CARB Staff Evaluation of AB 900 Application for Hollywood & Wilcox Project

March 13, 2019

I. Executive Summary

CARB staff reviewed the projected GHG emissions provided by the Applicant and confirmed the GHG emission factors used to estimate construction and operational emissions. Staff concurs with the GHG quantification in the Applicant's proposal (Attachment 2).

Based on an evaluation of the documentation provided by the Applicant found in Appendix C of Attachment 2, CARB staff concludes that, with commitments to implement feasible GHG emissions reduction measures and/or purchase voluntary carbon credits documented in Attachment 2, the proposed project would not result in any net additional GHG emissions relative to the baseline as summarized in Tables 1 and 2 below. CARB staff confirms that the proposed project would meet the GHG emissions requirements of the Jobs and Economic Improvement through Environmental Leadership Act. (Pub. Resources Code, §21178 et seq.) A detailed description of emissions by source is reviewed in subsequent sections.

Table 1 shows project GHG emissions generated by construction activities. Project construction is expected to be completed over 24 months, with demolition activities beginning in 2021. The Applicant has committed to offset the GHG emissions generated during project construction. The Applicant will provide courtesy copies of the calculations to CARB and the Governor's Office. Additionally, the Applicant has agreed to enter into one or more contracts, incorporated as a condition of approval and prior to issuance of any Temporary Certificate of Occupancy for any building in the Project, to purchase voluntary carbon credits issued by an accredited carbon registry in an amount sufficient to offset the construction emissions and submit copies of executed contracts for purchased carbon credits to CARB and the Governor's Office.

Table 1: Project Construction-Generated GHG Emissions[1]

Construction Year	GHG Emissions (MT CO_2e/year)
2021	1,556
2022	1,082
Total	2,638
GHG Credits Required[2]	**2,638**

Notes:
GHG = greenhouse gas; MT CO_2e = Metric tons carbon dioxide equivalent;
[1] Source: as documented in Attachment 2, and confirmed by CARB staff.
[2] Applicant committed to purchase carbon credits in an amount sufficient to offset net increases in construction-related GHG emissions. The project would obtain offsets using the following prioritization: (1) project design feature/on-site reduction measures; (2) off-site local reductions; (3) off-site regional reductions, and (4) offset credits issued by an accredited carbon registry.

Table 2 summarizes the net increase in project operation-related GHG emissions through the lifetime of the proposed project (defined as 30 years). The continued operation of the existing land uses that would be demolished under the proposed project serves as the reference point for the purpose of defining a baseline.

The Applicant has committed to explore feasible GHG emissions reduction measures according to the following prioritization: (1) project design feature/on-site reduction measures; (2) off-site local reductions; (3) off-site regional reductions, and (4) purchase voluntary carbon offsets issued by an accredited carbon registry in an amount sufficient to offset the net increase in operation-related GHG emissions.

The Applicant has committed to execute contracts to offset the net increase in GHG emissions generated during project operation for any building in the project prior to issuance of any Temporary Certificate of Occupancy for any building in the Project. Enforcement of compliance will be outlined in the terms of the Development Agreement between the lead agency and the Applicant.

Table 2: Comparison of Baseline and Project Operation-Related GHG Emissions[1]

Year[2]	GHG Emissions (MT CO_2e/year)			
	Baseline	Proposed Project	Difference	GHG Credits Required[3]
2023	490	1,356	867	867
2024	490	1,291	801	801
2025	490	1,278	788	788
2026	490	1,267	777	777
2027	490	1,216	726	726
2028	490	1,206	716	716
2029	490	1,197	707	707
2030	490	1,150	660	660
2031	490	1,143	653	653
2032	490	1,136	647	647
2033	490	1,131	641	641
2034	490	1,125	636	636
2035	490	1,121	631	631
2036	490	1,118	628	628
2037	490	1,115	625	625
2038	490	1,112	622	622
2039	490	1,110	620	620
2040	490	1,109	619	619
2041	490	1,107	618	618
2042	490	1,106	617	617
2043	490	1,106	616	616
2044	490	1,106	616	616
2045	490	1,105	616	616
2046	490	1,106	616	616
2047	490	1,106	616	616
2048	490	1,106	617	617
2049	490	1,107	617	617
2050	490	1,108	618	618
2051	490	1,108	618	618
2052	490	1,108	618	618
2053	490	1,108	618	618
Total				**23,023**

