

From: Pettit, David <dpettit@nrdc.org>
Sent time: 05/30/2020 02:54:54 PM
To: Mindy Nguyen <Mindy.Nguyen@lacity.org>
Cc: Pettit, David <dpettit@nrdc.org>
Subject: RE: NRDC comments on Hollywood Center DEIR
Attachments: NRDC Letter - Exhibits 1-4.pdf Hollywood Center DEIR comment letter 5-29-20.docx

Hi Mindy. I forgot to attach to my comment letter yesterday copies of documents that I cited to in the letter. I understand that the City is requesting copies now due to current circumstances. So please find the attached copies of the cited matter, plus an additional (unchanged) copy of my comment letter if that is helpful.

Thank you.

David

David Pettit
Senior Attorney
Natural Resources Defense Council
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From: Mindy Nguyen <Mindy.Nguyen@lacity.org>
Sent: Friday, May 29, 2020 3:10 PM
To: Pettit, David <dpettit@nrdc.org>
Subject: Re: NRDC comments on Hollywood Center DEIR

Hi David,

Thank you for your email. Your comments have been received and will be included in the administrative record for the Hollywood Center Project EIR.

Please let me know if you have any questions in the meantime.

On Fri, May 29, 2020 at 2:21 PM Pettit, David <dpettit@nrdc.org> wrote:

Dear Ms. Nguyen:

Attached please find NRDC's comments on the Hollywood Center DEIR, Case Number: ENV-2018-2116-EIR, State Clearinghouse Number: 2018051002.

Please feel free to contact me with any questions or comments.

David Pettit

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EXHIBIT 1



Mary D. Nichols, Chair
Matthew Rodriguez, CalEPA Secretary
Edmund G. Brown Jr., Governor

June 22, 2018

Mr. Ken Alex, Director
Office of Planning and Research
Office of Governor Edmund G. Brown Jr.
State Capitol
1400 10th Street
Sacramento, California 95814

Dear Mr. Alex:

The Jobs and Economic Improvement through Environmental Leadership Act (Assembly Bill 900, statutes of 2011) authorizes the Governor to certify a leadership project for streamlining under the California Environmental Quality Act (CEQA) if the project meets certain conditions. One condition for certification is that the project does not result in any net additional emissions of greenhouse gases (GHG), including GHG emissions from employee transportation, as determined by the California Air Resources Board (CARB).

MCAF Vine LLC; 1750 North Vine LLC; 1749 North Vine Street LLC; 1770 Ivar LLC; 1733 North Argyle LLC; and 1720 North Vine LLC (collectively, the Applicant) submitted an original application to CARB on May 2, 2018, and clarifying documentation on May 17, 2018 and May 29, 2018, for the proposed Hollywood Center Project (Proposed Project). As required by the Governor's Guidelines for Streamlining Judicial Review under CEQA, the application includes proposed GHG quantification methodologies and supporting documentation.

CARB staff conducted an evaluation of the GHG emissions estimates and voluntary improvement measures submitted by the Applicant, and confirmed that the Applicant's methodology, calculations, and documentation are adequate. Based on the documentation submitted by the Applicant, CARB has determined that the Proposed Project will not result in any net additional GHG emissions for purposes of certification under AB 900, once the conditions of approval of the project described in the enclosed staff analysis document are satisfied.


NRDC Letter - Exhibits 1-4.pdf
Mr. Ken Alex, Director
June 22, 2018
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The following documents are enclosed:

1. CARB Staff's Evaluation of the AB 900 Application for the Hollywood Center Project.
2. CARB's Executive Order G-18-046 Relating to Determination of No Net Additional Greenhouse Gas Emissions Under Public Resources Code section 21183, subdivision noting CARB's determination are enclosed.

If you have any questions regarding the evaluation or determination, please contact Dr. Michael Benjamin, Chief, Air Quality Planning and Science Division at (916) 201-8968, or by email at michael.benjamin@arb.ca.gov.

Sincerely,



Richard W. Corey
Executive Officer

Enclosures

cc: See next page.

Mr. Ken Alex, Director
June 22, 2018
Page 3

cc: (w/enclosures via email)

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Continued next page.

Mr. Ken Alex, Director
June 22, 2018
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cc: (continued)

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Dr. Michael Benjamin, Chief
Air Quality Planning and Science Division
California Air Resources Board

Mr. Ken Alex, Director
June 22, 2018
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bcc: (via email w/o enclosures)

Margret Kim, LO
Dave Edwards, AQPSD
Nicole Dolney, AQPSD
Lezlie Kimura, AQPSD
Anny Huang, AQPSD
Steve Zelinka, AQPSD
Holger Sdun, AQPSD
Larry Hunsaker, AQPSD

AQPSD #10269 / ARB #20540

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Enclosures:

X:\AB900\Hollywood Center\Sharepoint Uploads\Hollywood Center EO.docx

X:\AB900\Hollywood Center\Sharepoint Uploads\ Attachment 1 (Hollywood Center) CARB Staff Evaluation.docx

X:\AB900\Hollywood Center\Sharepoint Uploads\ Attachment 2 (Hollywood Center AB 900) Application.pdf

X:\AB900\Hollywood Center\Sharepoint Uploads\ Attachment 1 Cover Sheet.docx

X:\AB900\Hollywood Center\Sharepoint Uploads\ Attachment 2 Cover Sheet.docx

**State of California
AIR RESOURCES BOARD**

EXECUTIVE ORDER G-18-046

**Relating to Determination of No Net Additional Greenhouse Gas Emissions
Under Public Resources Code section 21183, subdivision (c)
For the Hollywood Center Project**

WHEREAS, in September 2011, Governor Edmund G. Brown Jr. (Governor) signed the "Jobs and Economic Improvement through Environmental Leadership Act" (AB 900);

WHEREAS, under AB 900, the Governor may certify certain projects for judicial streamlining under the California Environmental Quality Act (CEQA) if certain conditions are met;

WHEREAS, under California Public Resources Code section 21183, subdivision (c), one condition for the Governor's certification is that the project does not result in any net additional emissions of greenhouse gases (GHG), as determined by the California Air Resources Board (CARB);

WHEREAS, the Governor's Guidelines for Streamlining Judicial Review (Guidelines) under CEQA require that, for purposes of CARB's determination on GHG emissions, an applicant submit electronically to CARB a proposed methodology for quantifying a project's net additional GHG emissions, and documentation that the project does not result in any net additional GHG emissions;

WHEREAS, pursuant to the Governor's Guidelines, MCAF Vine LLC; 1750 North Vine LLC; 1749 North Vine Street LLC; 1770 Ivar LLC; 1733 North Argyle LLC; and 1720 North Vine LLC (collectively, the Applicant) submitted its initial proposed GHG quantification methodologies and documentation to CARB on the proposed Hollywood Center Project (Proposed Project) on May 2, 2018, and clarifying documentation submitted on May 17, 2018, and May 29, 2018;

WHEREAS, the application submitted for the Proposed Project estimates net additional GHG emissions as follows:

1. Construction GHG Emissions: An additional 9,842 metric tons CO₂e emissions from Proposed Project construction and demolition activities. Construction-generated GHG emissions were estimated from equipment used for construction activities and from both on-site and off-site vehicles and equipment;

2. Operation-Related GHG Emissions: An additional 10,145 metric tons CO₂e emissions (or 9,096 metric tons CO₂e emissions, if the Residential Scenario is selected) during the first full year of Proposed Project operation (2027), and reduced operational emissions in future years over the lifetime of the Proposed Project.

WHEREAS, the Applicant proposes to secure 9,842 metric tons of one-time carbon credits to offset emissions generated during construction and to secure 293,187 metric tons (or 264,813 metric tons, if the Residential Scenario is selected) of carbon credits on a net present value basis to offset the net increase in emissions generated during Proposed Project operation through purchasing credible offset credits issued by an accredited carbon registry to fully offset these identified construction and operational GHG emissions;

WHEREAS, on March 26, 2018, the Applicant has entered into a binding and enforceable agreement with the City of Los Angeles (Lead Agency) that all mitigation measures required to certify the Proposed Project under AB 900 shall be conditions of approval of the Proposed Project, and those conditions will be fully monitored and enforced by the Lead Agency for the life of the obligation, pursuant to Public Resources Code section 21183, subdivision (e).

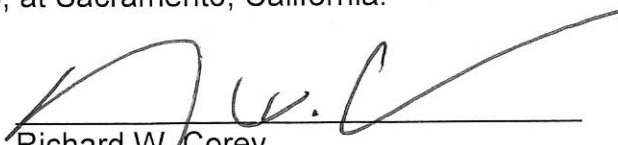
WHEREAS, CARB staff reviewed and evaluated the application in consultation with the Lead Agency;

WHEREAS, CARB staff conducted an evaluation of the GHG emission estimates and voluntary mitigation included in the application submitted by the Applicant and confirmed the documentation provides an adequate technical basis for estimating total GHG emissions and voluntary mitigation for the Proposed Project;

WHEREAS, CARB's review and determination on the Proposed Project's GHG emissions is for the limited purpose of the Governor's findings and certification under AB 900, and should not be construed as meeting any other requirement under State or federal law, including CEQA, and the Lead Agency remains responsible for full CEQA compliance for the Proposed Project;

NOW, THEREFORE, based on the *CARB Staff Evaluation of the AB 900 Application for the Hollywood Center Project* submitted by Applicant (Attachment 1 hereto), and the *Greenhouse Gas Emissions Methodology and Documentation* (Attachment 2 hereto), I determine that the Hollywood Center Project will not result in any net additional GHG emissions pursuant to Public Resources Code section 21183, subdivision (c) for purposes of certification under AB 900.

Executed this 21st day of June 2018, at Sacramento, California.


Richard W. Corey
Executive Officer

Attachments

1. CARB Staff Evaluation of AB 900 Application for the Hollywood Center Project
2. Greenhouse Gas Emissions Methodology and Documentation (Exhibit 7)

ATTACHMENT 1

**ARB Staff Evaluation of AB 900 Application for
Hollywood Center Project**

**CARB Staff Evaluation of AB 900 Application for
Hollywood Center Project**

May 30, 2018

I. Introduction

MCAF Vine LLC; 1750 North Vine LLC; 1749 North Vine Street LLC; 1770 Ivar LLC; 1733 North Argyle LLC; and 1720 North Vine LLC (collectively, the Applicant) propose a new mixed-use development on an approximately 4.46-acre site, bounded by Yucca Street, Ivar Avenue, Argyle Avenue, and Hollywood Boulevard (The Project). The portion of the Project located between Ivar Avenue and Vine Street is identified as the “West Site,” while the portion located between Vine Street and Argyle Avenue is identified as the “East Site.” The Project would remove existing underutilized surface parking areas and the approximately 1,237 square foot (sf) former rental car facility while the existing Capitol Records and Gogerty buildings (Capitol Records Complex) will be preserved.

The West Site would be developed with a 35-story West Building and an 11-story West Senior Building, with 449 residential dwelling units, 68 senior affordable dwelling units, 38,841 zoning square foot (zsf) of associated common spaces and 12,691 zsf of retail uses. The West Senior Building and West Building would be connected by a basement which would contain five floors of subterranean parking with 837 total parking spaces.

Two scenarios are being considered for the East Site, one with all residential dwelling units (Residential Scenario) and one which would include some hotel space in place of a portion of the residential units and common space (Hotel Scenario). Both scenarios would preserve the existing Capitol Records Complex and have the same massing, resulting in the same estimated construction emissions. In the Residential Scenario, the East Site would be developed with a 46-story East Building and an 11-story East Senior Building, with 423 residential dwelling units, 65 senior affordable dwelling units, 30,052 zsf of associated common spaces and 17,485 zsf of retail uses. The East Senior Building and East Building would be connected by a basement which would contain five floors of subterranean parking with a total of 684 parking spaces.

The Hotel Scenario for the East Site would include the same 46-story and 11-story buildings with the same associated basement of five floors and 684 parking spaces, however it would consist of 319 residential dwelling units, 220 hotel rooms, 48 senior affordable dwelling units, 150,194 zsf of associated common spaces and 17,485 zsf of retail uses. As the Hotel Scenario would result in higher operational emissions than the

Residential Scenario, the Hotel scenario will be considered the primary scenario for purposes of this evaluation.

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 zero net 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. 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, CARB staff concludes that, with commitments to 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 an approximately 6 year period, with demolition activities beginning as early as 2021. The construction emissions are estimated to be the same for both proposed scenarios. 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 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 Emissions¹

Construction Year	GHG Emissions (MT CO ₂ e/year)
2021	1,982
2022	1,616
2023	1,300
2024	1,992
2025	1,557
2026	1,395
Total	9,842
GHG Credits Required²	9,842

Notes:
 GHG = greenhouse gas; MT CO₂e = 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 increase 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 the Hotel and Residential project scenario operation related GHG emissions during a 30-year analysis horizon. 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 assumed that the existing land uses would continue without significant change and so claims no (zero) baseline emissions, a more conservative approach. The Applicant shall use the higher operating emissions of the two scenarios (the Hotel Scenario in this case) as the basis for determining GHG credits needed to offset this part of the Project. 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 Certificate of Occupancy for that building. The Applicant will purchase voluntary carbon credits for the net increase in operational emissions on a net-present value basis. The Applicant has agreed to submit copies of executed contracts for purchased carbon credits to CARB and the Governor’s Office. The

* Accredited carbon registries include the American Climate Registry (ACR), Climate Action Reserve (CAR), and Verified Carbon Standard (VCS).

commitment to enter into contracts to offset net additional GHG emissions will be a condition of project approval.

Table 2: Comparison of Baseline and Project Operation-Related GHG Emissions¹

Year ²	GHG Emissions (MT CO ₂ e/year)						GHG Credits Required ³ (Residential)	GHG Credits Required ³ (Hotel)
	Baseline	Project: Residential Scenario	Project: Hotel Scenario	Difference (Residential)	Difference (Hotel)			
2023	0	1,131	1,122	1,131	1,122	1,131	1,122	
2024	0	4,510	4,478	4,510	4,478	4,510	4,478	
2025	0	4,436	4,405	4,436	4,405	4,436	4,405	
2026	0	4,789	4,851	4,789	4,851	4,789	4,851	
2027	0	9,096	10,145	9,096	10,145	9,096	10,145	
2028	0	8,984	10,013	8,984	10,013	8,984	10,013	
2029	0	8,885	9,897	8,885	9,897	8,885	9,897	
2030	0	8,569	9,560	8,569	9,560	8,569	9,560	
2031	0	8,499	9,478	8,499	9,478	8,499	9,478	
2032	0	8,434	9,401	8,434	9,401	8,434	9,401	
2033	0	8,377	9,335	8,377	9,335	8,377	9,335	
2034	0	8,329	9,279	8,329	9,279	8,329	9,279	
2035	0	8,290	9,233	8,290	9,233	8,290	9,233	
2036	0	8,262	9,200	8,262	9,200	8,262	9,200	
2037	0	8,238	9,172	8,238	9,172	8,238	9,172	
2038	0	8,220	9,150	8,220	9,150	8,220	9,150	
2039	0	8,206	9,135	8,206	9,135	8,206	9,135	
2040	0	8,197	9,124	8,197	9,124	8,197	9,124	
2041	0	8,190	9,115	8,190	9,115	8,190	9,115	
2042	0	8,186	9,111	8,186	9,111	8,186	9,111	
2043	0	8,186	9,110	8,186	9,110	8,186	9,110	
2044	0	8,191	9,116	8,191	9,116	8,191	9,116	
2045	0	8,193	9,118	8,193	9,118	8,193	9,118	
2046	0	8,197	9,122	8,197	9,122	8,197	9,122	
2047	0	8,205	9,132	8,205	9,132	8,205	9,132	
2048	0	8,211	9,139	8,211	9,139	8,211	9,139	
2049	0	8,218	9,146	8,218	9,146	8,218	9,146	
2050	0	8,227	9,157	8,227	9,157	8,227	9,157	
2051	0	8,227	9,157	8,227	9,157	8,227	9,157	
2052	0	8,227	9,157	8,227	9,157	8,227	9,157	
2053	0	8,227	9,157	8,227	9,157	8,227	9,157	
2054	0	8,227	9,157	8,227	9,157	8,227	9,157	
2055	0	8,227	9,157	8,227	9,157	8,227	9,157	
2056	0	8,227	9,157	8,227	9,157	8,227	9,157	
Total						264,813	293,187	

Notes: GHG = greenhouse gas; MT CO₂e = 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 October 2023 for the West Side and December 2026 for the East Side. Therefore 2027 represents the first full year of operation for both sides.

³ Applicant commits to purchase carbon credits in an amount sufficient to offset net increase in operation-related GHG emissions for the higher of the two scenarios (the Hotel Scenario in this case). 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.

III. Overview of AB 900

AB 900, as amended by SB 743 (2013) and SB 734 (2016) 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, section 21183, subdivision (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 greenhouse gases. CARB staff evaluated the technical elements of the project application, assumptions regarding baseline conditions, 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.

IV. Existing Conditions

The East Site comprises the 13-story Capitol Records Building and two-story Gogerty Building (Capitol Records Complex). The Capitol Records Building was constructed in 1956. The Gogerty Building was renovated in 2003, but portions of the interior and façade from the original 1930 building are intact. The West Site comprises a one-story former rental car facility and surface parking lot. The Capitol Records Complex on the East Site will be preserved and maintained, while the rental car facility on the West Site will be demolished.

V. Proposed Project Description

The Project is located in the Hollywood Community Plan area of the City of Los Angeles (City) on an approximately 4.46-acre site, bounded by Yucca Street, Ivar Avenue, Argyle Avenue, and Hollywood Boulevard (Project Site). The portion of the Project located between Ivar Avenue and Vine Street is identified as the “West Site,” while the

portion located between Vine Street and Argyle Avenue is identified as the “East Site.” The Project is composed of 10 individual parcels, and is currently occupied by the Capitol Records and Gogerty Building (the Capitol Records Complex) and adjoining parking facilities on the East Site, and a former rental car facility and surface parking facilities on the West Site.

The Project would remove existing underutilized surface parking areas and the approximately 1,237 sf former rental car facility (currently leased and utilized by the American Musical and Dramatic Academy College and Conservatory of the Performing Arts) on the West Site and surface parking on the East Site (the Capitol Records Complex would be preserved although its supporting parking area would be altered) and would construct in their place new mixed-use high rise developments to include residential uses including senior affordable units, ground floor fast food and coffee shops and high-turnover sit-down restaurant spaces, public paseos providing contiguous pedestrian access through the site from west to east, landscaping, and vehicle and bicycle parking.

The West Site would be developed with a 35-story West Building and an 11-story West Senior Building. The West Building would contain 449 market rate residential dwelling units with associated residential common spaces (35,001 zsf) and retail uses (12,691 zsf). The West Senior Building would contain 68 senior affordable dwelling units and associated residential common spaces (3,840 zsf). The West Senior Building and West Building would be connected by a basement which would contain five floors of subterranean parking with 837 total parking spaces. The West Site would include approximately 61,075 sf of open space, including 14,970 sf of indoor amenity space, 25,549 sf of outdoor amenity deck, 8,656 sf of outdoor ground level open space, and 11,900 sf of private open space from balconies.

The East Site would preserve the existing Capitol Records Complex and would be developed with a 46-story East Building and an 11-story East Senior Building. There are two scenarios being considered for the East Site: a Residential Scenario and an Hotel Scenario. The East Site Residential Scenario would contain 423 market rate residential dwelling units with associated residential common spaces (26,178 zsf) and retail uses (17,485 zsf). The East Senior Building would contain 65 affordable dwelling units and associated residential common spaces (3,874 zsf). The East Senior Building and East Building would be connected by a basement which would contain five floors of subterranean parking with a total of 684 parking spaces. The East Site Residential Scenario would include approximately 59,100 sf of open space, including 10,900 sf of indoor amenity space, 13,000 sf of outdoor amenity deck, 22,300 sf of outdoor ground level open space, and 12,900 sf of private open space from balconies.

The East Site Hotel Scenario would contain 319 market rate residential dwelling units, 220 hotel rooms (130,278 zsf), associated common spaces (16,420 zsf), and retail uses (17,485 zsf). The East Senior Building would contain 48 affordable dwelling units and associated residential common spaces (3,496 zsf). The East Senior Building and East Building would be connected by a basement which would contain five floors of subterranean parking with a total of 684 parking spaces. The East Site Hotel Scenario would include approximately 59,100 sf of open space, including 10,900 sf of indoor amenity space, 13,000 sf of outdoor amenity deck, 22,300 sf of outdoor ground level open space, and 12,900 sf of private open space from balconies. As the Hotel Scenario would result in higher operational emissions than the Residential Scenario, the Hotel scenario will be considered the primary scenario for purposes of this evaluation.

Vehicular site access to the Project will be provided by driveways located on Ivar Avenue, Yucca Street, and Argyle Avenue. Access to the West Site will be provided via a driveway on Ivar Avenue. Loading access to the West Site will also be provided via Ivar Avenue. Access to the East Site will be provided via an alley off Argyle Avenue. Loading access to the East Site will also be provided via Argyle Avenue. The Yucca Street driveway, located between Vine Street and Argyle Avenue, also provides access to the East Site parking facilities, as well as direct access to the Capitol Records Complex. There would be no vehicular access from Vine Street.

The Project would provide up to 1,521 vehicle parking spaces, including 1,242 spaces dedicated to residential parking, 182 spaces provided for commercial uses, and 97 spaces reserved for the existing Capitol Records Complex use. Bicycle parking would also be provided consistent with the requirements of the Los Angeles Municipal Code (LAMC), with 551 bicycle parking spaces under the Residential Scenario and 554 bicycle parking spaces under the Hotel Scenario.

The Project Site is served by a network of regional transportation facilities that provide access to the greater metropolitan area. The Project Site is located approximately 600 feet north of the Hollywood/Vine Metro Red Line Station, which extends to Union Station and connects Downtown Los Angeles to North Hollywood. The Project is located in proximity to Metro Local Lines 180, 181 and 217 and Metro Rapid Line 780, which serves Hollywood Boulevard and Vine Street. The Project Site is located approximately 500 feet south of the Hollywood Freeway (US-101).

The Project Site contains 19 existing street trees and 49 existing on-site trees, none of which are protected. All existing trees would be removed and the Project would include the addition of 130 trees on the West Site and 122 trees on the East Site for a total of 252 trees. In addition, planting areas would consist of native plants, shrubs, perennials, and ground-cover to the Project Site. Both the West Site and East Site would provide a large elevated garden on Level 2 and outdoor amenity spaces and rooftop terraces on

the senior buildings with planting areas and canopy trees. Landscaping would be provided along the street edges and throughout all of the Project’s open space and would be selected from a large palette of native plants.

Construction of the Project would be completed over an approximately 6-year period. The Project would export approximately 321,675 cubic yards of soil and generate approximately 1,616 cubic yards of demolition debris such as asphalt, interior and exterior building demolition, and general demolition debris.

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

Table 3: Baseline and Project Scenario Land Uses

Land Use Type	Baseline Land Uses to be Demolished	Residential Scenario Land Uses	Hotel Scenario Land Uses
Rental Car Facility	1,237 sf	-	-
Residential/Apartments	-	1,005 du	884 du
Hotel	-	-	220 du
Commercial (Restaurant)	-	32,318 sf	32,318 sf
Residential (Commons)	-	74,265 sf	63,248 sf
Private Balcony Space	-	24,800 sf	27,544 sf
Open Space	-	69,505 sf	69,505 sf
Parking	-	752,455 sf (1,521 spaces)	752,455 sf (1,521 spaces)
Sidewalk	-	5,114 sf	5,114 sf
Notes: du = dwelling units, sf = square feet Source: as documented in Attachment 2, and confirmed by CARB staff.			

VI. Technical Review and Assessment

ESA, 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 utilized Version 2016.3.2 of the California Emissions Estimator Model (CalEEMod), a widely-used emissions quantification tool 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 (U.S. EPA) AP-42 emission factors, CARB's on-road and off-road equipment emission models such as the Emission Factor 2014 model (EMFAC2014), and the Off-road Emissions Inventory Program model (OFFROAD). The Applicant used the latest CalEEMod version including correction factors to account for compliance with the 2016 Title 24 Building Standards Code, in combination with project-specific data and CARB's EMFAC2014 mobile-source emission factors, to calculate GHG emissions from construction and operational emissions.

VII. Project Construction Emissions

Construction-related GHG emissions, including demolition-related emissions, are one-time, direct emissions and would occur over an approximately 6 year construction period. The Applicant estimated GHG emissions associated with project construction by using the CalEEMod tool and EMFAC2014. With some exceptions, the Applicant used CalEEMod default settings to estimate construction-related GHG emissions. For haul and concrete trucks, EMFAC2014 was used to estimate emissions instead of CalEEMod since CalEEMod assumes these activities occur every day during the relevant construction phases, while the Project will only use these trucks for a portion of the time. The Applicant estimates a total of 9,842 metric tons carbon dioxide equivalent (MT CO₂e) over the project construction period for either scenario, 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.

VIII. Baseline Operational Emissions

Baseline conditions are represented by operational emissions from land uses at the existing project site that would be demolished and removed as part of the project. Operational emissions were assumed to continue unchanged and the Applicant has chosen to claim zero baseline emissions. This is a conservative approach, as any baseline operational emissions could otherwise be used to offset project emissions in determining net GHG emissions.

CARB staff concluded that the assumptions provided by the Applicant of continued baseline operations and therefore zero GHG emissions offsets associated with baseline operations are appropriate.

IX. Proposed Project Operational Emissions

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

The Project will achieve the U.S. Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) Gold Certification and will be designed and operated to meet or exceed the applicable requirements of the State of California Green Building Standards Code and the City of Los Angeles Green Building Code. A summary of key green building and LEED measures are provided below:

- The Project will incorporate heat island reduction strategies for 50 percent of the site hardscapes or provide 100 percent structured parking and incorporate heat island reduction strategies for the Project roof areas.
- The Project will promote alternatives to conventionally fueled automobiles by providing electric vehicle charging stations and/or preferred parking for alternative- fuel vehicles, low-emitting, and fuel-efficient and ride-sharing vehicles.
- The Project will optimize building energy performance with a minimum of a 20 percent reduction from the LEED baseline consistent with LEED requirements.
- The Project will reduce water consumption by 40 percent for indoor water and 50 percent for outdoor water from the LEED usage baseline.
- 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.

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, a CO₂ emission factor of 595 pounds of CO₂ 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 CO₂ 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. Emission factors for CH₄ and N₂O were obtained from CalEEMod.

Mobile-source emissions were derived from estimates of vehicle miles traveled (VMT) induced by the Project, assumed fleet mix of the vehicles involved and associated emissions factors. The estimated VMT based on each land use were determined using the Transportation Efficiency Analysis prepared by Fehr and Peers for the Project (Fehr and Peers 2018). The trip lengths are based on the location and urbanization of the project area. The average trip length of each land use is the sum of the trip length of each trip type multiplied by the percentage of trip type. This VMT estimate was then reduced based on the Project's infill nature, location, design, and Travel Demand Management (TDM) program. A summary of key characteristics resulting in VMT reductions are provided below:

- Internal Capture Reduction: The Project's restaurant spaces would provide a convenient local destination for the residential element of the Project without having to drive to other locations. It was estimated that a reduction of 7 percent of the daily vehicle trips to and from the Project's fast food restaurant and the high-turnover sit down restaurant spaces come from the on-site residential element of the Project. It was also estimated that a reduction of 9 percent of daily vehicle trips to and from the high-rise condominiums/townhouses and 8 percent of daily vehicle trips to and from the senior affordable housing on both the West and East Sites of the Project would come from on-site restaurant and outdoor performance space elements of the Project. In addition, it was estimated that a reduction of 6 percent of daily vehicle trips to and from the outdoor performance would come from the on-site residential and restaurant elements of the Project.
- Transit and Walk/Bike Reduction: The Project is located in a highly-walkable area of Hollywood with a high level of provision of bicycle facilities and excellent access to transit services such as the Metro Red Line Hollywood/Vine station and bus stops served by both Metro Local and Rapid Lines within walking distance, that will provide convenient access to local employment, shopping and entertainment opportunities without using a car for the residents of the Project. Therefore, it was estimated that daily vehicle trips would be reduced by 15 percent due to transit and walk/bike trips, consistent with Los Angeles Department of Transportation (LADOT) guidelines and methodology.
- Transportation Demand Management (TDM) Reduction: The Project proposes a TDM package to encourage the use of non-auto modes and reduce vehicle trips that could include the following measures in Table 4:

Table 4: Transportation Demand Management (TDM) Reduction Measures

Parking	<ul style="list-style-type: none"> • Unbundle residential parking • Unbundle commercial parking coupled with pricing workplace parking and parking cash-out • Contribute to LADOT Express Park program to upgrade local parking meter technology • Daily parking discount for Metro Commuters
Transit	<ul style="list-style-type: none"> • On-site location to purchase Metro passes and bus info • Transit subsidies for residents and employees • Provide parking spaces for monthly lease to non-resident Metro park-n-ride users • Provide discounted daily parking to non-resident Metro transit pass holders • Bus stop upgrades • Upgrade/repair public sidewalks on route to Metro Red Line Hollywood/Vine Station
Commute Trip Reductions	<ul style="list-style-type: none"> • Rideshare matching and preferential parking • Guaranteed ride home • Alternative work schedules and telecommute • Business center/work center for residents working at home
Shared Mobility	<ul style="list-style-type: none"> • On-site car share • Rideshare matching • On-site bike share station and/or subsidized membership (residents, employees); on-site guest bike share service in Hotel scenario (if/when public bike share becomes available) • LADOT Mobility Hub program
Bicycle Infrastructure	<ul style="list-style-type: none"> • Develop a bicycle amenities plan • Bicycle parking (indoors and outdoors) • Bike lockers, showers, and repair station • Convenient access to on-site bicycle facilities • Contribution towards City's Bicycle Plan Trust Fund
Site Design	<ul style="list-style-type: none"> • Integrated pedestrian network within and adjacent to site (transit, bike, pedestrian friendly)
Education and Encouragement	<ul style="list-style-type: none"> • Transportation information center, kiosks and/or other on-site measures • Tech-enabled mobility: website/mobile app for comprehensive commute planning, on-demand rideshare matching, shared-ride reservations, real-time traffic/transit information, push notifications about transportation choices, etc. • Marketing and promotions
Management	<ul style="list-style-type: none"> • On-site TDM program coordinator and administrative support • Conduct user surveys • Join future Hollywood Transportation Management Organization (TMO)

The implementation of the TDM package would result in an estimated reduction of 13.5 percent of the daily vehicle trips to and from the residential element and 1.2 percent of the daily vehicle trips to and from the restaurant spaces of the Proposed Project.

- Pass-by Trip Reduction: The Project's commercial restaurant spaces would provide a convenient local destination for residents in the local neighborhood without having to drive to other locations. It was estimated that a reduction of 50 percent of daily vehicle trips to and from the Project's fast food restaurant space would result from pass-by customers. It was also estimated that a reduction of 20 percent of daily vehicle trips to and from the Project's high-turnover sit down restaurant spaces would result from pass-by customers.

This assessment uses the South Coast Air Basin motor vehicle fleet mix and the fleet average calendar year emissions factors from CARB's EMFAC2014 and EMFAC2017 models to estimate mobile source GHG emissions. The emissions estimated from EMFAC2014 will be considered for this evaluation as EMFAC2014 is the latest approved on-road emissions model for use in conformity purposes.

CalEEMod default emission factors and calculation methods were also used to estimate GHG emissions from natural gas, incorporating the above mentioned reductions in energy use from the USGBC LEED Gold Certification.

Emissions from solid waste disposal used the CalEEMod model with allowed outside inputs for waste disposal and diversion rates obtained from the City of Los Angeles and CalRecycle.

Emissions from water consumption used CalEEMod 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 defaults. The only additional stationary sources of emissions are two on-site emergency generators (one for the West Site and one for the East Site), each with an estimated capacity rated at approximately 1,500 kilowatts (2,012 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. 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.

Carbon sequestration was estimated using CalEEMod. The Project's net addition of 252 trees are estimated to sequester 178 metric tons of CO₂ over their active growing period of 20 years (or about 9 metric tons of CO₂ per year for the first 20 years of the Project's operation). The effects of carbon sequestration from trees assumes the Intergovernmental Panel on Climate Change (IPCC) active growing period of 20 years. Accumulation of carbon in biomass decreases as the trees age and would eventually be offset by clipping, pruning, and tree death. Therefore, GHG reductions from carbon sequestration are only applied to the first 20 years of the project's operation.

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.

X. 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 9,842 MT CO₂e during project construction, and an estimated net increase of 10,145 MT CO₂e during the first year of full project operation (2027), when both the West and East Site are at full operation under the most emissive of the two scenarios (the Hotel Scenario).

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 the

purchase of credible voluntary carbon credits issued by an accredited carbon registry sufficient to offset all projected additional GHG emissions, as detailed in Attachment 2. 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, consistent with policy recommendations included in CARB's Proposed 2017 Climate Change Scoping Plan Update. The Applicant will purchase credible voluntary carbon credits issued by an accredited carbon registry for the net increase in construction and operational emissions prior to issuance of any Certificate of Occupancy for the project. The commitments to enter into contracts to offset net additional GHG emissions will be incorporated as condition of project approval. The Applicant has agreed to submit copies of executed contracts for purchased carbon credits to CARB and the Governor's Office as evidence that this condition has been met.

XI. Conclusions and Recommendations

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

ATTACHMENT 2

Greenhouse Gas Emissions Methodology Documentation for Environmental Leadership Development Project Application (Exhibit 7)

Hollywood Center Project

(Submitted May 2, 2018)

Addendum to Greenhouse Gas Emissions Methodology Documentation for Environmental Leadership Development Project Application (Exhibit 7)

(Submitted May 29, 2018)

Greenhouse Gas Emissions Offset Approach for the Hollywood Center Project / LEED Measures (Exhibit 3)

(Submitted May 2, 2018)

Addendum to Greenhouse Gas Emissions Offset Approach for the Hollywood Center Project / LEED Measures (Exhibit 3)

(Submitted May 17, 2018)

Applicant's Acknowledgement of Obligations under Public Resources Code §21183 with the City of Los Angeles (Exhibit 8)

(Submitted May 2, 2018)

Exhibit 7

Greenhouse Gas Emissions Methodology and Documentation

Greenhouse Gas Emissions Methodology and Documentation for the Hollywood Center Project

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

Prepared for
MCAF Vine LLC; 1750 North Vine LLC;
1749 North Vine Street LLC; 1770 Ivar
LLC; 1733 North Argyle LLC; and 1720
North Vine LLC

May 2018



Greenhouse Gas Emissions Methodology and Documentation for the Hollywood Center Project

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

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Section 1

Executive Summary

ESA has been retained to conduct a comprehensive greenhouse gas (GHG) emissions assessment for the Hollywood Center Project (Project) and to demonstrate that the Project meets the requirements of the Jobs and Economic Improvement Through Environmental Leadership Act (“the Act”) (Public Resources Code Section 21178 et seq.), also referred to as Assembly Bill (AB) 900. In September 2011, the Governor signed the Act, which required the Governor to establish procedures for applying for streamlined environmental review under the California Environmental Quality Act (CEQA) for projects that meet certain requirements. In 2016, Senate Bill (SB) 734 was signed, which extended the authority of the Governor to certify a project to January 1, 2018 and provides that the certification expires and is no longer valid if the lead agency fails to approve a certified project before January 1, 2019. In October 2017, AB 246 was signed, which further extends the authority of the Governor to certify a project to January 1, 2020 and provides that the certification expires and is no longer valid if the lead agency fails to approve a certified project before January 1, 2021. The Office of Planning and Research (OPR) has provided approved guidelines for submitting applications for streamlined environmental review pursuant to the Act. With respect to GHG emissions, a project must demonstrate that it would not result in any net additional GHGs including GHG emissions from employee transportation in accordance with Public Resources Code Section 21183(c).

MCAF Vine LLC; 1750 North Vine LLC; 1749 North Vine Street LLC; 1770 Ivar LLC; 1733 North Argyle LLC; and 1720 North Vine LLC (collectively, the Applicant) propose a new mixed-use development (“Project”) in the City of Los Angeles (“City”) on an approximately 4.46-acre site, bounded by Yucca Street, Ivar Avenue, Argyle Avenue, and Hollywood Boulevard (Project Site). The portion of the Project located between Ivar Avenue and Vine Street is identified as the “West Site,” while the portion located between Vine Street and Argyle Avenue is identified as the “East Site.” The Project is composed of 10 individual parcels, and is currently occupied by the Gogerty Building (the Capitol Records Complex) and adjoining parking facilities on the East Site, and a former rental car facility and surface parking facilities on the West Site.

The Project would remove existing surface parking areas and the approximately 1,237 square foot former rental car facility (currently leased and utilized by the American Musical and Dramatic Academy College and Conservatory of the Performing Arts) on the West Site and surface parking on the East Site (the Capitol Records Complex would be preserved although its supporting parking area would be altered) and would construct in their place new mixed-use high rise developments to include residential uses including senior affordable units, ground floor fast food/coffee shops and high-turnover sit-down restaurant spaces, public paseos providing contiguous pedestrian access through the site from west to east, landscaping, and vehicle and bicycle parking. The West Site would be developed with a 35-story West Building and an 11-

story West Senior Building. The West Building would contain 449 market rate residential dwelling units with associated residential common spaces and retail uses. The West Senior Building would contain 68 senior affordable dwelling units and associated residential common spaces. The East Site would be developed with a 46-story East Building and an 11-story East Senior Building. There are two scenarios being considered for the East Site, a Residential Scenario and a Hotel Scenario, both of which would have the same massing, commercial square footage, and outdoor areas. The East Site Residential Scenario would contain 423 market rate residential dwelling units with associated residential common spaces and retail uses. The East Senior Building would contain 65 affordable dwelling units and associated residential common spaces of residential common spaces. The East Site Hotel Scenario would contain 319 market rate residential dwelling units, 220 hotel rooms, associated common spaces, and retail uses. The East Senior Building would contain 48 affordable dwelling units and associated residential common spaces.

Construction of the Project would generate one-time GHG emissions of approximately 1,945 MTCO₂e, during the first year, 1,614 MTCO₂e during the second year, 1,300 MTCO₂e during the third year, 1,955 MTCO₂e during the fourth year, 1,555 MTCO₂e during the fifth year and 1,395 MTCO₂e during the sixth year of construction. At full Project buildout of the East and West Sites under the Residential Scenario (i.e., year 2027), emissions of approximately 9,096 MTCO₂e would be generated during the first full year of operation using EMFAC2014 operational mobile source emissions factors and 8,772 MTCO₂e using EMFAC2017 operational mobile source emission factors. At full Project buildout of the East and West Sites under the Hotel Scenario (i.e., year 2027), emissions of approximately 10,145 MTCO₂e would be generated during the first full year of operation using EMFAC2014 operational mobile source emission factors and 9,766 MTCO₂e using EMFAC2017 operational mobile source emission factors. The Project operational GHG emissions would decline in future years primarily as a result of vehicle fleet turnover and as utilities provide a greater percentage of electricity from renewable sources. Future year emissions would decline as a greater percentage of motor vehicles meet more stringent emissions standards, including the Pavley Phase I and Phase II emissions standards,¹ and the a greater percentage of electricity is provided by renewable sources in accordance with the Renewables Portfolio Standard, which requires 50 percent renewable electricity by 2030.² The Project would obtain GHG offsets that would result in the Project to having no net increase in GHG emissions. As a result, the Project would generate decreased GHG emissions in future years and would require a decreased amount of offsets in future years to achieve no net increase in GHG emissions.

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

¹ Assembly Bill 1493 (Pavley Regulations) reduces GHG emissions in new passenger vehicles from model year 2012 through 2016 (Phase I) and model years 2017–2025 (Phase II). Also reduces gasoline consumption to a rate of 31 percent of 1990 gasoline consumption (and associated GHG emissions) by 2020.

² On April 12, 2011, Governor Jerry Brown signed SB XI-2 to increase California's Renewables Portfolio Standard to 33 percent by 2020. SB 350 (Chapter 547, Statutes of 2015) further increased the Renewables Portfolio Standard to 50 percent by 2030. The legislation also included interim targets of 40 percent by 2024 and 45 percent by 2027. SB 350 was signed into law on October 7, 2015.

