	4	7	89	0.2	0.6	478	7147	
Building Construction	Generator Sets	0	8	84	0.74	0.6	478	0	
Building Construction	Pumps	2	8	84	0.74	0.6	478	14262	
Building Construction	Tractors/Loaders/Backhoes	0	6	97	0.37	0.6	478	0	
Building Construction	Welders	3	8	46	0.45	0.6	478	7124	
Architectural Coating	Air Compressors	3	6	78	0.48	0.6	129	2608	
Paving	Cement and Mortar Mixers	2	8	9	0.56	0.6	88	213	
Paving	Pavers	1	8	125	0.42	0.6	88	1109	
Paving	Paving Equipment	1	8	130	0.36	0.6	88	988	
Paving	Rollers	1	8	80	0.38	0.6	88	642	
Paving	Skid Steer Loaders	2	8	64	0.37	0.6	88	1000	
Paving	Tractors/Loaders/Backhoes	2	8	97	0.37	0.6	88	1516	
Total Diesel Usage for Construction (Offr								83,087.4	gallons of diesel fuel

gallons of diesel fuel per horsepower-hour= 0.05

Notes: Equipment assumptions are provide in the CalEEMod output files and fuel usage estimate of 0.05 gallons of diesel fuel per horsepower-hour is from the SCAQMD CEQA Air Quality Handbook, Table A9-3E. Also, totals may not add up due to rounding.

EMFAC2011 Emissions Inventory

Region Type: Air Basin

Region: South Coast

Calendar Year: 2015

Season: Annual

Vehicle Classification: EMFAC2011 Categories

Region	Veh_Class	Fuel	Speed (miles/hr)	Population (vehicles)	VMT (miles/day)	Trips (trips/day)	Fuel_Gas (1000 gallons/day)	Fuel_DSL (1000 gallons/day)	Miles per Gallon
South Coast	LDA	GAS	Aggregate	5750933.4	195754897.6	36284485.8	8641.6	0	22.7
South Coast	LDT1	GAS	Aggregate	674908.8	22995203.8	4108313.3	1173.4	0	19.6
South Coast	LDT2	GAS	Aggregate	1889192.0	68545985.7	11901361.4	4106.7	0	16.7
						Construction Worker Trip (Composite LDA/LDT1/LDT2):			20.4
South Coast	T7	DSL	Aggregate	3605.7	274612.4	0.0	0.0	48.1	5.7

Notes: Consistent with CalEEMod, a construction worker trip is assumed to be a composite of 50% LDA , 25% for LDT1, and 25% for LDT2. Used EMFAC 2011 Categories for construction as EMFAC2011 has specific categories for vehicle class T7.

*** Note: Totals may not add up due to rounding.

Calculation of Gasoline and Diesel Usage During Construction (Onroad Vehicles):

Phase Name	Daily Woker Trips	Daily Vendor Trips	Days	Total Worker Trips	Total Vendor Trips	Total Haul Trips	Trip Length (miles)			Total Length (miles)			Avg. Daily Factor (worker and vendor)	Gallons of Fuel	
							Worker	Vendor	Haul	Worker	Vendor	Haul		Gasoline	Diesel
Demolition	50	0	22	1,100	0	1,540	14.7	6.9	20.0	16170	0	30800	0.6	476	5,395
Grading	50	0	20	1,000	0	1,400	14.7	6.9	20.0	14700	0	28000	0.6	432	4,905
Parking Structure Upgrade	88	10	44	3,872	440	440	14.7	6.9	20.0	56918.4	3036	8800	0.6	1,674	1,861
Building Construction	300	75	478	143,400	35,850	0	14.7	6.9	20.0	2107980	247365	0	0.6	62,003	25,999
Paving	30	10	88	2,640	880	0	14.7	6.9	20.0	38808	6072	0	0.6	1,141	638
Architectural Coatings	60	0	129	7,740	0	0	14.7	6.9	20.0	113778	0	0	0.6	3,347	0
Total:													69,074	38,797	

Worker Miles per gallon= 20.40 gasoline
 Vedor/Haul miles per gallon= 5.71 diesel

Notes: Consistent with CalEEMod worker vehicles are assumed to be gasoline and 50% LDA, 25%LDT1, and 25% LDT2. Vendor and haul trips are assumed to be 100% diesel Heavy Duty Trucks (T7).
 Totals may not add up due to rounding

Water Usage for Control of Fugitive Dust during Construction:

Phase	Days	Average Daily Acreage Disturbed	Gallons Per Year	Electricity (kWhr)
Demolition	22	2.8	186,032	2,067
Grading	20	2.8	169,120	1,879
Parking Structure Upgrade	44	0.0	0	0
Building Construction	478	0.0	0	0
Paving	88	0.7	186,032	2,067
Architectural Coating	129	0.0	0	0
Total:			541,184	6,013

Water application rate= 3020 gal/acre/day
kWhr equivalent= 0.01111 kWhr

- Notes: 1) Gallons per year of water usage for dust control is calculated based on a minimum control efficiency of 66% (three times daily) with an application rate of 3,020 gal/acre/day (Air & Waste Management Association Air Pollution Engineering Manual (1992 Edition)) and average of 26 construction days per month.
- 2) Outdoor water results in 0.01111 kWhr of electricity usage per gallon from delivery and distribution of water within Southern California (CalEEMod).
- 3) Totals may not add up due to rounding.