Notes: GHG = greenhouse gas; MT CO_2e = Metric tons carbon dioxide equivalent.
[1] Source: as documented in Attachment 2, and confirmed by CARB staff.
[2] Applicant uses an analysis horizon of 30 years, with first year of occupancy as early as January 2023. Therefore 2023 represents the first full year of operation.
[3] Applicant commits to purchase carbon credits in an amount sufficient to offset net increase in operation-related GHG emissions. The project would obtain offsets using the following prioritization: (1) project design feature/on-site reduction measures; (2) off-site local reductions; (3) off-site regional reductions, and (4) offset credits issued by an accredited carbon registry.

I. Introduction

6436 Hollywood Boulevard LLC and 1624 Wilcox Ave LP (Applicant) proposed a new mixed-use development (Project) on an approximately 1.4-acre site located at 6430–6440 Hollywood Boulevard and 1624–1648 Wilcox Avenue (Project Site) within the Hollywood Community Plan area of the City of Los Angeles (the City).

The Applicant is seeking certification for the project under Assembly Bill 900 (AB 900), the Jobs and Economic Improvement through Environmental Leadership Act.

AB 900 provides for streamlined judicial review under the California Environmental Quality Act (CEQA) if certain conditions are met. One condition is that the proposed project does not result in any net additional greenhouse gas (GHG) emissions as determined by the California Air Resources Board (CARB). This is the only condition that involves a determination by CARB. CARB staff prepared this technical evaluation of the GHG emissions from the proposed project as part of its determination.

This evaluation includes an executive summary, an overview of the AB 900 net zero additional GHG emissions requirement, a brief description of the proposed project, a technical review and assessment of GHG emissions information provided by the Applicant in its AB 900 application, and CARB staff's recommendation on the AB 900 GHG emissions determination for the proposed project.

II. Overview of AB 900

AB 900, as amended by SB 743 (2013), SB 734 (2016), and AB 246 (2017) provides streamlined judicial review for development projects if, among other conditions, the "project does not result in any net additional emissions of greenhouse gases, including greenhouse gas emissions from employee transportation, as determined by the State Air Resources Board pursuant to Division 25.5 (commencing with Section 38500) of the Health and Safety Code." (Pub. Resources Code, §21183, subd. (c).)

The Governor's Guidelines for AB 900 applications require Applicants to submit a proposed methodology for quantifying the project's GHG emissions and documentation that the project will not result in any net additional GHG emissions. The documentation must quantify direct and indirect GHG emissions associated with the project's construction and operation, including GHG emissions from employee transportation, and the net emissions of the project after accounting for any mitigation measures. The project's net emissions, after mitigation, must be monitored and enforced consistent with Public Resources Code section 21183, subdivision (e).

The role of CARB in reviewing AB 900 applications for purposes of the Governor's certification is limited to an evaluation of the quantification methods and documentation submitted by the Applicant to determine whether the project would result in no net additional emissions of GHG emissions. CARB staff evaluated the technical elements of the project application, including existing emissions in the absence of the project (i.e., baseline), input data and assumptions used for emissions and mitigation calculations, quantification methods, and an estimate of the project's net GHG emissions after any mitigation.

III. Existing Conditions

The proposed project site is located at 6430–6440 Hollywood Boulevard and 1624–1648 Wilcox Avenue in the City of Los Angeles. The approximately 1.4-acre site is located on the southeast corner of the Hollywood Boulevard and Wilcox Avenue intersection. The property currently contains four low-rise commercial buildings, including the 9,000 sf "Attie Building", that comprise a total of 29,200 square feet (sf) of floor area as well as surface parking (Table 3). Vehicular access to the surface parking is provided via a driveway on Wilcox Avenue.