Section 2

Introduction

2.1 Purpose

ESA has been retained to conduct a comprehensive greenhouse gas (GHG) emissions assessment for the Hollywood Center Project (Project) and to demonstrate that the Project meets the requirements of the Jobs and Economic Improvement Through Environmental Leadership Act (“the Act”) (Public Resources Code Section 21178 et seq.). This assessment describes the methodology used to estimate the GHG emissions from baseline and Project conditions, provides an estimate of the net change in GHG emissions for the Project as compared to baseline conditions, and describes the methodology used to quantify GHG emission reductions from Project design features and mitigation measures. The following baseline and Project-related emission sources have been evaluated:

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

2.2 Project Description, Site Location, Existing Uses

MCAF Vine LLC; 1750 North Vine LLC; 1749 North Vine Street LLC; 1770 Ivar LLC; 1733 North Argyle LLC; and 1720 North Vine LLC (collectively, the Applicant) propose a new mixed-use development on an approximately 4.46-acre site, bounded by Yucca Street, Ivar Avenue, Argyle Avenue, and Hollywood Boulevard (Project Site). The portion of the Project located between Ivar Avenue and Vine Street is identified as the “West Site,” while the portion located between Vine Street and Argyle Avenue is identified as the “East Site.” The Project is composed of 10 individual parcels, and is currently occupied by the Capitol Records and Gogerty Building (the Capitol Records Complex) and adjoining parking facilities on the East Site, and a former rental car facility and surface parking facilities on the West Site.

The Project would remove existing underutilized surface parking areas and the approximately 1,237 square foot former rental car facility (currently leased and utilized by the American Musical and Dramatic Academy College and Conservatory of the Performing Arts) on the West Site and surface parking on the East Site (the Capitol Records Complex would be preserved although its supporting parking area would be altered) and would construct in their place new

mixed-use high rise developments to include residential uses including senior affordable units, ground floor fast food/coffee shops and high-turnover sit-down restaurant spaces, public paseos providing contiguous pedestrian access through the site from west to east, landscaping, and vehicle and bicycle parking.

For the purposes of this GHG emissions assessment, the gross square feet (gsf) values are used, where applicable, in the GHG emissions calculations to account for GHG emissions from useable (e.g., leasable) floor area and non-useable (e.g., corridors and other non-leasable spaces) floor area.

The West Site would be developed with a 35-story West Building and an 11-story West Senior Building. The West Building would contain 449 market rate residential dwelling units with associated residential common spaces (35,001 zoning square feet [zsf]; 37,600 gsf) and retail uses (12,691 zsf; 13,220 gsf).³ The West Senior Building would contain 68 senior affordable dwelling units and associated residential common spaces (3,840 zsf; 4,000 gsf). The West Senior Building and West Building would be connected by a basement which would contain five floors of subterranean parking with 837 total parking spaces. The West Site would include approximately 61,075 sf of open space, including 14,970 sf of indoor amenity space, 25,549 sf of outdoor amenity deck, 8,656 sf of outdoor ground level open space, and 11,900 sf of private open space from balconies.

The East Site would preserve the existing Capitol Records Complex and would be developed with a 46-story East Building and an 11-story East Senior Building. There are two scenarios being considered for the East Site: a Residential Scenario and a Hotel Scenario. The East Site Residential Scenario would contain 423 market rate residential dwelling units with associated residential common spaces (26,178 zsf; 28,454 gsf) and retail uses (17,485 zsf; 18,214 gsf). The East Senior Building would contain 65 affordable dwelling units and associated residential common spaces (3,874 zsf; 4,210 gsf). The East Senior Building and East Building would be connected by a basement which would contain five floors of subterranean parking with a total of 684 parking spaces. The East Site Residential Scenario would include approximately 59,100 sf of open space, including 10,900 sf of indoor amenity space, 13,000 sf of outdoor amenity deck, 22,300 sf of outdoor ground level open space, and 12,900 sf of private open space from balconies.

The East Site Hotel Scenario would contain 319 market rate residential dwelling units, 220 hotel rooms (130,278 zsf; 141,606 gsf), associated common spaces (16,420 zsf; 17,848 gsf), and retail uses (17,485 zsf; 18,214 gsf). The East Senior Building would contain 48 affordable dwelling units and associated residential common spaces (3,496 zsf; 3,800 gsf). The East Senior Building and East Building would be connected by a basement which would contain five floors of subterranean parking with a total of 684 parking spaces. The East Site Hotel Scenario would include approximately 59,100 sf of open space, including 10,900 sf of indoor amenity space,

³ Calculations included in the analysis of environmental impacts for this Project conservatively assume that all of the commercial space would be used for restaurant uses. This provides for conservative analyses as restaurant uses generate greater impacts than retail uses. For example, restaurant uses generate greater levels of traffic, consumption of resources such as energy and water consumption, and associated GHG emissions.

13,000 sf of outdoor amenity deck, 22,300 sf of outdoor ground level open space, and 12,900 sf of private open space from balconies.

Vehicular site access to the Project will be provided by driveways located on Ivar Avenue, Yucca Street, and Argyle Avenue. Access to the West Site will be provided via a driveway on Ivar Avenue. Loading access to the West Site will also be provided via Ivar Avenue. Access to the East Site will be provided via an alley off Argyle Avenue. Loading access to the East Site will also be provided via Argyle Avenue. The Yucca Street driveway, located between Vine Street and Argyle Avenue, also provides access to the East Site parking facilities, as well as direct access to the Capitol Records Complex. There would be no vehicular access on Vine Street.

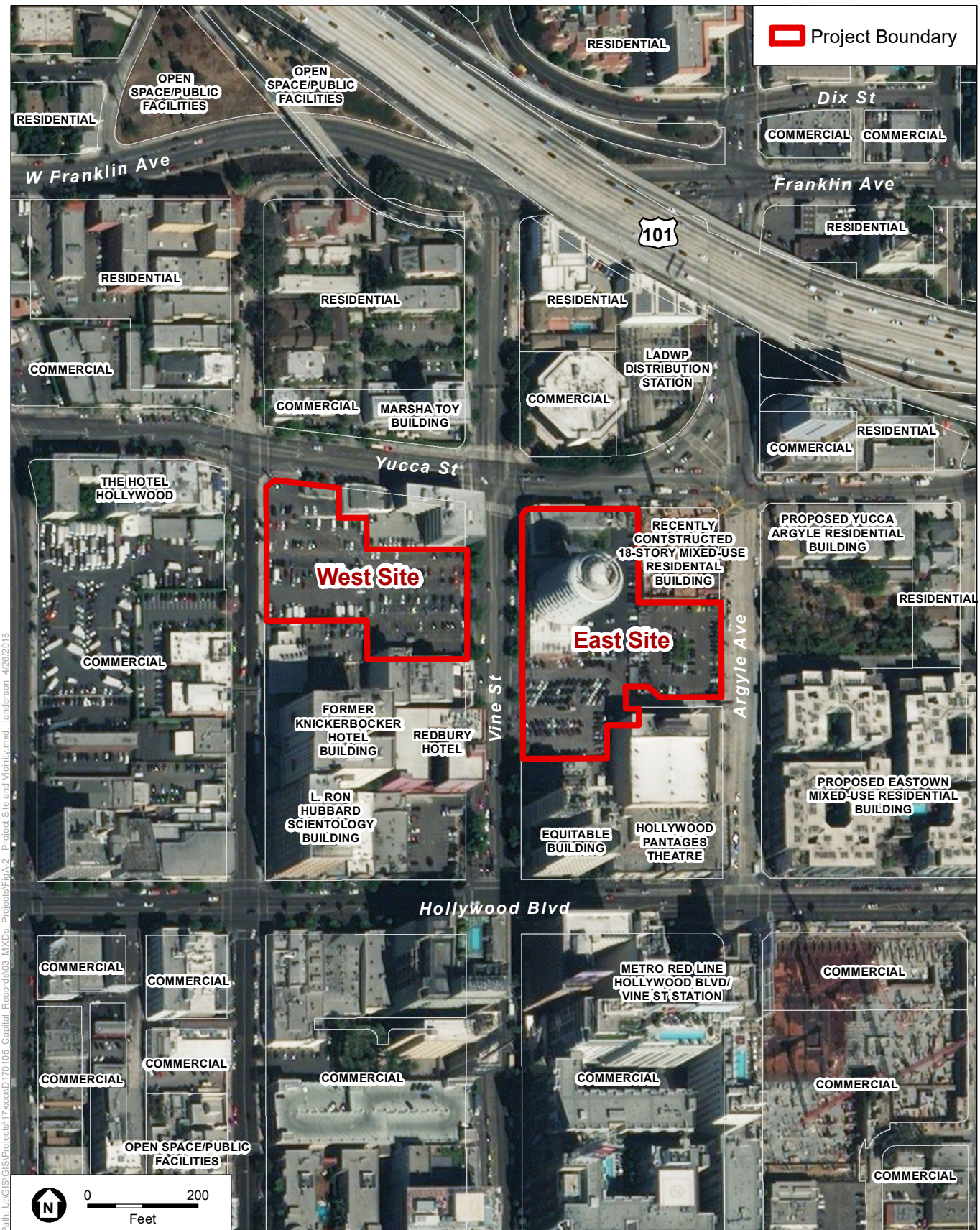
The Project would provide up to 1,521 vehicle parking spaces, including 1,242 spaces dedicated to residential parking, 182 spaces provided for commercial uses, and 97 spaces reserved for the existing Capitol Records Complex use. Bicycle parking would also be provided consistent with the requirements of the Los Angeles Municipal Code (LAMC), with 551 bicycle parking spaces under the Residential Scenario and 554 bicycle parking spaces under the Hotel Scenario.

The Project Site contains 19 existing street trees and 49 existing on-site trees, none of which are protected. All existing trees would be removed and the Project would include the addition of 130 trees on the West Site and 122 trees on the East Site for a total of 252 trees. In addition, planting areas would consist of native plants, shrubs, perennials, and ground-cover to the Project Site. Both the West Site and East Site would provide a large elevated garden on Level 2, outdoor amenity spaces with planting areas and canopy trees, and a rooftop terrace on the senior buildings with planting areas and canopy trees. Landscaping would be provided along the street edges and throughout all of the Project's open space and would be selected from a large pallet of native plants.

The Project Site is located in the Hollywood Community Plan area of the City of Los Angeles (City). The Project Site is served by a network of regional transportation facilities that provide access to the greater metropolitan area. The Project Site is located approximately 600 feet north of the Hollywood/Vine Metro Red Line Station, which extends to Union Station and connects Downtown Los Angeles to North Hollywood. The Project is located in proximity to Metro Local Lines 180, 181 and 217 and Metro Rapid Line 780, which serves Hollywood Boulevard and Vine Street. The Project Site is located approximately 500 feet south of the Hollywood Freeway (US-101).

Construction of the Project would be completed over an approximately 6-year period. The Project would export approximately 321,675 cubic yards of soil and generate approximately 1,616 cubic yards of demolition debris (asphalt, interior and exterior building demolition, and general demolition debris).

The Project Site and surrounding uses are shown in **Figure 1**. The conceptual plot plan for the Project is provide in **Figure 2** for the West Site and **Figure 3** for the East Site.



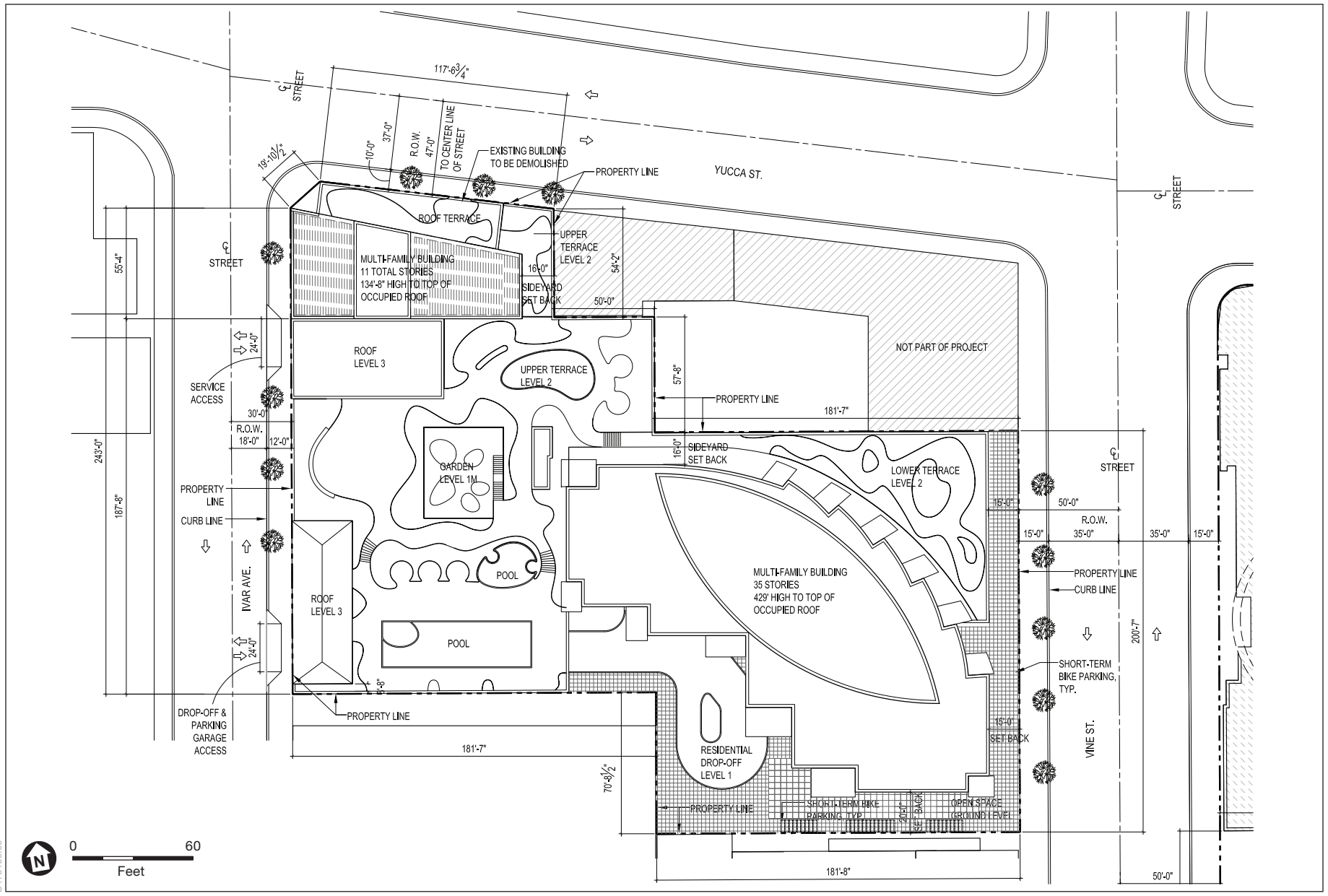
SOURCE: Google Earth, 2016.

Hollywood Center Project

Figure 1

Aerial Photograph of Project Site and Vicinity





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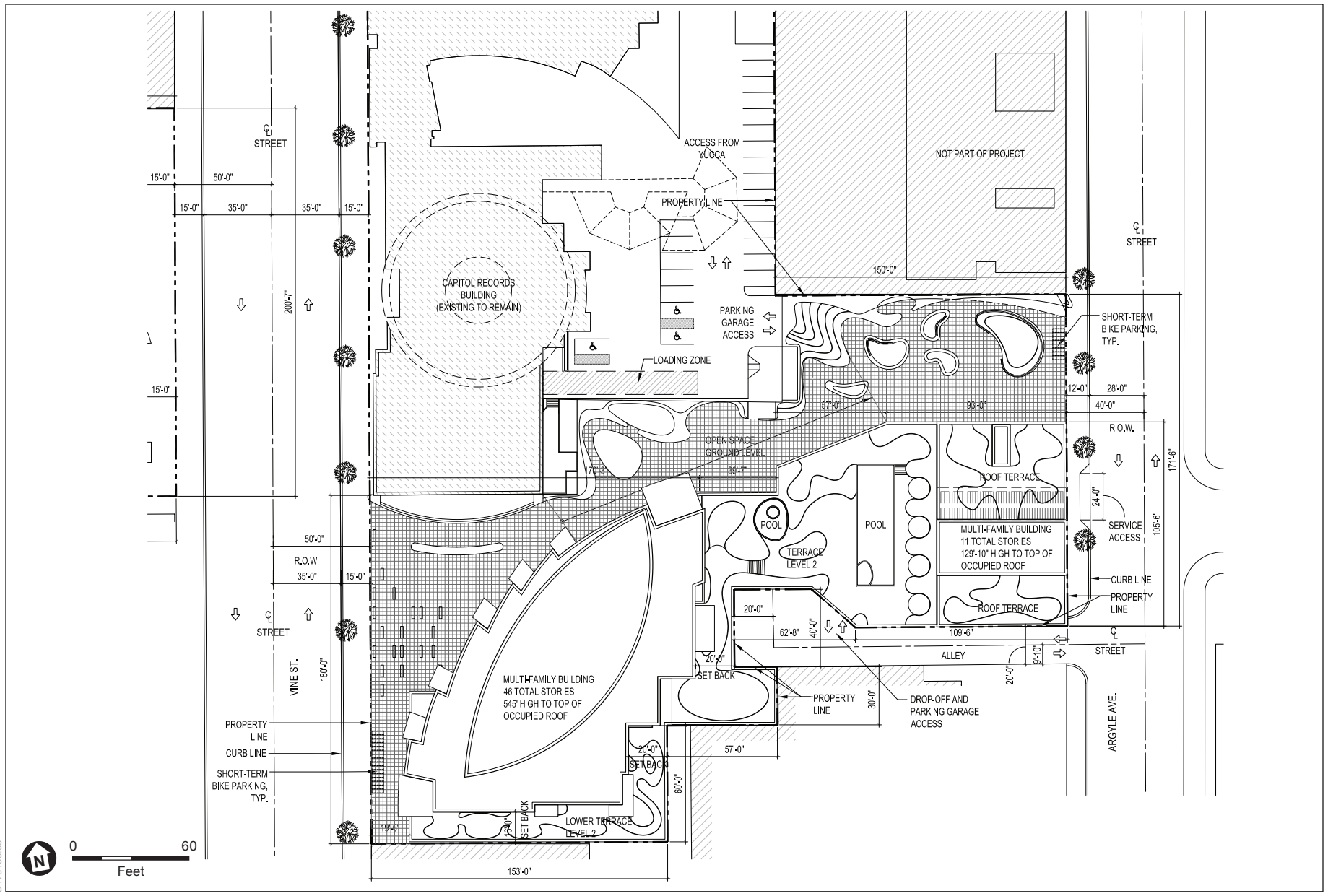
SOURCE: Handel Architects, 2018

Hollywood Center Project

Figure 2

Conceptual Plot Plan, West Site





SOURCE: Handel Architects, 2018

Hollywood Center Project

Figure 3

Conceptual Plot Plan, East Site



2.3 Jobs and Economic Improvement Through Environmental Leadership Act

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

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

Section 3

Greenhouse Gas Emissions

3.1 Global Climate Change and Greenhouse Gases

The natural process through which heat is retained in the troposphere⁴ is called the “greenhouse effect.” The greenhouse effect traps heat in the troposphere through a three-fold process as follows: (1) short wave radiation in the form of visible light emitted by the Sun is absorbed by the Earth as heat; (2) long-wave radiation re-emitted by the Earth; and (3) GHGs in the atmosphere absorbing or trapping the long-wave radiation and re-emitting it back towards the Earth and into space. This third process is the focus of global climate change actions.

The most commonly emitted GHG from anthropogenic (i.e., human) activities is carbon dioxide (CO₂). Not all GHGs possess the same ability to induce climate change; as a result, GHG contributions are commonly quantified in the units of equivalent mass of carbon dioxide (CO₂e). Mass emissions are calculated by converting pollutant-specific emissions to CO₂e emissions by applying the proper global warming potential (GWP) value.⁵ These GWP ratios are available from the Intergovernmental Panel on Climate Change (IPCC). Historically, GHG emission inventories have been calculated using the GWPs from the IPCC’s Second Assessment Report (SAR). The IPCC updated the GWP values based on the latest science in its Fourth Assessment Report (AR4). The updated GWPs in the IPCC AR4 are currently in use by the State of California for official GHG emission inventory purposes; therefore, this Project assessment also uses the GWP values from the IPCC AR4. By applying the GWP ratios, Project-related CO₂e emissions can be tabulated in metric tons of CO₂e (MTCO₂e) per year. Typically, the GWP ratio corresponding to the warming potential of CO₂ over a 100-year period is used as a baseline. The CO₂e values are calculated for construction years as well as existing and Project build-out conditions in order to generate a net change in GHG emissions for construction and operation. Compounds that are regulated as GHGs are discussed below.

- **Carbon Dioxide (CO₂):** CO₂ is the most abundant GHG in the atmosphere and is primarily generated from fossil fuel combustion from stationary and mobile sources. CO₂ is the reference gas (GWP of 1) for determining the GWPs of other GHGs.

⁴ The troposphere is the bottom layer of the atmosphere, which varies in height from the Earth’s surface to 10 to 12 kilometers.

⁵ GWPs and associated CO₂e values were developed by the Intergovernmental Panel on Climate Change (IPCC). Historically, GHG emission inventories have been calculated using the GWPs from the IPCC’s Second Assessment Report (SAR). The IPCC updated the GWP values based on the latest science in its Fourth Assessment Report (AR4). The California Air Resources Board (CARB) has begun reporting GHG emission inventories for California, starting with the 2012 inventory, using the GWP values from the IPCC AR4.

- Methane (CH₄): CH₄ is emitted from biogenic sources (i.e., resulting from the activity of living organisms), incomplete combustion in forest fires, landfills, manure management, and leaks in natural gas pipelines. The GWP of CH₄ is 25 in the IPCC AR4.
- Nitrous Oxide (N₂O): N₂O produced by human-related sources including agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic acid production, and nitric acid production. The GWP of N₂O is 298 in the IPCC AR4.
- Hydrofluorocarbons (HFCs): HFCs are fluorinated compounds consisting of hydrogen, carbon, and fluorine. They are typically used as refrigerants in both stationary refrigeration and mobile air conditioning systems. The GWPs of HFCs ranges from 124 for HFC-152a to 14,800 for HFC-23 in the IPCC AR4.
- Perfluorocarbons (PFCs): PFCs are fluorinated compounds consisting of carbon and fluorine. They are primarily created as a byproduct of aluminum production and semiconductor manufacturing. The GWPs of PFCs range from 7,390 to 17,700 in the IPCC AR4.
- Sulfur Hexafluoride (SF₆): SF₆ is a fluorinated compound consisting of sulfur and fluoride. It is a colorless, odorless, nontoxic, nonflammable gas. It is most commonly used as an electrical insulator in high voltage equipment that transmits and distributes electricity. SF₆ has a GWP of 22,800 in the IPCC AR4.

The Climate Registry (TCR) has prepared the General Reporting Protocol for calculating and reporting GHG emissions from a number of general and industry-specific activities (The Climate Registry 2016). No specific protocols are available for land use development projects; however, the General Reporting Protocol has been adapted to address the land use development GHG emissions in this assessment. The information provided in this assessment is generally consistent with the General Reporting Protocol minimum reporting requirements. The General Reporting Protocol recommends the separation of GHG emissions into three categories that reflect different aspects of ownership or control over emissions. They include:

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

According to the California Air Resources Board (CARB), the consideration of so-called indirect emissions provides a more complete picture of the GHG footprint of a facility: “As facilities consider changes that would affect their emissions – addition of a cogeneration unit to boost overall efficiency even as it increases direct emissions, for example – the relative impact on total (direct plus indirect) emissions by the facility should be monitored. Annually reported indirect energy usage also aids the conservation awareness of the facility and provides information” to CARB to be considered for future strategies by the industrial sector (CARB 2007). Additionally, the Office of Planning and Research directs lead agencies to “make a good-faith effort, based on available information, to calculate, model, or estimate...GHG emissions from a project, including the emissions associated with vehicular traffic, energy consumption, water usage and construction

activities.” (OPR 2008). Therefore, direct and indirect emissions are considered in this assessment.

3.2 Baseline Operational Emissions

3.2.1 Description of Baseline Condition

The East Site comprises the 13-story Capitol Records Building and two-story Gogerty Building (Capitol Records Complex). The Capitol Records Building was constructed in 1956. The Gogerty Building was renovated in 2003, but portions of the interior and façade from the original 1930 building are intact. The West Site comprises a one-story former rental car facility and surface parking lot. The Capitol Records Complex on the East Site will be preserved and maintained, and the former rental car facility on the West Site would be demolished.

3.2.2 GHG Emission Sources

Construction

The Project Site is currently built-out. Construction of the Capitol Records Complex, former rental car facility, and associated parking areas and infrastructure resulted in one-time GHG emissions of CO₂ and smaller amounts of CH₄ and N₂O from heavy-duty construction equipment, haul trucks, and worker vehicles. However, sufficient detail is not available with respect to the construction schedule, equipment usage, and number of haul trips to provide a quantitative construction GHG emissions assessment for the Baseline Condition. Therefore, construction-related GHG emissions are not included for the Baseline Condition. This is a conservative approach since, by excluding the Baseline Condition construction-related GHG emissions, the Project would need to provide slightly greater GHG reductions in order to meet the requirements of AB 900 of no net additional GHG emissions.

Operation

For the purposes of this analysis, no operational GHG emissions credit is assumed from the removal of the former rental car facility on the West Site because it is unknown whether the facility would relocate and continue to operate. Since the Capitol Records Complex on the East Site would continue to operate as under existing conditions and no GHG emissions credit is assumed from the removal of the former rental car facility on the West Site, this analysis assumes the Baseline Condition would generate the same operation GHG emissions with or without the Project. Therefore, Baseline Condition operational GHG emissions are not required to be calculated and the Project’s GHG emissions would be considered net new. This is a conservative approach since the Project would need to provide GHG reductions based on the Project’s total annual GHG emissions in order to meet the requirements of AB 900 of no net additional GHG emissions.

3.3 Project Construction and Operational Emissions

3.3.1 Description of Project Condition

A summary of the Project land uses is provided below in **Table 1**. The land uses listed below were used in the GHG emissions model as input values in the California Emissions Estimator Model (CalEEMod).

**TABLE 1
PROJECT LAND USES**

Land Use	CalEEMod Land Use	Units ^a
West Site		
West Senior Building	Apartments Mid Rise	68 dwelling units
West Building	Condo/Townhouse High Rise	449 dwelling units
Commercial - Ground Floor	Fast Food Restaurant without Drive Through	1,983 gsf
Commercial - Ground Floor	High Turnover (Sit Down Restaurant)	11,237 gsf
Residential Common Space	General Office ^b	41,600 gsf
Private Balconies	Other Non-Asphalt Surfaces	11,900 sf
Open Space	City Park ^c	34,205 sf
Sidewalk	User Defined Non-Asphalt	1,569 sf
Parking	Enclosed Parking with Elevator	837 spaces (414,005 gsf)
East Site – Residential Scenario		
East Senior Building	Apartments Mid Rise	65 dwelling units
East Building	Condo/Townhouse High Rise	423 dwelling units
Commercial - Ground Floor	Fast Food Restaurant without Drive Through	2,732 gsf
Commercial - Ground Floor	High Turnover (Sit Down Restaurant)	15,482 gsf
Residential Common Space	General Office ^b	32,665 gsf
Private Balconies	Other Non-Asphalt Surfaces	12,900 sf
Open Space	City Park ^c	35,300 sf
Sidewalk	User Defined Non-Asphalt	3,545 sf
Parking	Enclosed Parking with Elevator	684 spaces (338,450 gsf)

Land Use	CalEEMod Land Use	Units ^a
East Site – Hotel Scenario		
East Senior Building	Apartments Mid Rise	48 dwelling units
East Building	Condo/Townhouse High Rise	319 dwelling units
Hotel	Hotel	220 rooms (141,606 gsf)
Commercial - Ground Floor	Fast Food Restaurant without Drive Through	2,732 gsf
Commercial - Ground Floor	High Turnover (Sit Down Restaurant)	15,482 gsf
Residential Common Space	General Office ^b	21,648 gsf
Private Balconies	Other Non-Asphalt Surfaces	15,644 sf
Open Space	City Park ^c	35,300 sf
Sidewalk	User Defined Non-Asphalt	3,545 sf
Parking	Enclosed Parking with Elevator	680 spaces (338,450 gsf)

^a For the purposes of the GHG emissions calculations, the gross square footages of land uses, as applicable, was modeled rather than zoning floor area to provide a conservative analysis.

^b For emissions calculation purposes, Common Open Space was categorized in CalEEMod as the land use type General Office Building which is defined as land uses that house multiple tenants where affairs of businesses commercial or industrial organizations or professional persons or firms are conducted. This CalEEMod land use type was determined to provide a reasonably conservative estimate of emissions for these Project uses.

^c For emissions calculation purposes, Open Space refers to outdoor open space and was categorized in CalEEMod as the land use type City Park which is the closest fit in CalEEMod for this land use type. This CalEEMod land use type was determined to provide a reasonably conservative estimate of emissions for these Project uses. The Project does not include any City-owned parks.

SOURCE: Handel Architects LLP, 2018; ESA, 2018

For the purposes of this assessment, in order to provide a comparison of the Project's GHG emissions with the Baseline Condition, and to assess future GHG emissions trends of the Project, emissions of GHGs are estimated for the Project's construction and operational lifetime. Within the Project's operational lifetime, there are several key milestone years. The milestone years correspond to the following circumstances:^{6, 7}

- 2024: Expected full initial operational year of the West Site of the Project concurrent with commencement of construction of East Site (electric utilities, including Los Angeles Department of Water and Power [LADWP], are expected to supply a minimum of 40 percent of electricity via renewable sources by year 2024);
- 2025: The year in which the model year 2017-2025 light-duty vehicle GHG emissions and Corporate Average Fuel Economy standards are to be fully implemented for new vehicles;
- 2027: Expected full initial operational year of the Project (electric utilities, including LADWP, are expected to supply a minimum of 45 percent of electricity via renewable sources by year 2027);

⁶ Assembly Bill 1493 (Pavley Regulations) reduces GHG emissions in new passenger vehicles from model year 2012 through 2016 (Phase I) and model years 2017–2025 (Phase II). Also reduces gasoline consumption to a rate of 31 percent of 1990 gasoline consumption (and associated GHG emissions) by 2020.

⁷ On April 12, 2011, Governor Jerry Brown signed SB XI-2 to increase California's Renewables Portfolio Standard to 33 percent by 2020. SB 350 (Chapter 547, Statutes of 2015) further increased the Renewables Portfolio Standard to 50 percent by 2030. The legislation also included interim targets of 40 percent by 2024 and 45 percent by 2027. SB 350 was signed into law on October 7, 2015.

- 2030: The year in which electric utilities, including LADWP, are expected to supply a minimum of 50 percent of electricity via renewable sources.

3.3.2 GHG Emission Sources and Calculation Methodology

Construction

Construction of the Project would result in one-time GHG emissions of CO₂ and smaller amounts of CH₄ and N₂O from heavy-duty construction equipment, vendor trucks, and worker vehicles. Construction emissions are forecasted by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying the off-road and on-road emissions factors. The emissions are estimated using the CalEEMod tool, which incorporates the CARB off-road equipment emissions factor model (OFFROAD) and on-road vehicle emissions factor model (EMFAC). The output values used in this analysis are adjusted to be Project-specific based on equipment types and the construction schedule. These values are applied to the construction phasing assumptions to generate GHG emissions values for each construction year. The CalEEMod tool provides options for specifying equipment, horsepower ratings, load factors, and operational hours per day. Since a construction contractor(s) has not yet been retained for the Project, specific equipment specifications are not yet known. Therefore, recommended equipment and vehicle horsepower ratings and load factors provided in CalEEMod are used in this assessment. According to the CalEEMod User's Guide, the model "utilizes widely accepted methodologies for estimating emissions combined with default data that can be used when site-specific information is not available." (CARB 2017a) Therefore, the use of the recommended CalEEMod data is an appropriate methodology. In addition, certain equipment, such as tower cranes and compressors, would be electric powered and were modeled in CalEEMod using the electric fuel input, rather than diesel fuel. Haul trucks would be used to export soil from the Project Site. Concrete trucks would be used to import concrete to the Project Site. Emissions from haul trucks and continuous pour concrete trucks were estimated outside of CalEEMod using EMFAC2014 emission factors for heavy-duty trucks because soil would be exported for only a portion of the days during the site preparation and grading/excavation construction phases, and the continuous concrete pour would occur for approximately 1 day for each site, so 2 days total (i.e., CalEEMod would incorrectly assume soil export and concrete import would occur every day during these phases).

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

West Site:

- **Demolition:** This phase is anticipated to begin as early as 2021 and last for approximately two months. If construction commences at a later date, this assessment would be considered conservative as future year emission factors tend to decline in future years. Construction equipment would include an air compressor, concrete saw, loader, haul trucks, jackhammer, dumper/tender and other construction equipment.
- **Utilities/Trenching:** This activity is anticipated to have some overlap with demolition and site preparation and last for approximately one month. During this phase, trenching for site

utilities would occur. Construction equipment would include an air compressor, concrete saw, backhoe and loader.

- **Site Preparation:** This phase is anticipated to overlap with demolition, utilities/trenching, and grading and excavation and last for approximately one month. Construction equipment would include an excavator and loader.
- **Grading and Excavation:** This phase is anticipated to have some overlap with the demolition and site preparation phases and last for just over approximately five months. Construction equipment would include a backhoe, dumper/tenders, excavators, haul trucks, and loaders. Approximately 168,020 cubic yards of soil would be excavated and exported.
- **Foundation/Concrete Pouring:** This activity is anticipated to occur after grading and excavation and would be before building construction activities for approximately two months. During this activity, the building foundations would be prepared and concrete pouring would occur along with cast-in drilled hole foundations and column footings. Construction equipment would include concrete trucks, an air compressor, backhoe, crane, forklift, jackhammer and a pump.
- **Building Construction:** This phase is anticipated to begin after foundations/concrete pouring for approximately two years. During this phase, the building would be constructed. Construction equipment would include an air compressor, backhoe, drill rig, cranes, dumper/tenders, forklift, jackhammer, pumps, and material/vendor supply trucks.
- **Paving:** This activity is anticipated to last for approximately three months and occur during the building construction phase and overlap with the architectural coating phase. During this activity, paving materials would be poured during construction of the buildings and related features and the surfaces would be paved. Construction equipment would include a backhoe, concrete saw, grader, paver, paving equipment, plate compactor, roller, surfacing equipment, sweeper/scrubber, and other equipment.
- **Architectural Coating:** This activity is anticipated to last for approximately 15 months and occur during the building construction phase and overlap with the paving phase. During this activity, the interior and exterior coating would be applied to the residential and commercial uses as the floors are built out. Specific coating equipment would include an air compressor, dumper/tender, and forklift.

East Site

- **Site Preparation:** This phase is anticipated to begin as early as 2024 and last for approximately one month. If construction commences at a later date, this assessment would be considered conservative as future year emission factors tend to decline in future years. Construction equipment would include an excavator and loader.
- **Grading and Excavation:** This phase is anticipated to have some overlap with the site preparation and utilities/trenching phases and last for approximately five months. Construction equipment would include a backhoe, dumper/tenders, excavators, haul trucks, and loaders. Up to approximately 153,655 cubic yards of soil would be excavated and exported
- **Utilities/Trenching:** This activity is anticipated to have some overlap with site preparation and grading and excavation and last for approximately one month. During this phase, trenching for site utilities would occur. Construction equipment would include an air compressor, concrete saw, backhoe and loader.

- **Foundations/Concrete Pouring:** This activity is anticipated to occur after the grading and excavation phase and would be before the building construction activities for just under approximately two months. During this activity, the building foundations would be prepared and concrete pouring would occur along with cast-in drilled hole foundations and column footings. Construction equipment would include concrete trucks, an air compressor, backhoe, crane, forklift, jackhammer and a pump.
- **Building Construction:** This phase is anticipated to begin after the foundations/concrete pouring phase and would have last for approximately two years and 4 months. During this phase, the building would be constructed. Construction equipment would include an air compressor, backhoe, drill rig, cranes, dumper/tenders, forklift, jackhammer, pumps, and material/vendor supply trucks.
- **Paving:** This activity is anticipated to last for approximately three months and overlap with the building construction phase. During this activity, paving materials would be poured during construction of the buildings and related features and the surfaces would be paved. Construction equipment would include a backhoe, concrete saw, grader, paver, paving equipment, plate compactor, roller, surfacing equipment, sweeper/scrubber, and other equipment.
- **Architectural Coating:** This activity is anticipated to last for approximately 15 months and occur during the building construction phase. During this activity, the interior and exterior coating would be applied to the residential and commercial uses as the floors are built out. Specific coating equipment would include an air compressor, dumper/tender and forklift.

The emissions of GHGs associated with construction of the Project were calculated for each year of construction activity. Detailed emissions calculations are provided in **Appendix A**. Results of the GHG emissions calculations are presented in **Table 2**. Although GHGs are generated during construction and are accordingly considered one-time emissions, it is important to them when assessing all of the long-term GHG emissions associated with the Project.

TABLE 2
ESTIMATED UNMITIGATED PROJECT CONSTRUCTION GREENHOUSE GAS EMISSIONS

Emission Source	Annual GHG Emissions ^a (MTCO_{2e})
Construction Year 1	1,945
Construction Year 2	1,614
Construction Year 3	1,300
Construction Year 4	1,955
Construction Year 5	1,555
Construction Year 6	1,395

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

SOURCE: ESA 2018.

Operational Energy – Electricity

The generation of electricity in California is achieved through the combustion of fossil fuels, primarily natural gas, using steam boilers, internal combustion engines, and combustion turbines. A portion of the electricity in California is imported from outside the state and is derived from the combustion of coal and other non-gaseous fossil fuels. The combustion of fossil fuels to produce electricity results in GHG emissions of CO₂ and smaller amounts of CH₄ and N₂O. These emissions occur due to the electrical demand of the existing land uses that currently operate on the Project Site. The electricity generation occurs off-site; therefore, electricity use results in GHG emissions that are considered to be indirect.

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

Electricity:

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

Where:	Units	=	Number of land use units or developed area (same land use type) [dwelling unit (DU) or 1000 sqft]
	D _E	=	Electrical demand factor [megawatt-hour (MWh)/DU/year or MWh/1000 sqft/year]
	EF _E	=	GHG emission factor [pounds per megawatt-hour (MWh)]
	GWP	=	Global warming potential [CO ₂ = 1, CH ₄ = 25, N ₂ O = 298]
	2204.62	=	Conversion factor [pounds/MT]
	i	=	Summation index

For residential land uses, emission factors are specified in units of dwelling units (DU). For nonresidential land uses, emission factors are specified in units of 1,000 square feet. This assessment also includes electricity-related GHG emissions from the proposed enclosed parking structure, which would include elevators, lighting, and a ventilation system.

Electricity demand is based on data from the California Commercial End-Use Survey (CEUS), which lists energy demand by building type (CEC 2018). However, since the data from the CEUS is from 2002, CalEEMod incorporates correction factors to account for compliance with the 2016 Title 24 Building Standards Code, which went into effect on January 1, 2017. The Project would be required to meet the Title 24 standards in effect at the time of building permit application. For example, new Title 24 standards are anticipated to be adopted in the 2019 timeframe. Although the energy efficiency requirements of these future standards are not yet known, if these standards are in effect at the time of building permit application, the Project would be expected achieve greater levels of energy efficiency compared to the 2016 Title 24 standards and energy-related GHG emissions would be reduced further below the levels shown in the analysis.

The Project would be designed to incorporate Project Design Features (PDFs) that would reduce its energy demand with the goal of achieving or exceeding the requirements of the State of California Green Building Standards (CALGreen) Code, the City of Los Angeles Green Building Code, and the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) Gold Certification.⁸ According to the USGBC, LEED is the most widely used green building rating system in the world. Thus, the Project would reduce its electricity demand as compared to the default electricity factors in CalEEMod. The PDFs were accounted for in CalEEMod by selecting the appropriate options in the “mitigation measures” section of the model. Green building features that would result in quantifiable reductions in GHG emissions would include the following:

Green Building Features: The Project will achieve the USGBC LEED Gold Certification and will be designed and operated to meet or exceed the applicable requirements of the State of California Green Building Standards Code and the City of Los Angeles Green Building Code. A summary of key green building and LEED measures are provided below:

- The Project will incorporate heat island reduction strategies for 50 percent of the site hardscapes or provide 100 percent structured parking and incorporate heat island reduction strategies for the Project roof areas.
- The Project will promote alternatives to conventionally fueled automobiles by providing electric vehicle charging stations and/or preferred parking for alternative-fuel vehicles, low-emitting, and fuel-efficient and ride-sharing vehicles.
- The Project will optimize building energy performance with a 20 percent reduction from the LEED baseline consistent with LEED requirements (equivalent to approximately 11.6 percent reduction from the 2016 Title 24 standards) (DOE 2014, Energy Star 2018).
- The Project will reduce water consumption by 40 percent for indoor water and 50 percent for outdoor water from the LEED usage baseline.
- 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.