Landmark Apartments (AQ Construction)
Los Angeles-South Coast County, Winter

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	1/1/2015	1/31/2015	5	22	
2	Grading	Grading	2/1/2015	2/28/2015	5	20	
3	Parking Structural Upgrade	Site Preparation	3/1/2015	4/30/2015	5	44	
4	Building Construction	Building Construction	5/1/2015	2/28/2017	5	478	
5	Architectural Coating	Architectural Coating	9/1/2016	2/28/2017	5	129	
6	Paving	Paving	3/1/2017	6/30/2017	5	88	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1

Acres of Paving: 0

Residential Indoor: 761,400; Residential Outdoor: 253,800; Non-Residential Indoor: 15,150; Non-Residential Outdoor: 5,050 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Air Compressors	3	8.00	78	0.48
Demolition	Concrete/Industrial Saws	3	8.00	81	0.73
Demolition	Cranes	1	8.00	226	0.29
Demolition	Excavators	2	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40
Demolition	Rubber Tired Loaders	2	8.00	199	0.36
Demolition	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Demolition	Welders	1	8.00	46	0.45
Grading	Bore/Drill Rigs	2	8.00	205	0.50
Grading	Cranes	2	8.00	226	0.29
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	0	8.00	174	0.41
Grading	Plate Compactors	2	8.00	8	0.43
Grading	Rubber Tired Dozers	0	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Parking Structural Upgrade	Cement and Mortar Mixers	2	8.00	9	0.56
Parking Structural Upgrade	Concrete/Industrial Saws	1	8.00	81	0.73
Parking Structural Upgrade	Cranes	1	8.00	226	0.29
Parking Structural Upgrade	Graders	0	8.00	174	0.41
Parking Structural Upgrade	Plate Compactors	2	8.00	8	0.43
Parking Structural Upgrade	Pumps	2	8.00	84	0.74
Parking Structural Upgrade	Scrapers	0	8.00	361	0.48
Parking Structural Upgrade	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Parking Structural Upgrade	Welders	2	8.00	46	0.45
Building Construction	Aerial Lifts	4	8.00	62	0.31
Building Construction	Air Compressors	3	8.00	78	0.48
Building Construction	Cement and Mortar Mixers	2	8.00	9	0.56

Building Construction	Cranes	2	8.00	226	0.29
Building Construction	Forklifts	4	7.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Pumps	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Architectural Coating	Air Compressors	3	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	8.00	9	0.56
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	1	8.00	80	0.38
Paving	Skid Steer Loaders	2	8.00	64	0.37
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	12	50.00	0.00	1,540.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	50.00	0.00	1,400.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Parking Structural Upgrade	10	88.00	10.00	440.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	20	300.00	75.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	3	60.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	9	30.00	10.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Landmark - Existing Operations
Los Angeles-South Coast County, Annual

Land Use Details

Land Uses	Size	Metric	Square Feet
General Office Building	357.1	1000 sf	357,100
Supermarket	42.9	1000 sf	42,900
Enclosed Parking Structure	1321	spaces	528,400

Trip Summary Information

Land Uses	Average Daily Trip Rate			Annual VMT
	Weekday	Saturday	Sunday	
General Office Building	3349.6	721.3	296.4	8,017,639
Supermarket	4386.1	7618.6	7140.3	6,781,889
Enclosed Parking Structure	0.0	0.0	0.0	0
Total	7,735.70	8,339.95	7,436.67	14,799,528

Gasoline and Diesel Usage

	Gasoline	Diesel
	<i>Miles/Gallon</i>	18.6
<i>% Fleet Mix</i>	93.7%	6.3%
General Office Building	403,032	67,794
Supermarket	340,913	57,345
Enclosed Parking Structure	-	-
Total (Gallons):	743,945	125,138

Energy by Land Use - Natural Gas

Land Uses	kBTU/yr	cu ft/year
General Office Building	3,903,100	3,717,238
Supermarket	969,111	922,963
Enclosed Parking Structure	0	0
Total	4,872,211	4,640,201

Energy by Land Use - Electricity

Land Uses	kWH/yr
General Office Building	5,188,660
Supermarket	1,680,390
Enclosed Parking Structure	3,561,420
Total	10,430,470

Water Detail

Land Uses	Consumption Rate	
	(Gallons/Day)	Electricity Use (kWh/yr)
General Office Building	51,422	244,392
Supermarket	2,574	12,233
Enclosed Parking Structure	0	0
Total	53,996	256,625

Note: Water usage is based on data provided in Table IV.K.1-5 of the Draft EIR

Note: Indoor water results in 0.013021 kWhr of electricity usage per gallon from delivery, treatment, and distribution of water within Southern California (CalEEMod). Outdoor water (landscape) results in 0.01111 kWhr of electricity usage per gallon from delivery and distribution of water within Southern California (CalEEMod).

Note: Totals may not add up due to rounding.

Landmark-Buildout
Los Angeles-South Coast County, Annual

Land Use Details

Land Uses	Size	Metric	Square Feet
Apartments High Rise	376	dwelling unit	376,000
Strip Mall	5.41	TSF	5,410
General Office Building	357.1	space	357,100
Enclosed Parking with Elevator	1090	space	528,400

Trip Summary Information

Land Uses	Average Daily Trip Rate			Annual VMT
	Weekday	Saturday	Sunday	
Apartments High Rise	2124.4	2308.6	1959.0	7,087,632
Strip Mall	231.0	219.1	106.5	392,410
General Office Building	3349.6	721.3	296.4	7,972,411
Enclosed Parking with Elevator	0.0			
Total	5,705.01	3,249.09	2,361.82	15,452,453

Note: General office annual VMT under Buildout changes in comparison to Baseline based on CAPCOA measures provided in vehicular trip calculations and VMT is calculated internal to CalEEMod. See CalEEMod output.