IV. Proposed Project Description

The proposed project would rehabilitate and restore the existing two-story, 9,000 sf Attie Building, while the balance of the existing improvements on the Project Site would be demolished and removed to provide for development of the mixed-use Project. The Project would include the rehabilitated and restored existing Attie Building, a mixed-use building up to 15 stories in height, and the addition of a one-story commercial building directly adjacent to the east of the Attie Building. The Project would include 261,092 sf feet of residential uses with 260 multi-family residential dwelling units, 10 percent of which would be workforce housing, and approximately 17,800 sf of community-serving retail (11,020 sf), office (3,580 sf), and restaurant (3,200 sf) uses.

Vehicle parking would be provided in five parking levels: two subterranean, one at-grade level, and two above-grade levels, with a total of approximately 420 parking spaces. Long- and short-term bicycle parking would also be provided consistent with the requirements of the Los Angeles Municipal Code (LAMC), with 269 long-term bicycle spaces and 35 short-term bicycle spaces for both residential and commercial uses provided on Level 1.

The baseline and proposed land uses are summarized in Table 3.

Table 3: Baseline and Proposed Land Uses

Land Use	Existing Uses	Proposed Project
Floor Area		
Residential	----	261,092 sf (260 du)
Retail	14,320 sf	11,020 sf
Office	14,880 sf	3,580 sf
Restaurant	----	3,200 sf
Floor Area Total	----	*278,892 sf*
Parking		
Surface Parking	35,900 sf (90 spaces)	----
Parking Structure	----	
Underground (Enclosed)		89,680 sf (168 spaces)
Aboveground (Unenclosed)		96,380 sf (252 spaces)
Parking Total	*35,900 sf (90 spaces)*	*186,060 sf (420 spaces)*

Notes:
sf = square feet, du = dwelling unit
[a] Square footage is calculated pursuant to the LAMC definition of floor area for the purpose of calculating FAR. In accordance with LAMC Section 12.03, floor area is defined as "[t]he area in square feet confined within the exterior walls of a building, but not including the area of the following: exterior walls, stairways, shafts, rooms housing building-operating equipment or machinery, parking areas with associated driveways and ramps, space for the landing and storage of helicopters, and basement storage areas." In addition, in accordance with LAMC Section 12.21.1-A,5, bicycle parking, light courts, and outdoor eating areas of ground floor restaurants are excluded from floor area measurements.

Source: as documented in Attachment 2, and confirmed by CARB staff.

V. Technical Review and Assessment

Eyestone Environmental, on behalf of the Applicant, prepared a GHG emissions assessment for the proposed project to demonstrate that the requirements of AB 900 can be met. A full copy of this proposal can be found in Attachment 2.

The Applicant relied upon a variety of sources for activity data and emission factors to quantify GHG emissions. This CARB staff evaluation is focused on reviewing the data sources, emission factors, emission calculations, and assumptions used for the application, and determining whether these sources and assumptions are reasonable.

The Applicant relied upon Version 2016.3.2 of the California Emissions Estimator Model (CalEEMod), a widely-used emissions quantification model developed in coordination with local air districts to quantify criteria pollutant and GHG emissions from land use development projects in California. CalEEMod uses widely-accepted sources for emission estimates combined with appropriate default data that can be used if site-specific information is not available. CalEEMod is populated with data from the United States Environmental Protection Agency AP-42 emission factors, CARB's on-road and off-road equipment emission models such as the EMIssion FACtor 2017 model (EMFAC2017), and the Off-road Emissions Inventory Program model (OFFROAD). The Applicant used the latest CalEEMod version, in combination with project-specific data

correction factors to reflect future renewable electricity standards, and CARB's EMFAC2017 mobile-source emission factors, to calculate GHG emissions from project construction and operation.

VI. Project Construction Emissions

Construction-related GHG emissions, including demolition-related emissions, are one-time, direct emissions and would occur over an approximately two- year construction period. The Applicant estimated GHG emissions associated with project construction by using the CalEEMod model. With some exceptions, the Applicant used CalEEMod default settings to generate construction-related GHG emissions. The Applicant estimates a total of 2,638 metric tons carbon dioxide equivalent (MT CO_2e) over the project construction period, as shown in Table 1. Construction-related GHG emissions reflect the types of equipment expected and the number of hours of operation anticipated over the construction schedule. This includes heavy-duty equipment, such as refuse hauling trucks, excavators, cranes, and conventional work vehicles.