The LADWP provides electric service to the Project Site. Currently, LADWP provides 21 percent of electricity via renewable sources (LADWP 2016). LADWP is required to provide an increasing percentage from renewable sources in compliance with the Renewables Portfolio Standard with 33 percent by 2020, 40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. During calendar year 2015, 36 percent of the energy delivered to LADWP customers was generated from two coal-fired generating stations: the Intermountain Power Project (IPP), located in Utah, and the Navajo Generating Station (NGS), located in Arizona. These stations provide base load generation to Los Angeles; however, they emit about twice as much CO₂ as energy generated from natural gas (LADWP 2016). On July 1, 2016, LADWP sold its 477 MW share in NGS to Salt River Project, three and a half years before the operating agreement and land lease

⁸ The LEED Gold Certification requirement for the Jobs and Economic Improvement Through Environmental Leadership Act for ELDP projects is established pursuant to AB 246 (Santiago, Ch. 522, Statutes of 2017), which was signed by the Governor on October 6, 2017.

expires in December 2019 (LADWP 2016). LADWP continues to focus on early coal replacement options as a means to lower LADWP's CO₂ emission levels and increase renewable sources in accordance with the Renewables Portfolio Standard.

Based on data obtained from CARB staff, “[i]f an applicant would like to use an EF [emission factor] that represents the state’s Renewable Portfolio Standard (RPS) law and growth in electricity demand, the EF of 595 [pounds] CO₂/MWh may be used.”⁹ According to CARB staff, the “EF represents a ‘marginal’ supply profile for new generation that will be added to the grid in the years 2020 and beyond, and is consistent with the methodology used in state emission rule impact assessments.” (CARB 2017b) Therefore, consistent with the CARB staff recommendation, a CO₂ intensity factor of 595 pounds of CO₂ per MWh applies to operational electricity emissions between 2020 and 2023. However, because the first full operational year would be 2024 for the West Site and 2027 for the East Site, these future year CO₂ intensity 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. Emission factors for CH₄ and N₂O were obtained from CalEEMod (CAPCOA 2018). The estimated annual emissions from electrical demand from the Project’s land uses during the opening year are provided in **Table 3**, **Table 4** and **Table 5**. Detailed emissions calculations are provided in **Appendix B**.

TABLE 3
WEST SITE - ELECTRICAL DEMAND GREENHOUSE GAS EMISSIONS

Land Use	Units (DU or 1000 sqft)	Annual Electrical Demand Factor, D _E (MWh/year) ^a	Emission Factor, EF _E (pounds/MWh)			Annual GHG Emissions (MTCO ₂ e/year) ^d
			CO ₂ ^b	CH ₄ ^c	N ₂ O ^c	
West Site						
2024-2026						
West Building	449 DU	1,886.1	533	0.029	0.0062	458.1
West Senior Building	68 DU	268.0	533	0.029	0.0062	65.1
Fast Food Restaurant	4.0	8.6	533	0.029	0.0062	20.8
High Turnover (Sit Down Rest.)	9.3	485.4	533	0.029	0.0062	117.9
Residential Common Open Space	41.6	518.1	533	0.029	0.0062	125.9
Open Space ^e	34.2	12.0	533	0.029	0.0062	2.9
Enclosed Parking with Elevator	414.0	2,237.8	533	0.029	0.0062	543.6
Subtotal						1,334

⁹ California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects, January 2017. The emission factor of 595 pounds CO₂/MWh is from the California LEV III Initial Statement Of Reasons (ISOR, Dec. 7, 2011), <http://www.arb.ca.gov/regact/2012/leviiiighg2012/leviiiighg2012.htm>, based on analysis with CA-GREET model. This document is provided in **Appendix C**.

Land Use	Units (DU or 1000 sqft)	Annual Electrical Demand Factor, D _E (MWh/year) ^a	Emission Factor, EF _E (pounds/MWh)			Annual GHG Emissions (MTCO ₂ e/year) ^d
			CO ₂ ^b	CH ₄ ^c	N ₂ O ^c	
2027-2029						
West Building	449 DU	1,886.1	488	0.029	0.0062	419.6
West Senior Building	68 DU	268.0	488	0.029	0.0062	59.6
Fast Food Restaurant	4.0	8.6	488	0.029	0.0062	19.1
High Turnover (Sit Down Rest.)	9.3	485.4	488	0.029	0.0062	108.0
Residential Common Open Space	41.6	518.2	488	0.029	0.0062	115.3
Open Space ^e	34.2	12.0	488	0.029	0.0062	2.7
Enclosed Parking with Elevator	414.0	2,237.8	488	0.029	0.0062	497.9
Subtotal						1,222
2030-2052						
West Building	449 DU	1,886.1	444	0.029	0.0062	382.0
West Senior Building	68 DU	268.0	444	0.029	0.0062	54.3
Fast Food Restaurant	4.0	8.6	444	0.029	0.0062	17.4
High Turnover (Sit Down Rest.)	9.3	485.4	444	0.029	0.0062	98.3
Residential Common Open Space	41.6	518.2	444	0.029	0.0062	105.0
Open Space ^e	34.2	12.0	444	0.029	0.0062	2.4
Enclosed Parking with Elevator	414.0	2,237.8	444	0.029	0.0062	453.2
Subtotal						1,112

^a California Air Pollution Control Officers Association, California Emissions Estimator Model, Climate Zone 11, <http://www.caleemod.com/>. Accessed March 2018. The current version of CalEEMod (version 2016.3.2) includes electricity and natural gas correction factors for the 2016 version of the Title 24 building standards. The Project would be approximately 11.6% more efficient than 2016 Title 24 Standards per LEED Gold Certification.

^b California Air Resources Board, Statewide Emission Factors (EF) for Use with AB 900 Projects, January 2017.

^c California Air Pollution Control Officers Association, California Emissions Estimator Model, <http://www.caleemod.com/>. Accessed March 2018.

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

^e For emissions calculation purposes, lighting electricity values from the CalEEMod land use type parking lot was assigned to this outdoor open space land use to account for lighting electricity-related GHG emissions.

SOURCE: ESA 2018.

TABLE 4
EAST SITE (RESIDENTIAL SCENARIO) - ELECTRICAL DEMAND GREENHOUSE GAS EMISSIONS

Land Use	Units (DU or 1000 sqft)	Annual Electrical Demand Factor, D _E (MWh/year) ^a	Emission Factor, EF _E (pounds/MWh)			Annual GHG Emissions (MTCO ₂ e/year) ^d
			CO ₂ ^b	CH ₄ ^c	N ₂ O ^c	
East Site – Residential Scenario						
2027-2029						
East Building	423 DU	1,776.9	488	0.029	0.0062	395.3
East Senior Building	65 DU	356.2	488	0.029	0.0062	57.0
Fast Food Restaurant	2.7	118.0	488	0.029	0.0062	26.3
High Turnover (Sit Down Rest.)	15.5	668.8	488	0.029	0.0062	148.8
Residential Common Open Space	32.7	406.9	488	0.029	0.0062	90.5
Open Space ^e	35.3	12.4	488	0.029	0.0062	2.7
Enclosed Parking with Elevator	338.5	1,829.4	488	0.029	0.0062	407.0
Subtotal						1,128
2030-2056						
East Building	423 DU	1,776.9	444	0.029	0.0062	359.9
East Senior Building	65 DU	356.2	444	0.029	0.0062	51.9
Fast Food Restaurant	2.7	118.0	444	0.029	0.0062	23.9
High Turnover (Sit Down Rest.)	15.5	668.8	444	0.029	0.0062	135.5
Residential Common Open Space	32.7	406.9	444	0.029	0.0062	82.4
Open Space ^e	35.3	12.4	444	0.029	0.0062	2.5
Enclosed Parking with Elevator	338.5	1,829.4	444	0.029	0.0062	371.0
Subtotal						1,027

^a California Air Pollution Control Officers Association, California Emissions Estimator Model, Climate Zone 11, <http://www.caleemod.com/>. Accessed March 2018. The current version of CalEEMod (version 2016.3.2) includes electricity and natural gas correction factors for the 2016 version of the Title 24 building standards. The Project would be approximately 11.6% more efficient than 2016 Title 24 Standards per LEED Gold Certification.

^b California Air Resources Board, Statewide Emission Factors (EF) for Use with AB 900 Projects, January 2017.

^c California Air Pollution Control Officers Association, California Emissions Estimator Model, <http://www.caleemod.com/>. Accessed March 2018.

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

^e For emissions calculation purposes, lighting electricity values from the CalEEMod land use type parking lot was assigned to this outdoor open space land use to account for lighting electricity-related GHG emissions.

SOURCE: ESA 2018.

**TABLE 5
EAST SITE (HOTEL SCENARIO) - ELECTRICAL DEMAND GREENHOUSE GAS EMISSIONS**

Land Use	Units (DU or 1000 sqft)	Annual Electrical Demand Factor, D _E (MWh/year) ^a	Emission Factor, EF _E (pounds/MWh)			Annual GHG Emissions (MTCO ₂ e/year) ^d
			CO ₂ ^b	CH ₄ ^c	N ₂ O ^c	
East Site – Hotel Scenario						
2027-2029						
East Building	319 DU	1,340.0	488	0.029	0.0062	298.1
East Senior Building	48 DU	189.2	488	0.029	0.0062	42.1
Hotel	220 Rooms	1,031.5	488	0.029	0.0062	229.5
Fast Food Restaurant	2.7	118.0	488	0.029	0.0062	26.3
High Turnover (Sit Down Rest.)	15.5	668.8	488	0.029	0.0062	148.8
Residential Common Open Space	21.6	269.7	488	0.029	0.0062	60.0
Open Space ^e	35.3	12.4	488	0.029	0.0062	2.7
Enclosed Parking with Elevator	338.5	1,829.4	488	0.029	0.0062	407.0
Subtotal						1,215
2030-2056						
East Building	319 DU	1,340.0	444	0.029	0.0062	271.4
East Senior Building	48 DU	189.2	444	0.029	0.0062	38.3
Hotel	220 Rooms	1,031.5	444	0.029	0.0062	208.9
Fast Food Restaurant	2.7	118.0	444	0.029	0.0062	23.9
High Turnover (Sit Down Rest.)	15.5	668.8	444	0.029	0.0062	135.5
Residential Common Open Space	21.6	269.7	444	0.029	0.0062	54.6
Open Space ^e	35.3	2.7	444	0.029	0.0062	2.5
Enclosed Parking with Elevator	338.5	1,829.4	444	0.029	0.0062	371.0
Subtotal						1,106

^a California Air Pollution Control Officers Association, California Emissions Estimator Model, Climate Zone 11, <http://www.caleemod.com/>. Accessed March 2018. The current version of CalEEMod (version 2016.3.2) includes electricity and natural gas correction factors for the 2016 version of the Title 24 building standards. The Project would be approximately 11.6% more efficient than 2016 Title 24 Standards per LEED Gold Certification.

^b California Air Resources Board, Statewide Emission Factors (EF) for Use with AB 900 Projects, January 2017.

^c California Air Pollution Control Officers Association, California Emissions Estimator Model, <http://www.caleemod.com/>. Accessed March 2018.

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

^e For emissions calculation purposes, lighting electricity values from the CalEEMod land use type parking lot was assigned to this outdoor open space land use to account for lighting electricity-related GHG emissions.

SOURCE: ESA 2018.

Operational Energy – Natural Gas

Natural gas-related emissions of GHGs associated with operation of the Project are based on the size of the commercial, restaurant, and residential land uses (including residential amenities), the

natural gas demand factors for the land uses, the GHG emission factors for the natural gas combustion, and the GWP values for the GHGs emitted. For residential land uses, emission factors are specified in units of DU. For nonresidential land uses, emission factors are specified in units of 1,000 square feet. Annual natural gas GHG emissions in units of MTCO_{2e} are generally calculated as follows:

Natural Gas:

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

Where:	Units	=	Number of land use units or developed area [DU or 1000 sqft]
	D _{NG}	=	Nat. gas demand factor [MMBtu/DU/year or MMBtu/1000 sqft/year]
	EF _{NG}	=	GHG emission factor [pounds/MMBtu]
	GWP	=	Global warming potential [CO ₂ = 1, CH ₄ = 25, N ₂ O = 298]
	2204.62	=	Conversion factor [pounds/MT]
	i	=	Summation index

Natural gas demand is based on data from the CEUS, which lists energy demand by building type (CEC 2018). However, since the data from the CEUS is from 2002, CalEEMod incorporates correction factors to account for compliance with the 2016 Title 24 Building Standards Code, which went into effect on January 1, 2017 (since the LEED baseline is established based on prior building energy efficiency standards, additional energy reductions from LEED energy efficiency measures are not applied to avoid double counting reductions).¹⁰ The Project would be designed to incorporate PDFs that would reduce its energy demand with the goal of achieving or exceeding the requirements of the CALGreen Code, the City of Los Angeles Green Building Code, and the USGBC LEED Gold Certification. Thus, the Project would reduce its natural gas demand as compared to the default electricity factors in CalEEMod. The PDFs were accounted for in CalEEMod by selecting the appropriate options in the “mitigation measures” section of the model. A summary of the energy-efficiency PDFs is provided above in PDF-GHG-1.

The combustion of natural gas results in relatively equal amounts of GHG emissions per unit of gas combusted in the state. Emission factors for GHGs due to natural gas combustion to serve the heating and cooking demands of the Project were obtained from CalEEMod, which provides statewide emission factors (CAPCOA 2018). The emissions of GHGs due to natural gas demand would be relatively steady for the years assessed. The estimated annual emissions from natural gas combustion from the Project are provided in **Table 6**, **Table 7** and **Table 8**. Detailed emissions calculations are provided in **Appendix B**.

¹⁰ The current version of CalEEMod (version 2016.3.2) includes electricity and natural gas correction factors for the 2016 version of the Title 24 building standards. The LEED baseline uses prior energy standards; therefore, in order to avoid double counting reductions, additional energy reductions for LEED compliance are not included in the current calculations. As a result, this assessment provides a conservative assessment of energy-related GHG emissions.

TABLE 6
WEST SITE - NATURAL GAS COMBUSTION GREENHOUSE GAS EMISSIONS

Land Use	Units (DU or 1000 sqft)	Annual Natural Gas Demand Factor (MBtu/year) ^a	Emission Factor (pounds/MMBtu)			Annual GHG Emissions (MTCO ₂ e/year) ^c
			CO ₂ ^b	CH ₄ ^b	N ₂ O ^b	
West Site						
2024-2056						
West Building	449 DU	3,910.0	117.65	0.0023	0.0022	209.9
West Senior Building	68 DU	592.2	117.65	0.0023	0.0022	31.8
Fast Food Restaurant	4.0	447.7	117.65	0.0023	0.0022	24.0
High Turnover (Sit Down Rest.)	9.3	2,537.0	117.65	0.0023	0.0022	136.2
Residential Common Open Space	41.6	383.6	117.65	0.0023	0.0022	20.7
Subtotal						422

^a California Air Pollution Control Officers Association, California Emissions Estimator Model, Climate Zone 11, <http://www.caleemod.com/>. Accessed March 2018. The current version of CalEEMod (version 2016.3.2) includes electricity and natural gas correction factors for the 2016 version of the Title 24 building standards. The Project would be approximately 11.6% more efficient than 2016 Title 24 Standards per LEED Gold Certification.

^b California Air Pollution Control Officers Association, California Emissions Estimator Model, <http://www.caleemod.com/>. Accessed March 2018.

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

SOURCE: ESA 2018.

TABLE 7
EAST SITE (RESIDENTIAL SCENARIO) - NATURAL GAS COMBUSTION GREENHOUSE GAS EMISSIONS

Land Use	Units (DU or 1000 sqft)	Annual Natural Gas Demand Factor (MBtu/year) ^a	Emission Factor (pounds/MMBtu)			Annual GHG Emissions (MTCO ₂ e/year) ^c
			CO ₂ ^b	CH ₄ ^b	N ₂ O ^b	
East Site – Residential Scenario						
2027-2056						
East Building	423 DU	3,683.6	117.65	0.0023	0.0022	197.7
East Senior Building	65 DU	566.0	117.65	0.0023	0.0022	30.4
Fast Food Restaurant	2.7	616.8	117.65	0.0023	0.0022	33.1
High Turnover (Sit Down Rest.)	15.5	3,495.4	117.65	0.0023	0.0022	187.6
Residential Common Open Space	32.7	302.1	117.65	0.0023	0.0022	16.2
Subtotal						465

^a California Air Pollution Control Officers Association, California Emissions Estimator Model, Climate Zone 11, <http://www.caleemod.com/>. Accessed March 2018. The current version of CalEEMod (version 2016.3.2) includes electricity and natural gas correction factors for the 2016 version of the Title 24 building standards. The Project would be approximately 11.6% more efficient than 2016 Title 24 Standards per LEED Gold Certification.

^b California Air Pollution Control Officers Association, California Emissions Estimator Model, <http://www.caleemod.com/>. Accessed March 2018.

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

SOURCE: ESA 2018.

TABLE 8
EAST SITE (HOTEL SCENARIO) - NATURAL GAS COMBUSTION GREENHOUSE GAS EMISSIONS

Land Use	Units (DU or 1000 sqft)	Annual Natural Gas Demand Factor (MBtu/year) ^a	Emission Factor (pounds/MMBtu)			Annual GHG Emissions (MTCO ₂ e/year) ^c
			CO ₂ ^b	CH ₄ ^b	N ₂ O ^b	
East Site - Hotel Scenario						
2027-2056						
East Building	319 DU	2,777.9	117.65	0.0023	0.0022	149.1
East Senior Building	48 DU	418.0	117.65	0.0023	0.0022	22.4
Hotel	220 Rooms	3,068.5	117.65	0.0023	0.0022	164.7
Fast Food Restaurant	2.7	616.8	117.65	0.0023	0.0022	33.1
High Turnover (Sit Down Rest.)	15.5	3,495.4	117.65	0.0023	0.0022	187.6
Residential Common Open Space	21.6	200.2	117.65	0.0023	0.0022	10.7
Subtotal						568

^a California Air Pollution Control Officers Association, California Emissions Estimator Model, Climate Zone 11, <http://www.caleemod.com/>. Accessed March 2018. The current version of CalEEMod (version 2016.3.2) includes electricity and natural gas correction factors for the 2016 version of the Title 24 building standards. The Project would be approximately 11.6% more efficient than 2016 Title 24 Standards per LEED Gold Certification.

^b California Air Pollution Control Officers Association, California Emissions Estimator Model, <http://www.caleemod.com/>. Accessed March 2018.

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

SOURCE: ESA 2018.

Operational Mobile

Mobile source emission calculations associated with the Project are calculated using the vehicle miles traveled (VMT) from the Transportation Efficiency Analysis prepared by Fehr and Peers for the Project (Fehr and Peers 2018). The trip lengths are based on the location and urbanization of the project area. The average trip length of each land use is the sum of the trip length of each trip type multiplied by the percentage of trip type.

The Project is considered an urban infill project, as it is located in a currently developed site adjacent to other high-density, office and mixed-use developments. The Project proposes higher density, consistent with compact growth, on a parcel of infill urban land accessible to and well served by public transit including frequent and comprehensive transit services provided by the nearby Metro Red Line, where the Red Line provides convenient access to locations within Downtown Los Angeles. The Red Line connects to various other Metro lines, including the Purple Line at Vermont Avenue, and the Exposition and Blue Lines at the 7th Street/Metro Center that provide convenient access to Long Beach and Compton, and where the Expo line provides convenient access to locations in Los Angeles, Culver City and Santa Monica. The Project would be located within a half-mile of public transportation, including the Metro Local Lines 180, 181 and 217 and Metro Rapid Line 780, which serves Hollywood Boulevard and Vine Street. New housing and job growth, as a result of the completed Project, is focused in a high-quality transit area (HQTA), which the Southern California Association of Governments (SCAG) defines as an area within a half mile of a well-served transit stop. These land use characteristics are analyzed below to demonstrate that the Project would result in reduced vehicle trips, VMT, and associated

transportation-related GHG emissions, as well as air pollutant emissions, compared to the statewide and South Coast Air Basin average.

Based on the Project's Transportation Efficiency Analysis, Project related reductions in trip generation and VMT due to the Project's infill nature, location, design, and TDM program were quantified (Fehr and Peers 2018). The characteristics of the Project listed below would result in a reduction in VMT and associated GHG and air pollutant emissions.

- **Internal Capture Reduction:** The Project's restaurant spaces would provide a convenient local destination for the residential element of the Project without having to drive to other locations. It was estimated that a reduction of 7 percent of the daily vehicle trips to and from the Project's fast food restaurant and the high-turnover sit down restaurant spaces come from the on-site residential element of the Project. It was also estimated that a reduction of 9 percent of daily vehicle trips to and from the high-rise condominiums/townhouses and 8 percent of daily vehicle trips to and from the senior affordable housing on both the West and East Sites of the Project would come from on-site restaurant and outdoor performance space elements of the Project. In addition, it was estimated that a reduction of 6 percent of daily vehicle trips to and from the outdoor performance would come from the on-site residential and restaurant elements of the Project
- **Transit and Walk/Bike Reduction:** The Project is located in a highly-walkable area of Hollywood with a high level of provision of bicycle facilities and excellent access to transit services such as a Metro Red Line Hollywood/Vine station and bus stops served by both Metro Local and Rapid Lines within walking distance, that will provide convenient access to local employment, shopping and entertainment opportunities without using a car for the residents of the Project. Therefore, it was estimated that daily vehicle trips would be reduced by 15 percent due to transit and walk/bike trips, consistent with Los Angeles Department of Transportation (LADOT) guidelines and methodology.
- **Transportation Demand Management (TDM) Reduction:** The Project proposes a TDM package to encourage the use of non-auto modes and reduce vehicle trips, that could include the following measures:
 - Parking
 - Unbundle residential parking
 - Unbundle commercial parking coupled with pricing workplace parking and parking cash-out
 - Contribute to LADOT Express Park program to upgrade local parking meter technology
 - Daily parking discount for Metro Commuters
 - Transit
 - Provide a location on-site at which to purchase Metro passes and bus info
 - Transit subsidies (residential and commercial employees)

- Provide parking spaces for monthly lease to non-resident Metro park n ride users
- Provide discounted daily parking to non-resident Metro transit pass holders
- Bus stop upgrades
- Upgrade/repair public sidewalks on route to Metro Red Line Hollywood/Vine Station
- Commute Trip Reductions
 - Commute trip reduction program:
 - rideshare (carpool/vanpool) matching and preferential parking
 - guaranteed ride home (e.g., monthly Uber/Lyft/taxi reimbursement)
 - alternative work schedules and telecommute
 - Business center/work center for residents working at home
- Shared Mobility
 - On-site car share
 - Rideshare matching
 - On-site bike share station and/or subsidized membership (residents, employees); on-site guest bike share service (hotel) (if/when public bike share comes to Hollywood)
 - LADOT Mobility Hub program
- Bicycle Infrastructure
 - Develop a bicycle amenities plan
 - Bicycle parking (indoors & outdoors)
 - Bike lockers, showers, and repair station
 - Convenient access to on-site bicycle facilities (wayfinding, etc.)
 - Contribution towards City's Bicycle Plan Trust Fund
- Site Design
 - Integrated pedestrian network within and adjacent to site (transit, bike, ped friendly)

- Education & Encouragement
 - Transportation information center, kiosks and/or other on-site measures
 - Tech-enabled mobility: website/mobile app (comprehensive commute planning, on-demand rideshare matching, shared-ride reservations, real-time traffic/transit information, push notifications about transportation choices, etc.)
 - Marketing and promotions (including digital gamification – participants can log trips for prizes, promotions, discounts for local merchants, incentives, etc.)
- Management
 - On-site TDM program coordinator and administrative support
 - Conduct user surveys
 - Join future Hollywood Transportation Management Organization (TMO)

The implementation of the TDM package would result in an estimated reduction of 13.5 percent of the daily vehicle trips to and from the residential element and 1.2 percent of the daily vehicle trips to and from the restaurant spaces of the Proposed Project.

- **Pass-by Trip Reduction:** The Project's commercial restaurant spaces would provide a convenient local destination for residents in the local neighborhood without having to drive to other locations. It was estimated that a reduction of 50 percent of daily vehicle trips to and from the Project's fast food restaurant space would result from pass-by customers. It was also estimated that a reduction of 20 percent of daily vehicle trips to and from the Project's high-turnover sit down restaurant spaces would result from pass-by customers.

The annual VMT is based on the Transportation Efficiency Analysis prepared by Fehr and Peers (Fehr and Peers 2018). Emissions of GHGs from motor vehicles are dependent on model years and the specific types of vehicles that are used to travel to and from the existing Project Site. The national policy for fuel efficiency and emissions standards for the United States auto industry requires that new passenger cars and light-duty trucks achieve an average fuel economy standard of 35.5 miles per gallon (mpg) and 250 grams of CO₂ per mile by model year 2016 (Phase I standards), based on USEPA calculation methods. In August 2012, more stringent phased-in standards were adopted for new model year 2017 through 2025 passenger cars and light-duty trucks. By 2020, new vehicles are projected to achieve 41.7 mpg (if GHG reductions are achieved exclusively through fuel economy improvements) and 213 grams of CO₂ per mile (Phase II standards). By 2025, new vehicles are required to achieve 54.5 mpg (if GHG reductions are achieved exclusively through fuel economy improvements) and 163 grams of CO₂ per mile (Phase II standards) (EPA 2012). All vehicle types would visit the Project Site. Therefore, this assessment uses the South Coast Air Basin motor vehicle fleet mix and the fleet average calendar year emissions factors from EMFAC2014 and EMFAC2017 to estimate mobile source GHG emissions. Mobile source emissions are estimates for calendar years 2024 through 2056.

The estimated annual emissions from mobile sources from the Project are provided in **Table 9** and **Table 10**. Detailed emissions calculations are provided in **Appendix B**.

TABLE 9
PROJECT (WEST SITE + EAST SITE [RESIDENTIAL SCENARIO])
MOBILE SOURCE GREENHOUSE GAS EMISSIONS

Fleet Mix Year (All Vehicle Classes)	Estimated Annual VMT ^a	EMFAC 2014 CO ₂ e Emission Factor (grams/mile) ^b	Annual GHG Emissions (MTCO ₂ e/year)	EMFAC 2017 CO ₂ e Emission Factor (grams/mile) ^b	Annual GHG Emissions (MTCO ₂ e/year)
2024-2056					
2024 ^c	6,328,005	382.7	2,422	358.6	2,269
2025	6,328,005	371.0	2,348	348.1	2,203
2026 ^d	7,032,303	361.2	2,540	339.0	2,384
2027 ^e	14,779,580	352.5	5,210	330.6	4,886
2028	14,779,580	344.9	5,098	323.0	4,774
2029	14,779,580	338.2	4,999	316.2	4,673
2030	14,779,580	332.4	4,913	310.1	4,583
2031	14,779,580	327.7	4,843	304.6	4,502
2032	14,779,580	323.3	4,778	299.8	4,431
2033	14,779,580	319.4	4,721	295.5	4,368
2034	14,779,580	316.2	4,673	291.7	4,312
2035	14,779,580	313.6	4,634	288.5	4,264
2036	14,779,580	311.6	4,606	285.8	4,223
2037	14,779,580	310.0	4,582	283.4	4,189
2038	14,779,580	308.8	4,564	281.5	4,160
2039	14,779,580	307.9	4,550	279.8	4,136
2040	14,779,580	307.2	4,541	278.5	4,116
2041	14,779,580	306.8	4,534	277.4	4,100
2042	14,779,580	306.5	4,530	276.6	4,088
2043	14,779,580	306.5	4,530	276.0	4,079
2044	14,779,580	306.5	4,530	275.5	4,072
2045	14,779,580	306.6	4,532	275.1	4,066
2046	14,779,580	306.9	4,536	274.9	4,063
2047	14,779,580	307.2	4,540	274.8	4,062
2048	14,779,580	307.6	4,546	274.8	4,061
2049	14,779,580	308.0	4,553	274.8	4,061
2050	14,779,580	308.6	4,562	275.1	4,065
2051 ^f	14,779,580	308.6	4,562	275.1	4,065
2052 ^f	14,779,580	308.6	4,562	275.1	4,065
2053 ^f	14,779,580	308.6	4,562	275.1	4,065
2054 ^f	14,779,580	308.6	4,562	275.1	4,065
2055 ^f	14,779,580	308.6	4,562	275.1	4,065
2056 ^f	14,779,580	308.6	4,562	275.1	4,065

^a Fehr and Peers, ELDP Transportation Efficiency Analysis for the Hollywood Center Project, April 2018.

^b EMFAC2014 and EMFAC2017 Emission Factors for the South Coast Air Basin motor vehicle fleet mix.

^c Anticipated first full operational year of the West Site.

^d Based on the construction schedule, this year includes 1 month of operations of the East Site (first full years of East Site operation is expected to be 2027).

^e Anticipated first full operational year of the East Site.

^f EMFAC2014 and EMFAC2017 do not generate emission factors for calendar years after 2050. Therefore, 2050 emission factors were used to represent emissions in calendar years 2051 through 2056.

SOURCE: ESA 2018.

TABLE 10
PROJECT (WEST SITE + EAST SITE [HOTEL SCENARIO])
MOBILE SOURCE GREENHOUSE GAS EMISSIONS

Fleet Mix Year (All Vehicle Classes)	Estimated Annual VMT ^a	EMFAC 2014 CO ₂ e Emission Factor (grams/mile) ^b	Annual GHG Emissions (MTCO ₂ e/year)	EMFAC 2017 CO ₂ e Emission Factor (grams/mile) ^b	Annual GHG Emissions (MTCO ₂ e/year)
2024-2056					
2024 ^c	6,245,880	382.7	2,390	358.6	2,240
2025	6,245,880	371.0	2,317	348.1	2,174
2026 ^d	7,169,056	361.2	2,590	339.0	2,430
2027 ^e	17,323,995	352.5	6,107	330.6	5,728
2028	17,323,995	344.9	5,975	323.0	5,596
2029	17,323,995	338.2	5,859	316.2	5,478
2030	17,323,995	332.4	5,759	310.1	5,372
2031	17,323,995	327.7	5,677	304.6	5,277
2032	17,323,995	323.3	5,600	299.8	5,193
2033	17,323,995	319.4	5,534	295.5	5,119
2034	17,323,995	316.2	5,478	291.7	5,054
2035	17,323,995	313.6	5,432	288.5	4,998
2036	17,323,995	311.6	5,399	285.8	4,950
2037	17,323,995	310.0	5,371	283.4	4,910
2038	17,323,995	308.8	5,349	281.5	4,876
2039	17,323,995	307.9	5,334	279.8	4,848
2040	17,323,995	307.2	5,323	278.5	4,825
2041	17,323,995	306.8	5,314	277.4	4,806
2042	17,323,995	306.5	5,310	276.6	4,792
2043	17,323,995	306.5	5,309	276.0	4,781
2044	17,323,995	306.5	5,310	275.5	4,773
2045	17,323,995	306.6	5,312	275.1	4,767
2046	17,323,995	306.9	5,316	274.9	4,763
2047	17,323,995	307.2	5,322	274.8	4,761
2048	17,323,995	307.6	5,329	274.8	4,760
2049	17,323,995	308.0	5,336	274.8	4,760
2050	17,323,995	308.6	5,347	275.1	4,765
2051 ^f	17,323,995	308.6	5,347	275.1	4,765
2052 ^f	17,323,995	308.6	5,347	275.1	4,765
2053 ^f	17,323,995	308.6	5,347	275.1	4,765
2054 ^f	17,323,995	308.6	5,347	275.1	4,765
2055 ^f	17,323,995	308.6	5,347	275.1	4,765
2056 ^f	17,323,995	308.6	5,347	275.1	4,765

^a Fehr and Peers, ELDP Transportation Efficiency Analysis for the Hollywood Center Project, April 2018.

^b EMFAC2014 and EMFAC2017 Emission Factors for the South Coast Air Basin motor vehicle fleet mix.

^c Anticipated first full operational year of the West Site.

^d Based on the construction schedule, this year includes 1 month of operations of the East Site (first full years of East Site operation is expected to be 2027).

^e Anticipated first full operational year of the East Site.

^f EMFAC2014 and EMFAC2017 do not generate emission factors for calendar years after 2050. Therefore, 2050 emission factors were used to represent emissions in calendar years 2051 through 2056.

SOURCE: ESA 2018.

Operational Solid Waste

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

Emissions of GHGs associated with solid waste disposal from the Project are calculated using CalEEMod. The emissions are based on the size of the amount of waste disposed, which is the product of the waste disposal rate times the land use units, GHG emission factors for solid waste decomposition, and the GWP values for the GHGs emitted. The amount of solid waste that would be generated by the Project was estimated by applying solid waste generation factors from the California Department of Resources Recycling and Recovery (CalRecycle) to the proposed land uses, and identifying the solid waste generation at the Project Site under the Project, taking account the prevailing diversion rate. Annual waste disposal GHG emissions in units of MTCO₂e are generally calculated in CalEEMod as follows:

Solid Waste:

$$\text{Annual Emissions [MTCO}_2\text{e]} = \left(\sum_i (\text{Units} \times D_{\text{MSW}} \times EF_{\text{MSW}} \times \text{GWP})_i \right) \div 1.1023 \quad \text{[Equation 3]}$$

Where:	Units	=	Number of land use units or developed area [DU or 1000 sqft]
	D _{MSW}	=	Waste disposal rate [tons/DU/year or tons/1000 sqft/year]
	EF _{MSW}	=	GHG emission factor [tons/ton waste]
	GWP	=	Global warming potential [CO ₂ = 1, CH ₄ = 25, N ₂ O = 298]
	1.1023	=	Conversion factor [tons/MT]
	i	=	Summation index

The total amount of waste disposed was reduced by the diversion rate for the City of Los Angeles of 76 percent, according to data available from the City (City of Los Angeles, Bureau of Sanitation 2013). The GHG emission factors, particularly for CH₄, depend on characteristics of the landfill, such as the presence of a landfill gas capture system and subsequent flaring or energy recovery. The default values, as provided in CalEEMod, for landfill gas capture (e.g., no capture, flaring, energy recovery), which are statewide averages, are used in this assessment.

The estimated annual emissions from solid waste disposal from the Project are provided in **Table 11**, **Table 12** and **Table 13**. The emissions of GHGs due to waste generation would be relatively steady for the years assessed. Detailed emissions calculations are provided in **Appendix B**.

TABLE 11
WEST SITE - PROJECT SOLID WASTE DISPOSAL GREENHOUSE GAS EMISSIONS

Land Use ^a	Waste Diversion ^b	Waste Disposal Rate After Diversion (tons/year)	Landfill gas (no capture)	Landfill Gas (capture with flaring)	Annual GHG Emissions (MTCO ₂ e/year) ^c
West Site					
2024-2056					
West Building	76%	240.5	6%	94%	120.1
West Senior Building	76%	14.9	6%	94%	7.5
Fast Food Restaurant	76%	0.43	6%	94%	0.22
High Turnover (Sit Down Rest.)	76%	2.46	6%	94%	1.24
Subtotal					130

^a CalRecycle, Estimated Solid Waste Generation Rates, Available at: <https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates>. Accessed March 2018.

^b City of Los Angeles, Bureau of Sanitation, Zero Waste Progress Report, (2013).

^c Emissions are based on CalEEMod default values for landfill gas capture and flaring for the South Coast Air Basin region. Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in **Appendix B**.

SOURCE: ESA 2018.

TABLE 12
EAST SITE (RESIDENTIAL SCENARIO) - PROJECT SOLID WASTE DISPOSAL GREENHOUSE GAS EMISSIONS

Land Use ^a	Waste Diversion ^b	Waste Disposal Rate After Diversion (tons/year)	Landfill gas (no capture)	Landfill Gas (capture with flaring)	Annual GHG Emissions (MTCO ₂ e/year) ^c
East Site (Residential Scenario)					
2027-2056					
East Building	76%	226.6	6%	94%	113.9
East Senior Building	76%	14.2	6%	94%	7.16
Fast Food Restaurant	76%	0.6	6%	94%	0.30
High Turnover (Sit Down Rest.)	76%	3.4	6%	94%	1.70
Open Space ^d	76%	37.4	6%	94%	18.8
Subtotal					142

^a CalRecycle, Estimated Solid Waste Generation Rates, Available at: <https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates>. Accessed March 2018.

^b City of Los Angeles, Bureau of Sanitation, Zero Waste Progress Report, (2013).

^c Emissions are based on CalEEMod default values for landfill gas capture and flaring for the South Coast Air Basin region. Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in **Appendix B**.

^d The East Site would include a public outdoor performance space as part of the open spaces use. Due to the availability of other amenities and the need to keep walk aisles clear, the attendance of events will be limited to 350 people. Solid waste was included for this outdoor performance space based on waste generation rates for public venues and events (244 pounds per 100 visitors). Refer to CalRecycle, Waste Disposal and Diversion Findings for Selected Industry Groups, June 2006, <http://www.calrecycle.ca.gov/Publications/Documents/Disposal/34106006.pdf>, Accessed March 2018.

SOURCE: ESA 2018.

TABLE 13
EAST SITE (HOTEL SCENARIO) - PROJECT SOLID WASTE DISPOSAL GREENHOUSE GAS EMISSIONS

Land Use ^a	Waste Diversion ^b	Waste Disposal Rate After Diversion (tons/year)	Landfill gas (no capture)	Landfill Gas (capture with flaring)	Annual GHG Emissions (MTCO ₂ e/year) ^c
East Site (Hotel Scenario)					
2027-2056					
East Building	76%	170.9	6%	94%	85.9
East Senior Building	76%	10.5	6%	94%	5.3
Hotel	76%	19.3	6%	94%	9.7
Fast Food Restaurant	76%	0.6	6%	94%	0.30
High Turnover (Sit Down Rest.)	76%	3.4	6%	94%	1.70
Open Space ^d	76%	37.4	6%	94%	18.8
Subtotal					122

^a CalRecycle, Estimated Solid Waste Generation Rates, Available at: <https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates>. Accessed March 2018.

^b City of Los Angeles, Bureau of Sanitation, Zero Waste Progress Report, (2013).

^c Emissions are based on CalEEMod default values for landfill gas capture and flaring for the South Coast Air Basin region. Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in **Appendix B**.

^d The East Site would include a public outdoor performance space as part of the open spaces use. Due to the availability of other amenities and the need to keep walk aisles clear, the attendance of events will be limited to 350 people. Solid waste was included for this outdoor performance space based on waste generation rates for public venues and events (244 pounds per 100 visitors). Refer to CalRecycle, Waste Disposal and Diversion Findings for Selected Industry Groups, June 2006, <http://www.calrecycle.ca.gov/Publications/Documents/Disposal/34106006.pdf>, Accessed March 2018.

SOURCE: ESA 2018.

With respect to municipal solid waste, the State has enacted regulations to address solid waste services and recycling. California Public Resources Code, Division 30, Part 3 Chapter 12.8, Section 42649 et seq. requires businesses that produce four cubic yards or more of solid waste per week or multifamily residential dwellings of five units or more to arrange for recycling services that are consistent with state or local laws or requirements, including a local ordinance or agreement, applicable to the collection, handling, or recycling of solid waste, to the extent that these services are offered and reasonably available from a local service provider (CPRC 2011). In addition, California Public Resources Code, Division 30, Part 3 Chapter 12.9, Section 42649.8 et seq. requires after January 1, 2020, if the department determines that statewide disposal of organic waste has not been reduced to 50 percent of the level of disposal during 2014, a business that generates two cubic yards or more per week of commercial solid waste is required to arrange for organic waste recycling services that include at least one of the following actions: (1) source separate of organic waste from other waste and subscribe to a basic level of organic waste recycling service that includes collection and recycling of organic waste, (2) recycle its organic waste on-site or self-haul its own organic waste for recycling, (3) subscribe to an organic waste recycling service that may include mixed waste processing that specifically recycles organic waste, (4) make other arrangements to meet the organic waste requirements of a local governmental agency that are more stringent or comprehensive than the requirements of Chapter 12.9, unless the department determines that this requirement will not result in significant

additional reductions of organics disposal (CPRC 2011). The City has developed and is in the process of implementing the Solid Waste Integrated Resources Plan (SWIRP), also referred to as the City's Zero Waste Plan, whose goal is to lead Los Angeles towards being a "zero waste" City by 2030 (DPW 2013). These waste reduction plans, policies, and regulations, along with Mayoral and City Council directives, have increased the level of waste diversion (e.g., recycling) for the City to 76 percent as of 2013 (DPW 2017). The City has also approved Ordinance No. 181519 (Los Angeles Municipal Code (LAMC) Chapter VI, Article 6, Section 66.32-66.32.5), which requires the diversion of mixed construction and demolition debris to City certified construction and demolition waste processors. The Project would be consistent with the City and State waste requirements by utilizing waste collection services that are approved by the City and that meet the applicable requirements for waste diversion and recycling mandates. The City generally relies on single-stream waste recycling where mixed waste is collected and sorted for recycling at a waste reclamation facility. The Project would subscribe to a municipal solid waste collection service that is approved by the City and that meets applicable City and State waste collection, management, recycling and diversion requirements.