Mitigated Gasoline and Diesel Usage

	Gasoline	Diesel
Miles/Gallon	18.6	7.4
% Fleet Mix	93.7%	6.3%
Total (Gallons):	776,766	130,659

Energy by Land Use - Natural Gas (Mitigated)

Land Uses	kBTU/yr	cu ft/year
Apartments High Rise	3,421,730	3,258,790
Strip Mall	8,542	8,136
General Office Building	3,903,100	3,717,238
Enclosed Parking with Elevator	0	0
Fire Pits	499	475
Total	7,333,872	6,984,640

Note: CalEEMod does not provide natural gas usage for fire pits (4 fire pits at 200,000 btu/hr x 6 hrs/day for weekends (104 days/yr)

Note: Energy usage associated with the existing office building is unmitigated.

Note: Totals may not add up due to rounding.

Energy by Land Use - Electricity (Mitigated)

Land Uses	kWH/yr
Apartments High Rise	1,280,690
Strip Mall	73,706
General Office Building	5,188,660
Enclosed Parking with Elevator	3,561,420
Total	10,104,476

Note: Energy usage associated with the existing office building is unmitigated.

Note: It was conservatively assumed that the new portion of the parking structure would use similar amounts of electricity as the existing parking structure (i.e., no reduction for more efficient lighting and air handling equipment) and unmitigated.

Note: Totals may not add up due to rounding.

Water Detail (Unmitigated)

Land Uses	Consumption	
	Rate (Gallons/Day)	Electricity Use (kWh/yr)
Apartments High Rise	49,722	236,312
Strip Mall	3,092	14,695
General Office Building	51,422	244,392
Enclosed Parking with Elevator	-	-
Landscape	1,529	6,200
Total	105,765	501,599

Note: Energy usage associated with the existing office building is unmitigated.

Note: Water usage is based on data provided in Table IV.K.1-5 of the Draft EIR and accounts for the increase of 351 gpd for the increase of open space provided in Errata 1 to the Landmark Apartments FEIR. Consistent with Table IV.K.1-5, this estimate of water usage conservatively does not account for water conservation features (i.e., without Project Design Feature K.1-1). The City of Los Angeles Green Building Code (Chapter IX, Article 9, of the LAMC) requires newly constructed non-residential and high-rise residential buildings to reduce indoor water use by at least 20 percent by: (1) using water saving fixtures or flow restrictions; and/or (2) demonstrating a 20 percent reduction in baseline water use.

Note: Indoor water results in 0.013021 kWhr of electricity usage per gallon from delivery, treatment, and distribution of water within Southern California (CalEEMod). Outdoor water (landscape) results in 0.01111 kWhr of electricity usage per gallon from delivery and distribution of water within Southern California (CalEEMod).

Note: Totals may not add up due to rounding.

Peak Electricity Demand Calculations

Electrical Load Factor Equation

$$f_{Load} = \frac{\text{Average load}}{\text{Maximum load in given time period}}$$

Load Factor (%)¹ **52%**

Buildout Electricity Demand (Operational)

Annual Demand

Building (MWh)	10,104
Water (MWh)	502
Total (MWh)	10,606

Average Daily Demand

Building (kWh)	27,683
Water (kWh)	1,374
Total (kWh)	29,058

Average Load

Building (kW)	1,153
Water (kW)	57
Total (kW)	1,211

Peak Load Calculation

Peak Load (kW)	2,275
Systemwide Peak Load (MWh)	6,432
Percent of Peak	0.035%

¹2017 Report: System Efficiency of California's Electric Grid. California Public Utilities Commission. 2017. Page 11, Figure 6.

Note: Totals may not add up due to rounding.

LADWP 2017 Power Strategic Long-Term Resources Plan

Appendix A - Load Forecasting

Lookup Year	Year	Sector Sales					Ultimate Customers	Energy for Load	Peak Demand
		Residential (GWh)	Commercial (GWh)	Industrial (GWh)	Miscellaneous (GWh)	Electric Vehicles (GWh)			
2000	2000-01	7,542	12,248	2,754	389	0	22,934	25,688	5,299
2001	2001-02	7,282	11,979	2,496	391	0	22,149	24,903	4,805
2002	2002-03	7,358	12,230	2,383	392	0	22,363	25,370	5,185
2003	2003-04	8,061	12,559	2,485	414	0	23,520	26,701	5,410
2004	2004-05	7,907	12,502	2,447	423	0	23,279	26,338	5,418
2005	2005-06	8,051	12,699	2,451	432	0	23,634	26,828	5,667
2006	2006-07	8,495	13,130	2,332	421	0	24,378	27,502	6,102
2007	2007-08	8,540	13,269	2,366	441	0	24,617	27,928	6,071
2008	2008-09	8,578	13,210	2,303	434	0	24,526	27,447	5,647
2009	2009-10	8,300	12,582	2,073	417	0	23,373	26,526	5,709
2010	2010-11	8,068	12,429	2,189	376	0	23,062	26,252	6,142
2011	2011-12	8,162	12,601	1,924	349	0	23,037	26,552	5,907
2012	2012-13	8,442	12,845	1,947	314	0	23,548	27,154	5,782
2013	2013-14	7,957	12,740	1,827	269	0	22,793	26,756	5,862
2014	2014-15	8,131	12,938	1,720	239	0	23,028	26,692	6,343
2015	2015-16	8,291	13,283	1,676	259	0	23,616	26,870	6,234
2016	2016-17	8,060	12,869	1,689	255	6	22,878	26,180	5,762
2017	2017-18	8,017	12,689	1,804	267	103	22,880	26,010	6,432
2018	2018-19	8,017	12,404	1,792	268	182	22,663	25,772	5,881
2019	2019-20	8,008	12,179	1,799	268	265	22,520	25,684	5,866
2020	2020-21	8,013	12,059	1,806	269	345	22,492	25,585	5,872