CARB staff concluded that the methodology and estimated GHG emissions provided by the Applicant for construction are appropriate.

VII. Baseline Operational Emissions

Operational emissions from land uses at the existing project site that would be demolished and removed as part of the project represent baseline conditions. Operational emissions in year 2017 serves as the baseline for purposes of this analysis, which represents existing conditions the year the California Environmental Quality Act Notice of Preparation of an Environmental Impact Report for the Project was filed. GHG emissions were quantified for mobile, electricity, natural gas, area, solid waste, water, and wastewater-related sources. As summarized in Attachment 2, GHG emissions associated with existing conditions in 2017 are estimated as 490 MT CO_2e.

CARB staff evaluated the Applicant's GHG emission estimations, demand factors, and assumptions used in the Applicant's baseline calculations, summarized in Table 2. CARB staff concluded that the methodology and estimated baseline GHG emissions provided by the Applicant are appropriate.

VIII. Proposed Project Operational Emissions

Operational GHG emission sources from the proposed project include mobile, electricity, natural gas, area, stationary, solid waste, water, and wastewater sources. Operational GHG emissions from the proposed project were assumed to begin in 2023.

The Project will achieve the U.S. Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) Gold Certification, at a minimum, and a summary of key reduction measures associated with the Project (e.g., green building, LEED, and project design/mitigation measures) are provided below:

A. The design of the new buildings shall incorporate features to be capable of achieving Gold certification under the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED)-BD&C® or LEED-NC® Rating System using the LEED v4 rating system. Specific sustainability features that are integrated into the Project design to enable the Project to achieve at least LEED Gold® certification would include the following:
    a. The Project will promote alternatives to conventionally fueled automobiles by providing 10 percent of the total code-required parking spaces to be equipped with EV charging stations and/or outlets for plugin.
    b. The Project will optimize building energy performance with a 22 percent reduction from the LEED/Los Angeles Green Building Code baseline consistent with LEED requirements.
    c. The Project will reduce water consumption by 35 percent for indoor water and 30 percent for outdoor water from the LEED/Los Angeles Green Building Code usage baseline.
    d. The Project will provide on-site recycling areas with containers to promote the recycling of paper, metal, glass, and other recyclable materials and adequate storage areas for such containers.
B. The residential units within the Project shall not include the use of natural gas- fueled fireplaces.
C. The Project will include the equivalent of 105 kilowatts of photovoltaic panels on the Project Site.
D. A transportation demand management (TDM) program would also be implemented to reduce the use of single occupant vehicles by increasing the number of trips by walking, bicycle, carpool, vanpool, and transit. The combined effect of the various strategies implemented as part of the TDM program would result in a 15 percent reduction in daily trip generation by offering services, actions, specific facilities, etc., aimed at encouraging use of alternative transportation modes (e.g., transit, bus, walking, bicycling, carpool, etc.). The TDM program would include the following strategies:
    a. Transportation Information Center, educational programs, kiosks and/or other measures.
    b. Promotion and support of carpools and rideshare.
    c. Bicycle amenities such as racks.
    d. Parking incentives and support for formation of carpools/vanpools.
    e. On-site TDM coordinator.

f. Mobility hub support
g. Contribution to the City's Bicycle Plan Trust Fund for implementation of bicycle improvements in the Project area.
h. Participate as a member in the future Hollywood Community Transportation Management Organization (TMO), when operational

Mobile-source emissions were derived from vehicle miles traveled (VMT) calculated to result from the Project and emissions factors calculated with the EMFAC2017 emissions model. Project-related VMT was calculated with CalEEMod based on the land use types and sizes associated with the project, while also accounting for reductions in project trips as a result of the project TDM program, as indicated in the *AB 900 Traffic Assessment for the Hollywood & Wilcox Project* prepared by Gibson Transportation Consulting, Inc (Attachment 2). A summary of key non-TDM characteristics resulting in VMT reductions from the default CalEEMod estimates are provided below, along with the relevant CalEEMod reduction measure in parentheses:

- Increase Density (LUT-1): Increased density, measured in terms of persons, jobs, or dwelling units per unit area, reduces emissions associated with transportation as it reduces the distance people travel for work or services and provides a foundation for the implementation of other strategies, such as enhanced transit services. The Project would increase the site density from zero dwelling units per acre and 56 jobs per acre to approximately 186 dwelling units per acre and 40 jobs per acre.