Operational Water and Wastewater

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

The emissions of GHGs associated with water demand and wastewater generation from the Project are calculated using CalEEMod. The emissions are based on the size of the existing land uses, the water demand factors, the electrical intensity factors for water supply, treatment, and distribution and for wastewater treatment, the GHG emission factors for the electricity utility provider, and the GWP values for the GHGs emitted. Annual water demand and wastewater GHG emissions due to electricity are generally calculated in CalEEMod as follows for indoor and outdoor water demand:

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

$$\text{Annual Emissions [MTCO}_2\text{e]} = \left(\sum_i (\text{Units} \times D_w \times (EI_w \div 1000) \times EF_w \times GWP)_i \right) \div 2204.62$$

[Equation 4]

Where:	Units	=	Number of land use units or developed area [DU or 1000 sqft]
	D _w	=	Demand factor [million gal (Mgal)/DU/year or Mgal/1000 sqft/year]
	EI _w	=	Electricity intensity factor [kilowatt-hours (kWh)/Mgal]
	1000	=	Conversion factor [kWh/MWh]
	EF _w	=	GHG emission factor [pounds/MWh]
	GWP	=	Global warming potential [CO ₂ = 1, CH ₄ = 25, N ₂ O = 298]
	2204.62	=	Conversion factor [pounds/MT]
	i	=	Summation index

CalEEMod calculates water demand based on annual rates in the Pacific Institute *Waste Not Want Not* report (Gleick, et al. 2003). CalEEMod provides options to account for the use of indoor water saving features such as the use of low-flow water fixtures (e.g., low-flow faucets, low-flow toilets) and outdoor water saving features such as using water-efficient irrigation systems and landscapes, and turf reduction. The Project would incorporate PDFs to reduce indoor and outdoor water usage, as described above. Implementation of these PDFs would reduce indoor water usage by approximately 40 percent compared to typical usage values for developments meeting the minimum requirements and would reduce outdoor water usage by approximately 50 percent compared to typical usage values for developments meeting the minimum requirements. These water reduction factors have been accounted for in CalEEMod. The CEC's estimate for energy intensity of the water use cycle in Southern California, as provided in the 2006 CEC report *Refining Estimates of Water-Related Energy Use in California*, is used to calculate the energy usage related to water supply, treatment, and distribution and wastewater treatment (CEC 2006). The same electricity GHG emissions factors discussed under the **Operational Energy – Electricity** subheading are used for water and wastewater energy usage.

The emissions of GHGs associated with wastewater treatment process emissions are also calculated using CalEEMod. The emissions are based on the type of treatment (e.g., aerobic, facultative lagoons, septic systems). The emissions are calculating using the default settings in CalEEMod for the type of wastewater treatment. Calculation formulas are described in detail in the *California Emissions Estimator Model User's Guide, Appendix A* (CARB 2017a). As stated in the *User's Guide*, the GHGs emitted from each type of wastewater treatment are based on the CARB's *Local Government Operations Protocol* (LGOP) (CARB 2008), which are in turn based on United States Environmental Protection Agency (USEPA) methodologies (EPA 2008). The default CalEEMod settings for wastewater treatment are: 10.33 percent septic tank, 87.46 percent aerobic, 2.21 percent facultative lagoons and 100 percent anaerobic combustion of gas. The estimated annual emissions from water and wastewater from the Project are provided in **Tables 14, 15** and **16**. Detailed emissions calculations are provided in **Appendix B**.

TABLE 14
WEST SITE - WATER AND WASTEWATER GREENHOUSE GAS EMISSIONS

Land Use	Indoor Water Demand (Mgal/yr) ^a	Outdoor Water Demand (Mgal/yr) ^a	Supply Water (kwh/Mgal)	Treat Water (kWh/Mgal)	Distribute Water (kWh/Mgal)	Wastewater Treatment (kWh/Mgal)	Annual GHG Emissions (MTCO ₂ e/year) ^b
West Site							
2024-2026 (Electricity CO ₂ Intensity Factor = 533 pounds/MWh)							
West Building	17.55	9.22	9,727	111	1,272	1,911	104.3
West Senior Building	2.66	1.40	9,727	111	1,272	1,911	15.8
Fast Food Restaurant	0.36	0.02	9,727	111	1,272	1,911	1.68
High Turnover (Sit Down Rest.)	2.05	0.11	9,727	111	1,272	1,911	9.55
Residential Common Open Space ^c	4.50	2.30	9,727	111	1,272	1,911	26.6
Open Space ^d	0	0.48	9,727	111	1,272	1,911	1.29
Subtotal							159

Land Use	Indoor Water Demand (Mgal/yr) ^a	Outdoor Water Demand (Mgal/yr) ^a	Supply Water (kwh/Mgal)	Treat Water (kWh/Mgal)	Distribute Water (kWh/Mgal)	Wastewater Treatment (kWh/Mgal)	Annual GHG Emissions (MTCO ₂ e/year) ^b
2027-2029 (Electricity CO₂ Intensity Factor = 488 pounds/MWh)							
West Building	17.55	9.22	9,727	111	1,272	1,911	97.5
West Senior Building	2.66	1.40	9,727	111	1,272	1,911	14.8
Fast Food Restaurant	0.36	0.02	9,727	111	1,272	1,911	1.58
High Turnover (Sit Down Rest.)	2.05	0.11	9,727	111	1,272	1,911	8.99
Residential Common Open Space ^c	4.50	2.30	9,727	111	1,272	1,911	24.8
Open Space ^d	0	0.48	9,727	111	1,272	1,911	1.18
Subtotal							149
2030-2056 (Electricity CO₂ Intensity Factor = 444 pounds/MWh)							
West Building	17.55	9.22	9,727	111	1,272	1,911	90.9
West Senior Building	2.66	1.40	9,727	111	1,272	1,911	13.8
Fast Food Restaurant	0.36	0.02	9,727	111	1,272	1,911	1.49
High Turnover (Sit Down Rest.)	2.05	0.11	9,727	111	1,272	1,911	8.43
Residential Common Open Space ^c	4.50	2.30	9,727	111	1,272	1,911	23.2
Open Space ^d	0	0.48	9,727	111	1,272	1,911	1.07
Subtotal							139

^a California Air Pollution Control Officers Association, California Emissions Estimator Model, <http://www.caleemod.com/>. Accessed March 2018.

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

^c For emissions calculation purposes, Common Open Space was categorized in CalEEMod as the land use type General Office Building which is defined as land uses that house multiple tenants where affairs of businesses commercial or industrial organizations or professional persons or firms are conducted. This CalEEMod land use type was determined to provide a reasonably conservative estimate of emissions for these Project uses.

^d For emissions calculation purposes, Open Space refers to outdoor open space and was categorized in CalEEMod as the land use type City Park which is the closest fit for this land use type. This CalEEMod land use type was determined to provide a reasonably conservative estimate of water-related emissions for these Project uses. The Project does not include any City-owned parks.

SOURCE: ESA 2018.

TABLE 15
EAST SITE (RESIDENTIAL SCENARIO) - WATER AND WASTEWATER GREENHOUSE GAS EMISSIONS

Land Use	Indoor Water Demand (Mgal/yr) ^a	Outdoor Water Demand (Mgal/yr) ^a	Supply Water (kwh/Mgal)	Treat Water (kWh/Mgal)	Distribute Water (kWh/Mgal)	Wastewater Treatment (kWh/Mgal)	Annual GHG Emissions (MTCO ₂ e/year) ^b
East Site (Residential Scenario)							
2027-2029 (Electricity CO ₂ Intensity Factor = 488 pounds/MWh)							
East Building	16.54	8.69	9,727	111	1,272	1,911	91.9
East Senior Building	2.54	1.33	9,727	111	1,272	1,911	14.1
Fast Food Restaurant	0.50	0.03	9,727	111	1,272	1,911	2.18
High Turnover (Sit Down Rest.)	2.82	0.15	9,727	111	1,272	1,911	12.4
Residential Common Open Space ^c	3.48	1.78	9,727	111	1,272	1,911	19.2
Open Space ^d	0	0.49	9,727	111	1,272	1,911	1.21
Subtotal							141
2030-2056 (Electricity CO ₂ Intensity Factor = 444 pounds/MWh)							
East Building	16.54	8.69	9,727	111	1,272	1,911	85.7
East Senior Building	2.54	1.33	9,727	111	1,272	1,911	13.2
Fast Food Restaurant	0.50	0.03	9,727	111	1,272	1,911	2.0
High Turnover (Sit Down Rest.)	2.82	0.15	9,727	111	1,272	1,911	11.6
Residential Common Open Space ^c	3.48	1.78	9,727	111	1,272	1,911	17.9
Open Space ^d	0	0.49	9,727	111	1,272	1,911	1.10
Subtotal							132

^a California Air Pollution Control Officers Association, California Emissions Estimator Model, <http://www.caleemod.com/>. Accessed March 2018.

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

^c For emissions calculation purposes, Common Open Space was categorized in CalEEMod as the land use type General Office Building which is defined as land uses that house multiple tenants where affairs of businesses commercial or industrial organizations or professional persons or firms are conducted. This CalEEMod land use type was determined to provide a reasonably conservative estimate of emissions for these Project uses.

^d For emissions calculation purposes, Open Space refers to outdoor open space and was categorized in CalEEMod as the land use type City Park which is the closest fit for this land use type. This CalEEMod land use type was determined to provide a reasonably conservative estimate of water-related emissions for these Project uses. The Project does not include any City-owned parks.

SOURCE: ESA 2018.

TABLE 16
EAST SITE (HOTEL SCENARIO) - WATER AND WASTEWATER GREENHOUSE GAS EMISSIONS

Land Use	Indoor Water Demand (Mgal/yr) ^a	Outdoor Water Demand (Mgal/yr) ^a	Supply Water (kwh/Mgal)	Treat Water (kWh/Mgal)	Distribute Water (kWh/Mgal)	Wastewater Treatment (kWh/Mgal)	Annual GHG Emissions (MTCO ₂ e/year) ^b
East Site (Hotel Scenario)							
2027-2029 (Electricity CO ₂ Intensity Factor = 488 pounds/MWh)							
East Building	12.47	6.55	9,727	111	1,272	1,911	69.3
East Senior Building	1.88	0.99	9,727	111	1,272	1,911	10.4
Hotel	3.35	0.31	9,727	111	1,272	1,911	15.0
Fast Food Restaurant	0.50	0.03	9,727	111	1,272	1,911	2.18
High Turnover (Sit Down Rest.)	2.82	0.15	9,727	111	1,272	1,911	12.4
Residential Common Open Space ^c	2.31	1.18	9,727	111	1,272	1,911	12.7
Open Space ^d	0	0.44	9,727	111	1,272	1,911	1.09
Subtotal							123
2030-2056 (Electricity CO ₂ Intensity Factor = 444 pounds/MWh)							
East Building	12.47	6.55	9,727	111	1,272	1,911	64.6
East Senior Building	1.88	0.99	9,727	111	1,272	1,911	9.72
Hotel	3.35	0.31	9,727	111	1,272	1,911	14.1
Fast Food Restaurant	0.50	0.03	9,727	111	1,272	1,911	2.0
High Turnover (Sit Down Rest.)	2.82	0.15	9,727	111	1,272	1,911	11.6
Residential Common Open Space ^c	2.31	1.18	9,727	111	1,272	1,911	11.9
Open Space ^d	0	0.44	9,727	111	1,272	1,911	1.0
Subtotal							115

^a California Air Pollution Control Officers Association, California Emissions Estimator Model, <http://www.caleemod.com/>. Accessed March 2018

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

^c For emissions calculation purposes, Common Open Space was categorized in CalEEMod as the land use type General Office Building which is defined as land uses that house multiple tenants where affairs of businesses commercial or industrial organizations or professional persons or firms are conducted. This CalEEMod land use type was determined to provide a reasonably conservative estimate of emissions for these Project uses.

^d For emissions calculation purposes, Open Space refers to outdoor open space and was categorized in CalEEMod as the land use type City Park which is the closest fit for this land use type. This CalEEMod land use type was determined to provide a reasonably conservative estimate of water-related emissions for these Project uses. The Project does not include any City-owned parks.

SOURCE: ESA 2018.

Operational Area and Stationary

Area sources of GHG emissions resulting from operation of the Project include equipment used to maintain landscaping, such as lawnmowers and trimmers. The combustion of fossil fuels to operate these equipment results in GHG emissions of CO₂ and smaller amounts of CH₄ and N₂O. Stationary sources would include on-site emergency generators on the West Site and East Site with an estimated capacity rated at approximately 1,500 kilowatts (2,012 horsepower) for each site, which would provide emergency power primarily for lighting and other emergency building

systems. There are no other substantial stationary sources on-site besides the generators, such as industrial sized boilers. Residential hearths would not be installed in the Project's residential uses.

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

Landscaping Equipment:

$$\text{Annual Emissions [MTCO}_2\text{e]} = \left(\sum_i (\text{Units} \times \text{EF}_{\text{LE}} \times \text{A}_{\text{LE}} \times \text{GWP})_i \right) \div 10^6 \quad \text{[Equation 5]}$$

Where:	Units	=	Number of land use units (same land use type) [DU or 1000 sqft]
	EF _{LE}	=	GHG emission factor [grams (g)/DU/day or g/1000 sqft/day]
	A _{LE}	=	Landscaping equipment operating days per year [day/year]
	GWP	=	Global warming potential [CO ₂ = 1, CH ₄ = 25, N ₂ O = 298]
	10 ⁶	=	Conversion factor [g/MT]
	i	=	Summation index

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

As mentioned above, stationary sources would include on-site emergency generators on the West Site and East Site, 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. 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. In general, stationary-source emergency generator emissions are calculated as follows:

Stationary Source Emergency Generator:

$$\text{Emissions}_{\text{Diesel}} [\text{g}] = \sum_i (\text{EF} \times \text{Pop} \times \text{HP} \times \text{Load} \times \text{Activity})_i \quad \text{[Equation 6]}$$

Where:	EF	=	Emission factor [g/bhp-hr]
	Pop	=	Population [quantity of same equipment type]
	HP	=	Maximum rated horsepower [hp]
	Load	=	Load Factor [dimensionless]
	Activity	=	Hours of operation [hours per day, hours per year]
	i	=	Summation index

The estimated annual emissions from area and stationary sources under the Project are provided in **Table 17**. Detailed emissions calculations are provided in **Appendix B**.

TABLE 17
WEST SITE AND EAST SITE (RESIDENTIAL SCENARIO AND HOTEL SCENARIO)
PROJECT AREA AND STATIONARY SOURCE GREENHOUSE GAS EMISSIONS

Emission Source	Annual GHG Emissions ^a
West Site	
2024-2056	
Landscaping Equipment	8.94
Emergency Generator	39.5
Total West Site GHG Emissions	48
East Site (Residential Scenario and Hotel Scenario) ^b	
2027-2056	
Landscaping Equipment	8.44
Emergency Generator	39.5
Total West Site GHG Emissions	48

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

^b The maximum of the Residential Scenario and the Hotel Scenario is used for the East Site as a conservative assumption.

SOURCE: ESA 2018.

Carbon Sequestration from Vegetation

The Project site includes a number of green spaces that will include a mix of trees and native shrubs, perennials, and ground cover. Trees will provide a source of carbon sequestration that would offer a reduction in GHG emissions produced by the Project. Carbon sequestration was estimated using CalEEMod, which calculates carbon sequestration from vegetation based on the Project's net addition of vegetated land uses, the number of new trees, and the types of trees being planted. The Project would include the addition of 130 trees on the West Site and 122 trees on the East Site for a total of 252 trees. According to the methodology in the CalEEMod User's Guide, carbon sequestration from vegetation are calculated as follows:

Carbon Sequestration from Vegetation (Trees):

$$\text{Total Sequestered CO}_2 = \text{GP} \times \sum_i (\text{SeqCO}_2 \times \text{Trees})_i \quad \text{[Equation 7]}$$

Where:

- GP = Growing period for all trees, expressed in years (20)
- SeqCO₂ = Annual CO₂ accumulation per tree for species class [MTCO₂/tree]
- Trees = Number of net new trees of broad species class
- i = Summation index for broad species class

The Project will provide 252 trees; however, the exact type and species are not known at this Project planning stage. According to the CalEEMod User's Guide, if specific tree types are not known, the "miscellaneous" tree type should be used (CARB 2017a). Therefore, the "miscellaneous" tree type option was used per the CalEEMod User's Guide.

The effects of carbon sequestration from trees assume the IPCC active growing period of 20 years. Accumulation of carbon in biomass decreases as the trees age and would eventually be offset by clipping, pruning, and tree death. Therefore, GHG reductions from carbon sequestration are only applied to the first 20 years of the Project's operation. The estimated annual carbon sequestration rate is provided in **Table 18**. Detailed emissions calculations are provided in **Appendix B**.

TABLE 18
CARBON SEQUESTRATION FROM VEGETATION

Reduction Source	Carbon Sequestered (MTCO ₂ e) ^a
West Site GHG Reduction	(92)
West Site Annual GHG Reduction (20-year growing period)^b	(5)
East Site GHG Reduction	(86)
East Site Annual GHG Reduction (20-year growing period)^b	(4)

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

^b Annual CO₂ sequestration applied over a 20-year period beginning in the Project's first full operational year.

SOURCE: ESA 2018.

Summary of Project GHG Emissions

A summary of the GHG emissions under the project buildout options is provided in **Tables 19** and **20**.

TABLE 19
WEST SITE + EAST SITE (RESIDENTIAL SCENARIO) – SUMMARY OF ANNUAL GHG EMISSIONS FOR PROJECT

Year	Annual GHG Emissions (MTCO ₂ e/year)									Total ^{a,b}	Total ^{a,b}
	Construc- tion	Electricity	Natural Gas	Mobile (EMFAC 2014)	Mobile (EMFAC 2017)	Waste	Water and Waste Water	Area and Stationary	CO ₂ Seq. from Net New Vegetation ^a	(Using EMFAC 2014)	(Using EMFAC 2017)
Const Yr 1 / 2021	1,945	–	–	–	–	–	–	–	–	1,945	1,945
Const Yr 2 / 2022	1,614	–	–	–	–	–	–	–	–	1,614	1,614
Const Yr 3 / 2023 ^c	1,300	334	106	621	582	19	40	12	–	2,431	2,391
Const Yr 4 / 2024	1,955	1,334	422	2,422	2,269	130	159	48	(5)	6,464	6,312
Const Yr 5 / 2025	1,555	1,334	422	2,348	2,203	130	159	48	(5)	5,991	5,846
Const Yr 6 / 2026 ^d	1,395	1,435	461	2,540	2,384	142	171	52	(5)	6,184	6,027
2027	–	2,350	887	5,210	4,886	272	290	96	(9)	9,096	8,772
2028	–	2,350	887	5,098	4,774	272	290	96	(9)	8,984	8,660
2029	–	2,350	887	4,999	4,673	272	290	96	(9)	8,885	8,559
2030	–	2,139	887	4,913	4,583	272	271	96	(9)	8,569	8,239
2031	–	2,139	887	4,843	4,502	272	271	96	(9)	8,499	8,158
2032	–	2,139	887	4,778	4,431	272	271	96	(9)	8,434	8,087
2033	–	2,139	887	4,721	4,368	272	271	96	(9)	8,377	8,024
2034	–	2,139	887	4,673	4,312	272	271	96	(9)	8,329	7,968
2035	–	2,139	887	4,634	4,264	272	271	96	(9)	8,290	7,920
2036	–	2,139	887	4,606	4,223	272	271	96	(9)	8,262	7,879
2037	–	2,139	887	4,582	4,189	272	271	96	(9)	8,238	7,845
2038	–	2,139	887	4,564	4,160	272	271	96	(9)	8,220	7,816
2039	–	2,139	887	4,550	4,136	272	271	96	(9)	8,206	7,792
2040	–	2,139	887	4,541	4,116	272	271	96	(9)	8,197	7,772
2041	–	2,139	887	4,534	4,100	272	271	96	(9)	8,190	7,756
2042	–	2,139	887	4,530	4,088	272	271	96	(9)	8,186	7,744
2043	–	2,139	887	4,530	4,079	272	271	96	(9)	8,186	7,735
2044	–	2,139	887	4,530	4,072	272	271	96	(4)	8,191	7,733
2045	–	2,139	887	4,532	4,066	272	271	96	(4)	8,193	7,727
2046	–	2,139	887	4,536	4,063	272	271	96	(4)	8,197	7,724
2047	–	2,139	887	4,540	4,062	272	271	96	–	8,205	7,727
2048	–	2,139	887	4,546	4,061	272	271	96	–	8,211	7,726
2049	–	2,139	887	4,553	4,061	272	271	96	–	8,218	7,726
2050	–	2,139	887	4,562	4,065	272	271	96	–	8,227	7,730
2051	–	2,139	887	4,562	4,065	272	271	96	–	8,227	7,730
2052	–	2,139	887	4,562	4,065	272	271	96	–	8,227	7,730
2053	–	2,139	887	4,562	4,065	272	271	96	–	8,227	7,730
2054	–	2,139	887	4,562	4,065	272	271	96	–	8,227	7,730
2055	–	2,139	887	4,562	4,065	272	271	96	–	8,227	7,730
2056	–	2,139	887	4,562	4,065	272	271	96	–	8,227	7,730

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

^b The Project GHG emissions may be re-evaluated periodically to account for future reductions from the promulgation of state regulations, such as post-2025 model year vehicle emissions standards and post-2030 Renewables Portfolio Standard and other regulations that would reduce Project-related operational GHG emissions but cannot be quantified at this time.

^c Based on the construction schedule, this year includes 3 months of operations of the West Site (first full year of West Site operation is expected to be 2024).

^d Based on the construction schedule, this year includes 1 month of operations of the East Site (first full year of East Site operation is expected to be 2027).

SOURCE: ESA 2018.

**TABLE 20
WEST SITE + EAST SITE (HOTEL SCENARIO) – SUMMARY OF ANNUAL GHG EMISSIONS FOR PROJECT**

Year	Annual GHG Emissions (MTCO ₂ e/year)									Total ^{a,b}	Total ^{a,b}
	Construc- tion	Electricity	Natural Gas	Mobile (EMFAC 2014)	Mobile (EMFAC 2017)	Waste	Water and Waste Water	Area and Stationary	CO ₂ Seq. from Net New Vegetation	(Using EMFAC 2014)	(Using EMFAC 2017)
Const Yr 1 / 2021	1,945	–	–	–	–	–	–	–	–	1,945	1,945
Const Yr 2 / 2022	1,614	–	–	–	–	–	–	–	–	1,614	1,614
Const Yr 3 / 2023 ^c	1,300	334	106	613	574	19	40	12	–	2,423	2,384
Const Yr 4 / 2024	1,955	1,334	422	2,390	2,240	130	159	48	(5)	6,433	6,282
Const Yr 5 / 2025	1,555	1,334	422	2,317	2,174	130	159	48	(5)	5,961	5,817
Const Yr 6 / 2026 ^d	1,395	1,435	469	2,590	2,430	140	169	52	(5)	6,246	6,086
2027	–	2,437	990	6,107	5,728	252	272	96	(9)	10,145	9,766
2028	–	2,437	990	5,975	5,596	252	272	96	(9)	10,013	9,634
2029	–	2,437	990	5,859	5,478	252	272	96	(9)	9,897	9,516
2030	–	2,218	990	5,759	5,372	252	254	96	(9)	9,560	9,173
2031	–	2,218	990	5,677	5,277	252	254	96	(9)	9,478	9,078
2032	–	2,218	990	5,600	5,193	252	254	96	(9)	9,401	8,994
2033	–	2,218	990	5,534	5,119	252	254	96	(9)	9,335	8,920
2034	–	2,218	990	5,478	5,054	252	254	96	(9)	9,279	8,855
2035	–	2,218	990	5,432	4,998	252	254	96	(9)	9,233	8,799
2036	–	2,218	990	5,399	4,950	252	254	96	(9)	9,200	8,751
2037	–	2,218	990	5,371	4,910	252	254	96	(9)	9,172	8,711
2038	–	2,218	990	5,349	4,876	252	254	96	(9)	9,150	8,677
2039	–	2,218	990	5,334	4,848	252	254	96	(9)	9,135	8,649
2040	–	2,218	990	5,323	4,825	252	254	96	(9)	9,124	8,626
2041	–	2,218	990	5,314	4,806	252	254	96	(9)	9,115	8,607
2042	–	2,218	990	5,310	4,792	252	254	96	(9)	9,111	8,593
2043	–	2,218	990	5,309	4,781	252	254	96	(9)	9,110	8,582
2044	–	2,218	990	5,310	4,773	252	254	96	(4)	9,116	8,579
2045	–	2,218	990	5,312	4,767	252	254	96	(4)	9,118	8,573
2046	–	2,218	990	5,316	4,763	252	254	96	(4)	9,122	8,569
2047	–	2,218	990	5,322	4,761	252	254	96	–	9,132	8,571
2048	–	2,218	990	5,329	4,760	252	254	96	–	9,139	8,570
2049	–	2,218	990	5,336	4,760	252	254	96	–	9,146	8,570
2050	–	2,218	990	5,347	4,765	252	254	96	–	9,157	8,575
2051	–	2,218	990	5,347	4,765	252	254	96	–	9,157	8,575
2052	–	2,218	990	5,347	4,765	252	254	96	–	9,157	8,575
2053	–	2,218	990	5,347	4,765	252	254	96	–	9,157	8,575
2054	–	2,218	990	5,347	4,765	252	254	96	–	9,157	8,575
2055	–	2,218	990	5,347	4,765	252	254	96	–	9,157	8,575
2056	–	2,218	990	5,347	4,765	252	254	96	–	9,157	8,575

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

^b The Project GHG emissions may be re-evaluated periodically to account for future reductions from the promulgation of state regulations, such as post-2025 model year vehicle emissions standards and post-2030 Renewables Portfolio Standard and other regulations that would reduce Project-related operational GHG emissions but cannot be quantified at this time.

^c Based on the construction schedule, this year includes 3 months of operations of the West Site (first full year of West Site operation is expected to be 2024).

^d Based on the construction schedule, this year includes 1 month of operations of the East Site (first full year of East Site operation is expected to be 2027).

SOURCE: ESA 2018.

3.3.3 Project GHG Emissions Offsets

Annual emissions of GHGs from the Project will incorporate GHG emission offsets as necessary to achieve a net zero increase in site GHG emissions, relative to the baseline annual GHG emissions, for the estimated Project lifetime. The Project proposes to meet the requirement set forth in California Public Resources Code Section 21183 (c), which requires that the Project demonstrate that it will not result in net additional emissions of GHG, through Project-based or community-based program measures that will reduce GHG emissions in the region. Examples of the types of Project-based or community-based program measures that could be considered are as follows:

- Seek opportunities for installing solar photovoltaic panels on Project building rooftops based on available physical roof space taking into account space dedicated for rooftop amenities, open space/landscaping, decks/pool areas, and space required for rooftop equipment, such as heating, ventilation, and air conditioning units.
- Purchase certified green-power from the local utility provider to offset Project-related GHG emissions from electricity demand.
- Coordinating with property owners in the City of Los Angeles or in other cities or communities in California for the installation of rooftop solar photovoltaic panels in accordance with state and local permitting standards on existing buildings, parking structures, carports, or other facilities.
- Seek opportunities for offsetting GHG emissions from existing sources in the City of Los Angeles or in other cities or communities in California or elsewhere. Examples include coordinating with local transportation agencies and property owners and establishing electric vehicle supply equipment (EVSE) at park-and-ride lots or other appropriate locations, coordinating with local transportation agencies and school districts and replacing diesel- or gasoline-fueled buses with less-polluting technologies such as compressed natural gas, electric, hybrid-electric, fuel cell, or other commercially available technologies, implementing methane capture and destruction programs at dairy farms, or other GHG emissions offset programs.
- Seek opportunities for planting new drought-tolerant, high-carbon sequestering, and/or native trees of appropriate size and type at off-site locations such as parks in the City of Los Angeles or in other cities or communities in California or elsewhere, that would result in a net sequestration of CO₂ emissions.
- Purchase carbon credits from a reputable carbon market. Priority should be given to those credits generated within the City of Los Angeles, and in decreasing preference, credits generated within the region, in-state, and out-of-state.

Through implementation of the Project-based or community-based GHG reduction program, the Project will meet the requirement set forth in California Public Resources Code Section 21183 (c), which requires that the Project demonstrate that it will not result in net additional emissions of GHG emissions. The acquisition of carbon credits as part of the Project-based or community-based GHG reduction program will serve to ensure that all projected additional GHG emissions are offset. If acquiring carbon credits, the Applicant or its successor shall enter into one or more contracts to purchase carbon credits from a qualified GHG emissions broker (to be selected from an accredited registry), which contract, together with any previous contracts for the purchase of

carbon credits, shall evidence the purchase of carbon credits in an amount sufficient to achieve a net zero increase in site GHG emissions. Consistent with SCAQMD's definition of the "life of the project" for CEQA GHG purposes, provided in SCAQMD's Governing Board Agenda Item 31, December 5, 2008, the Project would be required to offset emissions over a 30-year lifetime. The SCAQMD recommends that offsets should have a 30-year project life, should be real, quantifiable, verifiable, and surplus and will be considered in the following prioritized manner: (1) project design feature/on-site reduction measures; (2) off-site within the neighborhood; (3) off-site within the SCAQMD jurisdiction; (4) off-site within the State; (5) off-site out-of-State. The Project would obtain offsets following this prioritization. The necessary offsets are summarized below in **Section 4.0**. Offsets are estimated for a project useful lifetime of 30 years, which is recommended as a presumed project lifetime per SCAQMD guidance (SCAQMD 2008).

Section 4

Project Comparisons

4.1 Comparison of Project to Baseline Condition

Tables 21 and 22 provides a summary of the determination of net additional GHG emissions comparing the existing site GHG emissions and the Project GHG emissions including the Project's total construction-related GHG emissions. Based on these GHG emissions estimates, the Project would not result in net additional contemporaneous GHG emissions compared to the baseline annual operational emissions at any time.

The Project will commit to implementing Project-based or community-based program measures, as discussed in the previous section, that will achieve no net increase in GHG emissions. As such, the Project would not result in net contemporaneous GHG emissions compared to the Baseline Condition, taking into account GHG Project-based or community-based program measures and offsets. Therefore, this analysis demonstrates that the Project meets the GHG emissions requirements of the "Jobs and Economic Improvement through Environmental Leadership Act" (Public Resources Code Section 21178 et seq.) and would result in no net GHG emissions.

TABLE 21
WEST SITE + EAST SITE (RESIDENTIAL SCENARIO) – EVALUATION OF NET GHG EMISSIONS FOR THE PROJECT

Year	Project Total (Using EMFAC 2014 for Mobile)	Project GHG Reductions from Offsets ^a	Net Change from Baseline	Project Total (Using EMFAC 2017 for Mobile)	Project GHG Reductions from Offsets ^a	Net Change from Baseline
Const Yr 1 / 2021	1,945	1,945	0	1,945	1,945	0
Const Yr 2 / 2022	1,614	1,614	0	1,614	1,614	0
Const Yr 3 / 2023	2,431	2,431	0	2,391	2,391	0
Const Yr 4 / 2024	6,464	6,464	0	6,312	6,312	0
Const Yr 5 / 2025	5,991	5,991	0	5,846	5,846	0
Const Yr 6 / 2026	6,184	6,184	0	6,027	6,027	0
2027	9,096	9,096	0	8,772	8,772	0
2028	8,984	8,984	0	8,660	8,660	0
2029	8,885	8,885	0	8,559	8,559	0
2030	8,569	8,569	0	8,239	8,239	0
2031	8,499	8,499	0	8,158	8,158	0
2032	8,434	8,434	0	8,087	8,087	0
2033	8,377	8,377	0	8,024	8,024	0
2034	8,329	8,329	0	7,968	7,968	0
2035	8,290	8,290	0	7,920	7,920	0
2036	8,262	8,262	0	7,879	7,879	0
2037	8,238	8,238	0	7,845	7,845	0
2038	8,220	8,220	0	7,816	7,816	0
2039	8,206	8,206	0	7,792	7,792	0
2040	8,197	8,197	0	7,772	7,772	0
2041	8,190	8,190	0	7,756	7,756	0
2042	8,186	8,186	0	7,744	7,744	0
2043	8,186	8,186	0	7,735	7,735	0
2044	8,191	8,191	0	7,733	7,733	0
2045	8,193	8,193	0	7,727	7,727	0
2046	8,197	8,197	0	7,724	7,724	0
2047	8,205	8,205	0	7,727	7,727	0
2048	8,211	8,211	0	7,726	7,726	0
2049	8,218	8,218	0	7,726	7,726	0
2050	8,227	8,227	0	7,730	7,730	0
2051	8,227	8,227	0	7,730	7,730	0
2052	8,227	8,227	0	7,730	7,730	0
2053	8,227	8,227	0	7,730	7,730	0
2054	8,227	8,227	0	7,730	7,730	0
2055	8,227	8,227	0	7,730	7,730	0
2056	8,227	8,227	0	7,730	7,730	0

^a The quantity of GHG emissions offsets may be re-evaluated periodically to account for future reductions from the promulgation of state regulations, such as post-2025 model year vehicle emissions standards and post-2030 Renewables Portfolio Standard and other regulations that would reduce Project-related operational GHG emissions but cannot be quantified at this time.

SOURCE: ESA 2018.

TABLE 22
WEST SITE + EAST SITE (HOTEL SCENARIO) – EVALUATION OF NET GHG EMISSIONS FOR THE PROJECT

Year	Project Total (EMFAC 2014 for Mobile)	Project GHG Reductions from Offsets ^a	Net Change from Baseline	Project Total (EMFAC 2017 for Mobile)	Project GHG Reductions from Offsets ^a	Net Change from Baseline
Const Yr 1 / 2021	1,945	1,945	0	1,945	1,945	0
Const Yr 2 / 2022	1,614	1,614	0	1,614	1,614	0
Const Yr 3 / 2023	2,423	2,423	0	2,384	2,384	0
Const Yr 4 / 2024	6,433	6,433	0	6,282	6,282	0
Const Yr 5 / 2025	5,961	5,961	0	5,817	5,817	0
Const Yr 6 / 2026	6,246	6,246	0	6,086	6,086	0
2027	10,145	10,145	0	9,766	9,766	0
2028	10,013	10,013	0	9,634	9,634	0
2029	9,897	9,897	0	9,516	9,516	0
2030	9,560	9,560	0	9,173	9,173	0
2031	9,478	9,478	0	9,078	9,078	0
2032	9,401	9,401	0	8,994	8,994	0
2033	9,335	9,335	0	8,920	8,920	0
2034	9,279	9,279	0	8,855	8,855	0
2035	9,233	9,233	0	8,799	8,799	0
2036	9,200	9,200	0	8,751	8,751	0
2037	9,172	9,172	0	8,711	8,711	0
2038	9,150	9,150	0	8,677	8,677	0
2039	9,135	9,135	0	8,649	8,649	0
2040	9,124	9,124	0	8,626	8,626	0
2041	9,115	9,115	0	8,607	8,607	0
2042	9,111	9,111	0	8,593	8,593	0
2043	9,110	9,110	0	8,582	8,582	0
2044	9,116	9,116	0	8,579	8,579	0
2045	9,118	9,118	0	8,573	8,573	0
2046	9,122	9,122	0	8,569	8,569	0
2047	9,132	9,132	0	8,571	8,571	0
2048	9,139	9,139	0	8,570	8,570	0
2049	9,146	9,146	0	8,570	8,570	0
2050	9,157	9,157	0	8,575	8,575	0
2051	9,157	9,157	0	8,575	8,575	0
2052	9,157	9,157	0	8,575	8,575	0
2053	9,157	9,157	0	8,575	8,575	0
2054	9,157	9,157	0	8,575	8,575	0
2055	9,157	9,157	0	8,575	8,575	0
2056	9,157	9,157	0	8,575	8,575	0

^a The quantity of GHG emissions offsets may be re-evaluated periodically to account for future reductions from the promulgation of state regulations, such as post-2025 model year vehicle emissions standards and post-2030 Renewables Portfolio Standard and other regulations that would reduce Project-related operational GHG emissions but cannot be quantified at this time.

SOURCE: ESA 2018.

4.2 Comparison of Project with ITE Trip Generation Manual – 9th Edition and 10th Edition

The Institute of Transportation Engineers (ITE) released an update to their *Trip Generation* manual in September 2017 (*10th Edition*). Trip rates published in the ITE's *Trip Generation, 9th Edition* (*9th Edition*), were used to estimate mobile GHG emissions for trips to the proposed high-rise residential, hotel, fast food restaurant, and high-turnover sit-down restaurant land uses during Project operations because utilizing *9th Edition* results in a higher estimated trip generation to provide a more conservative analysis. The Transportation Efficiency Analysis prepared by Fehr and Peers accounts for application of either trip generation manual edition.¹¹ Specifically relating to the Project, the *10th Edition* offers lower trip generation rates for high-rise residential land uses for the daily, morning peak hour, and afternoon peak hour periods, for hotel land uses for the morning peak hour period, for fast food restaurant land uses for the daily and morning peak hour periods, and for high-turnover sit-down restaurant land uses for the daily, morning peak hour, and afternoon peak hour periods. **Table 23** provides a summary of the net change in mobile source GHG emissions from the Project comparing the emissions with the application of ITE *9th Edition* and the *10th Edition* trip generation rates for the Residential Scenario.

As shown in **Table 23** below, the mobile GHG emissions of the Project would be reduced on average by approximately 1,250 MTCO₂e per year during Project operation using trip generation rate values from the ITE *10th Edition* as compared to the ITE *9th Edition* when using EMFAC 2014 emission factors, and approximately 1,138 MTCO₂e per year during Project operation using trip generation rate values from the ITE *10th Edition* as compared to the ITE *9th Edition* when using EMFAC 2017 emission factors. For the Hotel Scenario, the reduction in mobile source GHG emissions from the use of the ITE *10th Edition* trip generation rates would be expected to achieve a similar proportionate reduction as compared to the ITE *9th Edition* trip generation rates.

Should LADOT request or require application of the ITE's *Trip Generation 10th Edition* or future editions, the Project shall reserve the right to re-evaluate GHG emissions using City-approved *10th Edition* trip generation rates or City-approved future edition trip generation rates as applicable to the proposed Project to determine the necessary GHG offsets required to achieve net zero GHG emissions.

¹¹ Fehr and Peers, ELDP Transportation Efficiency Analysis for the Hollywood Center Project, April 2018.

TABLE 23
WEST SITE + EAST SITE (RESIDENTIAL SCENARIO) – EVALUATION OF NET CHANGE IN GHG MOBILE
EMISSIONS FOR THE PROJECT FROM ITE 9TH AND 10TH EDITION TRIP GENERATION RATES

Year	Project Mobile Emissions using ITE Trip Generation Manual , 9 th Edition (EMFAC 2014)	Project Mobile Emissions using ITE Trip Generation Manual , 10 th Edition (EMFAC 2014) ^a	Net Change from ITE Trip Generation Manual , 9 th Edition	Project Mobile Emissions using ITE Trip Generation Manual , 9 th Edition (EMFAC 2017)	Project Mobile Emissions using ITE Trip Generation Manual , 10 th Edition (EMFAC 2017) ^a	Net Change from ITE Trip Generation Manual , 9 th Edition
Const Yr 1 / 2021	–	–	–	–	–	–
Const Yr 2 / 2022	–	–	–	–	–	–
Const Yr 3 / 2023	621	442	179	582	414	168
Const Yr 4 / 2024	2,422	1,723	698	2,269	1,615	654
Const Yr 5 / 2025	2,348	1,671	677	2,203	1,567	635
Const Yr 6 / 2026	2,540	1,808	732	2,384	1,696	687
2027	5,210	3,708	1,502	4,886	3,477	1,409
2028	5,098	3,628	1,470	4,774	3,397	1,377
2029	4,999	3,557	1,441	4,673	3,326	1,348
2030	4,913	3,496	1,417	4,583	3,262	1,322
2031	4,843	3,446	1,396	4,502	3,204	1,298
2032	4,778	3,400	1,378	4,431	3,153	1,278
2033	4,721	3,360	1,361	4,368	3,108	1,259
2034	4,673	3,326	1,348	4,312	3,069	1,243
2035	4,634	3,298	1,336	4,264	3,034	1,229
2036	4,606	3,278	1,328	4,223	3,006	1,218
2037	4,582	3,261	1,321	4,189	2,981	1,208
2038	4,564	3,248	1,316	4,160	2,960	1,200
2039	4,550	3,238	1,312	4,136	2,943	1,193
2040	4,541	3,232	1,309	4,116	2,929	1,187
2041	4,534	3,226	1,307	4,100	2,918	1,182
2042	4,530	3,224	1,306	4,088	2,909	1,179
2043	4,530	3,223	1,306	4,079	2,903	1,176
2044	4,530	3,224	1,306	4,072	2,898	1,174
2045	4,532	3,225	1,307	4,066	2,894	1,173
2046	4,536	3,228	1,308	4,063	2,892	1,172
2047	4,540	3,231	1,309	4,062	2,890	1,171
2048	4,546	3,235	1,311	4,061	2,890	1,171
2049	4,553	3,240	1,313	4,061	2,890	1,171
2050	4,562	3,246	1,315	4,065	2,893	1,172
2051	4,562	3,246	1,315	4,065	2,893	1,172
2052	4,562	3,246	1,315	4,065	2,893	1,172
2053	4,562	3,246	1,315	4,065	2,893	1,172
2054	4,562	3,246	1,315	4,065	2,893	1,172
2055	4,562	3,246	1,315	4,065	2,893	1,172
2056	4,562	3,246	1,315	4,065	2,893	1,172

^a The quantity of GHG emissions may be re-evaluated periodically to account for future reductions from the City's adoption of the 10th Edition or future editions of ITE Trip Generation Manuals.