EMFAC Emission inventories for County

EMFAC2014 (v1.0.7) Emissions Inventory

Region Type: County

Region: Los Angeles

Calendar Year: **2017**

Season: Annual

Vehicle Classification: EMFAC2011 Categories

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Fuel_Gasoline (1000 gallons/day)	Fuel_DSL (1000 gallons/day)
Los Angeles	2017	LDA	Aggregate	Aggregate	GAS	8765.73	0.00
Los Angeles	2017	LDA	Aggregate	Aggregate	DSL	0.00	21.10
Los Angeles	2017	LDT1	Aggregate	Aggregate	GAS	1188.49	0.00
Los Angeles	2017	LDT1	Aggregate	Aggregate	DSL	0.00	1.11
Los Angeles	2017	LDT2	Aggregate	Aggregate	GAS	4186.32	0.00
Los Angeles	2017	LDT2	Aggregate	Aggregate	DSL	0.00	1.12
Los Angeles	2017	LHD1	Aggregate	Aggregate	GAS	941.18	0.00
Los Angeles	2017	LHD1	Aggregate	Aggregate	DSL	0.00	200.42
Los Angeles	2017	LHD2	Aggregate	Aggregate	GAS	98.91	0.00
Los Angeles	2017	LHD2	Aggregate	Aggregate	DSL	0.00	66.05
Los Angeles	2017	MCV	Aggregate	Aggregate	GAS	42.47	0.00
Los Angeles	2017	MDV	Aggregate	Aggregate	GAS	4109.93	0.00
Los Angeles	2017	MDV	Aggregate	Aggregate	DSL	0.00	1.84
Los Angeles	2017	MH	Aggregate	Aggregate	GAS	49.33	0.00
Los Angeles	2017	MH	Aggregate	Aggregate	DSL	0.00	13.23
Los Angeles	2017	OBUS	Aggregate	Aggregate	GAS	22.37	0.00
Los Angeles	2017	OBUS	Aggregate	Aggregate	DSL	0.00	70.14
Los Angeles	2017	SBUS	Aggregate	Aggregate	GAS	5.20	0.00
Los Angeles	2017	SBUS	Aggregate	Aggregate	DSL	0.00	24.31
Los Angeles	2017	T6	Aggregate	Aggregate	GAS	88.95	0.00
Los Angeles	2017	T6	Aggregate	Aggregate	DSL	0.00	570.29
Los Angeles	2017	T7	Aggregate	Aggregate	GAS	18.96	0.00
Los Angeles	2017	T7	Aggregate	Aggregate	DSL	0.00	2120.71
Los Angeles	2017	UBUS	Aggregate	Aggregate	GAS	18.07	0.00
Los Angeles	2017	UBUS	Aggregate	Aggregate	DSL	0.00	195.82
						7,130,604,769	1,199,432,093
Fuel Usage for Project Construction						69,074	121,885
Percentage of County for Construction						0.0010%	0.010%
Net Fuel Usage for Project Operation						32,821	5,521
Percentage of County for Operation						0.0005%	0.0005%

VEHICULAR TRIP CALCULATIONS:

Trip Generation Rates (ADT):

	Square Footage	Quantity	Units	ITE Rate	Daily Trip Rate Weekday	Transit/Walk Credit	Total	Daily Trip Rate		Weekday	CalEEMod Default		Adjusted Trips (With Transit)			Adjusted Trips (Without Transit)		
								With Transit	Without Transit		Saturday	Sunday	Adjustment	Sat	Sun	Adjustment	Sat	Sun
Buildout (Daily Trip Generation)																		
Apartments	354,881	376	DU	6.65	2,500	375	2,125	5.65	6.65	6.59	7.16	6.07	0.86	6.14	5.21	1.01	7.22	6.12
Strip Mall	5,410	5.41	TSF	42.70	231	-	231	42.70	42.70	44.32	42.04	20.43	0.96	40.50	19.68	0.96	40.50	19.68
Office	357,100	357.10	TSF	11.03	3939	591	3,348	9.38	11.03	11.01	2.37	0.98	0.85	2.02	0.83	1.00	2.37	0.98
Parking (4 level subterranean)	528,400	1,090	spaces	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total:	717,391				6,670		5,704 (966)		-14%									
Baseline (Daily Trip Generation)																		
Office	357,100	357.10	TSF	11.03	3939	591	3,348	9.38	11.03	11.01	2.37	0.98	0.85	2.02	0.83	1.00	2.37	0.98
Supermarket	42,900	42.90	TSF	102.24	4386	-	4,386	102.24	102.24	102.24	177.59	166.44	1.00	177.59	166.44	1.00	177.59	166.44
Parking (4 level subterranean)	528,400	1,321	spaces	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total:					8325													

***Note: Trip generation rates were derived from Table 6 (Trip Generation) of the Transportation Study for the 11750 Wilshire Boulevard Project, prepared by Gibson Transportation Consulting, Inc., June 2014.
 ***Note: Passby trips are calculated internal to CalEEMod. Also, consistent with the Project Description, this analysis includes 5,410 square feet of commercial uses.

APPLICABLE VMT REDUCTION MEASURES included within CalEEMod

Applicable VMT Reduction Measures selected in CalEEMod based on CAPCOA's Quantifying Greenhouse Gas Mitigation Measures, August, 2010.