- Increase Diversity of Urban and Suburban Developments (Mixed-Uses) (LUT-3): The Project would introduce new uses on the Project Site, including new residential, retail, restaurant, and office uses. The Project would locate complementary new residential, retail restaurant, and office uses in proximity to other existing off-site residential, office, retail, restaurant, and hotel uses. The increases in land use diversity and mix of uses on the Project Site would reduce vehicle trips and VMT by encouraging walking and non-automotive forms of transportation (i.e., walking and biking), which would result in corresponding reductions in transportation-related emissions

- Increased Destination Accessibility (LUT-4): The Project would be located in an area that offers access to multiple other nearby retail and entertainment destinations, including Hollywood & Highland Center located approximately 0.4 mile to the west of the Project Site. In addition, the Project Site is located within 5.5 miles of Downtown Los Angeles, a primary job center, also easily accessible by public transportation (including the Metro Red Line, which connects the Hollywood/Highland Station and Hollywood/Vine Station to

several stations in Downtown Los Angeles and North Hollywood). The access to multiple destinations in proximity to the Project Site would reduce vehicle trips and VMT compared to the statewide average and encourage walking and non-automotive forms of transportation and would result in corresponding reductions in transportation-related emissions for both the Baseline and Project conditions.

- Increase Transit Accessibility (LUT-5): The Project Site will be located approximately 0.25 from the Metro Red Line Hollywood/Vine Station as well as 12 bus lines on Hollywood Boulevard that would encourage and support use of public transportation. The Project would also provide bicycle parking spaces for the proposed uses to encourage utilization of alternative modes of transportation

- Improve Design of Development (LUT-9): The Project would add community-serving retail uses along Hollywood Boulevard. Additional restaurant uses, as well as residential amenities including a lobby area and lounge, would be located along Wilcox Avenue. An outdoor courtyard, which could be used as an outdoor seating/dining area for a restaurant, would also be incorporated to the north of the commercial use at ground-level along Wilcox Avenue and would be publicly accessible during business hours. The Project would include a high level of street access, which improves street accessibility and connectivity. The reduction in VMT associated with this measure is based on the number of intersections per square mile within the Project area. It was conservatively assumed that this measure would be applicable to both the Baseline and Project conditions.

- Provide Pedestrian Network Improvements (SDT-1): Project design would provide pedestrian access that minimizes barriers and links the Project Site with existing or planned external streets to encourage people to walk instead of drive. The Project would provide several improvements, such as direct access to the existing off-site pedestrian network including existing off-site sidewalks along Hollywood Boulevard and Wilcox Avenue, to encourage and increase pedestrian activities in the area, which would further reduce VMT and associated transportation-related emissions.

- Provide Traffic Calming Measures (SDT-2): The Project would provide traffic calming measures to encourage people to walk or bike instead of using a vehicle. This mode shift results in a decrease in VMT. Streets within 0.5 mile of the Project Site are equipped with sidewalks

Although the Project resides within the Los Angeles Department of Water and Power (LADWP) domain, the Applicant has chosen to use the option of a statewide electricity factor. Therefore, consistent with CARB guidance on statewide electricity emission factors for use with AB 900 projects, an emission factor of 595 pounds of carbon dioxide (CO_2) per MWh was used for electricity emissions for Project operational year 2023. This emission factor reflects a 2020 power grid in compliance with the 33 percent Renewable Portfolio Standard. Future year CO_2 emission factors were scaled proportionately based on the future year renewable energy targets of 40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. Electricity-related emission factors for CH_4 and N_2O were obtained from CalEEMod. CalEEMod default emission factors and calculation methods were also used to estimate energy-related GHG emissions from natural gas.