SOURCE: ESA 2018.

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Appendix A

Project Construction Emissions

Hollywood Center Project
Air Quality and Greenhouse Gas Assessment

last update: 4/6/2018 Based on AECOM Tishman, 2018; Millennium Partners, 2018; ESA, 2018.

Construction Schedule and Vehicle Data

Distance to Irwindale
disposal site
↓

Used average distance of the
4 identified concrete sites
↓

CalEEMod Construction Phase Project	Start Date	End Date	Number of Work Days (up to 6 days/week)	Max Daily Number of Workers	Max Daily Inbound + Outbound Worker Trips	Number of Hauling Days	Materia/ Soil Export (CY)	Materia/ Soil Import (CY)	Truck Capacity (CY)	Max Daily Number of Trucks	Max Daily Inbound + Outbound Truck Trips	Distance to Disposal Site (miles)	Number of Concrete Truck Days	Concrete Mat Volume (CY)	Concrete Truck Capacity (CY)	Max Daily Number of Concrete Trucks	Max Daily Inbound + Outbound Concrete Truck Trips	Distance to Concrete Supply Site (miles)	Max Daily Number of Delivery/ Vendor Trucks	Max Daily Inbound + Outbound Delivery/ Vendor Truck Trips	
WEST SITE																					
Demolition	1/4/2021	3/1/2021	49	6	12	2	912	-	20	23	46	30									
Site Preparation	2/1/2021	2/28/2021	24	12	24																
Grading/Excavation	2/11/2021	7/20/2021	137	112	224	88	168,020	-	20	96	192	30									
<i>Foundations/Concrete Pour (Revised) [MHW104: Foundation]</i>	<i>7/21/2021</i>	<i>9/15/2021</i>	<i>49</i>	<i>125</i>	<i>250</i>																
Shoring Wall													19				10	20	7.5		
Cast in Drilled Hole Foundation													41				2	4	7.5		
Mat Foundation (Continuous Pour)													1	853	9 (approx.)		94	188	7.5		
Column Footings													4				21	42	7.5		
<i>Assume overlap with Shoring Wall to keep within phase schedule --></i>																					
<i>Utilities/Trenching (Revised) [MHD101: Relocate/Protect Site Utilities]</i>	<i>1/14/2021</i>	<i>2/3/2021</i>	<i>18</i>	<i>6</i>	<i>12</i>	70,412															
<i>Building Construction (Revised) [Starting with MHW111: Parking Str.]</i>	<i>9/16/2021</i>	<i>9/30/2023</i>	<i>639</i>	<i>300</i>	<i>600</i>	70							52				42	84	7.5	25	
Structure Equipment Garage													42				21	42	7.5		
Structure Equipment Tower													22				24	48	7.5		
Structure Equipment Affordable													2				14	28	7.5		
Retail																					
<i>Paving (Revised) [MHW112: Hardscape & Landscape]</i>	<i>2/23/2023</i>	<i>5/22/2023</i>	<i>76</i>	<i>12</i>	<i>24</i>																
<i>Architectural Coatings (Revised) [MHW109: Interior Finish]</i>	<i>5/12/2022</i>	<i>8/18/2023</i>	<i>398</i>	<i>8</i>	<i>16</i>																
WEST SITE MAX DAILY WORKERS (Building + Paving + Architectural Coating):				320	640																
EAST SITE																					
Site Preparation	1/3/2024	2/2/2024	27	12	24	2	704	-	20	18	36	30									
Grading/Excavation	1/15/2024	6/10/2024	127	112	224	80	153,655	-	20	96	192	30									
<i>Foundations/Concrete Pour (Revised) [MHE104: Foundation]</i>	<i>6/11/2024</i>	<i>7/26/2024</i>	<i>40</i>	<i>124</i>	<i>248</i>																
Shoring Wall													16				10	20	7.5		
Cast in Drilled Hole Foundation													30				2	4	7.5		
Mat Foundation (Continuous Pour)													1	632	9 (approx.)		71	142	7.5		
Column Footings													4				21	42	7.5		
<i>Assume overlap with Shoring Wall to keep within phase schedule --></i>																					
<i>Utilities/Trenching (Revised) [MHD101: Relocate/Protect Site Utilities]</i>	<i>1/15/2024</i>	<i>1/26/2024</i>	<i>11</i>	<i>6</i>	<i>12</i>																
<i>Building Construction (Revised) [Starting with MHE111: Parking Str.]</i>	<i>7/29/2024</i>	<i>11/22/2026</i>	<i>726</i>	<i>300</i>	<i>600</i>								58				44	88	7.5	25	
Structure Equipment Garage													82				20	40	7.5		
Structure Equipment Tower													18				18	36	7.5		
Structure Equipment Affordable													3				30	60	7.5		
Retail																					
<i>Paving (Revised) [MHE112: Hardscape & Landscape]</i>	<i>12/11/2025</i>	<i>3/11/2026</i>	<i>78</i>	<i>12</i>	<i>24</i>																
<i>Architectural Coatings (Revised) [MHE109: Interior Finish]</i>	<i>3/12/2025</i>	<i>6/22/2026</i>	<i>401</i>	<i>8</i>	<i>16</i>																
EAST SITE MAX DAILY WORKERS (Building + Paving + Architectural Coating):				320	640																

MAXIMUM POTENTIAL OVERLAP (EAST BEGINS AFTER GRADING/EXCAVATION OF WEST)

WORKERS	Number of Vehicles	Inbound + Outbound Trips
TRUCKS (HAUL AND/OR CONCRETE)	640	1,280
	163	326

Hollywood Center Project
Air Quality and Greenhouse Gas Assessment - Construction Assumptions

last updated: 2/12/2018

Off-Road Heavy-Duty Construction Equipment - West Site

Construction Phase	Heavy-Duty Equipment	No. of Heavy-Duty Equipment	Project Hours of Operation/Day Per Equipment	Hours of Operation/Week Per Equipment	Emissions Tier Rating (After Mitigation)	Notes/Comments
Demolition	Air Compressors	1	8	48		Powered by generator
	Concrete/Industrial Saws	2	8	48		
	Dumpers/Tenders	1	8	48		
	Excavator	1	8	48		
	Jackhammers (generator)	1	8	48		
	Rubber Tired Loaders	1	8	48		
Site Preparation	Excavator	1	8	48		
	Rubber Tired Loaders	1	8	48		
Grading/Excavation	Dumper/Tenders	2	8	48		
	Excavator	4	8	48		
	Plate Compactor	2	8	48		
	Rubber Tired Loaders	2	8	48		
	Tractors/Loaders/Backhoes	1	8	48		
Drainage/Utilities/Trenching	Air Compressors	1	8	48		Electric
	Concrete/Industrial Saws	1	8	48		
	Cranes (Electric)	1	8	48		
	Tractors/Loaders/Backhoes	1	8	48		
Foundation/Concrete Pour	Air Compressors	1	8	48		Electric Powered by generator Run separately (1 day)
	Cranes (Electric)	1	8	48		
	Dumpers/Tenders	2	8	48		
	Forklifts	1	8	48		
	Jackhammers (generator)	1	8	48		
	Pumps	2	8	48		
	Tractors/Loaders/Backhoes	1	8	48		
Building Construction	Air Compressors	1	8	48		Electric Powered by generator
	Bore/Drill Rigs	1	8	48		
	Cranes (Electric)	2	8	48		
	Dumpers/Tenders	2	8	48		
	Forklifts	1	8	48		
	Jackhammers (generator)	1	8	48		
	Pumps	1	8	48		
	Tractors/Loaders/Backhoes	1	8	48		
Paving	Concrete/Industrial Saws	1	8	48		
	Graders	1	8	48		
	Pavers	1	8	48		
	Paving Equipment	1	8	48		
	Plate Compactor	1	8	48		
	Rollers	1	8	48		
	Surfacing Equipment	1	8	48		
	Sweepers/Scrubbers	1	8	48		
Architectural Coating	Air Compressor	1	8	48		
	Dumpers/Tenders	1	8	48		
	Forklifts	1	8	48		

Source: AECOM Tishman, 2018

Hollywood Center Project
Air Quality and Greenhouse Gas Assessment - Construction Assumptions

last updated: 2/12/2018

Off-Road Heavy-Duty Construction Equipment - East Site

Construction Phase	Heavy-Duty Equipment	No. of Heavy-Duty Equipment	Project Hours of Operation/Day Per Equipment	Hours of Operation/Week Per Equipment	Notes/Comments
Site Preparation	Excavator	1	8	48	
	Rubber Tired Loaders	1	8	48	
Grading/Excavation	Dumper/Tenders	2	8	48	
	Excavator	4	8	48	
	Plate Compactor	2	8	48	
	Rubber Tired Loaders	2	8	48	
	Tractors/Loaders/Backhoes	1	8	48	
Drainage/Utilities/Trenching	Air Compressors	1	8	48	
	Concrete/Industrial Saws	1	8	48	
	Cranes	1	8	48	Electric
	Tractors/Loaders/Backhoes	1	8	48	
Foundation/Concrete Pour	Air Compressors	1	8	48	
	Cranes	1	8	48	Electric
	Dumpers/Tenders	2	8	48	
	Forklifts	1	8	48	
	Jackhammers (generator)	1	8	48	Powered by generator
	Pumps	2	8	48	Run separately (1 day)
	Tractors/Loaders/Backhoes	1	8	48	
Building Construction	Air Compressors	1	8	48	
	Bore/Drill Rigs	1	8	48	
	Cranes	2	8	48	Electric
	Dumpers/Tenders	2	8	48	
	Forklifts	1	8	48	
	Jackhammers (generator)	1	8	48	Powered by generator
	Pumps	1	8	48	
	Tractors/Loaders/Backhoes	1	8	48	
Paving	Concrete/Industrial Saws	1	8	48	
	Graders	1	8	48	
	Pavers	1	8	48	
	Paving Equipment	1	8	48	
	Plate Compactor	1	8	48	
	Rollers	1	8	48	
	Surfacing Equipment	1	8	48	
	Sweepers/Scrubbers	1	8	48	
Architectural Coating	Air Compressor	1	8	48	
	Dumpers/Tenders	1	8	48	
	Forklifts	1	8	48	

Source: AECOM Tishman, 2018

Hollywood Center - East Site - Construction - Los Angeles-South Coast County, Annual

Hollywood Center - East Site - Construction

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	32.66	1000sqft	0.10	32,665.00	0
Enclosed Parking with Elevator	684.00	Space	0.90	338,450.00	0
Other Non-Asphalt Surfaces	12.90	1000sqft	0.10	12,900.00	0
User Defined Parking	4.81	User Defined Unit	0.18	4,812.00	0
City Park	0.82	Acre	0.10	35,300.00	0
Fast Food Restaurant w/o Drive Thru	2.73	1000sqft	0.10	2,732.00	0
High Turnover (Sit Down Restaurant)	15.48	1000sqft	0.10	15,482.00	0
Apartments Mid Rise	65.00	Dwelling Unit	0.30	67,149.00	186
Condo/Townhouse High Rise	423.00	Dwelling Unit	0.85	575,100.00	1210

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2027
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - For construction, the all residential option was modelled. This is because the difference between this option and the residential/hotel option is negligible. See construction assumptions.

Construction Phase - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions. jackhammers are assumed to be powered by generator sets.

Off-road Equipment - see construction assumptions. jackhammers are assumed to be powered by generator sets.

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Trips and VMT - see construction assumptions.

Grading - see construction assumptions.

Woodstoves - see construction assumptions

Construction Off-road Equipment Mitigation - see construction assumptions

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	43,090.00	43,340.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	129,269.00	130,019.00
tblArchitecturalCoating	ConstArea_Parking	22,426.00	22,318.00
tblAreaCoating	Area_Nonresidential_Exterior	43090	43340
tblAreaCoating	Area_Nonresidential_Interior	129269	130019
tblAreaCoating	Area_Parking	22426	22318
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstructionPhase	NumDays	10.00	401.00
tblConstructionPhase	NumDays	220.00	40.00
tblConstructionPhase	NumDays	220.00	726.00
tblConstructionPhase	NumDays	6.00	127.00
tblConstructionPhase	NumDays	10.00	78.00
tblConstructionPhase	NumDays	3.00	27.00
tblConstructionPhase	NumDaysWeek	5.00	6.00

tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	55.25	0.00
tblFireplaces	NumberGas	359.55	0.00
tblFireplaces	NumberNoFireplace	6.50	0.00
tblFireplaces	NumberNoFireplace	42.30	0.00
tblFireplaces	NumberWood	3.25	0.00
tblFireplaces	NumberWood	21.15	0.00
tblGrading	AcresOfGrading	0.00	2.73
tblGrading	AcresOfGrading	0.00	2.73
tblGrading	MaterialExported	0.00	153,655.00
tblGrading	MaterialExported	0.00	704.00
tblLandUse	LandUseSquareFeet	32,660.00	32,665.00
tblLandUse	LandUseSquareFeet	273,600.00	338,450.00
tblLandUse	LandUseSquareFeet	0.00	4,812.00
tblLandUse	LandUseSquareFeet	35,719.20	35,300.00
tblLandUse	LandUseSquareFeet	2,730.00	2,732.00
tblLandUse	LandUseSquareFeet	15,480.00	15,482.00
tblLandUse	LandUseSquareFeet	65,000.00	67,149.00
tblLandUse	LandUseSquareFeet	423,000.00	575,100.00

tblLandUse	LotAcreage	0.75	0.10
tblLandUse	LotAcreage	6.16	0.90
tblLandUse	LotAcreage	0.30	0.10
tblLandUse	LotAcreage	0.00	0.18
tblLandUse	LotAcreage	0.82	0.10
tblLandUse	LotAcreage	0.06	0.10
tblLandUse	LotAcreage	0.36	0.10
tblLandUse	LotAcreage	1.71	0.30
tblLandUse	LotAcreage	6.61	0.85
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	HaulingTripNumber	88.00	0.00

tblTripsAndVMT	HaulingTripNumber	19,207.00	0.00
tblTripsAndVMT	VendorTripNumber	128.00	0.00
tblTripsAndVMT	VendorTripNumber	128.00	50.00
tblTripsAndVMT	WorkerTripNumber	5.00	24.00
tblTripsAndVMT	WorkerTripNumber	28.00	224.00
tblTripsAndVMT	WorkerTripNumber	10.00	12.00
tblTripsAndVMT	WorkerTripNumber	541.00	248.00
tblTripsAndVMT	WorkerTripNumber	541.00	600.00
tblTripsAndVMT	WorkerTripNumber	108.00	16.00
tblTripsAndVMT	WorkerTripNumber	20.00	24.00
tblWoodstoves	NumberCatalytic	3.25	0.00
tblWoodstoves	NumberCatalytic	21.15	0.00
tblWoodstoves	NumberNoncatalytic	3.25	0.00
tblWoodstoves	NumberNoncatalytic	21.15	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.4985	2.7972	4.7169	0.0128	0.6877	0.1087	0.7964	0.1817	0.1025	0.2842	0.0000	1,141.9829	1,141.9829	0.1509	0.0000	1,145.7547
2025	2.2706	4.0043	6.4555	0.0190	1.1028	0.1440	1.2468	0.2940	0.1372	0.4313	0.0000	1,700.7095	1,700.7095	0.1703	0.0000	1,704.9680
2026	1.5508	3.7385	5.8036	0.0172	0.9820	0.1358	1.1178	0.2618	0.1290	0.3909	0.0000	1,533.5363	1,533.5363	0.1653	0.0000	1,537.6685
Maximum	2.2706	4.0043	6.4555	0.0190	1.1028	0.1440	1.2468	0.2940	0.1372	0.4313	0.0000	1,700.7095	1,700.7095	0.1703	0.0000	1,704.9680

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.4456	2.2383	4.4338	0.0128	0.6806	0.0854	0.7661	0.1807	0.0811	0.2618	0.0000	1,061.1252	1,061.1252	0.1247	0.0000	1,064.2432
2025	2.1726	3.0127	5.9120	0.0190	1.1028	0.1019	1.2047	0.2940	0.0985	0.3925	0.0000	1,542.0308	1,542.0308	0.1190	0.0000	1,545.0063
2026	1.4635	2.8547	5.3191	0.0172	0.9820	0.0982	1.0802	0.2618	0.0945	0.3563	0.0000	1,392.0943	1,392.0943	0.1195	0.0000	1,395.0828
Maximum	2.1726	3.0127	5.9120	0.0190	1.1028	0.1019	1.2047	0.2940	0.0985	0.3925	0.0000	1,542.0308	1,542.0308	0.1247	0.0000	1,545.0063

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	5.51	23.10	7.72	0.00	0.26	26.50	3.48	0.13	25.69	8.65	0.00	8.71	8.71	25.33	0.00	8.75

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-3-2024	4-2-2024	0.6573	0.6375
2	4-3-2024	7-2-2024	0.5975	0.5613
3	7-3-2024	10-2-2024	0.9285	0.6720
4	10-3-2024	1-2-2025	1.1204	0.8185
5	1-3-2025	4-2-2025	1.1797	0.9112
6	4-3-2025	7-2-2025	1.6372	1.3657
7	7-3-2025	10-2-2025	1.6556	1.3811
8	10-3-2025	1-2-2026	1.8196	1.5451
9	1-3-2026	4-2-2026	2.0660	1.7975
10	4-3-2026	7-2-2026	1.5617	1.2902
11	7-3-2026	9-30-2026	1.0102	0.7417
		Highest	2.0660	1.7975

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/3/2024	2/2/2024	6	27	
2	Grading	Grading	1/15/2024	6/10/2024	6	127	
3	Utilities/Trenching	Trenching	1/15/2024	1/26/2024	6	11	
4	Foundations/Concrete Pour	Building Construction	6/11/2024	7/26/2024	6	40	
5	Building Construction	Building Construction	7/29/2024	11/22/2026	6	726	
6	Architectural Coating	Architectural Coating	3/12/2025	6/22/2026	6	40	
7	Paving	Paving	12/11/2025	3/11/2026	6	78	

Acres of Grading (Site Preparation Phase): 2.73

Acres of Grading (Grading Phase): 2.73

Acres of Paving: 1.181

Residential Indoor: 1,300,554; Residential Outdoor: 433,518; Non-Residential Indoor: 130,019; Non-Residential Outdoor: 43,340; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Excavators	1	8.00	158	0.38
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Loaders	1	8.00	203	0.36
Site Preparation	Scrapers	0	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Grading	Dumpers/Tenders	2	8.00	16	0.38
Grading	Excavators	4	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Plate Compactors	2	8.00	8	0.43
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Rubber Tired Loaders	2	8.00	203	0.36
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Utilities/Trenching	Air Compressors	1	8.00	78	0.48
Utilities/Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Utilities/Trenching	Cranes	1	8.00	231	0.29
Utilities/Trenching	Rubber Tired Dozers	0	8.00	247	0.40

Utilities/Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Foundations/Concrete Pour	Air Compressors	1	8.00	78	0.48
Foundations/Concrete Pour	Cranes	1	8.00	231	0.29
Foundations/Concrete Pour	Dumpers/Tenders	1	8.00	16	0.38
Foundations/Concrete Pour	Forklifts	1	8.00	89	0.20
Foundations/Concrete Pour	Generator Sets	1	8.00	84	0.74
Foundations/Concrete Pour	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Foundations/Concrete Pour	Welders	0	8.00	46	0.45
Building Construction	Air Compressors	1	8.00	78	0.48
Building Construction	Bore/Drill Rigs	1	8.00	221	0.50
Building Construction	Cranes	2	8.00	231	0.29
Building Construction	Dumpers/Tenders	2	8.00	16	0.38
Building Construction	Forklifts	1	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Pumps	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Architectural Coating	Air Compressors	1	8.00	78	0.48
Architectural Coating	Dumpers/Tenders	1	8.00	16	0.38
Architectural Coating	Forklifts	1	8.00	89	0.20
Paving	Cement and Mortar Mixers	0	8.00	9	0.56
Paving	Concrete/Industrial Saws	1	8.00	81	0.73
Paving	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Plate Compactors	1	8.00	8	0.43
Paving	Rollers	1	8.00	80	0.38
Paving	Surfacing Equipment	1	8.00	263	0.30
Paving	Sweepers/Scrubbers	1	8.00	64	0.46
Paving	Tractors/Loaders/Backhoes	0	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
Site Preparation	2	24.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	11	224.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Utilities/Trenching	4	12.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Foundations/Concrete Pour	6	248.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	10	600.00	50.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	3	16.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	24.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.4900e-003	0.0000	1.4900e-003	1.6000e-004	0.0000	1.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.8600e-003	0.0504	0.0643	1.5000e-004		1.9800e-003	1.9800e-003		1.8300e-003	1.8300e-003	0.0000	13.5425	13.5425	4.3800e-003	0.0000	13.6520
Total	5.8600e-003	0.0504	0.0643	1.5000e-004	1.4900e-003	1.9800e-003	3.4700e-003	1.6000e-004	1.8300e-003	1.9900e-003	0.0000	13.5425	13.5425	4.3800e-003	0.0000	13.6520

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1600e-003	8.1000e-004	9.6700e-003	3.0000e-005	3.5500e-003	3.0000e-005	3.5800e-003	9.4000e-004	2.0000e-005	9.7000e-004	0.0000	2.8860	2.8860	7.0000e-005	0.0000	2.8878
Total	1.1600e-003	8.1000e-004	9.6700e-003	3.0000e-005	3.5500e-003	3.0000e-005	3.5800e-003	9.4000e-004	2.0000e-005	9.7000e-004	0.0000	2.8860	2.8860	7.0000e-005	0.0000	2.8878

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-004	0.0000	5.8000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.8600e-003	0.0504	0.0643	1.5000e-004		1.9800e-003	1.9800e-003		1.8300e-003	1.8300e-003	0.0000	13.5425	13.5425	4.3800e-003	0.0000	13.6520
Total	5.8600e-003	0.0504	0.0643	1.5000e-004	5.8000e-004	1.9800e-003	2.5600e-003	6.0000e-005	1.8300e-003	1.8900e-003	0.0000	13.5425	13.5425	4.3800e-003	0.0000	13.6520

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1600e-003	8.1000e-004	9.6700e-003	3.0000e-005	3.5500e-003	3.0000e-005	3.5800e-003	9.4000e-004	2.0000e-005	9.7000e-004	0.0000	2.8860	2.8860	7.0000e-005	0.0000	2.8878
Total	1.1600e-003	8.1000e-004	9.6700e-003	3.0000e-005	3.5500e-003	3.0000e-005	3.5800e-003	9.4000e-004	2.0000e-005	9.7000e-004	0.0000	2.8860	2.8860	7.0000e-005	0.0000	2.8878

3.3 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0101	0.0000	0.0101	1.4700e-003	0.0000	1.4700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1016	0.8348	1.2199	2.4600e-003		0.0351	0.0351		0.0326	0.0326	0.0000	213.4136	213.4136	0.0666	0.0000	215.0794
Total	0.1016	0.8348	1.2199	2.4600e-003	0.0101	0.0351	0.0452	1.4700e-003	0.0326	0.0340	0.0000	213.4136	213.4136	0.0666	0.0000	215.0794

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0511	0.0355	0.4244	1.4000e-003	0.1559	1.1900e-003	0.1571	0.0414	1.1000e-003	0.0425	0.0000	126.6985	126.6985	3.0800e-003	0.0000	126.7756
Total	0.0511	0.0355	0.4244	1.4000e-003	0.1559	1.1900e-003	0.1571	0.0414	1.1000e-003	0.0425	0.0000	126.6985	126.6985	3.0800e-003	0.0000	126.7756

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.9500e-003	0.0000	3.9500e-003	5.7000e-004	0.0000	5.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1016	0.8348	1.2199	2.4600e-003		0.0351	0.0351		0.0326	0.0326	0.0000	213.4133	213.4133	0.0666	0.0000	215.0791
Total	0.1016	0.8348	1.2199	2.4600e-003	3.9500e-003	0.0351	0.0391	5.7000e-004	0.0326	0.0331	0.0000	213.4133	213.4133	0.0666	0.0000	215.0791

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0511	0.0355	0.4244	1.4000e-003	0.1559	1.1900e-003	0.1571	0.0414	1.1000e-003	0.0425	0.0000	126.6985	126.6985	3.0800e-003	0.0000	126.7756
Total	0.0511	0.0355	0.4244	1.4000e-003	0.1559	1.1900e-003	0.1571	0.0414	1.1000e-003	0.0425	0.0000	126.6985	126.6985	3.0800e-003	0.0000	126.7756

3.4 Utilities/Trenching - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.6600e-003	0.0495	0.0554	1.1000e-004		2.2200e-003	2.2200e-003		2.1300e-003	2.1300e-003	0.0000	9.1233	9.1233	1.6300e-003	0.0000	9.1642
Total	5.6600e-003	0.0495	0.0554	1.1000e-004		2.2200e-003	2.2200e-003		2.1300e-003	2.1300e-003	0.0000	9.1233	9.1233	1.6300e-003	0.0000	9.1642

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.6000e-004	1.9700e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.5879	0.5879	1.0000e-005	0.0000	0.5882
Total	2.4000e-004	1.6000e-004	1.9700e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.5879	0.5879	1.0000e-005	0.0000	0.5882

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.8400e-003	0.0302	0.0457	1.1000e-004		1.4200e-003	1.4200e-003		1.3900e-003	1.3900e-003	0.0000	6.3352	6.3352	7.3000e-004	0.0000	6.3535
Total	3.8400e-003	0.0302	0.0457	1.1000e-004		1.4200e-003	1.4200e-003		1.3900e-003	1.3900e-003	0.0000	6.3352	6.3352	7.3000e-004	0.0000	6.3535

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.6000e-004	1.9700e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.5879	0.5879	1.0000e-005	0.0000	0.5882
Total	2.4000e-004	1.6000e-004	1.9700e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.5879	0.5879	1.0000e-005	0.0000	0.5882

3.5 Foundations/Concrete Pour - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0234	0.2094	0.2296	4.3000e-004		9.4500e-003	9.4500e-003		9.0300e-003	9.0300e-003	0.0000	37.5183	37.5183	6.8800e-003	0.0000	37.6903
Total	0.0234	0.2094	0.2296	4.3000e-004		9.4500e-003	9.4500e-003		9.0300e-003	9.0300e-003	0.0000	37.5183	37.5183	6.8800e-003	0.0000	37.6903

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0178	0.0124	0.1480	4.9000e-004	0.0544	4.2000e-004	0.0548	0.0144	3.8000e-004	0.0148	0.0000	44.1806	44.1806	1.0800e-003	0.0000	44.2075
Total	0.0178	0.0124	0.1480	4.9000e-004	0.0544	4.2000e-004	0.0548	0.0144	3.8000e-004	0.0148	0.0000	44.1806	44.1806	1.0800e-003	0.0000	44.2075

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0168	0.1393	0.1941	4.3000e-004		6.5300e-003	6.5300e-003		6.3500e-003	6.3500e-003	0.0000	27.3795	27.3795	3.6000e-003	0.0000	27.4694
Total	0.0168	0.1393	0.1941	4.3000e-004		6.5300e-003	6.5300e-003		6.3500e-003	6.3500e-003	0.0000	27.3795	27.3795	3.6000e-003	0.0000	27.4694

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0178	0.0124	0.1480	4.9000e-004	0.0544	4.2000e-004	0.0548	0.0144	3.8000e-004	0.0148	0.0000	44.1806	44.1806	1.0800e-003	0.0000	44.2075
Total	0.0178	0.0124	0.1480	4.9000e-004	0.0544	4.2000e-004	0.0548	0.0144	3.8000e-004	0.0148	0.0000	44.1806	44.1806	1.0800e-003	0.0000	44.2075

3.6 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1401	1.2675	1.2905	2.9700e-003		0.0546	0.0546		0.0521	0.0521	0.0000	256.9830	256.9830	0.0541	0.0000	258.3361
Total	0.1401	1.2675	1.2905	2.9700e-003		0.0546	0.0546		0.0521	0.0521	0.0000	256.9830	256.9830	0.0541	0.0000	258.3361

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.0700e-003	0.2364	0.0738	8.1000e-004	0.0211	2.7000e-004	0.0214	6.0900e-003	2.6000e-004	6.3500e-003	0.0000	78.9727	78.9727	4.2600e-003	0.0000	79.0792
Worker	0.1445	0.1003	1.1995	3.9600e-003	0.4405	3.3700e-003	0.4439	0.1170	3.1000e-003	0.1201	0.0000	358.0765	358.0765	8.7200e-003	0.0000	358.2945
Total	0.1515	0.3368	1.2732	4.7700e-003	0.4616	3.6400e-003	0.4653	0.1231	3.3600e-003	0.1265	0.0000	437.0492	437.0492	0.0130	0.0000	437.3736

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0956	0.7980	1.0527	2.9700e-003		0.0351	0.0351		0.0341	0.0341	0.0000	189.0526	189.0526	0.0322	0.0000	189.8565
Total	0.0956	0.7980	1.0527	2.9700e-003		0.0351	0.0351		0.0341	0.0341	0.0000	189.0526	189.0526	0.0322	0.0000	189.8565

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.0700e-003	0.2364	0.0738	8.1000e-004	0.0211	2.7000e-004	0.0214	6.0900e-003	2.6000e-004	6.3500e-003	0.0000	78.9727	78.9727	4.2600e-003	0.0000	79.0792
Worker	0.1445	0.1003	1.1995	3.9600e-003	0.4405	3.3700e-003	0.4439	0.1170	3.1000e-003	0.1201	0.0000	358.0765	358.0765	8.7200e-003	0.0000	358.2945
Total	0.1515	0.3368	1.2732	4.7700e-003	0.4616	3.6400e-003	0.4653	0.1231	3.3600e-003	0.1265	0.0000	437.0492	437.0492	0.0130	0.0000	437.3736

3.6 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3101	2.7596	2.9988	6.9300e-003		0.1139	0.1139		0.1086	0.1086	0.0000	600.2967	600.2967	0.1257	0.0000	603.4396
Total	0.3101	2.7596	2.9988	6.9300e-003		0.1139	0.1139		0.1086	0.1086	0.0000	600.2967	600.2967	0.1257	0.0000	603.4396

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0161	0.5475	0.1678	1.8900e-003	0.0493	6.3000e-004	0.0499	0.0142	6.0000e-004	0.0148	0.0000	183.4610	183.4610	9.8000e-003	0.0000	183.7060
Worker	0.3208	0.2144	2.6002	8.8900e-003	1.0290	7.7000e-003	1.0367	0.2733	7.0900e-003	0.2804	0.0000	804.0162	804.0162	0.0186	0.0000	804.4803
Total	0.3369	0.7619	2.7681	0.0108	1.0783	8.3300e-003	1.0866	0.2875	7.6900e-003	0.2952	0.0000	987.4772	987.4772	0.0284	0.0000	988.1863

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2122	1.7680	2.4552	6.9300e-003		0.0718	0.0718		0.0698	0.0698	0.0000	441.6181	441.6181	0.0744	0.0000	443.4780
Total	0.2122	1.7680	2.4552	6.9300e-003		0.0718	0.0718		0.0698	0.0698	0.0000	441.6181	441.6181	0.0744	0.0000	443.4780

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0161	0.5475	0.1678	1.8900e-003	0.0493	6.3000e-004	0.0499	0.0142	6.0000e-004	0.0148	0.0000	183.4610	183.4610	9.8000e-003	0.0000	183.7060
Worker	0.3208	0.2144	2.6002	8.8900e-003	1.0290	7.7000e-003	1.0367	0.2733	7.0900e-003	0.2804	0.0000	804.0162	804.0162	0.0186	0.0000	804.4803
Total	0.3369	0.7619	2.7681	0.0108	1.0783	8.3300e-003	1.0866	0.2875	7.6900e-003	0.2952	0.0000	987.4772	987.4772	0.0284	0.0000	988.1863

3.6 Building Construction - 2026**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2764	2.4598	2.6730	6.1800e-003		0.1015	0.1015		0.0968	0.0968	0.0000	535.0887	535.0887	0.1121	0.0000	537.8902
Total	0.2764	2.4598	2.6730	6.1800e-003		0.1015	0.1015		0.0968	0.0968	0.0000	535.0887	535.0887	0.1121	0.0000	537.8902

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0140	0.4834	0.1466	1.6700e-003	0.0439	5.5000e-004	0.0445	0.0127	5.2000e-004	0.0132	0.0000	162.6723	162.6723	8.6100e-003	0.0000	162.8875
Worker	0.2733	0.1761	2.1658	7.6500e-003	0.9172	6.6300e-003	0.9238	0.2436	6.1100e-003	0.2497	0.0000	691.7861	691.7861	0.0152	0.0000	692.1653
Total	0.2873	0.6595	2.3124	9.3200e-003	0.9611	7.1800e-003	0.9683	0.2563	6.6300e-003	0.2629	0.0000	854.4584	854.4584	0.0238	0.0000	855.0528

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1891	1.5759	2.1885	6.1800e-003		0.0640	0.0640		0.0622	0.0622	0.0000	393.6468	393.6468	0.0663	0.0000	395.3047
Total	0.1891	1.5759	2.1885	6.1800e-003		0.0640	0.0640		0.0622	0.0622	0.0000	393.6468	393.6468	0.0663	0.0000	395.3047

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0140	0.4834	0.1466	1.6700e-003	0.0439	5.5000e-004	0.0445	0.0127	5.2000e-004	0.0132	0.0000	162.6723	162.6723	8.6100e-003	0.0000	162.8875
Worker	0.2733	0.1761	2.1658	7.6500e-003	0.9172	6.6300e-003	0.9238	0.2436	6.1100e-003	0.2497	0.0000	691.7861	691.7861	0.0152	0.0000	692.1653
Total	0.2873	0.6595	2.3124	9.3200e-003	0.9611	7.1800e-003	0.9683	0.2563	6.6300e-003	0.2629	0.0000	854.4584	854.4584	0.0238	0.0000	855.0528

3.7 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.5539					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0491	0.3555	0.4803	7.9000e-004		0.0164	0.0164		0.0160	0.0160	0.0000	67.0462	67.0462	8.5900e-003	0.0000	67.2610
Total	1.6030	0.3555	0.4803	7.9000e-004		0.0164	0.0164		0.0160	0.0160	0.0000	67.0462	67.0462	8.5900e-003	0.0000	67.2610

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9200e-003	4.6200e-003	0.0561	1.9000e-004	0.0222	1.7000e-004	0.0224	5.8900e-003	1.5000e-004	6.0400e-003	0.0000	17.3304	17.3304	4.0000e-004	0.0000	17.3405
Total	6.9200e-003	4.6200e-003	0.0561	1.9000e-004	0.0222	1.7000e-004	0.0224	5.8900e-003	1.5000e-004	6.0400e-003	0.0000	17.3304	17.3304	4.0000e-004	0.0000	17.3405

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.5539					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0491	0.3555	0.4803	7.9000e-004		0.0164	0.0164		0.0160	0.0160	0.0000	67.0461	67.0461	8.5900e-003	0.0000	67.2609
Total	1.6030	0.3555	0.4803	7.9000e-004		0.0164	0.0164		0.0160	0.0160	0.0000	67.0461	67.0461	8.5900e-003	0.0000	67.2609

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9200e-003	4.6200e-003	0.0561	1.9000e-004	0.0222	1.7000e-004	0.0224	5.8900e-003	1.5000e-004	6.0400e-003	0.0000	17.3304	17.3304	4.0000e-004	0.0000	17.3405
Total	6.9200e-003	4.6200e-003	0.0561	1.9000e-004	0.0222	1.7000e-004	0.0224	5.8900e-003	1.5000e-004	6.0400e-003	0.0000	17.3304	17.3304	4.0000e-004	0.0000	17.3405

3.7 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.9090					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0287	0.2080	0.2810	4.6000e-004		9.6000e-003	9.6000e-003		9.3400e-003	9.3400e-003	0.0000	39.2207	39.2207	5.0300e-003	0.0000	39.3464
Total	0.9377	0.2080	0.2810	4.6000e-004		9.6000e-003	9.6000e-003		9.3400e-003	9.3400e-003	0.0000	39.2207	39.2207	5.0300e-003	0.0000	39.3464

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8700e-003	2.4900e-003	0.0306	1.1000e-004	0.0130	9.0000e-005	0.0131	3.4500e-003	9.0000e-005	3.5300e-003	0.0000	9.7858	9.7858	2.1000e-004	0.0000	9.7912
Total	3.8700e-003	2.4900e-003	0.0306	1.1000e-004	0.0130	9.0000e-005	0.0131	3.4500e-003	9.0000e-005	3.5300e-003	0.0000	9.7858	9.7858	2.1000e-004	0.0000	9.7912

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.9090					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0287	0.2080	0.2810	4.6000e-004		9.6000e-003	9.6000e-003		9.3400e-003	9.3400e-003	0.0000	39.2206	39.2206	5.0300e-003	0.0000	39.3463
Total	0.9377	0.2080	0.2810	4.6000e-004		9.6000e-003	9.6000e-003		9.3400e-003	9.3400e-003	0.0000	39.2206	39.2206	5.0300e-003	0.0000	39.3463

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8700e-003	2.4900e-003	0.0306	1.1000e-004	0.0130	9.0000e-005	0.0131	3.4500e-003	9.0000e-005	3.5300e-003	0.0000	9.7858	9.7858	2.1000e-004	0.0000	9.7912
Total	3.8700e-003	2.4900e-003	0.0306	1.1000e-004	0.0130	9.0000e-005	0.0131	3.4500e-003	9.0000e-005	3.5300e-003	0.0000	9.7858	9.7858	2.1000e-004	0.0000	9.7912

3.8 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0130	0.1222	0.1464	3.1000e-004		5.1900e-003	5.1900e-003		4.8500e-003	4.8500e-003	0.0000	26.7095	26.7095	7.2200e-003	0.0000	26.8902
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0130	0.1222	0.1464	3.1000e-004		5.1900e-003	5.1900e-003		4.8500e-003	4.8500e-003	0.0000	26.7095	26.7095	7.2200e-003	0.0000	26.8902

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4000e-004	4.9000e-004	5.9800e-003	2.0000e-005	2.3700e-003	2.0000e-005	2.3800e-003	6.3000e-004	2.0000e-005	6.4000e-004	0.0000	1.8495	1.8495	4.0000e-005	0.0000	1.8506
Total	7.4000e-004	4.9000e-004	5.9800e-003	2.0000e-005	2.3700e-003	2.0000e-005	2.3800e-003	6.3000e-004	2.0000e-005	6.4000e-004	0.0000	1.8495	1.8495	4.0000e-005	0.0000	1.8506

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0130	0.1222	0.1464	3.1000e-004		5.1900e-003	5.1900e-003		4.8500e-003	4.8500e-003	0.0000	26.7095	26.7095	7.2200e-003	0.0000	26.8901
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0130	0.1222	0.1464	3.1000e-004		5.1900e-003	5.1900e-003		4.8500e-003	4.8500e-003	0.0000	26.7095	26.7095	7.2200e-003	0.0000	26.8901

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4000e-004	4.9000e-004	5.9800e-003	2.0000e-005	2.3700e-003	2.0000e-005	2.3800e-003	6.3000e-004	2.0000e-005	6.4000e-004	0.0000	1.8495	1.8495	4.0000e-005	0.0000	1.8506
Total	7.4000e-004	4.9000e-004	5.9800e-003	2.0000e-005	2.3700e-003	2.0000e-005	2.3800e-003	6.3000e-004	2.0000e-005	6.4000e-004	0.0000	1.8495	1.8495	4.0000e-005	0.0000	1.8506