LUT-1:	Increase Density LUT-1 CAPCOA measures dwellings per acre and jobs per acre . Data Needed: number of housing units per acre or jobs per acre Employees: 66 supermarket employees and 1,539 office employees for Baseline and 6 employees for amenities at Buildout. Residential Units: 0 units for Baseline and 376 units for Buildout. Acreage	Buildout #/Acre	Baseline #/Acre	573.2 Source: Table 1V.K.3-5 of the Draft EIR.
		551.8	134.3 Not Applicable	
		2.8	2.8	2.8 acres
LUT-6	Integrate Below Market Rate Housing Number of dwelling units below market rate	Buildout	Baseline	
		16	Not Applicable	dwelling units

Note: Totals may not add up due to rounding.

EMFAC2011 Emissions Inventory

Region Type: Air Basin

Region: South Coast

Calendar Year: 2017

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Region	CalYr	Season	Veh_Class	Fuel	MdYr	Speed (miles/hr)	Population (vehicles)	VMT (miles/day)	Trips (trips/day)	Fuel_Gas (1000 gallons/day)	Fuel_DSL (1000 gallons/day)		
South Coast	2017	Annual	LDA	GAS	Aggregated	Aggregated	5835352.66	198767641	36831739	8765.730578	0		
South Coast	2017	Annual	LDA	DSL	Aggregated	Aggregated	20084.9486	649961.2531	120872.57	0	21.09713809		
South Coast	2017	Annual	LDT1	GAS	Aggregated	Aggregated	684346.771	23328352.92	4155711.1	1188.493997	0		
South Coast	2017	Annual	LDT1	DSL	Aggregated	Aggregated	993.358181	33213.21573	5493.2212	0	1.108790844		
South Coast	2017	Annual	LDT2	GAS	Aggregated	Aggregated	1923490.65	70021607.67	12110391	4186.317435	0		
South Coast	2017	Annual	LDT2	DSL	Aggregated	Aggregated	917.985992	34257.69891	5580.7567	0	1.120751985		
South Coast	2017	Annual	LHD1	GAS	Aggregated	Aggregated	289199.535	12514065.57	4308641.9	941.1753676	0		
South Coast	2017	Annual	LHD1	DSL	Aggregated	Aggregated	91907.106	3847269.055	1156075.7	0	200.4185275		
South Coast	2017	Annual	LHD2	GAS	Aggregated	Aggregated	30332.1158	1311273.879	451903.29	98.91005704	0		
South Coast	2017	Annual	LHD2	DSL	Aggregated	Aggregated	30724.539	1265178.558	386476.06	0	66.04718207		
South Coast	2017	Annual	MCY	GAS	Aggregated	Aggregated	229988.494	1689828.061	459930.98	42.46762226	0		
South Coast	2017	Annual	MDV	GAS	Aggregated	Aggregated	1596851.93	54048501.49	9927104.6	4109.926883	0		
South Coast	2017	Annual	MDV	DSL	Aggregated	Aggregated	1619.70879	56504.36295	9674.5685	0	1.838680137		
South Coast	2017	Annual	MH	GAS	Aggregated	Aggregated	62286.839	699056.5418	6231.1753	49.33176222	0		
South Coast	2017	Annual	MH	DSL	Aggregated	Aggregated	10896.944	118671.1497	1089.6944	0	13.22500749		
South Coast	2017	Annual	OBUS	GAS	Aggregated	Aggregated	7111.75522	277777.218	324781.5	22.36623471	0		
South Coast	2017	Annual	OBUS	DSL	Aggregated	Aggregated	6055.01999	476671.7452	0	0	70.1357162		
South Coast	2017	Annual	SBUS	GAS	Aggregated	Aggregated	1557.84686	56000.3854	6231.3874	5.202431248	0		
South Coast	2017	Annual	SBUS	DSL	Aggregated	Aggregated	4775.37574	174964.2385	0	0	24.30635322		
South Coast	2017	Annual	T6	GAS	Aggregated	Aggregated	24170.9496	1158619.852	483612.36	88.95071283	0		
South Coast	2017	Annual	T6	DSL	Aggregated	Aggregated	86814.8641	5083395.45	0	0	570.2850952		
South Coast	2017	Annual	T7	GAS	Aggregated	Aggregated	1645.03903	239641.8193	32913.939	18.95554389	0		
South Coast	2017	Annual	T7	DSL	Aggregated	Aggregated	81503.1858	11807475.88	0	0	2120.71226		
South Coast	2017	Annual	UBUS	GAS	Aggregated	Aggregated	1834.32685	196979.7151	7337.3074	18.07485104	0		
South Coast	2017	Annual	UBUS	DSL	Aggregated	Aggregated	7249.31005	776985.0278	28997.241	0	195.8198192		
							Totals	388,633,893.76		19,535.90	3,286.12	17.03	0.06
							Total (GAS)	364,309,346.13	0.94		18.65	0.05	
							Total (DSL)	24,324,547.64	0.06		7.402	0.14	

Note: Totals may not add up due to rounding.

Landmark Apartments (Existing Uses) Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	357.10	1000sqft	1.10	357,100.00	0
Enclosed Parking with Elevator	1,321.00	Space	1.60	528,400.00	0
Supermarket	42.90	1000sqft	0.10	42,900.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9	Operational Year		2014	
Utility Company	Los Angeles Department of Water & Power				

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - Site Specific (lot acreage based on square footage of land use)
- Vehicle Trips - ITE 710 from Traffic Study
- Energy Use -
- Mobile Land Use Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	8.20	1.10
tblLandUse	LotAcreage	11.89	1.60
tblLandUse	LotAcreage	0.98	0.10
tblVehicleTrips	ST_TR	2.37	2.02
tblVehicleTrips	SU_TR	0.98	0.83
tblVehicleTrips	WD_TR	11.01	9.38