Emissions from solid waste disposal were estimated using the CalEEMod model to reflect waste disposal and diversion rates consistent with the City of Los Angeles diversion requirements and annual solid waste disposal rate data provided by CalRecycle.

Emissions from water consumption were estimated using CalEEMod model defaults with additional reductions in water usage incorporated from the USGBC LEED Gold Certification detailed above. The electricity usage related to water supply, treatment, distribution and wastewater treatment used the same statewide emission factors for electricity as were used for on-site electricity calculations.

Emissions from area sources, including equipment used to maintain landscaping, such as lawnmowers and trimmers, were estimated using CalEEMod default values. The only additional stationary source of emissions is an on-site emergency generator with an estimated capacity rated at 350 horsepower, which would provide emergency power primarily for lighting and other emergency building systems. Emissions of GHGs would be generated during maintenance and testing operations and emissions were estimated separately outside of the CalEEMod software using U.S. Environmental Protection Agency (U.S. EPA) emission factors and CalEEMod load factors. Emergency generators are permitted by the SCAQMD and regulated under SCAQMD Rule 1470 (Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines). Maintenance and testing would not occur daily, but rather periodically, up to 50 hours per year per Rule 1470.

The Applicant's assumptions and inputs are reasonably conservative, and represent an upper-bound for the net increase in GHG emissions that could occur. CARB staff

evaluated the proposed project's emission calculations, demand factors, and assumptions used to estimate operational GHG emissions and concluded that the methodology and estimated operational GHG emissions provided by the Applicant are appropriate.

Based on the Applicant's proposal, annual project operational emissions would exceed baseline throughout the lifetime of the project, as summarized in Table 2.

IX. Method to Offset Emissions

Under the GHG quantification methodology used by the Applicant, the proposed project would result in a one-time net GHG emissions increase of 2,638 MT CO_2e during project construction, and an estimated net increase of 867 MT CO_2e during the first year of full project operation (2023).

Operational emissions would be on-going for project analysis horizon (defined as 30 years), and would be expected to decline over the life of the project as emission factors decline associated with adoption of lower-GHG-emitting vehicle technologies and renewable sources of electricity. The Applicant has agreed to meet the requirement set forth in California Public Resources Code section 21183, subdivision (c) to demonstrate that the proposed project would result in no net additional GHG emissions through adoption of feasible GHG emission reduction measures according to the following prioritization: (1) project design feature/on-site reduction measures; (2) off-site local reductions; (3) off-site regional reductions, and (4) offset credits issued by a recognized and reputable carbon registry, consistent with policy recommendations included in CARB's 2017 Climate Change Scoping Plan Update[1]. To the extent carbon offsets are used to mitigate GHG emissions from the project, the Applicant will purchase voluntary carbon credits issued by an accredited carbon registry for the net increase in construction and operational emissions prior to issuance of any Temporary Certificate of Occupancy for the project.

Any identified project design features/on-site reduction measures, off-site local or regional GHG emission reduction measures used to mitigate GHG emissions and any commitments to enter into contracts to offset net additional GHG emission will be incorporated as conditions of Project approval under Public Resources Code Section 21183(e), which shall be binding and enforceable by the lead agency.

[1] https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf

The improvement measure commitments proposed by the Applicant in its AB 900 application will be incorporated into the Project's Final Environmental Impact Report (FEIR) as Project Design Features or mitigation measures. The Applicant agrees to comply with all Project Design Features and mitigation measures contained in the FEIR through the Project's Mitigation Monitoring and Reporting Program, which represents a binding and enforceable agreement with the Project's lead agency, the City of Los Angeles, and will be outlined in the terms of the Development Agreement between the City and the Applicant.

X. Conclusions and Recommendations

Based on an evaluation of the documentation provided by the Applicant and its commitment to purchase voluntary carbon credits issued by an accredited carbon registry, CARB staff concludes that the proposed project would not result in any net additional GHG emissions relative to the baseline.