3.8 Paving - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0432	0.4073	0.4880	1.0200e-003		0.0173	0.0173		0.0162	0.0162	0.0000	89.0318	89.0318	0.0241	0.0000	89.6339
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0432	0.4073	0.4880	1.0200e-003		0.0173	0.0173		0.0162	0.0162	0.0000	89.0318	89.0318	0.0241	0.0000	89.6339

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3500e-003	1.5100e-003	0.0186	7.0000e-005	7.8900e-003	6.0000e-005	7.9500e-003	2.1000e-003	5.0000e-005	2.1500e-003	0.0000	5.9509	5.9509	1.3000e-004	0.0000	5.9541
Total	2.3500e-003	1.5100e-003	0.0186	7.0000e-005	7.8900e-003	6.0000e-005	7.9500e-003	2.1000e-003	5.0000e-005	2.1500e-003	0.0000	5.9509	5.9509	1.3000e-004	0.0000	5.9541

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0432	0.4073	0.4880	1.0200e-003		0.0173	0.0173		0.0162	0.0162	0.0000	89.0317	89.0317	0.0241	0.0000	89.6337
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0432	0.4073	0.4880	1.0200e-003		0.0173	0.0173		0.0162	0.0162	0.0000	89.0317	89.0317	0.0241	0.0000	89.6337

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3500e-003	1.5100e-003	0.0186	7.0000e-005	7.8900e-003	6.0000e-005	7.9500e-003	2.1000e-003	5.0000e-005	2.1500e-003	0.0000	5.9509	5.9509	1.3000e-004	0.0000	5.9541
Total	2.3500e-003	1.5100e-003	0.0186	7.0000e-005	7.8900e-003	6.0000e-005	7.9500e-003	2.1000e-003	5.0000e-005	2.1500e-003	0.0000	5.9509	5.9509	1.3000e-004	0.0000	5.9541

Hollywood Center - East Site - Pumps - Los Angeles-South Coast County, Annual

Hollywood Center - East Site - Pumps 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	423.00	Dwelling Unit	0.85	575,100.00	1181

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2027
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - see construction assumptions

Construction Phase - see construction assumptions

Off-road Equipment - see construction assumptions

Trips and VMT - see construction assumptions

Woodstoves - see construction assumptions

Construction Off-road Equipment Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Residential_Exterior	388193	370188
tblAreaCoating	Area_Residential_Interior	1164578	1110563
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	100.00	1.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	359.55	0.00
tblFireplaces	NumberNoFireplace	42.30	0.00
tblFireplaces	NumberWood	21.15	0.00
tblLandUse	LandUseSquareFeet	423,000.00	575,100.00
tblLandUse	LotAcreage	6.82	0.85
tblLandUse	Population	1,210.00	1,181.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	4.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblSolidWaste	SolidWasteGenerationRate	194.58	189.98
tblTripsAndVMT	VendorTripNumber	45.00	0.00
tblTripsAndVMT	WorkerTripNumber	305.00	4.00
tblWater	IndoorWaterUseRate	27,560,152.84	26,908,612.58
tblWater	OutdoorWaterUseRate	17,374,878.96	16,964,125.32
tblWoodstoves	NumberCatalytic	21.15	0.00
tblWoodstoves	NumberNoncatalytic	21.15	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	4.3000e-004	3.5500e-003	5.1700e-003	1.0000e-005	2.0000e-005	1.6000e-004	1.8000e-004	1.0000e-005	1.6000e-004	1.7000e-004	0.0000	0.7950	0.7950	3.0000e-005	0.0000	0.7958
Maximum	4.3000e-004	3.5500e-003	5.1700e-003	1.0000e-005	2.0000e-005	1.6000e-004	1.8000e-004	1.0000e-005	1.6000e-004	1.7000e-004	0.0000	0.7950	0.7950	3.0000e-005	0.0000	0.7958

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	4.3000e-004	3.5500e-003	5.1700e-003	1.0000e-005	2.0000e-005	1.6000e-004	1.8000e-004	1.0000e-005	1.6000e-004	1.7000e-004	0.0000	0.7950	0.7950	3.0000e-005	0.0000	0.7958
Maximum	4.3000e-004	3.5500e-003	5.1700e-003	1.0000e-005	2.0000e-005	1.6000e-004	1.8000e-004	1.0000e-005	1.6000e-004	1.7000e-004	0.0000	0.7950	0.7950	3.0000e-005	0.0000	0.7958

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-11-2024	9-10-2024	0.0034	0.0034
		Highest	0.0034	0.0034

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Foundations/Concrete Pour	Building Construction	6/11/2024	6/11/2024	6	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Foundations/Concrete Pour	Cranes	0	6.00	231	0.29
Foundations/Concrete Pour	Forklifts	0	6.00	89	0.20
Foundations/Concrete Pour	Generator Sets	0	8.00	84	0.74
Foundations/Concrete Pour	Pumps	2	11.00	84	0.74
Foundations/Concrete Pour	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Foundations/Concrete Pour	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Foundations/Concrete Pour	2	4.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Foundations/Concrete Pour - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.2000e-004	3.5500e-003	5.1100e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	0.7772	0.7772	3.0000e-005	0.0000	0.7780
Total	4.2000e-004	3.5500e-003	5.1100e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	0.7772	0.7772	3.0000e-005	0.0000	0.7780

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	0.0000	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0178	0.0178	0.0000	0.0000	0.0178
Total	1.0000e-005	0.0000	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0178	0.0178	0.0000	0.0000	0.0178

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.2000e-004	3.5500e-003	5.1100e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	0.7772	0.7772	3.0000e-005	0.0000	0.7780
Total	4.2000e-004	3.5500e-003	5.1100e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	0.7772	0.7772	3.0000e-005	0.0000	0.7780

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	0.0000	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0178	0.0178	0.0000	0.0000	0.0178
Total	1.0000e-005	0.0000	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0178	0.0178	0.0000	0.0000	0.0178

Hollywood Center - West Site - Pumps - Los Angeles-South Coast County, Annual

Hollywood Center - West Site - Pumps 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	449.00	Dwelling Unit	0.50	581,000.00	1659

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2021
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - see construction assumptions

Construction Phase - see construction assumptions

Off-road Equipment - see construction assumptions

Trips and VMT - see construction assumptions

Woodstoves - see construction assumptions

Construction Off-road Equipment Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Residential_Exterior	392175	492589
tblAreaCoating	Area_Residential_Interior	1176525	1477766
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	100.00	1.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	381.65	0.00
tblFireplaces	NumberNoFireplace	44.90	0.00
tblFireplaces	NumberWood	22.45	0.00
tblLandUse	LandUseSquareFeet	449,000.00	581,000.00
tblLandUse	LotAcreage	7.24	0.50
tblLandUse	Population	1,284.00	1,659.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	4.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblSolidWaste	SolidWasteGenerationRate	206.54	266.80
tblTripsAndVMT	VendorTripNumber	48.00	0.00
tblTripsAndVMT	WorkerTripNumber	323.00	4.00
tblWater	IndoorWaterUseRate	29,254,157.50	37,789,334.86
tblWater	OutdoorWaterUseRate	18,442,838.43	23,823,711.11
tblWoodstoves	NumberCatalytic	22.45	0.00
tblWoodstoves	NumberNoncatalytic	22.45	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	6.7000e-004	5.6200e-003	6.6200e-003	1.0000e-005	2.0000e-005	3.1000e-004	3.3000e-004	1.0000e-005	3.1000e-004	3.2000e-004	0.0000	1.0089	1.0089	5.0000e-005	0.0000	1.0103
Maximum	6.7000e-004	5.6200e-003	6.6200e-003	1.0000e-005	2.0000e-005	3.1000e-004	3.3000e-004	1.0000e-005	3.1000e-004	3.2000e-004	0.0000	1.0089	1.0089	5.0000e-005	0.0000	1.0103

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	6.7000e-004	5.6200e-003	6.6200e-003	1.0000e-005	2.0000e-005	3.1000e-004	3.3000e-004	1.0000e-005	3.1000e-004	3.2000e-004	0.0000	1.0089	1.0089	5.0000e-005	0.0000	1.0103
Maximum	6.7000e-004	5.6200e-003	6.6200e-003	1.0000e-005	2.0000e-005	3.1000e-004	3.3000e-004	1.0000e-005	3.1000e-004	3.2000e-004	0.0000	1.0089	1.0089	5.0000e-005	0.0000	1.0103

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-21-2021	9-30-2021	0.0054	0.0054
		Highest	0.0054	0.0054

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Foundations/Concrete Pour	Building Construction	7/21/2021	7/21/2021	6	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Foundations/Concrete Pour	Cranes	0	6.00	231	0.29
Foundations/Concrete Pour	Forklifts	0	6.00	89	0.20
Foundations/Concrete Pour	Generator Sets	0	8.00	84	0.74
Foundations/Concrete Pour	Pumps	2	14.00	84	0.74
Foundations/Concrete Pour	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Foundations/Concrete Pour	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Foundations/Concrete Pour	2	4.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Foundations/Concrete Pour - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7000e-004	5.6200e-003	6.5500e-003	1.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	0.9891	0.9891	5.0000e-005	0.0000	0.9905
Total	6.7000e-004	5.6200e-003	6.5500e-003	1.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	0.9891	0.9891	5.0000e-005	0.0000	0.9905

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0198	0.0198	0.0000	0.0000	0.0198
Total	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0198	0.0198	0.0000	0.0000	0.0198

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7000e-004	5.6200e-003	6.5500e-003	1.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	0.9891	0.9891	5.0000e-005	0.0000	0.9905
Total	6.7000e-004	5.6200e-003	6.5500e-003	1.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	0.9891	0.9891	5.0000e-005	0.0000	0.9905

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0198	0.0198	0.0000	0.0000	0.0198
Total	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0198	0.0198	0.0000	0.0000	0.0198

Hollywood Center - West - Construction - Los Angeles-South Coast County, Annual

Hollywood Center - West - Construction

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	41.60	1000sqft	0.10	41,600.00	0
Enclosed Parking with Elevator	837.00	Space	0.51	414,005.00	0
Other Non-Asphalt Surfaces	11.90	1000sqft	0.10	11,900.00	0
User Defined Parking	1.64	User Defined Unit	0.14	1,636.00	0
City Park	0.79	Acre	0.10	34,205.00	0
Fast Food Restaurant w/o Drive Thru	1.98	1000sqft	0.10	1,983.00	0
High Turnover (Sit Down Restaurant)	11.24	1000sqft	0.10	11,237.00	0
Apartments Mid Rise	68.00	Dwelling Unit	0.20	67,500.00	194
Condo/Townhouse High Rise	449.00	Dwelling Unit	0.50	581,000.00	1284

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2024
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - see construction assumptions

Construction Phase - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions. Jackhammer assumed to be powered by generator set.

Off-road Equipment - see construction assumptions. Jackhammers assumed to be powered by generator set.

Off-road Equipment - see construction assumptions. Jackhammers assumed to be powered by generator.

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Trips and VMT - see construction assumptions

Demolition - 912 CY converted to building square footage.

Grading - see construction assumptions

Woodstoves - see construction assumptions

Construction Off-road Equipment Mitigation - see construction assumptions

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	44,455.00	45,115.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	133,364.00	135,344.00
tblArchitecturalCoating	ConstArea_Parking	26,974.00	26,786.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	437,738.00	437,603.00
tblArchitecturalCoating	ConstArea_Residential_Interior	1,313,213.00	1,312,808.00
tblAreaCoating	Area_Nonresidential_Exterior	44455	45115
tblAreaCoating	Area_Nonresidential_Interior	133364	135344
tblAreaCoating	Area_Parking	26974	26786
tblAreaCoating	Area_Residential_Exterior	437738	437603
tblAreaCoating	Area_Residential_Interior	1313213	1312808
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00

tblConstructionPhase	NumDays	20.00	49.00
tblConstructionPhase	NumDays	2.00	24.00
tblConstructionPhase	NumDays	4.00	137.00
tblConstructionPhase	NumDays	200.00	49.00
tblConstructionPhase	NumDays	200.00	639.00
tblConstructionPhase	NumDays	10.00	398.00
tblConstructionPhase	NumDays	10.00	76.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	57.80	0.00
tblFireplaces	NumberGas	381.65	0.00
tblFireplaces	NumberNoFireplace	6.80	0.00
tblFireplaces	NumberNoFireplace	44.90	0.00
tblFireplaces	NumberWood	3.40	0.00
tblFireplaces	NumberWood	22.45	0.00
tblGrading	AcresOfGrading	0.00	1.84
tblGrading	AcresOfGrading	0.00	1.84
tblGrading	MaterialExported	0.00	168,020.00

tblLandUse	LandUseSquareFeet	334,800.00	414,005.00
tblLandUse	LandUseSquareFeet	0.00	1,636.00
tblLandUse	LandUseSquareFeet	34,412.40	34,205.00
tblLandUse	LandUseSquareFeet	1,980.00	1,983.00
tblLandUse	LandUseSquareFeet	11,240.00	11,237.00
tblLandUse	LandUseSquareFeet	68,000.00	67,500.00
tblLandUse	LandUseSquareFeet	449,000.00	581,000.00
tblLandUse	LotAcreage	0.96	0.10
tblLandUse	LotAcreage	7.53	0.51
tblLandUse	LotAcreage	0.27	0.10
tblLandUse	LotAcreage	0.00	0.14
tblLandUse	LotAcreage	0.79	0.10
tblLandUse	LotAcreage	0.05	0.10
tblLandUse	LotAcreage	0.26	0.10
tblLandUse	LotAcreage	1.79	0.20
tblLandUse	LotAcreage	7.02	0.50
tblOffRoadEquipment	HorsePower	187.00	84.00
tblOffRoadEquipment	LoadFactor	0.41	0.74
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblSolidWaste	SolidWasteGenerationRate	38.58	39.23
tblTripsAndVMT	HaulingTripNumber	45.00	0.00
tblTripsAndVMT	HaulingTripNumber	21,003.00	0.00
tblTripsAndVMT	VendorTripNumber	144.00	0.00
tblTripsAndVMT	VendorTripNumber	144.00	50.00
tblTripsAndVMT	WorkerTripNumber	18.00	12.00
tblTripsAndVMT	WorkerTripNumber	10.00	12.00
tblTripsAndVMT	WorkerTripNumber	5.00	24.00
tblTripsAndVMT	WorkerTripNumber	28.00	224.00
tblTripsAndVMT	WorkerTripNumber	594.00	250.00
tblTripsAndVMT	WorkerTripNumber	594.00	600.00
tblTripsAndVMT	WorkerTripNumber	119.00	16.00
tblTripsAndVMT	WorkerTripNumber	20.00	24.00
tblWater	IndoorWaterUseRate	7,372,395.87	7,496,809.49
tblWater	OutdoorWaterUseRate	941,270.27	953,185.08
tblWater	OutdoorWaterUseRate	4,518,565.21	4,594,818.72
tblWoodstoves	NumberCatalytic	3.40	0.00
tblWoodstoves	NumberCatalytic	22.45	0.00
tblWoodstoves	NumberNoncatalytic	3.40	0.00

tblWoodstoves	NumberNoncatalytic	22.45	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.5843	3.8554	5.0895	0.0124	0.5761	0.1649	0.7411	0.1514	0.1561	0.3075	0.0000	1,103.7582	1,103.7582	0.1540	0.0000	1,107.6078
2022	2.0890	4.8180	6.9689	0.0196	1.0959	0.1901	1.2860	0.2922	0.1816	0.4738	0.0000	1,755.4076	1,755.4076	0.1717	0.0000	1,759.6987
2023	1.9086	3.9833	5.8403	0.0159	0.8334	0.1704	1.0038	0.2222	0.1618	0.3840	0.0000	1,415.8350	1,415.8350	0.1558	0.0000	1,419.7290
Maximum	2.0890	4.8180	6.9689	0.0196	1.0959	0.1901	1.2860	0.2922	0.1816	0.4738	0.0000	1,755.4076	1,755.4076	0.1717	0.0000	1,759.6987

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.5325	3.2468	4.8407	0.0124	0.5661	0.1402	0.7064	0.1499	0.1333	0.2833	0.0000	1,040.1443	1,040.1443	0.1334	0.0000	1,043.4796
2022	1.9723	3.5083	6.3766	0.0196	1.0959	0.1357	1.2316	0.2922	0.1315	0.4237	0.0000	1,596.7278	1,596.7278	0.1203	0.0000	1,599.7359
2023	1.8264	3.0905	5.4110	0.0159	0.8334	0.1331	0.9665	0.2222	0.1275	0.3497	0.0000	1,297.2076	1,297.2076	0.1174	0.0000	1,300.1424
Maximum	1.9723	3.5083	6.3766	0.0196	1.0959	0.1402	1.2316	0.2922	0.1333	0.4237	0.0000	1,596.7278	1,596.7278	0.1334	0.0000	1,599.7359

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	5.47	22.21	7.10	0.00	0.40	22.15	4.17	0.22	21.44	9.31	0.00	7.97	7.97	22.91	0.00	8.02

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-4-2021	4-3-2021	1.2099	1.1625
2	4-4-2021	7-3-2021	0.9089	0.9089
3	7-4-2021	10-3-2021	0.8811	0.6714
4	10-4-2021	1-3-2022	1.4750	1.0618
5	1-4-2022	4-3-2022	1.2965	0.9449
6	4-4-2022	7-3-2022	1.6706	1.3151
7	7-4-2022	10-3-2022	1.9623	1.6030
8	10-4-2022	1-3-2023	1.9750	1.6166
9	1-4-2023	4-3-2023	2.1409	1.8195
10	4-4-2023	7-3-2023	2.2225	1.8974
11	7-4-2023	9-30-2023	1.4589	1.1410
		Highest	2.2225	1.8974

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	1/4/2021	3/1/2021	6	49	
2	Utilities/Trenching	Trenching	1/14/2021	2/3/2021	6	18	
3	Site Preparation	Site Preparation	2/1/2021	2/28/2021	6	24	
4	Grading	Grading	2/11/2021	7/20/2021	6	137	
5	Foundations/Concrete Pour	Building Construction	7/21/2021	9/15/2021	6	49	
6	Building Construction	Building Construction	9/16/2021	9/30/2023	6	639	
7	Architectural Coating	Architectural Coating	5/12/2022	8/18/2023	6	398	
8	Paving	Paving	2/23/2023	5/22/2023	6	76	

Acres of Grading (Site Preparation Phase): 1.84

Acres of Grading (Grading Phase): 1.84

Acres of Paving: 0.746

**Residential Indoor: 1,312,808; Residential Outdoor: 437,603; Non-Residential Indoor: 135,344; Non-Residential Outdoor: 45,115; Striped
OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Air Compressors	1	8.00	78	0.48
Demolition	Concrete/Industrial Saws	2	8.00	81	0.73
Demolition	Dumpers/Tenders	1	8.00	16	0.38
Demolition	Excavators	1	8.00	158	0.38
Demolition	Generator Sets	1	8.00	84	0.74
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Demolition	Rubber Tired Loaders	1	8.00	203	0.36
Demolition	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Utilities/Trenching	Air Compressors	1	8.00	78	0.48
Utilities/Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Utilities/Trenching	Cranes	1	8.00	231	0.29
Utilities/Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Excavators	1	8.00	158	0.38
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Rubber Tired Loaders	1	8.00	203	0.36
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Dumpers/Tenders	2	8.00	16	0.38
Grading	Excavators	4	8.00	158	0.38
Grading	Graders	0	6.00	187	0.41
Grading	Plate Compactors	2	8.00	8	0.43
Grading	Rubber Tired Dozers	0	6.00	247	0.40
Grading	Rubber Tired Loaders	2	8.00	203	0.36
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Foundations/Concrete Pour	Air Compressors	1	8.00	78	0.48
Foundations/Concrete Pour	Cranes	1	8.00	231	0.29
Foundations/Concrete Pour	Dumpers/Tenders	2	8.00	16	0.38

Foundations/Concrete Pour	Forklifts	1	8.00	89	0.20
Foundations/Concrete Pour	Generator Sets	1	8.00	84	0.74
Foundations/Concrete Pour	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Foundations/Concrete Pour	Welders	0	8.00	46	0.45
Building Construction	Air Compressors	1	8.00	78	0.48
Building Construction	Bore/Drill Rigs	1	8.00	221	0.50
Building Construction	Cranes	2	8.00	231	0.29
Building Construction	Dumpers/Tenders	2	8.00	16	0.38
Building Construction	Forklifts	1	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Pumps	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Architectural Coating	Air Compressors	1	8.00	78	0.48
Architectural Coating	Dumpers/Tenders	1	8.00	16	0.38
Architectural Coating	Forklifts	1	8.00	89	0.20
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Paving	Concrete/Industrial Saws	1	8.00	81	0.73
Paving	Graders	1	8.00	84	0.74
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Plate Compactors	1	8.00	8	0.43
Paving	Rollers	1	8.00	80	0.38
Paving	Surfacing Equipment	1	8.00	263	0.30
Paving	Sweepers/Scrubbers	1	8.00	64	0.46
Paving	Tractors/Loaders/Backhoes	0	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	7	12.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Utilities/Trenching	4	12.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	24.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	11	224.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Foundations/Concrete Pour	7	250.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	10	600.00	50.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	3	16.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	24.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.9200e-003	0.0000	4.9200e-003	7.5000e-004	0.0000	7.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0506	0.4351	0.4552	8.6000e-004		0.0218	0.0218		0.0214	0.0214	0.0000	74.4569	74.4569	0.0109	0.0000	74.7294
Total	0.0506	0.4351	0.4552	8.6000e-004	4.9200e-003	0.0218	0.0267	7.5000e-004	0.0214	0.0221	0.0000	74.4569	74.4569	0.0109	0.0000	74.7294

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2700e-003	9.8000e-004	0.0111	3.0000e-005	3.2200e-003	3.0000e-005	3.2500e-003	8.6000e-004	2.0000e-005	8.8000e-004	0.0000	2.9074	2.9074	9.0000e-005	0.0000	2.9096
Total	1.2700e-003	9.8000e-004	0.0111	3.0000e-005	3.2200e-003	3.0000e-005	3.2500e-003	8.6000e-004	2.0000e-005	8.8000e-004	0.0000	2.9074	2.9074	9.0000e-005	0.0000	2.9096

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.9200e-003	0.0000	1.9200e-003	2.9000e-004	0.0000	2.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0506	0.4351	0.4552	8.6000e-004		0.0218	0.0218		0.0214	0.0214	0.0000	74.4568	74.4568	0.0109	0.0000	74.7293
Total	0.0506	0.4351	0.4552	8.6000e-004	1.9200e-003	0.0218	0.0237	2.9000e-004	0.0214	0.0216	0.0000	74.4568	74.4568	0.0109	0.0000	74.7293

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2700e-003	9.8000e-004	0.0111	3.0000e-005	3.2200e-003	3.0000e-005	3.2500e-003	8.6000e-004	2.0000e-005	8.8000e-004	0.0000	2.9074	2.9074	9.0000e-005	0.0000	2.9096
Total	1.2700e-003	9.8000e-004	0.0111	3.0000e-005	3.2200e-003	3.0000e-005	3.2500e-003	8.6000e-004	2.0000e-005	8.8000e-004	0.0000	2.9074	2.9074	9.0000e-005	0.0000	2.9096

3.3 Utilities/Trenching - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0115	0.1064	0.0931	1.7000e-004		5.4700e-003	5.4700e-003		5.2400e-003	5.2400e-003	0.0000	14.9215	14.9215	2.7600e-003	0.0000	14.9905
Total	0.0115	0.1064	0.0931	1.7000e-004		5.4700e-003	5.4700e-003		5.2400e-003	5.2400e-003	0.0000	14.9215	14.9215	2.7600e-003	0.0000	14.9905

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	3.6000e-004	4.0800e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.0680	1.0680	3.0000e-005	0.0000	1.0688
Total	4.6000e-004	3.6000e-004	4.0800e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.0680	1.0680	3.0000e-005	0.0000	1.0688

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.7800e-003	0.0627	0.0752	1.7000e-004		3.6900e-003	3.6900e-003		3.6100e-003	3.6100e-003	0.0000	10.3596	10.3596	1.2900e-003	0.0000	10.3917
Total	7.7800e-003	0.0627	0.0752	1.7000e-004		3.6900e-003	3.6900e-003		3.6100e-003	3.6100e-003	0.0000	10.3596	10.3596	1.2900e-003	0.0000	10.3917

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	3.6000e-004	4.0800e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.0680	1.0680	3.0000e-005	0.0000	1.0688
Total	4.6000e-004	3.6000e-004	4.0800e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.0680	1.0680	3.0000e-005	0.0000	1.0688

3.4 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.8000e-004	0.0000	9.8000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8700e-003	0.0722	0.0585	1.4000e-004		2.8000e-003	2.8000e-003		2.5800e-003	2.5800e-003	0.0000	12.0338	12.0338	3.8900e-003	0.0000	12.1311
Total	6.8700e-003	0.0722	0.0585	1.4000e-004	9.8000e-004	2.8000e-003	3.7800e-003	1.1000e-004	2.5800e-003	2.6900e-003	0.0000	12.0338	12.0338	3.8900e-003	0.0000	12.1311

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2400e-003	9.6000e-004	0.0109	3.0000e-005	3.1600e-003	3.0000e-005	3.1800e-003	8.4000e-004	2.0000e-005	8.6000e-004	0.0000	2.8481	2.8481	8.0000e-005	0.0000	2.8502
Total	1.2400e-003	9.6000e-004	0.0109	3.0000e-005	3.1600e-003	3.0000e-005	3.1800e-003	8.4000e-004	2.0000e-005	8.6000e-004	0.0000	2.8481	2.8481	8.0000e-005	0.0000	2.8502

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.8000e-004	0.0000	3.8000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8700e-003	0.0722	0.0585	1.4000e-004		2.8000e-003	2.8000e-003		2.5800e-003	2.5800e-003	0.0000	12.0338	12.0338	3.8900e-003	0.0000	12.1311
Total	6.8700e-003	0.0722	0.0585	1.4000e-004	3.8000e-004	2.8000e-003	3.1800e-003	4.0000e-005	2.5800e-003	2.6200e-003	0.0000	12.0338	12.0338	3.8900e-003	0.0000	12.1311

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2400e-003	9.6000e-004	0.0109	3.0000e-005	3.1600e-003	3.0000e-005	3.1800e-003	8.4000e-004	2.0000e-005	8.6000e-004	0.0000	2.8481	2.8481	8.0000e-005	0.0000	2.8502
Total	1.2400e-003	9.6000e-004	0.0109	3.0000e-005	3.1600e-003	3.0000e-005	3.1800e-003	8.4000e-004	2.0000e-005	8.6000e-004	0.0000	2.8481	2.8481	8.0000e-005	0.0000	2.8502

3.5 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0105	0.0000	0.0105	1.5400e-003	0.0000	1.5400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1382	1.3473	1.3335	2.6500e-003		0.0577	0.0577		0.0533	0.0533	0.0000	230.1099	230.1099	0.0718	0.0000	231.9060
Total	0.1382	1.3473	1.3335	2.6500e-003	0.0105	0.0577	0.0681	1.5400e-003	0.0533	0.0549	0.0000	230.1099	230.1099	0.0718	0.0000	231.9060

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0660	0.0514	0.5803	1.6800e-003	0.1681	1.3900e-003	0.1695	0.0447	1.2800e-003	0.0459	0.0000	151.7394	151.7394	4.4700e-003	0.0000	151.8511
Total	0.0660	0.0514	0.5803	1.6800e-003	0.1681	1.3900e-003	0.1695	0.0447	1.2800e-003	0.0459	0.0000	151.7394	151.7394	4.4700e-003	0.0000	151.8511

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.0900e-003	0.0000	4.0900e-003	6.0000e-004	0.0000	6.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1382	1.3473	1.3335	2.6500e-003		0.0577	0.0577		0.0533	0.0533	0.0000	230.1096	230.1096	0.0718	0.0000	231.9057
Total	0.1382	1.3473	1.3335	2.6500e-003	4.0900e-003	0.0577	0.0618	6.0000e-004	0.0533	0.0539	0.0000	230.1096	230.1096	0.0718	0.0000	231.9057

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0660	0.0514	0.5803	1.6800e-003	0.1681	1.3900e-003	0.1695	0.0447	1.2800e-003	0.0459	0.0000	151.7394	151.7394	4.4700e-003	0.0000	151.8511
Total	0.0660	0.0514	0.5803	1.6800e-003	0.1681	1.3900e-003	0.1695	0.0447	1.2800e-003	0.0459	0.0000	151.7394	151.7394	4.4700e-003	0.0000	151.8511

3.6 Foundations/Concrete Pour - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0374	0.3444	0.2945	5.5000e-004		0.0177	0.0177		0.0169	0.0169	0.0000	47.2936	47.2936	8.8100e-003	0.0000	47.5140
Total	0.0374	0.3444	0.2945	5.5000e-004		0.0177	0.0177		0.0169	0.0169	0.0000	47.2936	47.2936	8.8100e-003	0.0000	47.5140

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0264	0.0205	0.2316	6.7000e-004	0.0671	5.5000e-004	0.0677	0.0178	5.1000e-004	0.0183	0.0000	60.5712	60.5712	1.7800e-003	0.0000	60.6157
Total	0.0264	0.0205	0.2316	6.7000e-004	0.0671	5.5000e-004	0.0677	0.0178	5.1000e-004	0.0183	0.0000	60.5712	60.5712	1.7800e-003	0.0000	60.6157

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0273	0.2256	0.2459	5.5000e-004		0.0128	0.0128		0.0125	0.0125	0.0000	34.8750	34.8750	4.8000e-003	0.0000	34.9950
Total	0.0273	0.2256	0.2459	5.5000e-004		0.0128	0.0128		0.0125	0.0125	0.0000	34.8750	34.8750	4.8000e-003	0.0000	34.9950

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0264	0.0205	0.2316	6.7000e-004	0.0671	5.5000e-004	0.0677	0.0178	5.1000e-004	0.0183	0.0000	60.5712	60.5712	1.7800e-003	0.0000	60.6157
Total	0.0264	0.0205	0.2316	6.7000e-004	0.0671	5.5000e-004	0.0677	0.0178	5.1000e-004	0.0183	0.0000	60.5712	60.5712	1.7800e-003	0.0000	60.6157

3.7 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1186	1.1563	0.9116	2.0300e-003		0.0546	0.0546		0.0521	0.0521	0.0000	176.1731	176.1731	0.0378	0.0000	177.1185
Total	0.1186	1.1563	0.9116	2.0300e-003		0.0546	0.0546		0.0521	0.0521	0.0000	176.1731	176.1731	0.0378	0.0000	177.1185

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.1400e-003	0.2270	0.0615	5.8000e-004	0.0145	4.6000e-004	0.0150	4.1800e-003	4.4000e-004	4.6200e-003	0.0000	56.6942	56.6942	3.4800e-003	0.0000	56.7812
Worker	0.1188	0.0925	1.0437	3.0200e-003	0.3024	2.4900e-003	0.3049	0.0803	2.3000e-003	0.0826	0.0000	272.9411	272.9411	8.0300e-003	0.0000	273.1419
Total	0.1259	0.3194	1.1053	3.6000e-003	0.3169	2.9500e-003	0.3199	0.0845	2.7400e-003	0.0872	0.0000	329.6353	329.6353	0.0115	0.0000	329.9231

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0806	0.7102	0.7292	2.0300e-003		0.0365	0.0365		0.0354	0.0354	0.0000	129.5400	129.5400	0.0227	0.0000	130.1084
Total	0.0806	0.7102	0.7292	2.0300e-003		0.0365	0.0365		0.0354	0.0354	0.0000	129.5400	129.5400	0.0227	0.0000	130.1084

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.1400e-003	0.2270	0.0615	5.8000e-004	0.0145	4.6000e-004	0.0150	4.1800e-003	4.4000e-004	4.6200e-003	0.0000	56.6942	56.6942	3.4800e-003	0.0000	56.7812
Worker	0.1188	0.0925	1.0437	3.0200e-003	0.3024	2.4900e-003	0.3049	0.0803	2.3000e-003	0.0826	0.0000	272.9411	272.9411	8.0300e-003	0.0000	273.1419
Total	0.1259	0.3194	1.1053	3.6000e-003	0.3169	2.9500e-003	0.3199	0.0845	2.7400e-003	0.0872	0.0000	329.6353	329.6353	0.0115	0.0000	329.9231

3.7 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3678	3.4539	3.0588	6.9200e-003		0.1607	0.1607		0.1534	0.1534	0.0000	599.6581	599.6581	0.1279	0.0000	602.8566
Total	0.3678	3.4539	3.0588	6.9200e-003		0.1607	0.1607		0.1534	0.1534	0.0000	599.6581	599.6581	0.1279	0.0000	602.8566

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0228	0.7337	0.1981	1.9700e-003	0.0493	1.3800e-003	0.0507	0.0142	1.3200e-003	0.0155	0.0000	191.1894	191.1894	0.0114	0.0000	191.4749
Worker	0.3789	0.2841	3.2718	9.9100e-003	1.0290	8.2200e-003	1.0372	0.2733	7.5700e-003	0.2809	0.0000	895.9514	895.9514	0.0247	0.0000	896.5682
Total	0.4017	1.0178	3.4699	0.0119	1.0783	9.6000e-003	1.0878	0.2875	8.8900e-003	0.2964	0.0000	1,087.1408	1,087.1408	0.0361	0.0000	1,088.0431

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2510	2.1442	2.4665	6.9200e-003		0.1063	0.1063		0.1034	0.1034	0.0000	440.9783	440.9783	0.0766	0.0000	442.8938
Total	0.2510	2.1442	2.4665	6.9200e-003		0.1063	0.1063		0.1034	0.1034	0.0000	440.9783	440.9783	0.0766	0.0000	442.8938

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0228	0.7337	0.1981	1.9700e-003	0.0493	1.3800e-003	0.0507	0.0142	1.3200e-003	0.0155	0.0000	191.1894	191.1894	0.0114	0.0000	191.4749
Worker	0.3789	0.2841	3.2718	9.9100e-003	1.0290	8.2200e-003	1.0372	0.2733	7.5700e-003	0.2809	0.0000	895.9514	895.9514	0.0247	0.0000	896.5682
Total	0.4017	1.0178	3.4699	0.0119	1.0783	9.6000e-003	1.0878	0.2875	8.8900e-003	0.2964	0.0000	1,087.1408	1,087.1408	0.0361	0.0000	1,088.0431

3.7 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2583	2.3752	2.2685	5.1800e-003		0.1067	0.1067		0.1019	0.1019	0.0000	448.5357	448.5357	0.0949	0.0000	450.9090
Total	0.2583	2.3752	2.2685	5.1800e-003		0.1067	0.1067		0.1019	0.1019	0.0000	448.5357	448.5357	0.0949	0.0000	450.9090

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0127	0.4144	0.1329	1.4200e-003	0.0369	4.8000e-004	0.0373	0.0106	4.6000e-004	0.0111	0.0000	138.4592	138.4592	7.5400e-003	0.0000	138.6478
Worker	0.2663	0.1921	2.2492	7.1400e-003	0.7693	5.9700e-003	0.7752	0.2043	5.4900e-003	0.2098	0.0000	645.3061	645.3061	0.0166	0.0000	645.7214
Total	0.2790	0.6065	2.3821	8.5600e-003	0.8061	6.4500e-003	0.8126	0.2150	5.9500e-003	0.2209	0.0000	783.7654	783.7654	0.0242	0.0000	784.3693

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1761	1.4824	1.8393	5.1800e-003		0.0694	0.0694		0.0676	0.0676	0.0000	329.9085	329.9085	0.0566	0.0000	331.3226
Total	0.1761	1.4824	1.8393	5.1800e-003		0.0694	0.0694		0.0676	0.0676	0.0000	329.9085	329.9085	0.0566	0.0000	331.3226

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0127	0.4144	0.1329	1.4200e-003	0.0369	4.8000e-004	0.0373	0.0106	4.6000e-004	0.0111	0.0000	138.4592	138.4592	7.5400e-003	0.0000	138.6478
Worker	0.2663	0.1921	2.2492	7.1400e-003	0.7693	5.9700e-003	0.7752	0.2043	5.4900e-003	0.2098	0.0000	645.3061	645.3061	0.0166	0.0000	645.7214
Total	0.2790	0.6065	2.3821	8.5600e-003	0.8061	6.4500e-003	0.8126	0.2150	5.9500e-003	0.2209	0.0000	783.7654	783.7654	0.0242	0.0000	784.3693

3.8 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2669					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0462	0.3414	0.3842	6.3000e-004		0.0197	0.0197		0.0192	0.0192	0.0000	53.2659	53.2659	7.1900e-003	0.0000	53.4457
Total	1.3131	0.3414	0.3842	6.3000e-004		0.0197	0.0197		0.0192	0.0192	0.0000	53.2659	53.2659	7.1900e-003	0.0000	53.4457

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4900e-003	4.8700e-003	0.0560	1.7000e-004	0.0176	1.4000e-004	0.0178	4.6800e-003	1.3000e-004	4.8100e-003	0.0000	15.3428	15.3428	4.2000e-004	0.0000	15.3534
Total	6.4900e-003	4.8700e-003	0.0560	1.7000e-004	0.0176	1.4000e-004	0.0178	4.6800e-003	1.3000e-004	4.8100e-003	0.0000	15.3428	15.3428	4.2000e-004	0.0000	15.3534

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2669					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0462	0.3414	0.3842	6.3000e-004		0.0197	0.0197		0.0192	0.0192	0.0000	53.2659	53.2659	7.1900e-003	0.0000	53.4456
Total	1.3131	0.3414	0.3842	6.3000e-004		0.0197	0.0197		0.0192	0.0192	0.0000	53.2659	53.2659	7.1900e-003	0.0000	53.4456

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4900e-003	4.8700e-003	0.0560	1.7000e-004	0.0176	1.4000e-004	0.0178	4.6800e-003	1.3000e-004	4.8100e-003	0.0000	15.3428	15.3428	4.2000e-004	0.0000	15.3534
Total	6.4900e-003	4.8700e-003	0.0560	1.7000e-004	0.0176	1.4000e-004	0.0178	4.6800e-003	1.3000e-004	4.8100e-003	0.0000	15.3428	15.3428	4.2000e-004	0.0000	15.3534

3.8 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2417					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0425	0.3114	0.3753	6.1000e-004		0.0169	0.0169		0.0164	0.0164	0.0000	52.2059	52.2059	6.8700e-003	0.0000	52.3776
Total	1.2842	0.3114	0.3753	6.1000e-004		0.0169	0.0169		0.0164	0.0164	0.0000	52.2059	52.2059	6.8700e-003	0.0000	52.3776

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9800e-003	4.3100e-003	0.0505	1.6000e-004	0.0173	1.3000e-004	0.0174	4.5900e-003	1.2000e-004	4.7100e-003	0.0000	14.4872	14.4872	3.7000e-004	0.0000	14.4965
Total	5.9800e-003	4.3100e-003	0.0505	1.6000e-004	0.0173	1.3000e-004	0.0174	4.5900e-003	1.2000e-004	4.7100e-003	0.0000	14.4872	14.4872	3.7000e-004	0.0000	14.4965

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2417					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0425	0.3114	0.3753	6.1000e-004		0.0169	0.0169		0.0164	0.0164	0.0000	52.2059	52.2059	6.8700e-003	0.0000	52.3776
Total	1.2842	0.3114	0.3753	6.1000e-004		0.0169	0.0169		0.0164	0.0164	0.0000	52.2059	52.2059	6.8700e-003	0.0000	52.3776

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9800e-003	4.3100e-003	0.0505	1.6000e-004	0.0173	1.3000e-004	0.0174	4.5900e-003	1.2000e-004	4.7100e-003	0.0000	14.4872	14.4872	3.7000e-004	0.0000	14.4965
Total	5.9800e-003	4.3100e-003	0.0505	1.6000e-004	0.0173	1.3000e-004	0.0174	4.5900e-003	1.2000e-004	4.7100e-003	0.0000	14.4872	14.4872	3.7000e-004	0.0000	14.4965

3.9 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0777	0.6834	0.7346	1.2400e-003		0.0402	0.0402		0.0374	0.0374	0.0000	108.4574	108.4574	0.0292	0.0000	109.1877
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0777	0.6834	0.7346	1.2400e-003		0.0402	0.0402		0.0374	0.0374	0.0000	108.4574	108.4574	0.0292	0.0000	109.1877

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4600e-003	2.5000e-003	0.0292	9.0000e-005	9.9900e-003	8.0000e-005	0.0101	2.6500e-003	7.0000e-005	2.7300e-003	0.0000	8.3835	8.3835	2.2000e-004	0.0000	8.3889
Total	3.4600e-003	2.5000e-003	0.0292	9.0000e-005	9.9900e-003	8.0000e-005	0.0101	2.6500e-003	7.0000e-005	2.7300e-003	0.0000	8.3835	8.3835	2.2000e-004	0.0000	8.3889

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0777	0.6834	0.7346	1.2400e-003		0.0402	0.0402		0.0374	0.0374	0.0000	108.4572	108.4572	0.0292	0.0000	109.1876
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0777	0.6834	0.7346	1.2400e-003		0.0402	0.0402		0.0374	0.0374	0.0000	108.4572	108.4572	0.0292	0.0000	109.1876

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4600e-003	2.5000e-003	0.0292	9.0000e-005	9.9900e-003	8.0000e-005	0.0101	2.6500e-003	7.0000e-005	2.7300e-003	0.0000	8.3835	8.3835	2.2000e-004	0.0000	8.3889
Total	3.4600e-003	2.5000e-003	0.0292	9.0000e-005	9.9900e-003	8.0000e-005	0.0101	2.6500e-003	7.0000e-005	2.7300e-003	0.0000	8.3835	8.3835	2.2000e-004	0.0000	8.3889

Hollywood Center**On-Road Soil/Material Haul Truck Regional Emissions****On-Road Truck Total Emissions**

Construction Phase	Source	Year	Daily One-Way Truck Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions CO2e (metric tons/year)
West Site							
Demolition	T7 - Single Construction	2021	23	2	8	30	2.25
Grading	T7 - Single Construction	2021	192	88	8	30	814.00
Foundations							
Shoring Wall	T7 - Single Construction	2021	20	19	8	7.5	4.61
Cast in Drilled Hole Foundation	T7 - Single Construction	2021	4	41	8	7.5	1.98
Mat Foundation (Continuous Pour)	T7 - Single Construction	2021	188	1	14	7.5	2.56
Column Footings	T7 - Single Construction	2021	42	4	8	7.5	2.09
Building Construction							
Structure Equipment Garage	T7 - Single Construction	2021	84	52	8	7.5	52.72
Structure Equipment Tower	T7 - Single Construction	2021/2022	42	42	8	7.5	21.31
Structure Equipment Affordable	T7 - Single Construction	2022	48	22	8	7.5	12.79
Retail	T7 - Single Construction	2022	28	2	8	7.5	0.72
							915.03
East Site							
Site Preparation	T7 - Single Construction	2024	36	2	8	30	3.39
Grading	T7 - Single Construction	2024	192	88	8	30	782.64
Foundations							
Shoring Wall	T7 - Single Construction	2024	20	16	8	7.5	3.73
Cast in Drilled Hole Foundation	T7 - Single Construction	2024	4	30	8	7.5	1.40
Mat Foundation (Continuous Pour)	T7 - Single Construction	2024	142	1	11	7.5	1.86
Column Footings	T7 - Single Construction	2024	42	4	8	7.5	2.01
Building Construction							
Structure Equipment Garage	T7 - Single Construction	2024	88	58	8	7.5	59.22
Structure Equipment Tower	T7 - Single Construction	2024/2025	40	82	8	7.5	38.03
Structure Equipment Affordable	T7 - Single Construction	2025	36	13	8	7.5	5.47
Retail	T7 - Single Construction	2025	60	3	8	7.5	2.17
							899.91

Source: Based on AECOM Tishman, 2018; Millennium Partners, 2018; ESA, 2018.