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	3,349.60	721.34	296.39	8,175,941	8,017,639
Supermarket	4,386.10	7,618.61	7140.28	6,915,793	6,781,889
Total	7,735.69	8,339.95	7,436.67	15,091,734	14,799,528

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
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
Supermarket	16.60	8.40	6.90	6.50	74.50	19.00	34	30	36

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.535275	0.058759	0.178478	0.127034	0.038632	0.006246	0.015618	0.028471	0.002426	0.003171	0.003696	0.000547	0.001645

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.2 Energy by Land Use - NaturalGas

Unmitigated

Land Use	NaturalGas Use kBtu/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
		tons/yr										MT/yr						
General Office Building	3.9031e+06																	209.5520
Supermarket	969111																	52.0302
Enclosed Parking with Elevator	0																	0.0000
Total																		261.5822

5.3 Energy by Land Use - Electricity

Unmitigated

Land Use	Electricity Use kWh/yr	Total CO2	CH4	N2O	CO2e
		MT/yr			
Enclosed Parking with Elevator	3.56142e+006				1,987.5602
General Office Building	5.18866e+006				2,895.6966
Supermarket	1.68039e+006				937.7962
Total					5,821.0530

Landmark Apartments (Buildout) Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	357.10	1000sqft	0.43	357,100.00	0
Enclosed Parking with Elevator	1,090.00	Space	0.53	528,400.00	0
Apartments High Rise	376.00	Dwelling Unit	0.43	376,000.00	1075
Strip Mall	5.41	1000sqft	0.01	5,410.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9	Operational Year	2017		
Utility Company	Los Angeles Department of Water & Power				

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - Site Specific (acreage based on square footage)
- Vehicle Trips - Site Specific
- Woodstoves - Site Specific
- Mobile Land Use Mitigation -
- Area Mitigation -
- Energy Mitigation -
- Water Mitigation -
- Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceDayYear	25.00	104.00
tblFireplaces	FireplaceHourDay	3.00	6.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	319.60	4.00
tblFireplaces	NumberNoFireplace	37.60	0.00
tblFireplaces	NumberWood	18.80	0.00
tblLandUse	LotAcreage	8.20	0.43
tblLandUse	LotAcreage	9.81	0.53
tblLandUse	LotAcreage	6.06	0.43
tblLandUse	LotAcreage	0.12	0.01
tblProjectCharacteristics	OperationalYear	2014	2017
tblVehicleTrips	ST_TR	7.16	6.14
tblVehicleTrips	ST_TR	2.37	2.02
tblVehicleTrips	ST_TR	42.04	40.50
tblVehicleTrips	SU_TR	6.07	5.21
tblVehicleTrips	SU_TR	0.98	0.83
tblVehicleTrips	SU_TR	20.43	19.68
tblVehicleTrips	WD_TR	6.59	5.65
tblVehicleTrips	WD_TR	11.01	9.38

General Office Building	3.9031e+06																	
Strip Mall																		
Total																		

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						
Enclosed Parking with Elevator																		
General Office Building																		
Strip Mall	8542.39																	
Apartments High Rise	3.42173e+006																	
Total																		

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise					
Enclosed Parking with Elevator	3.56E+06				
General Office Building	5.18866e+006				
Strip Mall					
Total					

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	1.28069e+006				714.7267
Enclosed Parking with Elevator					1,448.6265
General Office Building					2,655.4514
Strip Mall	73705.8				41.1339
Total					4,859.9386

Landmark Apartments

Technical Appendix for Energy Calculations

- Appendix B-2: Table 6 (Trip Generation) of the Transportation Study

**TRANSPORTATION STUDY
FOR THE
11750 WILSHIRE BOULEVARD PROJECT

LOS ANGELES, CALIFORNIA**

June 2014

Prepared for:

DOUGLAS EMMETT MANAGEMENT, LLC

Prepared by:

GIBSON TRANSPORTATION CONSULTING, INC.
523 W. 6th Street, Suite 1234
Los Angeles, California 90014
(213) 683-0088

Ref: J1254

**TABLE 6
TRIP GENERATION**

Trip Generation Rates								
Land Use	Size	Daily [a]	AM Peak Hour [a]			PM Peak Hour [b]		
			Inbound	Outbound	Total	Inbound	Outbound	Total
Apartment (ITE 220)	per du	6.65	20%	80%	0.51	65%	35%	0.49
General Office Building (ITE 710)	per 1,000 sf	11.03	88%	12%	1.56	17%	83%	1.83
Shopping Center (ITE 820)	per 1,000 sf	42.70	62%	38%	0.96	48%	52%	10.16
Supermarket (ITE 850)	per 1,000 sf	102.24	62%	38%	3.40	51%	49%	10.34

Trip Generation Estimates								
Land Use	Size	Daily	AM Peak Hour			PM Peak Hour		
			Inbound	Outbound	Total	Inbound	Outbound	Total
<u>Proposed Project</u>								
Office Building	357,100 sf	3,939	490	67	557	111	542	653
<i>Less Transit/Walk In [c]</i>	15%	(591)	(74)	(10)	(84)	(17)	(81)	(98)
Apartment	376 du	2,500	38	154	192	120	64	184
<i>Less Transit/Walk In [c]</i>	15%	(375)	(6)	(23)	(29)	(18)	(10)	(28)
Commercial	5,000 sf	214	3	2	5	24	26	50
<i>Less Pass-by [d]</i>	50%	(107)	(2)	(1)	(3)	(12)	(13)	(25)
SUBTOTAL		5,580	449	189	638	208	528	736
<u>Existing Use</u>								
Office Building	357,100 sf	3,939	490	67	557	111	542	653
<i>Less Transit/Walk In [c]</i>	15%	(591)	(74)	(10)	(84)	(17)	(81)	(98)
Supermarket	42,900 sf	4,386	91	55	146	226	218	444
<i>Less Pass-by [d]</i>	40%	(1,754)	(36)	(22)	(58)	(90)	(87)	(177)
SUBTOTAL		5,980	471	90	561	230	592	822
Total Net New Trips (at Site Driveways)		(2,047)	(56)	78	22	(100)	(138)	(238)
Total Net New Trips (with Pass-by credit)		(400)	(22)	99	77	(22)	(64)	(86)

Notes

[a] Daily and AM Peak Hour trip generation rates from *Trip Generation, 9th Edition*, Institute of Transportation Engineers, 2012.