Capitol Records

On-Road Soil/Material Haul Truck Regional Emissions

On-Road Truck Regional Running Emissions

Construction Phase	Source	Year	Daily One-Way Truck Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Running Emissions Factor (grams/mile) CO2e	Regional Emissions CO2e (metric tons/year)
West Site								
Demolition	T7 - Single Construction	2021	23	2	8	30	1,605.29	2.22
Grading	T7 - Single Construction	2021	192	88	8	30	1,605.29	813.69
Foundations								
Shoring Wall	T7 - Single Construction	2021	20	19	8	7.5	1,605.29	4.58
Cast in Drilled Hole Foundation	T7 - Single Construction	2021	4	41	8	7.5	1,605.29	1.97
Mat Foundation (Continuous Pour)	T7 - Single Construction	2021	188	1	14	7.5	1,605.29	2.26
Column Footings	T7 - Single Construction	2021	42	4	8	7.5	1,605.29	2.02
Building Construction								
Structure Equipment Garage	T7 - Single Construction	2021	84	52	8	7.5	1,605.29	52.59
Structure Equipment Tower	T7 - Single Construction	2021/2022	42	42	8	7.5	1,605.29	21.24
Structure Equipment Affordable	T7 - Single Construction	2022	48	22	8	7.5	1,605.29	12.71
Retail	T7 - Single Construction	2022	28	2	8	7.5	1,605.29	0.67
Total								913.96
East Site								
Site Preparation	T7 - Single Construction	2024	36	2	8	30	1,543.46	3.33
Grading	T7 - Single Construction	2024	192	88	8	30	1,543.46	782.35
Foundations								
Shoring Wall	T7 - Single Construction	2024	20	16	8	7.5	1,543.46	3.70
Cast in Drilled Hole Foundation	T7 - Single Construction	2024	4	30	8	7.5	1,543.46	1.39
Mat Foundation (Continuous Pour)	T7 - Single Construction	2024	142	1	11	7.5	1,543.46	1.64
Column Footings	T7 - Single Construction	2024	42	4	8	7.5	1,543.46	1.94
Building Construction								
Structure Equipment Garage	T7 - Single Construction	2024	88	58	8	7.5	1,543.46	59.08
Structure Equipment Tower	T7 - Single Construction	2024/2025	40	82	8	7.5	1,543.46	37.97
Structure Equipment Affordable	T7 - Single Construction	2025	36	13	8	7.5	1,543.46	5.42
Retail	T7 - Single Construction	2025	60	3	8	7.5	1,543.46	2.08
Total								898.92

Source: Based on AECOM Tishman, 2018; Millennium Partners, 2018; ESA, 2018.

**Capitol Records
On-Road Soil/Material Haul Truck Regional Emissions**

On-Road Truck Idling Emissions

Construction Phase	Source	Year	Daily One-Way Truck Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	Idling Time per Truck (minutes)	Idling Emissions Factor (grams/mile)	Regional Emissions
							CO2e	CO2e (metric tons/year)
West Site								
Demolition	T7 - Single Construction	2021	23	2	8	15	6,401.61	0.04
Grading	T7 - Single Construction	2021	192	88	8	15	6,401.61	0.31
Foundations								
Shoring Wall	T7 - Single Construction	2021	20	19	8	15	6,401.61	0.03
Cast in Drilled Hole Foundation	T7 - Single Construction	2021	4	41	8	15	6,401.61	0.01
Mat Foundation (Continuous Pour)	T7 - Single Construction	2021	188	1	14	15	6,401.61	0.30
Column Footings	T7 - Single Construction	2021	42	4	8	15	6,401.61	0.07
Building Construction								
Structure Equipment Garage	T7 - Single Construction	2021	84	52	8	15	6,401.61	0.13
Structure Equipment Tower	T7 - Single Construction	2021/2022	42	42	8	15	6,401.61	0.07
Structure Equipment Affordable	T7 - Single Construction	2022	48	22	8	15	6,401.61	0.08
Retail	T7 - Single Construction	2022	28	2	8	15	6,401.61	0.04
							Total	1.07
East Site								
Site Preparation	T7 - Single Construction	2024	36	2	8	15	6,003.53	0.05
Grading	T7 - Single Construction	2024	192	88	8	15	6,003.53	0.29
Foundations								
Shoring Wall	T7 - Single Construction	2024	20	16	8	15	6,003.53	0.03
Cast in Drilled Hole Foundation	T7 - Single Construction	2024	4	30	8	15	6,003.53	0.01
Mat Foundation (Continuous Pour)	T7 - Single Construction	2024	142	1	11	15	6,003.53	0.21
Column Footings	T7 - Single Construction	2024	42	4	8	15	6,003.53	0.06
Building Construction								
Structure Equipment Garage	T7 - Single Construction	2024	88	58	8	15	6,003.53	0.13
Structure Equipment Tower	T7 - Single Construction	2024/2025	40	82	8	15	6,003.53	0.06
Structure Equipment Affordable	T7 - Single Construction	2025	36	13	8	15	6,003.53	0.05
Retail	T7 - Single Construction	2025	60	3	8	15	6,003.53	0.09
							Total	0.99

Source: Based on AECOM Tishman, 2018; Millennium Partners, 2018; ESA, 2018.

1045 Olive Street Project**On-Road Truck Emission Factors (Aggregate Model Year, Aggregate Speeds)**

EMFAC2014 (v1.0.7) Emission Rates

Region Type: Sub-Area

Region: Los Angeles (SC)

Calendar Years: 2017, 2018, 2019, 2020, 2021, 2022, 2023

Season: Annual

Vehicle Classification: EMFAC2011 Categories

Units: miles/day for VMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HTSK and RUNLS, g/vehicle/hour for IDLEX, RESTL and DIURN

	1	2	3	4	5	22	23	24	25	26	27
Region	CalYr	VehClass	MdYr	Speed	Fuel	GREENHOUSE GASES					
						CO2_RUNEX	CO2_IDLEX	CH4_RUNEX	CH4_IDLEX	CO2e_RUNEX	CO2e_IDLEX
Los Angeles County (SC)	2021	T7 single construction	Aggregated	Aggregated	All	1,605.18	6,400.53	0.0046	0.0434	1,605.29	6,401.61
Los Angeles County (SC)	2024	T7 single construction	Aggregated	Aggregated	All	1,543.35	6,002.94	0.0045	0.0238	1,543.46	6,003.53

Source: California Air Resources Board, EMFAC2014, <http://www.arb.ca.gov/emfac/2014/>. Accessed April 2018.

Appendix B

Project Operational Emissions

Hollywood Center - East Site (All Res) - Operation - Los Angeles-South Coast County, Annual

Hollywood Center - East Site (All Res) - Operation

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	32.66	1000sqft	0.10	32,665.00	0
Enclosed Parking with Elevator	684.00	Space	0.80	338,450.00	0
Other Non-Asphalt Surfaces	12.90	1000sqft	0.10	12,900.00	0
User Defined Parking	4.81	User Defined Unit	0.18	4,812.00	0
City Park	0.81	Acre	0.10	35,300.00	0
Fast Food Restaurant w/o Drive Thru	2.73	1000sqft	0.10	2,732.00	0
High Turnover (Sit Down Restaurant)	15.48	1000sqft	0.10	15,482.00	0
Apartments Mid Rise	65.00	Dwelling Unit	0.30	67,149.00	186
Condo/Townhouse High Rise	423.00	Dwelling Unit	0.95	575,100.00	1210

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2027
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	488	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects (Jan 2017). Linearly adjusted to 45% RPS by 2027.

Land Use - see operational assumptions

Vehicle Trips - see operational assumptions. VMT and trips provided by traffic study.

Woodstoves - see operational assumptions

Energy Use - see operational assumptions. Lighting energy intensity of Parking Lot land use used as surrogate for public open space lighting energy

Solid Waste - see operational assumptions

Sequestration - Miscellaneous trees; 122 trees on East Site.

Energy Mitigation - The Project LEED checklist states it will be 20% more efficient than 2010 Ashrae 90.1 Standard. Therefore, compared to 2016 Title 24 Building Energy Efficiency that is based off of 2013 Ashrae 90.1 Standards, the Project will be 11.6% more efficient.

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	43,090.00	43,340.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	129,269.00	130,019.00
tblArchitecturalCoating	ConstArea_Parking	21,370.00	22,318.00
tblAreaCoating	Area_Nonresidential_Exterior	43090	43340
tblAreaCoating	Area_Nonresidential_Interior	129269	130019
tblAreaCoating	Area_Parking	21370	22318
tblConstructionPhase	NumDays	220.00	200.00
tblConstructionPhase	NumDays	6.00	4.00
tblConstructionPhase	NumDays	3.00	2.00
tblEnergyUse	LightingElect	0.00	0.35
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	55.25	0.00
tblFireplaces	NumberGas	359.55	0.00
tblFireplaces	NumberNoFireplace	6.50	0.00
tblFireplaces	NumberNoFireplace	42.30	0.00
tblFireplaces	NumberWood	3.25	0.00
tblFireplaces	NumberWood	21.15	0.00
tblLandUse	LandUseSquareFeet	32,660.00	32,665.00
tblLandUse	LandUseSquareFeet	273,600.00	338,450.00

tblLandUse	LandUseSquareFeet	0.00	4,812.00
tblLandUse	LandUseSquareFeet	35,283.60	35,300.00
tblLandUse	LandUseSquareFeet	2,730.00	2,732.00
tblLandUse	LandUseSquareFeet	15,480.00	15,482.00
tblLandUse	LandUseSquareFeet	65,000.00	67,149.00
tblLandUse	LandUseSquareFeet	423,000.00	575,100.00
tblLandUse	LotAcreage	0.75	0.10
tblLandUse	LotAcreage	6.16	0.80
tblLandUse	LotAcreage	0.30	0.10
tblLandUse	LotAcreage	0.00	0.18
tblLandUse	LotAcreage	0.81	0.10
tblLandUse	LotAcreage	0.06	0.10
tblLandUse	LotAcreage	0.36	0.10
tblLandUse	LotAcreage	1.71	0.30
tblLandUse	LotAcreage	6.61	0.95
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	488
tblSequestration	NumberOfNewTrees	0.00	122.00
tblSolidWaste	SolidWasteGenerationRate	29.90	59.30
tblSolidWaste	SolidWasteGenerationRate	0.07	155.90

tblSolidWaste	SolidWasteGenerationRate	194.58	944.10
tblSolidWaste	SolidWasteGenerationRate	31.45	2.50
tblSolidWaste	SolidWasteGenerationRate	30.37	0.00
tblSolidWaste	SolidWasteGenerationRate	184.21	14.10
tblTripsAndVMT	VendorTripNumber	125.00	127.00
tblTripsAndVMT	WorkerTripNumber	534.00	541.00
tblTripsAndVMT	WorkerTripNumber	107.00	108.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TL	8.70	0.00

tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HW_TL	14.70	0.00
tblVehicleTrips	HW_TL	14.70	0.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	4.31	0.00
tblVehicleTrips	ST_TR	696.00	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	158.37	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	3.43	0.00
tblVehicleTrips	SU_TR	500.00	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	131.84	0.00
tblVehicleTrips	WD_TR	6.65	0.00
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	4.18	0.00
tblVehicleTrips	WD_TR	716.00	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	127.15	0.00
tblWater	OutdoorWaterUseRate	965,099.89	977,014.71
tblWoodstoves	NumberCatalytic	3.25	0.00
tblWoodstoves	NumberCatalytic	21.15	0.00
tblWoodstoves	NumberNoncatalytic	3.25	0.00
tblWoodstoves	NumberNoncatalytic	21.15	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.0533	0.0580	5.0374	2.7000e-004		0.0279	0.0279		0.0279	0.0279	0.0000	8.2393	8.2393	7.9200e-003	0.0000	8.4374
Energy	0.0488	0.4300	0.2753	2.6600e-003		0.0337	0.0337		0.0337	0.0337	0.0000	1,648.1750	1,648.1750	0.0785	0.0232	1,657.0449
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	238.6971	0.0000	238.6971	14.1066	0.0000	591.3619
Water						0.0000	0.0000		0.0000	0.0000	13.6823	185.6177	199.3000	1.4163	0.0355	245.2767
Total	3.1021	0.4880	5.3127	2.9300e-003	0.0000	0.0616	0.0616	0.0000	0.0616	0.0616	252.3794	1,842.0319	2,094.4113	15.6094	0.0586	2,502.1209

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.0533	0.0580	5.0374	2.7000e-004		0.0279	0.0279		0.0279	0.0279	0.0000	8.2393	8.2393	7.9200e-003	0.0000	8.4374
Energy	0.0467	0.4122	0.2651	2.5500e-003		0.0323	0.0323		0.0323	0.0323	0.0000	1,584.2748	1,584.2748	0.0755	0.0223	1,592.7997
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	57.2873	0.0000	57.2873	3.3856	0.0000	141.9269
Water						0.0000	0.0000		0.0000	0.0000	8.2094	105.2392	113.4485	0.8494	0.0212	141.0030
Total	3.1000	0.4702	5.3025	2.8200e-003	0.0000	0.0602	0.0602	0.0000	0.0602	0.0602	65.4967	1,697.7532	1,763.2499	4.3185	0.0435	1,884.1669

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.07	3.64	0.19	3.75	0.00	2.27	2.27	0.00	2.27	2.27	74.05	7.83	15.81	72.33	25.87	24.70

2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	86.3760
Total	86.3760

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
Condo/Townhouse High Rise	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
User Defined Parking	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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 Mid Rise	0.00	0.00	0.00	40.20	19.20	40.60	86	11	3
City Park	0.00	0.00	0.00	33.00	48.00	19.00	66	28	6

Condo/Townhouse High Rise	0.00	0.00	0.00	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Fast Food Restaurant w/o Drive Thru	0.00	0.00	0.00	1.50	79.50	19.00	51	37	12
General Office Building	0.00	0.00	0.00	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00	8.50	72.50	19.00	37	20	43
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
User Defined Parking	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827
City Park	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827
Condo/Townhouse High Rise	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827
Enclosed Parking with Elevator	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827
Fast Food Restaurant w/o Drive Thru	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827
General Office Building	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827
High Turnover (Sit Down Restaurant)	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827
Other Non-Asphalt Surfaces	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827
User Defined Parking	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,121.9352	1,121.9352	0.0667	0.0138	1,127.7127
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,165.7143	1,165.7143	0.0693	0.0143	1,171.7172
Natural Gas Mitigated	0.0467	0.4122	0.2651	2.5500e-003		0.0323	0.0323		0.0323	0.0323	0.0000	462.3396	462.3396	8.8600e-003	8.4800e-003	465.0870
Natural Gas Unmitigated	0.0488	0.4300	0.2753	2.6600e-003		0.0337	0.0337		0.0337	0.0337	0.0000	482.4607	482.4607	9.2500e-003	8.8500e-003	485.3277

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	599101	3.2300e-003	0.0276	0.0118	1.8000e-004		2.2300e-003	2.2300e-003		2.2300e-003	2.2300e-003	0.0000	31.9703	31.9703	6.1000e-004	5.9000e-004	32.1603
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	3.89877e+006	0.0210	0.1797	0.0765	1.1500e-003		0.0145	0.0145		0.0145	0.0145	0.0000	208.0530	208.0530	3.9900e-003	3.8100e-003	209.2893
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	630436	3.4000e-003	0.0309	0.0260	1.9000e-004		2.3500e-003	2.3500e-003		2.3500e-003	2.3500e-003	0.0000	33.6425	33.6425	6.4000e-004	6.2000e-004	33.8424
General Office Building	340043	1.8300e-003	0.0167	0.0140	1.0000e-004		1.2700e-003	1.2700e-003		1.2700e-003	1.2700e-003	0.0000	18.1460	18.1460	3.5000e-004	3.3000e-004	18.2538
High Turnover (Sit Down Restaurant)	3.57263e+006	0.0193	0.1751	0.1471	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	190.6490	190.6490	3.6500e-003	3.5000e-003	191.7819
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0487	0.4300	0.2753	2.6700e-003		0.0337	0.0337		0.0337	0.0337	0.0000	482.4607	482.4607	9.2400e-003	8.8500e-003	485.3277

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	566031	3.0500e-003	0.0261	0.0111	1.7000e-004		2.1100e-003	2.1100e-003		2.1100e-003	2.1100e-003	0.0000	30.2056	30.2056	5.8000e-004	5.5000e-004	30.3851
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	3.68356e+006	0.0199	0.1697	0.0722	1.0800e-003		0.0137	0.0137		0.0137	0.0137	0.0000	196.5686	196.5686	3.7700e-003	3.6000e-003	197.7367
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	616815	3.3300e-003	0.0302	0.0254	1.8000e-004		2.3000e-003	2.3000e-003		2.3000e-003	2.3000e-003	0.0000	32.9156	32.9156	6.3000e-004	6.0000e-004	33.1112

General Office Building	302075	1.6300e-003	0.0148	0.0124	9.0000e-005	1.1300e-003	1.1300e-003	1.1300e-003	1.1300e-003	0.0000	16.1199	16.1199	3.1000e-004	3.0000e-004	16.2157
High Turnover (Sit Down Restaurant)	3.49544e+006	0.0189	0.1714	0.1439	1.0300e-003	0.0130	0.0130	0.0130	0.0130	0.0000	186.5299	186.5299	3.5800e-003	3.4200e-003	187.6383
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0467	0.4122	0.2651	2.5500e-003	0.0323	0.0323	0.0323	0.0323	0.0000	462.3396	462.3396	8.8700e-003	8.4700e-003	465.0870

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	257405	56.9774	3.3900e-003	7.0000e-004	57.2708
City Park	12355	2.7348	1.6000e-004	3.0000e-005	2.7489
Condo/Townhouse High Rise	1.78495e+006	395.1042	0.0235	4.8600e-003	397.1388
Enclosed Parking with Elevator	1.98332e+006	439.0133	0.0261	5.4000e-003	441.2741
Fast Food Restaurant w/o	120590	26.6931	1.5900e-003	3.3000e-004	26.8305
General Office Building	424318	93.9242	5.5800e-003	1.1500e-003	94.4078
High Turnover (Sit Down Restaurant)	683375	151.2673	8.9900e-003	1.8600e-003	152.0462
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		1,165.7143	0.0693	0.0143	1,171.7172

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	256165	56.7028	3.3700e-003	7.0000e-004	56.9948
City Park	12355	2.7348	1.6000e-004	3.0000e-005	2.7489
Condo/Townhouse High Rise	1.77688e+006	393.3171	0.0234	4.8400e-003	395.3425
Enclosed Parking with Elevator	1.82942e+006	404.9471	0.0241	4.9800e-003	407.0324
Fast Food Restaurant w/o Drive Thru	118020	26.1242	1.5500e-003	3.2000e-004	26.2587
General Office Building	406888	90.0660	5.3500e-003	1.1100e-003	90.5298
High Turnover (Sit Down Restaurant)	668811	148.0433	8.8000e-003	1.8200e-003	148.8057
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		1,121.9352	0.0667	0.0138	1,127.7127

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.0533	0.0580	5.0374	2.7000e-004		0.0279	0.0279		0.0279	0.0279	0.0000	8.2393	8.2393	7.9200e-003	0.0000	8.4374
Unmitigated	3.0533	0.0580	5.0374	2.7000e-004		0.0279	0.0279		0.0279	0.0279	0.0000	8.2393	8.2393	7.9200e-003	0.0000	8.4374

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2463					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6552					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1518	0.0580	5.0374	2.7000e-004		0.0279	0.0279		0.0279	0.0279	0.0000	8.2393	8.2393	7.9200e-003	0.0000	8.4374
Total	3.0533	0.0580	5.0374	2.7000e-004		0.0279	0.0279		0.0279	0.0279	0.0000	8.2393	8.2393	7.9200e-003	0.0000	8.4374

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2463					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6552					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1518	0.0580	5.0374	2.7000e-004		0.0279	0.0279		0.0279	0.0279	0.0000	8.2393	8.2393	7.9200e-003	0.0000	8.4374
Total	3.0533	0.0580	5.0374	2.7000e-004		0.0279	0.0279		0.0279	0.0279	0.0000	8.2393	8.2393	7.9200e-003	0.0000	8.4374

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	113.4485	0.8494	0.0212	141.0030
Unmitigated	199.3000	1.4163	0.0355	245.2767

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	4.23501 / 2.6699	20.1158	0.1391	3.4900e-003	24.6334
City Park	0 / 0.977015	2.4027	1.4000e-004	3.0000e-005	2.4151
Condo/Townhouse High Rise	27.5602 / 17.3749	130.9074	0.9053	0.0227	160.3067
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0.828647 / 0.0528924	2.7813	0.0272	6.7000e-004	3.6593
General Office Building	5.80478 / 3.55777	27.3218	0.1907	4.7800e-003	33.5126
High Turnover (Sit Down Restaurant)	4.6987 / 0.299917	15.7710	0.1540	3.7900e-003	20.7496
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		199.3000	1.4163	0.0355	245.2767

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	2.54101 / 1.33495	11.4129	0.0834	2.0900e-003	14.1201
City Park	0 / 0.488507	1.2014	7.0000e-005	1.0000e-005	1.2075
Condo/Townhouse High Rise	16.5361 / 8.68744	74.2715	0.5429	0.0136	91.8891
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000

Fast Food Restaurant w/o Drive Thru	0.497188 / 0.0264462	1.6558	0.0163	4.0000e-004	2.1825
General Office Building	3.48287 / 1.77889	15.5181	0.1144	2.8600e-003	19.2281
High Turnover (Sit Down Restaurant)	2.81922 / 0.149959	9.3889	0.0924	2.2700e-003	12.3756
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		113.4485	0.8494	0.0212	141.0030

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	57.2873	3.3856	0.0000	141.9269
Unmitigated	238.6971	14.1066	0.0000	591.3619

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
	tons	MT/yr			
Land Use					
Apartments Mid Rise	59.3	12.0374	0.7114	0.0000	29.8221
City Park	155.9	31.6463	1.8702	0.0000	78.4024
Condo/Townhouse High Rise	944.1	191.6438	11.3258	0.0000	474.7893
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000

Fast Food Restaurant w/o Drive Thru	2.5	0.5075	0.0300	0.0000	1.2573
General Office Building	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	14.1	2.8622	0.1692	0.0000	7.0909
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		238.6971	14.1066	0.0000	591.3619

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	14.232	2.8890	0.1707	0.0000	7.1573
City Park	37.416	7.5951	0.4489	0.0000	18.8166
Condo/Townhouse High Rise	226.584	45.9945	2.7182	0.0000	113.9494
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0.6	0.1218	7.2000e-003	0.0000	0.3017
General Office Building	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	3.384	0.6869	0.0406	0.0000	1.7018
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		57.2873	3.3856	0.0000	141.9269

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

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

11.0 Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	86.3760	0.0000	0.0000	86.3760

11.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Miscellaneous	122	86.3760	0.0000	0.0000	86.3760
Total		86.3760	0.0000	0.0000	86.3760

Hollywood Center - East Site (All Res) - Operation - Los Angeles-South Coast County, Annual

Hollywood Center - East Site (All Res) - Operation

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	32.66	1000sqft	0.10	32,665.00	0
Enclosed Parking with Elevator	684.00	Space	0.80	338,450.00	0
Other Non-Asphalt Surfaces	12.90	1000sqft	0.10	12,900.00	0
User Defined Parking	4.81	User Defined Unit	0.18	4,812.00	0
City Park	0.81	Acre	0.10	35,300.00	0
Fast Food Restaurant w/o Drive Thru	2.73	1000sqft	0.10	2,732.00	0
High Turnover (Sit Down Restaurant)	15.48	1000sqft	0.10	15,482.00	0
Apartments Mid Rise	65.00	Dwelling Unit	0.30	67,149.00	186
Condo/Townhouse High Rise	423.00	Dwelling Unit	0.95	575,100.00	1210

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11	Operational Year		2030	
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	444	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects (Jan 2017). Linearly adjusted to 50% RPS by 2030.

Land Use - see operational assumptions

Vehicle Trips - see operational assumptions. VMT and trips provided by traffic study.

Woodstoves - see operational assumptions

Energy Use - see operational assumptions. Lighting energy intensity of Parking Lot land use used as surrogate for public open space lighting energy

Solid Waste - see operational assumptions

Energy Mitigation - The Project LEED checklist states it will be 20% more efficient than 2010 Ashrae 90.1 Standard. Therefore, compared to 2016 Title 24 Building Energy Efficiency that is based off of 2013 Ashrae 90.1 Standards, the Project will be 11.6% more efficient.

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	43,090.00	43,340.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	129,269.00	130,019.00
tblArchitecturalCoating	ConstArea_Parking	22,426.00	22,318.00
tblAreaCoating	Area_Nonresidential_Exterior	43090	43340
tblAreaCoating	Area_Nonresidential_Interior	129269	130019
tblAreaCoating	Area_Parking	22426	22318
tblEnergyUse	LightingElect	0.00	0.35
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	55.25	0.00
tblFireplaces	NumberGas	359.55	0.00
tblFireplaces	NumberNoFireplace	6.50	0.00
tblFireplaces	NumberNoFireplace	42.30	0.00
tblFireplaces	NumberWood	3.25	0.00
tblFireplaces	NumberWood	21.15	0.00
tblLandUse	LandUseSquareFeet	32,660.00	32,665.00
tblLandUse	LandUseSquareFeet	273,600.00	338,450.00
tblLandUse	LandUseSquareFeet	0.00	4,812.00
tblLandUse	LandUseSquareFeet	35,283.60	35,300.00
tblLandUse	LandUseSquareFeet	2,730.00	2,732.00

tblLandUse	LandUseSquareFeet	15,480.00	15,482.00
tblLandUse	LandUseSquareFeet	65,000.00	67,149.00
tblLandUse	LandUseSquareFeet	423,000.00	575,100.00
tblLandUse	LotAcreage	0.75	0.10
tblLandUse	LotAcreage	6.16	0.80
tblLandUse	LotAcreage	0.30	0.10
tblLandUse	LotAcreage	0.00	0.18
tblLandUse	LotAcreage	0.81	0.10
tblLandUse	LotAcreage	0.06	0.10
tblLandUse	LotAcreage	0.36	0.10
tblLandUse	LotAcreage	1.71	0.30
tblLandUse	LotAcreage	6.61	0.95
tblProjectCharacteristics	CO2IntensityFactor	1227.89	444
tblSolidWaste	SolidWasteGenerationRate	29.90	59.30
tblSolidWaste	SolidWasteGenerationRate	0.07	155.90
tblSolidWaste	SolidWasteGenerationRate	194.58	944.10
tblSolidWaste	SolidWasteGenerationRate	31.45	2.50
tblSolidWaste	SolidWasteGenerationRate	30.37	0.00
tblSolidWaste	SolidWasteGenerationRate	184.21	14.10
tblTripsAndVMT	VendorTripNumber	128.00	127.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00

tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HW_TL	14.70	0.00
tblVehicleTrips	HW_TL	14.70	0.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	4.31	0.00
tblVehicleTrips	ST_TR	696.00	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	158.37	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	3.43	0.00
tblVehicleTrips	SU_TR	500.00	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	131.84	0.00
tblVehicleTrips	WD_TR	6.65	0.00

tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	4.18	0.00
tblVehicleTrips	WD_TR	716.00	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	127.15	0.00
tblWater	OutdoorWaterUseRate	965,099.89	977,014.71
tblWoodstoves	NumberCatalytic	3.25	0.00
tblWoodstoves	NumberCatalytic	21.15	0.00
tblWoodstoves	NumberNoncatalytic	3.25	0.00
tblWoodstoves	NumberNoncatalytic	21.15	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.0525	0.0580	5.0288	2.7000e-004		0.0279	0.0279		0.0279	0.0279	0.0000	8.2393	8.2393	7.8800e-003	0.0000	8.4363
Energy	0.0488	0.4300	0.2753	2.6600e-003		0.0337	0.0337		0.0337	0.0337	0.0000	1,543.0696	1,543.0696	0.0785	0.0232	1,551.9396
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	238.6971	0.0000	238.6971	14.1066	0.0000	591.3619
Water						0.0000	0.0000		0.0000	0.0000	13.6823	168.8816	182.5639	1.4163	0.0355	228.5407
Total	3.1012	0.4879	5.3041	2.9300e-003	0.0000	0.0616	0.0616	0.0000	0.0616	0.0616	252.3794	1,720.1905	1,972.5699	15.6093	0.0586	2,380.2785

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.0525	0.0580	5.0288	2.7000e-004		0.0279	0.0279		0.0279	0.0279	0.0000	8.2393	8.2393	7.8800e-003	0.0000	8.4363
Energy	0.0467	0.4122	0.2651	2.5500e-003		0.0323	0.0323		0.0323	0.0323	0.0000	1,483.1167	1,483.1167	0.0755	0.0223	1,491.6416
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	57.2873	0.0000	57.2873	3.3856	0.0000	141.9269
Water						0.0000	0.0000		0.0000	0.0000	8.2094	95.7504	103.9598	0.8494	0.0212	131.5142
Total	3.0992	0.4702	5.2939	2.8200e-003	0.0000	0.0602	0.0602	0.0000	0.0602	0.0602	65.4967	1,587.1064	1,652.6031	4.3184	0.0435	1,773.5191

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.07	3.64	0.19	3.75	0.00	2.27	2.27	0.00	2.27	2.27	74.05	7.74	16.22	72.33	25.87	25.49

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
Apartments Mid Rise	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
Condo/Townhouse High Rise	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	0.00	0.00	0.00		

General Office Building	0.00	0.00	0.00
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00
User Defined Parking	0.00	0.00	0.00
Total	0.00	0.00	0.00

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	0.00	0.00	0.00	40.20	19.20	40.60	86	11	3
City Park	0.00	0.00	0.00	33.00	48.00	19.00	66	28	6
Condo/Townhouse High Rise	0.00	0.00	0.00	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Fast Food Restaurant w/o Drive	0.00	0.00	0.00	1.50	79.50	19.00	51	37	12
General Office Building	0.00	0.00	0.00	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	0.00	0.00	0.00	8.50	72.50	19.00	37	20	43
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
User Defined Parking	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827
City Park	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827
Condo/Townhouse High Rise	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827
Enclosed Parking with Elevator	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827
Fast Food Restaurant w/o Drive Thru	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827
General Office Building	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827
High Turnover (Sit Down Restaurant)	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827
Other Non-Asphalt Surfaces	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827
User Defined Parking	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,020.7771	1,020.7771	0.0667	0.0138	1,026.5546
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,060.6089	1,060.6089	0.0693	0.0143	1,066.6118
NaturalGas Mitigated	0.0467	0.4122	0.2651	2.5500e-003		0.0323	0.0323		0.0323	0.0323	0.0000	462.3396	462.3396	8.8600e-003	8.4800e-003	465.0870
NaturalGas Unmitigated	0.0488	0.4300	0.2753	2.6600e-003		0.0337	0.0337		0.0337	0.0337	0.0000	482.4607	482.4607	9.2500e-003	8.8500e-003	485.3277

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	599101	3.2300e-003	0.0276	0.0118	1.8000e-004		2.2300e-003	2.2300e-003		2.2300e-003	2.2300e-003	0.0000	31.9703	31.9703	6.1000e-004	5.9000e-004	32.1603
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	3.89877e+006	0.0210	0.1797	0.0765	1.1500e-003		0.0145	0.0145		0.0145	0.0145	0.0000	208.0530	208.0530	3.9900e-003	3.8100e-003	209.2893
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	630436	3.4000e-003	0.0309	0.0260	1.9000e-004		2.3500e-003	2.3500e-003		2.3500e-003	2.3500e-003	0.0000	33.6425	33.6425	6.4000e-004	6.2000e-004	33.8424
General Office Building	340043	1.8300e-003	0.0167	0.0140	1.0000e-004		1.2700e-003	1.2700e-003		1.2700e-003	1.2700e-003	0.0000	18.1460	18.1460	3.5000e-004	3.3000e-004	18.2538
High Turnover (Sit Down Restaurant)	3.57263e+006	0.0193	0.1751	0.1471	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	190.6490	190.6490	3.6500e-003	3.5000e-003	191.7819
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0487	0.4300	0.2753	2.6700e-003		0.0337	0.0337		0.0337	0.0337	0.0000	482.4607	482.4607	9.2400e-003	8.8500e-003	485.3277

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					
Apartments Mid Rise	566031	3.0500e-003	0.0261	0.0111	1.7000e-004		2.1100e-003	2.1100e-003		2.1100e-003	2.1100e-003	0.0000	30.2056	30.2056	5.8000e-004	5.5000e-004	30.3851
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	3.68356e+006	0.0199	0.1697	0.0722	1.0800e-003		0.0137	0.0137		0.0137	0.0137	0.0000	196.5686	196.5686	3.7700e-003	3.6000e-003	197.7367
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	616815	3.3300e-003	0.0302	0.0254	1.8000e-004		2.3000e-003	2.3000e-003		2.3000e-003	2.3000e-003	0.0000	32.9156	32.9156	6.3000e-004	6.0000e-004	33.1112
General Office Building	302075	1.6300e-003	0.0148	0.0124	9.0000e-005		1.1300e-003	1.1300e-003		1.1300e-003	1.1300e-003	0.0000	16.1199	16.1199	3.1000e-004	3.0000e-004	16.2157
High Turnover (Sit Down Restaurant)	3.49544e+006	0.0189	0.1714	0.1439	1.0300e-003		0.0130	0.0130		0.0130	0.0130	0.0000	186.5299	186.5299	3.5800e-003	3.4200e-003	187.6383
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0467	0.4122	0.2651	2.5500e-003		0.0323	0.0323		0.0323	0.0323	0.0000	462.3396	462.3396	8.8700e-003	8.4700e-003	465.0870

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	257405	51.8401	3.3900e-003	7.0000e-004	52.1335
City Park	12355	2.4882	1.6000e-004	3.0000e-005	2.5023
Condo/Townhouse High Rise	1.78495e+006	359.4800	0.0235	4.8600e-003	361.5147
Enclosed Parking with Elevator	1.98332e+006	399.4302	0.0261	5.4000e-003	401.6909
Fast Food Restaurant w/o Drive Thru	120590	24.2863	1.5900e-003	3.3000e-004	24.4238

General Office Building	424318	85.4556	5.5800e-003	1.1500e-003	85.9393
High Turnover (Sit Down Restaurant)	683375	137.6284	8.9900e-003	1.8600e-003	138.4074
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		1,060.6089	0.0693	0.0143	1,066.6118

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	256165	51.5903	3.3700e-003	7.0000e-004	51.8823
City Park	12355	2.4882	1.6000e-004	3.0000e-005	2.5023
Condo/Townhouse High Rise	1.77688e+006	357.8540	0.0234	4.8400e-003	359.8795
Enclosed Parking with Elevator	1.82942e+006	368.4355	0.0241	4.9800e-003	370.5208
Fast Food Restaurant w/o Drive Thru	118020	23.7687	1.5500e-003	3.2000e-004	23.9032
General Office Building	406888	81.9453	5.3500e-003	1.1100e-003	82.4091
High Turnover (Sit Down Restaurant)	668811	134.6951	8.8000e-003	1.8200e-003	135.4575
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		1,020.7771	0.0667	0.0138	1,026.5546

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.0525	0.0580	5.0288	2.7000e-004		0.0279	0.0279		0.0279	0.0279	0.0000	8.2393	8.2393	7.8800e-003	0.0000	8.4363
Unmitigated	3.0525	0.0580	5.0288	2.7000e-004		0.0279	0.0279		0.0279	0.0279	0.0000	8.2393	8.2393	7.8800e-003	0.0000	8.4363

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2463					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6552					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1510	0.0580	5.0288	2.7000e-004		0.0279	0.0279		0.0279	0.0279	0.0000	8.2393	8.2393	7.8800e-003	0.0000	8.4363
Total	3.0525	0.0580	5.0288	2.7000e-004		0.0279	0.0279		0.0279	0.0279	0.0000	8.2393	8.2393	7.8800e-003	0.0000	8.4363

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2463					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6552					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1510	0.0580	5.0288	2.7000e-004		0.0279	0.0279		0.0279	0.0279	0.0000	8.2393	8.2393	7.8800e-003	0.0000	8.4363
Total	3.0525	0.0580	5.0288	2.7000e-004		0.0279	0.0279		0.0279	0.0279	0.0000	8.2393	8.2393	7.8800e-003	0.0000	8.4363

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	103.9598	0.8494	0.0212	131.5142
Unmitigated	182.5639	1.4163	0.0355	228.5407

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	4.23501 / 2.6699	18.4232	0.1391	3.4900e-003	22.9408
City Park	0 / 0.977015	2.1861	1.4000e-004	3.0000e-005	2.1984
Condo/Townhouse High Rise	27.5602 / 17.3749	119.8926	0.9053	0.0227	149.2919
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0.828647 / 0.0528924	2.5543	0.0272	6.7000e-004	3.4323
General Office Building	5.80478 / 3.55777	25.0244	0.1907	4.7800e-003	31.2152
High Turnover (Sit Down Restaurant)	4.6987 / 0.299917	14.4835	0.1540	3.7900e-003	19.4620
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		182.5639	1.4163	0.0355	228.5407

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	2.54101 / 1.33495	10.4565	0.0834	2.0900e-003	13.1637
City Park	0 / 0.488507	1.0930	7.0000e-005	1.0000e-005	1.0992
Condo/Townhouse High Rise	16.5361 / 8.68744	68.0479	0.5429	0.0136	85.6655
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0.497188 / 0.0264462	1.5207	0.0163	4.0000e-004	2.0475
General Office Building	3.48287 / 1.77889	14.2186	0.1144	2.8600e-003	17.9286
High Turnover (Sit Down Restaurant)	2.81922 / 0.149959	8.6230	0.0924	2.2700e-003	11.6097
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		103.9598	0.8494	0.0212	131.5142

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	57.2873	3.3856	0.0000	141.9269
Unmitigated	238.6971	14.1066	0.0000	591.3619

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	59.3	12.0374	0.7114	0.0000	29.8221
City Park	155.9	31.6463	1.8702	0.0000	78.4024
Condo/Townhouse High Rise	944.1	191.6438	11.3258	0.0000	474.7893
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	2.5	0.5075	0.0300	0.0000	1.2573
General Office Building	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	14.1	2.8622	0.1692	0.0000	7.0909
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		238.6971	14.1066	0.0000	591.3619

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	14.232	2.8890	0.1707	0.0000	7.1573
City Park	37.416	7.5951	0.4489	0.0000	18.8166
Condo/Townhouse High Rise	226.584	45.9945	2.7182	0.0000	113.9494
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000

Fast Food Restaurant w/o Drive Thru	0.6	0.1218	7.2000e-003	0.0000	0.3017
General Office Building	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	3.384	0.6869	0.0406	0.0000	1.7018
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		57.2873	3.3856	0.0000	141.9269

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Hollywood Center- East Site (Res and Hotel) - Operations - Los Angeles-South Coast County, Annual

Hollywood Center- East Site (Res and Hotel) - Operations

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	21.65	1000sqft	0.10	21,648.00	0
Enclosed Parking with Elevator	684.00	Space	0.90	338,450.00	0
Other Non-Asphalt Surfaces	15.64	1000sqft	0.10	15,644.00	0
User Defined Parking	4.81	User Defined Unit	0.18	4,812.00	0
City Park	0.81	Acre	0.10	35,300.00	0
Fast Food Restaurant w/o Drive Thru	2.73	1000sqft	0.10	2,732.00	0
High Turnover (Sit Down Restaurant)	15.48	1000sqft	0.10	15,482.00	0
Hotel	220.00	Room	0.30	141,606.00	0
Apartments Mid Rise	48.00	Dwelling Unit	0.30	51,898.00	137
Condo/Townhouse High Rise	319.00	Dwelling Unit	0.55	444,100.00	912

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2027
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	488	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects (Jan 2017). Linearly adjusted to 45% RPS by 2027.