[b] PM Peak Hour trip generation rates from the *West Los Angeles TIMP Specific Plan*, City of Los Angeles, 1997.

PM Peak Hour Inbound/Outbound splits from *Trip Generation, 9th Edition*.

[c] Project is located 1/4 mile of Metro Rapid Bus route: 15% credit per LADOT's *Traffic Study Policies and Procedures*.

[d] Pass-by credit per LADOT's *Traffic Study Policies and Procedures*. It should be noted that pass-by reductions are not included at site driveways.

Landmark Apartments

Technical Appendix for Energy Calculations

- Appendix B-3: Energy Efficiency Analysis
 - Summary of Energy Efficiency (New Construction Only)
 - CalEEMod Output File (New Construction Only with No Project Features)
 - CalEEMod Output File (New Construction Only with Project Features)

Landmark-New Construction Only (for efficiency comparison)
Los Angeles-South Coast County, Annual

Land Use Details

Land Uses	Size	Metric	Square Feet
Apartments High Rise	376	dwelling unit	376,000
Strip Mall	5.41	TSF	5,410
Enclosed Parking with Elevator	-231	spaces	

Note: Parking was not included since the Project results in a net reduction of parking spaces.

Trip Summary Information

Land Uses	Average Daily Trip Rate			Annual VMT	Gallons	
	Weekday	Saturday	Sunday		Gasoline	Diesel
New Construction with Project Design Features						
Apartments High Rise	2124.4	2308.6	1959.0	7,087,632		
Strip Mall	231.0	219.1	106.5	392,410		
Total	2,355.41	2,527.75	2,065.43	7,480,042	376,008	63,248
New Construction without Project Design Features						
Apartments High Rise	2500.4	2714.7	2301.1	8,551,589		
Strip Mall	231.0	219.1	106.5	402,428		
Total	2,731.41	2,933.83	2,407.59	8,954,017	450,102	75,711
Reduction:	-376	-406	-342	-1,473,975	-74,094	-12,463
Percent Reduction:	-14%	-14%	-14%	-16%	-16%	-16%

Note: Fleet mix is 93.7% gasoline @ 18.6 miles/gallon and 7.4% diesel @ 7.4 miles/gallon.

Note: Trip reduction reflect close proximity to transit. VMT reduction also reflects CAPCOA Measures LUT-1 and LUT-6.

Energy by Land Use - Natural Gas

Land Uses	kBTU/yr	cu ft/year
New Construction with Project Design Features		
Apartments High Rise	3,421,730	3,258,790
Strip Mall	8,542	8,136
Fire Pits	499	475
Total	3,430,772	3,267,402
New Construction without Project Design Features		
Apartments High Rise	3,730,110	3,552,486
Strip Mall	9,197	8,759
Fire Pits/Fireplaces	507	483
Total	3,739,814	3,561,727
Reduction:	-309,042	-294,326
Percent Reduction:	-8%	-8%

Note: Reduction in natural gas usage reflects implementation of CalGreen and Project Design Feature C-1 (LEED Silver) which results in a 10% reduction in Title 24 source natural gas usage. Project Design Feature C-2 prohibits installation of fireplaces within the residences.

Note: CalEEMod does not provide natural gas usage for fire pits (4 fire pits at 200,000 btu/hr x 6 hrs/day for weekends (104 days/yr))

Note: CalEEMod does not provide natural gas usage for fireplaces (338 natural gas fireplaces at 100,000 btu/hr x 3 hrs/day for 25 days/yr)

Energy by Land Use - Electricity

Land Uses	kWh/yr
New Construction with Project Design Features	
Apartments High Rise	1,280,690
Strip Mall	73,706
Total	1,354,396
New Construction without Project Design Features	
Apartments High Rise	1,331,780
Strip Mall	82,070
Total	1,413,850
Reduction:	-59,454
Percent Reduction:	-4%

Note: Reduction in electricity reflects implementation of CalGreen and Project Design Feature C-1 (LEED Silver) which results in a 10% reduction in Title 24 source electrical usage.

Water Usage (electricity)

Land Uses	Indoor Use (Mgal)	Electricity Use (kWh/yr)
New Construction with Project Design Features		
Apartments High Rise	39,778	189,050
Strip Mall	2,474	11,756
Landscape	1,223	4,960
Total	43,474	205,766
New Construction without Project Design Features		
Apartments High Rise	49,722	236,312
Strip Mall	3,092	14,695
Landscape	1,529	6,200
Total	54,343	257,208
Reduction:	-10,869	-51,442
Percent Reduction:	-20%	-20%

Note: Water usage is based on data provided in Table N.K.1-5 of the Draft EIR and accounts for the increase of 351 gpd for the increase of open space provided in Errata 1 to the Landmark Apartments FEIR. The estimate of water usage for New Construction with Project Design Features accounts for water conservation features. The City of Los Angeles Green Building Code (Chapter IX, Article 9, of the LAMC) requires newly constructed non-residential and high-rise residential buildings to reduce indoor water use by at least 20 percent by: (1) using water saving fixtures or flow restrictions; and/or (2) demonstrating a 20 percent reduction in baseline water use.

Note: Indoor water results in 0.013021 kWh of electricity usage per gallon from delivery, treatment, and distribution of water within Southern California (CalEEMod). Outdoor water (landscape) results in 0.01111 kWh of electricity usage per gallon from delivery and distribution of water within Southern California (CalEEMod).

	Electricity Use (kWh/yr)
Electricity Total (Building and Water)	
New Construction with Project Design Features	1,560,162
New Construction without Project Design Features	1,671,057
Reduction:	-110,895
Percent Reduction:	-7%

Note: Totals provided above may not add up due to rounding.

Landmark Apartments (New Construction Only with No Project Features)
Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments High Rise	376.00	Dwelling Unit	2.70	376,000.00	1075
Strip Mall	5.41	1000sqft	0.10	5,410.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9	Operational Year	2017		
Utility Company	Los Angeles Department of Water & Power				

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - Site Specific (acreage based on square footage)
- Vehicle Trips - Site Specific
- Woodstoves - Site Specific
- Construction Off-road Equipment Mitigation -
- Mobile Land Use Mitigation -
- Area Mitigation -
- Energy Mitigation -
- Water Mitigation -
- Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	319.60	338.40
tblFireplaces	NumberWood	18.80	0.00
tblLandUse	LotAcreage	6.06	2.70
tblLandUse	LotAcreage	0.12	0.10
tblProjectCharacteristics	OperationalYear	2014	2017
tblVehicleTrips	ST_TR	7.16	7.22
tblVehicleTrips	ST_TR	42.04	40.50
tblVehicleTrips	SU_TR	6.07	6.12
tblVehicleTrips	SU_TR	20.43	19.68
tblVehicleTrips	WD_TR	6.59	6.65
tblVehicleTrips	WD_TR	44.32	42.70
tblWoodstoves	NumberCatalytic	18.80	0.00
tblWoodstoves	NumberNoncatalytic	18.80	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

4.0 Operational Detail - Mobile

4.2 Trip Summary Information

Average Daily Trip Rate	Unmitigated	Mitigated
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Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	2,500.40	2,714.72	2301.12	8,551,589	8,551,589
Strip Mall	231.01	219.11	106.47	402,428	402,428
Total	2,731.41	2,933.83	2,407.59	8,954,017	8,954,017

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
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.532559	0.058242	0.178229	0.125155	0.038934	0.006273	0.016761	0.032323	0.002478	0.003154	0.003685	0.000544	0.001663

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.2 Energy by Land Use - Natural Gas

Unmitigated

Land Use	Natural Gas Use kBtu/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
		tons/yr										MT/yr						
Strip Mall	9197																	0.4938
Apartments High Rise	3.73011e+006																	200.2644
Total																		200.7581

5.3 Energy by Land Use - Electricity

Unmitigated

Land Use	Electricity Use kWh/yr	Total CO2	CH4	N2O	CO2e
		MT/yr			
Apartments High Rise	1.33178e+006				743.2400
Strip Mall	82069.7				45.8016
Total					789.0416

Landmark Apartments (New Construction Only with Project Features)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments High Rise	376.00	Dwelling Unit	2.70	376,000.00	1075
Strip Mall	5.41	1000sqft	0.10	5,410.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9	Operational Year	2017		
Utility Company	Los Angeles Department of Water & Power				

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - Site Specific (acreage based on square footage)
- Vehicle Trips - Site Specific
- Woodstoves - Site Specific
- Construction Off-road Equipment Mitigation -
- Mobile Land Use Mitigation -
- Area Mitigation -
- Energy Mitigation -
- Water Mitigation -
- Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceDayYear	25.00	104.00
tblFireplaces	FireplaceHourDay	3.00	6.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	319.60	4.00
tblFireplaces	NumberNoFireplace	37.60	0.00
tblFireplaces	NumberWood	18.80	0.00
tblLandUse	LotAcreage	6.06	2.70
tblLandUse	LotAcreage	0.12	0.10
tblProjectCharacteristics	OperationalYear	2014	2017
tblVehicleTrips	ST_TR	7.16	6.14
tblVehicleTrips	ST_TR	42.04	40.50
tblVehicleTrips	SU_TR	6.07	5.21
tblVehicleTrips	SU_TR	20.43	19.68
tblVehicleTrips	WD_TR	6.59	5.65
tblVehicleTrips	WD_TR	44.32	42.70
tblWoodstoves	NumberCatalytic	18.80	0.00
tblWoodstoves	NumberNoncatalytic	18.80	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Integrate Below Market Rate Housing

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	2,124.40	2,308.64	1958.96	7,268,575	7,087,632
Strip Mall	231.01	219.11	106.47	402,428	392,410
Total	2,355.41	2,527.75	2,065.43	7,671,003	7,480,042

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
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.532559	0.058242	0.178229	0.125155	0.038934	0.006273	0.016761	0.032323	0.002478	0.003154	0.003685	0.000544	0.001663

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

5.2 Energy by Land Use - NaturalGas

Mitigated

Land Use	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	
	kBTU/yr	tons/yr										MT/yr						
Apartments High Rise	3.42173e+006																	183.7079
Strip Mall	8542.39																	0.4586
Total																		184.1665

5.3 Energy by Land Use - Electricity

Mitigated

Land Use	Electricity Use	Total CO2	CH4	N2O	CO2e
	kWh/yr	MT/yr			
Apartments High Rise	1.28069e+006				714.7267
Strip Mall	73705.8				41.1339

755,8606					Total
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