Land Use - see operational assumptions

Vehicle Trips - see operational assumptions. VMT and trips provided by traffic study.

Woodstoves - see operational assumptions

Energy Use - see operational assumptions. Lighting energy intensity of Parking Lot land use used as surrogate for public open space lighting energy intensity.

Solid Waste - see operational assumptions

Energy Mitigation - Compared to 2016 Title 24 Building Energy Efficiency that is based off of 2013 Ashrae 90.1 Standards, the Project will be 11.6% more efficient than 2016 Title 24 Standards.

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	108,384.00	106,734.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	325,152.00	320,202.00
tblArchitecturalCoating	ConstArea_Parking	22,570.00	21,934.00
tblAreaCoating	Area_Nonresidential_Exterior	108384	106734
tblAreaCoating	Area_Nonresidential_Interior	325152	320202
tblAreaCoating	Area_Parking	22570	21934
tblEnergyUse	LightingElect	0.00	0.35
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	40.80	0.00
tblFireplaces	NumberGas	271.15	0.00
tblFireplaces	NumberNoFireplace	4.80	0.00
tblFireplaces	NumberNoFireplace	31.90	0.00
tblFireplaces	NumberWood	2.40	0.00
tblFireplaces	NumberWood	15.95	0.00
tblLandUse	LandUseSquareFeet	21,650.00	21,648.00
tblLandUse	LandUseSquareFeet	273,600.00	338,450.00
tblLandUse	LandUseSquareFeet	0.00	4,812.00
tblLandUse	LandUseSquareFeet	35,283.60	35,300.00
tblLandUse	LandUseSquareFeet	2,730.00	2,732.00
tblLandUse	LandUseSquareFeet	15,480.00	15,482.00

tblLandUse	LandUseSquareFeet	319,440.00	141,606.00
tblLandUse	LandUseSquareFeet	48,000.00	51,898.00
tblLandUse	LandUseSquareFeet	319,000.00	444,100.00
tblLandUse	LotAcreage	0.50	0.10
tblLandUse	LotAcreage	6.16	0.90
tblLandUse	LotAcreage	0.36	0.10
tblLandUse	LotAcreage	0.00	0.18
tblLandUse	LotAcreage	0.81	0.10
tblLandUse	LotAcreage	0.06	0.10
tblLandUse	LotAcreage	0.36	0.10
tblLandUse	LotAcreage	7.33	0.30
tblLandUse	LotAcreage	1.26	0.30
tblLandUse	LotAcreage	4.98	0.55
tblProjectCharacteristics	CO2IntensityFactor	1227.89	488
tblSolidWaste	SolidWasteGenerationRate	22.08	43.80
tblSolidWaste	SolidWasteGenerationRate	0.07	155.90
tblSolidWaste	SolidWasteGenerationRate	146.74	712.00
tblSolidWaste	SolidWasteGenerationRate	31.45	2.50
tblSolidWaste	SolidWasteGenerationRate	20.13	0.00
tblSolidWaste	SolidWasteGenerationRate	184.21	14.10
tblSolidWaste	SolidWasteGenerationRate	120.45	80.30
tblTripsAndVMT	VendorTripNumber	136.00	134.00
tblTripsAndVMT	WorkerTripNumber	511.00	505.00
tblTripsAndVMT	WorkerTripNumber	102.00	101.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HW_TL	14.70	0.00
tblVehicleTrips	HW_TL	14.70	0.00

tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	4.31	0.00
tblVehicleTrips	ST_TR	696.00	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	158.37	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	3.43	0.00
tblVehicleTrips	SU_TR	500.00	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	131.84	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	WD_TR	6.65	0.00
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	4.18	0.00
tblVehicleTrips	WD_TR	716.00	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	127.15	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblWater	OutdoorWaterUseRate	965,099.89	881,696.20
tblWoodstoves	NumberCatalytic	2.40	0.00
tblWoodstoves	NumberCatalytic	15.95	0.00
tblWoodstoves	NumberNoncatalytic	2.40	0.00
tblWoodstoves	NumberNoncatalytic	15.95	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.9726	0.0437	3.7935	2.0000e-004		0.0210	0.0210		0.0210	0.0210	0.0000	6.2063	6.2063	5.9800e-003	0.0000	6.3558
Energy	0.0604	0.5394	0.3885	3.3000e-003		0.0418	0.0418		0.0418	0.0418	0.0000	1,857.6222	1,857.6222	0.0863	0.0265	1,867.6624
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	204.7367	0.0000	204.7367	12.0996	0.0000	507.2265
Water						0.0000	0.0000		0.0000	0.0000	12.3309	159.4582	171.7891	1.2760	0.0319	213.1843
Total	3.0331	0.5831	4.1820	3.5000e-003	0.0000	0.0628	0.0628	0.0000	0.0628	0.0628	217.0676	2,023.2867	2,240.3543	13.4679	0.0583	2,594.4290

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.9726	0.0437	3.7935	2.0000e-004		0.0210	0.0210		0.0210	0.0210	0.0000	6.2063	6.2063	5.9800e-003	0.0000	6.3558
Energy	0.0570	0.5091	0.3666	3.1100e-003		0.0394	0.0394		0.0394	0.0394	0.0000	1,772.7699	1,772.7699	0.0826	0.0252	1,782.3465
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	49.1368	0.0000	49.1368	2.9039	0.0000	121.7344
Water						0.0000	0.0000		0.0000	0.0000	7.3985	90.9317	98.3302	0.7653	0.0191	123.1429
Total	3.0297	0.5527	4.1600	3.3100e-003	0.0000	0.0604	0.0604	0.0000	0.0604	0.0604	56.5353	1,869.9078	1,926.4431	3.7578	0.0443	2,033.5795

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.11	5.20	0.52	5.43	0.00	3.74	3.74	0.00	3.74	3.74	73.95	7.58	14.01	72.10	24.11	21.62

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
Apartments Mid Rise	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
Condo/Townhouse High Rise	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
User Defined Parking	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	0.00	0.00	0.00	40.20	19.20	40.60	86	11	3
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Condo/Townhouse High Rise	0.00	0.00	0.00	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down)	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
User Defined Parking	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827
City Park	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827
Condo/Townhouse High Rise	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827
Enclosed Parking with Elevator	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827
Fast Food Restaurant w/o Drive Thru	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827
General Office Building	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827
High Turnover (Sit Down Restaurant)	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827
Hotel	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827
Other Non-Asphalt Surfaces	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827
User Defined Parking	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,208.3491	1,208.3491	0.0718	0.0149	1,214.5716
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,259.5875	1,259.5875	0.0749	0.0155	1,266.0739
NaturalGas Mitigated	0.0570	0.5091	0.3666	3.1100e-003		0.0394	0.0394		0.0394	0.0394	0.0000	564.4208	564.4208	0.0108	0.0104	567.7749
NaturalGas Unmitigated	0.0604	0.5394	0.3885	3.3000e-003		0.0418	0.0418		0.0418	0.0418	0.0000	598.0347	598.0347	0.0115	0.0110	601.5885

Fast Food Restaurant w/o Drive Thru	616815	3.3300e-003	0.0302	0.0254	1.8000e-004		2.3000e-003	2.3000e-003		2.3000e-003	2.3000e-003	0.0000	32.9156	32.9156	6.3000e-004	6.0000e-004	33.1112
General Office Building	200194	1.0800e-003	9.8100e-003	8.2400e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	10.6831	10.6831	2.0000e-004	2.0000e-004	10.7466
High Turnover (Sit Down Restaurant)	3.49544e+006	0.0189	0.1714	0.1439	1.0300e-003		0.0130	0.0130		0.0130	0.0130	0.0000	186.5299	186.5299	3.5800e-003	3.4200e-003	187.6383
Hotel	3.0685e+006	0.0166	0.1504	0.1264	9.0000e-004		0.0114	0.0114		0.0114	0.0114	0.0000	163.7469	163.7469	3.1400e-003	3.0000e-003	164.7199
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0570	0.5091	0.3666	3.1100e-003		0.0394	0.0394		0.0394	0.0394	0.0000	564.4208	564.4208	0.0108	0.0104	567.7749

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	190084	42.0756	2.5000e-003	5.2000e-004	42.2923
City Park	12355	2.7348	1.6000e-004	3.0000e-005	2.7489
Condo/Townhouse High Rise	1.3461e+006	297.9627	0.0177	3.6600e-003	299.4971
Enclosed Parking with Elevator	1.98332e+006	439.0133	0.0261	5.4000e-003	441.2741
Fast Food Restaurant w/o Drive Thru	120590	26.6931	1.5900e-003	3.3000e-004	26.8305
General Office Building	281208	62.2462	3.7000e-003	7.7000e-004	62.5667
High Turnover (Sit Down Restaurant)	683375	151.2673	8.9900e-003	1.8600e-003	152.0462
Hotel	1.07337e+006	237.5945	0.0141	2.9200e-003	238.8180
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		1,259.5875	0.0749	0.0155	1,266.0739

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	189168	41.8729	2.4900e-003	5.1000e-004	42.0885
City Park	12355	2.7348	1.6000e-004	3.0000e-005	2.7489
Condo/Townhouse High Rise	1.34001e+006	296.6150	0.0176	3.6500e-003	298.1424
Enclosed Parking with Elevator	1.82942e+006	404.9471	0.0241	4.9800e-003	407.0324
Fast Food Restaurant w/o Drive Thru	118020	26.1242	1.5500e-003	3.2000e-004	26.2587
General Office Building	269656	59.6892	3.5500e-003	7.3000e-004	59.9966
High Turnover (Sit Down Restaurant)	668811	148.0433	8.8000e-003	1.8200e-003	148.8057
Hotel	1.03149e+006	228.3227	0.0136	2.8100e-003	229.4985
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		1,208.3491	0.0718	0.0149	1,214.5716

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.9726	0.0437	3.7935	2.0000e-004		0.0210	0.0210		0.0210	0.0210	0.0000	6.2063	6.2063	5.9800e-003	0.0000	6.3558
Unmitigated	2.9726	0.0437	3.7935	2.0000e-004		0.0210	0.0210		0.0210	0.0210	0.0000	6.2063	6.2063	5.9800e-003	0.0000	6.3558

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	tons/yr										MT/yr						
Architectural Coating	0.2592						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Consumer Products	2.5988						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Hearth	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Landscaping	0.1147	0.0437	3.7935	2.0000e-004			0.0210	0.0210		0.0210	0.0210	0.0000	6.2063	6.2063	5.9800e-003	0.0000	6.3558
Total	2.9726	0.0437	3.7935	2.0000e-004			0.0210	0.0210		0.0210	0.0210	0.0000	6.2063	6.2063	5.9800e-003	0.0000	6.3558

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	tons/yr										MT/yr						
Architectural Coating	0.2592						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Consumer Products	2.5988						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Hearth	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Landscaping	0.1147	0.0437	3.7935	2.0000e-004			0.0210	0.0210		0.0210	0.0210	0.0000	6.2063	6.2063	5.9800e-003	0.0000	6.3558
Total	2.9726	0.0437	3.7935	2.0000e-004			0.0210	0.0210		0.0210	0.0210	0.0000	6.2063	6.2063	5.9800e-003	0.0000	6.3558

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	98.3302	0.7653	0.0191	123.1429
Unmitigated	171.7891	1.2760	0.0319	213.1843

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	3.12739 / 1.97162	14.8547	0.1027	2.5800e-003	18.1908
City Park	0 / 0.881696	2.1683	1.3000e-004	3.0000e-005	2.1795
Condo/Townhouse High Rise	20.7841 / 13.103	98.7221	0.6827	0.0171	120.8932
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0.828647 / 0.0528924	2.7813	0.0272	6.7000e-004	3.6593
General Office Building	3.84794 / 2.35841	18.1113	0.1264	3.1700e-003	22.2152
High Turnover (Sit Down Restaurant)	4.6987 / 0.299917	15.7710	0.1540	3.7900e-003	20.7496
Hotel	5.58069 / 0.620077	19.3803	0.1829	4.5100e-003	25.2967
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		171.7891	1.2760	0.0319	213.1843

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	1.87644 / 0.985809	8.4280	0.0616	1.5400e-003	10.4271
City Park	0 / 0.440848	1.0842	6.0000e-005	1.0000e-005	1.0897
Condo/Townhouse High Rise	12.4705 / 6.55152	56.0109	0.4094	0.0102	69.2970
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0.497188 / 0.0264462	1.6558	0.0163	4.0000e-004	2.1825
General Office Building	2.30876 / 1.17921	10.2868	0.0758	1.8900e-003	12.7461
High Turnover (Sit Down Restaurant)	2.81922 / 0.149959	9.3889	0.0924	2.2700e-003	12.3756
Hotel	3.34841 / 0.310038	11.4757	0.1097	2.7000e-003	15.0247
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		98.3302	0.7653	0.0190	123.1429

8.0 Waste Detail**8.1 Mitigation Measures Waste**

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	49.1368	2.9039	0.0000	121.7344
Unmitigated	204.7367	12.0996	0.0000	507.2265

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	43.8	8.8910	0.5254	0.0000	22.0271
City Park	155.9	31.6463	1.8702	0.0000	78.4024
Condo/Townhouse High Rise	712	144.5296	8.5415	0.0000	358.0659
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	2.5	0.5075	0.0300	0.0000	1.2573
General Office Building	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	14.1	2.8622	0.1692	0.0000	7.0909
Hotel	80.3	16.3002	0.9633	0.0000	40.3830
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		204.7367	12.0996	0.0000	507.2265

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	10.512	2.1338	0.1261	0.0000	5.2865
City Park	37.416	7.5951	0.4489	0.0000	18.8166
Condo/Townhouse High Rise	170.88	34.6871	2.0500	0.0000	85.9358
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000

Fast Food Restaurant w/o Drive Thru	0.6	0.1218	7.2000e-003	0.0000	0.3017
General Office Building	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	3.384	0.6869	0.0406	0.0000	1.7018
Hotel	19.272	3.9120	0.2312	0.0000	9.6919
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		49.1368	2.9039	0.0000	121.7344

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Hollywood Center- East Site (Res and Hotel) - Operations - Los Angeles-South Coast County, Annual

Hollywood Center- East Site (Res and Hotel) - Operations

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	21.65	1000sqft	0.10	21,648.00	0
Enclosed Parking with Elevator	684.00	Space	0.90	338,450.00	0
Other Non-Asphalt Surfaces	15.64	1000sqft	0.10	15,644.00	0
User Defined Parking	4.81	User Defined Unit	0.18	4,812.00	0
City Park	0.81	Acre	0.10	35,300.00	0
Fast Food Restaurant w/o Drive Thru	2.73	1000sqft	0.10	2,732.00	0
High Turnover (Sit Down Restaurant)	15.48	1000sqft	0.10	15,482.00	0
Hotel	220.00	Room	0.30	141,606.00	0
Apartments Mid Rise	48.00	Dwelling Unit	0.30	51,898.00	137
Condo/Townhouse High Rise	319.00	Dwelling Unit	0.55	444,100.00	912

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11	Operational Year		2030	
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	444	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects (Jan 2017). Linearly adjusted to 50% RPS by 2030.
 Land Use - see operational assumptions

Vehicle Trips - see operational assumptions. VMT and trips provided by traffic study.

Woodstoves - see operational assumptions

Energy Use - see operational assumptions. Lighting energy intensity of Parking Lot land use used as surrogate for public open space lighting energy

Solid Waste - see operational assumptions

Energy Mitigation - Compared to 2016 Title 24 Building Energy Efficiency that is based off of 2013 Ashrae 90.1 Standards, the Project will be 11.6% more efficient than 2016 Title 24 Standards.

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	108,384.00	106,734.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	325,152.00	320,202.00
tblArchitecturalCoating	ConstArea_Parking	22,570.00	21,934.00
tblAreaCoating	Area_Nonresidential_Exterior	108384	106734
tblAreaCoating	Area_Nonresidential_Interior	325152	320202
tblAreaCoating	Area_Parking	22570	21934
tblEnergyUse	LightingElect	0.00	0.35
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	40.80	0.00
tblFireplaces	NumberGas	271.15	0.00
tblFireplaces	NumberNoFireplace	4.80	0.00
tblFireplaces	NumberNoFireplace	31.90	0.00
tblFireplaces	NumberWood	2.40	0.00
tblFireplaces	NumberWood	15.95	0.00
tblLandUse	LandUseSquareFeet	21,650.00	21,648.00
tblLandUse	LandUseSquareFeet	273,600.00	338,450.00
tblLandUse	LandUseSquareFeet	0.00	4,812.00

tblLandUse	LandUseSquareFeet	35,283.60	35,300.00
tblLandUse	LandUseSquareFeet	2,730.00	2,732.00
tblLandUse	LandUseSquareFeet	15,480.00	15,482.00
tblLandUse	LandUseSquareFeet	319,440.00	141,606.00
tblLandUse	LandUseSquareFeet	48,000.00	51,898.00
tblLandUse	LandUseSquareFeet	319,000.00	444,100.00
tblLandUse	LotAcreage	0.50	0.10
tblLandUse	LotAcreage	6.16	0.90
tblLandUse	LotAcreage	0.36	0.10
tblLandUse	LotAcreage	0.00	0.18
tblLandUse	LotAcreage	0.81	0.10
tblLandUse	LotAcreage	0.06	0.10
tblLandUse	LotAcreage	0.36	0.10
tblLandUse	LotAcreage	7.33	0.30
tblLandUse	LotAcreage	1.26	0.30
tblLandUse	LotAcreage	4.98	0.55
tblProjectCharacteristics	CO2IntensityFactor	1227.89	444
tblSolidWaste	SolidWasteGenerationRate	22.08	43.80
tblSolidWaste	SolidWasteGenerationRate	0.07	155.90
tblSolidWaste	SolidWasteGenerationRate	146.74	712.00
tblSolidWaste	SolidWasteGenerationRate	31.45	2.50
tblSolidWaste	SolidWasteGenerationRate	20.13	0.00
tblSolidWaste	SolidWasteGenerationRate	184.21	14.10
tblSolidWaste	SolidWasteGenerationRate	120.45	80.30
tblTripsAndVMT	VendorTripNumber	136.00	134.00
tblTripsAndVMT	WorkerTripNumber	511.00	505.00
tblTripsAndVMT	WorkerTripNumber	102.00	101.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HS_TL	5.90	0.00

tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HW_TL	14.70	0.00
tblVehicleTrips	HW_TL	14.70	0.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	4.31	0.00
tblVehicleTrips	ST_TR	696.00	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	158.37	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	3.43	0.00
tblVehicleTrips	SU_TR	500.00	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	131.84	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	WD_TR	6.65	0.00
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	4.18	0.00
tblVehicleTrips	WD_TR	716.00	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	127.15	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblWater	OutdoorWaterUseRate	965,099.89	881,696.20
tblWoodstoves	NumberCatalytic	2.40	0.00
tblWoodstoves	NumberCatalytic	15.95	0.00
tblWoodstoves	NumberNoncatalytic	2.40	0.00
tblWoodstoves	NumberNoncatalytic	15.95	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.9720	0.0436	3.7870	2.0000e-004		0.0210	0.0210		0.0210	0.0210	0.0000	6.2063	6.2063	5.9500e-003	0.0000	6.3551
Energy	0.0604	0.5394	0.3885	3.3000e-003		0.0418	0.0418		0.0418	0.0418	0.0000	1,744.0529	1,744.0529	0.0863	0.0265	1,754.0930
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	204.7367	0.0000	204.7367	12.0996	0.0000	507.2265
Water						0.0000	0.0000		0.0000	0.0000	12.3309	145.0809	157.4117	1.2760	0.0319	198.8069
Total	3.0324	0.5830	4.1755	3.5000e-003	0.0000	0.0628	0.0628	0.0000	0.0628	0.0628	217.0676	1,895.3400	2,112.4075	13.4678	0.0583	2,466.4815

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.9720	0.0436	3.7870	2.0000e-004		0.0210	0.0210		0.0210	0.0210	0.0000	6.2063	6.2063	5.9500e-003	0.0000	6.3551
Energy	0.0570	0.5091	0.3666	3.1100e-003		0.0394	0.0394		0.0394	0.0394	0.0000	1,663.8204	1,663.8204	0.0826	0.0252	1,673.3970
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	49.1368	0.0000	49.1368	2.9039	0.0000	121.7344
Water						0.0000	0.0000		0.0000	0.0000	7.3985	82.7329	90.1314	0.7653	0.0191	114.9441
Total	3.0290	0.5527	4.1536	3.3100e-003	0.0000	0.0604	0.0604	0.0000	0.0604	0.0604	56.5353	1,752.7596	1,809.2949	3.7578	0.0443	1,916.4305

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.11	5.20	0.52	5.43	0.00	3.74	3.74	0.00	3.74	3.74	73.95	7.52	14.35	72.10	24.11	22.30

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
Condo/Townhouse High Rise	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
User Defined Parking	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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 Mid Rise	0.00	0.00	0.00	40.20	19.20	40.60	86	11	3
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Condo/Townhouse High Rise	0.00	0.00	0.00	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Fast Food Restaurant w/o Drive Thru	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down Restaurant)	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
User Defined Parking	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827
City Park	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827
Condo/Townhouse High Rise	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827
Enclosed Parking with Elevator	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827
Fast Food Restaurant w/o Drive Thru	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827
General Office Building	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827
High Turnover (Sit Down Restaurant)	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827
Hotel	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827
Other Non-Asphalt Surfaces	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827
User Defined Parking	0.543646	0.044284	0.209381	0.116714	0.014227	0.006316	0.021040	0.033117	0.002601	0.001862	0.005277	0.000709	0.000827

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr										MT/yr						
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,099.3996	6	1,099.3996	0.0718	0.0149	1,105.6221
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,146.0182	2	1,146.0182	0.0749	0.0155	1,152.5045
Natural Gas Mitigated	0.0570	0.5091	0.3666	3.1100e-003		0.0394	0.0394		0.0394	0.0394	0.0000	564.4208	564.4208	0.0108	0.0104	567.7749	
Natural Gas Unmitigated	0.0604	0.5394	0.3885	3.3000e-003		0.0418	0.0418		0.0418	0.0418	0.0000	598.0347	598.0347	0.0115	0.0110	601.5885	

Fast Food Restaurant w/o Drive Thru	616815	3.3300e-003	0.0302	0.0254	1.8000e-004		2.3000e-003	2.3000e-003		2.3000e-003	2.3000e-003	0.0000	32.9156	32.9156	6.3000e-004	6.0000e-004	33.1112
General Office Building	200194	1.0800e-003	9.8100e-003	8.2400e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	10.6831	10.6831	2.0000e-004	2.0000e-004	10.7466
High Turnover (Sit Down Restaurant)	3.49544e+006	0.0189	0.1714	0.1439	1.0300e-003		0.0130	0.0130		0.0130	0.0130	0.0000	186.5299	186.5299	3.5800e-003	3.4200e-003	187.6383
Hotel	3.0685e+006	0.0166	0.1504	0.1264	9.0000e-004		0.0114	0.0114		0.0114	0.0114	0.0000	163.7469	163.7469	3.1400e-003	3.0000e-003	164.7199
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0570	0.5091	0.3666	3.1100e-003		0.0394	0.0394		0.0394	0.0394	0.0000	564.4208	564.4208	0.0108	0.0104	567.7749

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	190084	38.2819	2.5000e-003	5.2000e-004	38.4986
City Park	12355	2.4882	1.6000e-004	3.0000e-005	2.5023
Condo/Townhouse High Rise	1.3461e+006	271.0972	0.0177	3.6600e-003	272.6316
Enclosed Parking with Elevator	1.98332e+006	399.4302	0.0261	5.4000e-003	401.6909
Fast Food Restaurant w/o Drive Thru	120590	24.2863	1.5900e-003	3.3000e-004	24.4238
General Office Building	281208	56.6338	3.7000e-003	7.7000e-004	56.9543
High Turnover (Sit Down Restaurant)	683375	137.6284	8.9900e-003	1.8600e-003	138.4074
Hotel	1.07337e+006	216.1721	0.0141	2.9200e-003	217.3956
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		1,146.0182	0.0749	0.0155	1,152.5045

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	189168	38.0974	2.4900e-003	5.1000e-004	38.3131
City Park	12355	2.4882	1.6000e-004	3.0000e-005	2.5023
Condo/Townhouse High Rise	1.34001e+006	269.8710	0.0176	3.6500e-003	271.3985
Enclosed Parking with Elevator	1.82942e+006	368.4355	0.0241	4.9800e-003	370.5208
Fast Food Restaurant w/o Drive Thru	118020	23.7687	1.5500e-003	3.2000e-004	23.9032
General Office Building	269656	54.3074	3.5500e-003	7.3000e-004	54.6148
High Turnover (Sit Down Restaurant)	668811	134.6951	8.8000e-003	1.8200e-003	135.4575
Hotel	1.03149e+006	207.7362	0.0136	2.8100e-003	208.9120
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		1,099.3996	0.0718	0.0149	1,105.6221

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.9720	0.0436	3.7870	2.0000e-004		0.0210	0.0210		0.0210	0.0210	0.0000	6.2063	6.2063	5.9500e-003	0.0000	6.3551
Unmitigated	2.9720	0.0436	3.7870	2.0000e-004		0.0210	0.0210		0.0210	0.0210	0.0000	6.2063	6.2063	5.9500e-003	0.0000	6.3551

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2592					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.5988					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1140	0.0436	3.7870	2.0000e-004		0.0210	0.0210		0.0210	0.0210	0.0000	6.2063	6.2063	5.9500e-003	0.0000	6.3551
Total	2.9720	0.0436	3.7870	2.0000e-004		0.0210	0.0210		0.0210	0.0210	0.0000	6.2063	6.2063	5.9500e-003	0.0000	6.3551

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2592					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.5988					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1140	0.0436	3.7870	2.0000e-004		0.0210	0.0210		0.0210	0.0210	0.0000	6.2063	6.2063	5.9500e-003	0.0000	6.3551
Total	2.9720	0.0436	3.7870	2.0000e-004		0.0210	0.0210		0.0210	0.0210	0.0000	6.2063	6.2063	5.9500e-003	0.0000	6.3551

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	90.1314	0.7653	0.0191	114.9441
Unmitigated	157.4117	1.2760	0.0319	198.8069

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	3.12739 / 1.97162	13.6048	0.1027	2.5800e-003	16.9409
City Park	0 / 0.881696	1.9728	1.3000e-004	3.0000e-005	1.9840
Condo/Townhouse High Rise	20.7841 / 13.103	90.4155	0.6827	0.0171	112.5866
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0.828647 / 0.0528924	2.5543	0.0272	6.7000e-004	3.4323
General Office Building	3.84794 / 2.35841	16.5884	0.1264	3.1700e-003	20.6923
High Turnover (Sit Down Restaurant)	4.6987 / 0.299917	14.4835	0.1540	3.7900e-003	19.4620
Hotel	5.58069 / 0.620077	17.7925	0.1829	4.5100e-003	23.7089
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		157.4117	1.2760	0.0319	198.8069

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	1.87644 / 0.985809	7.7218	0.0616	1.5400e-003	9.7209
City Park	0 / 0.440848	0.9864	6.0000e-005	1.0000e-005	0.9920
Condo/Townhouse High Rise	12.4705 / 6.55152	51.3175	0.4094	0.0102	64.6036
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0.497188 / 0.0264462	1.5207	0.0163	4.0000e-004	2.0475
General Office Building	2.30876 / 1.17921	9.4254	0.0758	1.8900e-003	11.8847
High Turnover (Sit Down Restaurant)	2.81922 / 0.149959	8.6230	0.0924	2.2700e-003	11.6097
Hotel	3.34841 / 0.310038	10.5368	0.1097	2.7000e-003	14.0858
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		90.1314	0.7653	0.0190	114.9441

8.0 Waste Detail**8.1 Mitigation Measures Waste**

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	49.1368	2.9039	0.0000	121.7344
Unmitigated	204.7367	12.0996	0.0000	507.2265

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	43.8	8.8910	0.5254	0.0000	22.0271
City Park	155.9	31.6463	1.8702	0.0000	78.4024
Condo/Townhouse High Rise	712	144.5296	8.5415	0.0000	358.0659
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	2.5	0.5075	0.0300	0.0000	1.2573
General Office Building	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	14.1	2.8622	0.1692	0.0000	7.0909
Hotel	80.3	16.3002	0.9633	0.0000	40.3830
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		204.7367	12.0996	0.0000	507.2265

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	10.512	2.1338	0.1261	0.0000	5.2865
City Park	37.416	7.5951	0.4489	0.0000	18.8166
Condo/Townhouse High Rise	170.88	34.6871	2.0500	0.0000	85.9358

Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0.6	0.1218	7.2000e-003	0.0000	0.3017
General Office Building	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	3.384	0.6869	0.0406	0.0000	1.7018
Hotel	19.272	3.9120	0.2312	0.0000	9.6919
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		49.1368	2.9039	0.0000	121.7344

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Hollywood Center - East Site (All Res) - Operation (Vegetation-Trees) - Los Angeles-South Coast County, Annual

Hollywood Center - East Site (All Res) - Operation (Vegetation-Trees)
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	32.66	1000sqft	0.10	32,665.00	0
Enclosed Parking with Elevator	684.00	Space	0.80	338,450.00	0
Other Non-Asphalt Surfaces	12.90	1000sqft	0.10	12,900.00	0
User Defined Parking	4.81	User Defined Unit	0.18	4,812.00	0
City Park	0.81	Acre	0.10	35,300.00	0
Fast Food Restaurant w/o Drive Thru	2.73	1000sqft	0.10	2,732.00	0
High Turnover (Sit Down Restaurant)	15.48	1000sqft	0.10	15,482.00	0
Apartments Mid Rise	65.00	Dwelling Unit	0.30	67,149.00	186
Condo/Townhouse High Rise	423.00	Dwelling Unit	0.95	575,100.00	1210

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2027
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	488	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

tblSequestration	NumberOfNewTrees	0.00	122.00
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11.0 Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	86.3760	0.0000	0.0000	86.3760

11.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Miscellaneous	122	86.3760	0.0000	0.0000	86.3760
Total		86.3760	0.0000	0.0000	86.3760

Hollywood Center - West - Operations - Los Angeles-South Coast County, Annual

Hollywood Center - West - Operations

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	41.60	1000sqft	0.10	41,600.00	0
Enclosed Parking with Elevator	837.00	Space	0.51	414,005.00	0
Other Non-Asphalt Surfaces	11.90	1000sqft	0.10	11,900.00	0
User Defined Parking	1.64	User Defined Unit	0.14	1,636.00	0
City Park	0.79	Acre	0.10	34,205.00	0
Fast Food Restaurant w/o Drive Thru	1.98	1000sqft	0.10	1,983.00	0
High Turnover (Sit Down Restaurant)	11.24	1000sqft	0.10	11,237.00	0
Apartments Mid Rise	68.00	Dwelling Unit	0.20	67,500.00	194
Condo/Townhouse High Rise	449.00	Dwelling Unit	0.50	581,000.00	1284

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11	Operational Year	2024		
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	533	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects (Jan 2017). Linearly adjusted to 40% RPS by 2024.

Land Use - see operational assumptions

Vehicle Trips - see operational assumptions. VMT and trips provided by traffic study.

Woodstoves - see operational assumptions

Energy Use - see operational assumptions. Lighting energy intensity of Parking Lot land use used as surrogate for public open space lighting energy intensity.

Solid Waste - see operational assumptions.

Sequestration - Miscellaneous trees; 130 trees on West Site.

Energy Mitigation - The Project LEED checklist states it will be 20% more efficient than 2010 Ashrae 90.1 Standard. Therefore, compared to 2016 Title 24 Building Energy Efficiency that is based off of 2013 Ashrae 90.1 Standards, the Project will be 11.6% more efficient.

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	44,513.00	45,115.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	133,538.00	135,344.00
tblArchitecturalCoating	ConstArea_Parking	25,652.00	26,786.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	437,738.00	437,603.00
tblArchitecturalCoating	ConstArea_Residential_Interior	1,313,213.00	1,312,808.00
tblAreaCoating	Area_Nonresidential_Exterior	44513	45115
tblAreaCoating	Area_Nonresidential_Interior	133538	135344
tblAreaCoating	Area_Parking	25652	26786
tblAreaCoating	Area_Residential_Exterior	437738	437603
tblAreaCoating	Area_Residential_Interior	1313213	1312808
tblEnergyUse	LightingElect	0.00	0.35
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	57.80	0.00
tblFireplaces	NumberGas	381.65	0.00
tblFireplaces	NumberNoFireplace	6.80	0.00
tblFireplaces	NumberNoFireplace	44.90	0.00
tblFireplaces	NumberWood	3.40	0.00

tblFireplaces	NumberWood	22.45	0.00
tblLandUse	LandUseSquareFeet	334,800.00	414,005.00
tblLandUse	LandUseSquareFeet	0.00	1,636.00
tblLandUse	LandUseSquareFeet	34,412.40	34,205.00
tblLandUse	LandUseSquareFeet	1,980.00	1,983.00
tblLandUse	LandUseSquareFeet	11,240.00	11,237.00
tblLandUse	LandUseSquareFeet	68,000.00	67,500.00
tblLandUse	LandUseSquareFeet	449,000.00	581,000.00
tblLandUse	LotAcreage	0.96	0.10
tblLandUse	LotAcreage	7.53	0.51
tblLandUse	LotAcreage	0.27	0.10
tblLandUse	LotAcreage	0.00	0.14
tblLandUse	LotAcreage	0.79	0.10
tblLandUse	LotAcreage	0.05	0.10
tblLandUse	LotAcreage	0.26	0.10
tblLandUse	LotAcreage	1.79	0.20
tblLandUse	LotAcreage	7.02	0.50
tblProjectCharacteristics	CO2IntensityFactor	1227.89	533
tblSequestration	NumberOfNewTrees	0.00	130.00
tblSolidWaste	SolidWasteGenerationRate	31.28	62.05
tblSolidWaste	SolidWasteGenerationRate	0.07	0.00
tblSolidWaste	SolidWasteGenerationRate	206.54	1,002.16
tblSolidWaste	SolidWasteGenerationRate	22.81	1.81
tblSolidWaste	SolidWasteGenerationRate	38.69	0.00
tblSolidWaste	SolidWasteGenerationRate	133.76	10.25
tblTripsAndVMT	VendorTripNumber	140.00	143.00
tblTripsAndVMT	WorkerTripNumber	585.00	593.00
tblTripsAndVMT	WorkerTripNumber	117.00	119.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TL	8.70	0.00

tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HW_TL	14.70	0.00
tblVehicleTrips	HW_TL	14.70	0.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	4.31	0.00
tblVehicleTrips	ST_TR	696.00	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	158.37	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	3.43	0.00
tblVehicleTrips	SU_TR	500.00	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	131.84	0.00
tblVehicleTrips	WD_TR	6.65	0.00
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	4.18	0.00
tblVehicleTrips	WD_TR	716.00	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	127.15	0.00
tblWater	IndoorWaterUseRate	7,393,723.92	7,496,809.49
tblWater	OutdoorWaterUseRate	941,270.27	953,185.08
tblWater	OutdoorWaterUseRate	4,531,637.24	4,594,818.72
tblWoodstoves	NumberCatalytic	3.40	0.00
tblWoodstoves	NumberCatalytic	22.45	0.00
tblWoodstoves	NumberNoncatalytic	3.40	0.00
tblWoodstoves	NumberNoncatalytic	22.45	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.1049	0.0615	5.3410	2.8000e-004		0.0296	0.0296		0.0296	0.0296	0.0000	8.7316	8.7316	8.4200e-003	0.0000	8.9420
Energy	0.0445	0.3903	0.2369	2.4300e-003		0.0307	0.0307		0.0307	0.0307	0.0000	1,824.5124	1,824.5124	0.0838	0.0237	1,833.6551
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	218.4731	0.0000	218.4731	12.9114	0.0000	541.2578
Water						0.0000	0.0000		0.0000	0.0000	14.3380	214.9019	229.2399	1.4843	0.0372	277.4317
Total	3.1493	0.4519	5.5778	2.7100e-003	0.0000	0.0603	0.0603	0.0000	0.0603	0.0603	232.8111	2,048.1460	2,280.9571	14.4879	0.0608	2,661.2866

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.1049	0.0615	5.3410	2.8000e-004		0.0296	0.0296		0.0296	0.0296	0.0000	8.7316	8.7316	8.4200e-003	0.0000	8.9420
Energy	0.0424	0.3726	0.2270	2.3200e-003		0.0293	0.0293		0.0293	0.0293	0.0000	1,748.1056	1,748.1056	0.0803	0.0227	1,756.8633
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	52.4335	0.0000	52.4335	3.0987	0.0000	129.9019
Water						0.0000	0.0000		0.0000	0.0000	8.6028	121.6782	130.2810	0.8902	0.0222	159.1618
Total	3.1473	0.4341	5.5680	2.6000e-003	0.0000	0.0589	0.0589	0.0000	0.0589	0.0589	61.0364	1,878.5154	1,939.5517	4.0777	0.0449	2,054.8689

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.06	3.92	0.18	4.06	0.00	2.32	2.32	0.00	2.32	2.32	73.78	8.28	14.97	71.85	26.23	22.79

2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	92.0400
Total	92.0400

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
Condo/Townhouse High Rise	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
User Defined Parking	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	0.00	0.00	0.00	40.20	19.20	40.60	86	11	3
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6

Condo/Townhouse High Rise	0.00	0.00	0.00	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Fast Food Restaurant w/o Drive Thru	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down Restaurant)	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
User Defined Parking	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
City Park	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
Condo/Townhouse High Rise	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
Enclosed Parking with Elevator	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
Fast Food Restaurant w/o Drive Thru	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
General Office Building	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
High Turnover (Sit Down Restaurant)	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
Other Non-Asphalt Surfaces	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
User Defined Parking	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,328.0489	1,328.0489	0.0723	0.0150	1,334.3104
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,384.3218	1,384.3218	0.0753	0.0156	1,390.8486
Natural Gas Mitigated	0.0424	0.3726	0.2270	2.3200e-003		0.0293	0.0293		0.0293	0.0293	0.0000	420.0567	420.0567	8.0500e-003	7.7000e-003	422.5528
Natural Gas Unmitigated	0.0445	0.3903	0.2369	2.4300e-003		0.0307	0.0307		0.0307	0.0307	0.0000	440.1907	440.1907	8.4400e-003	8.0700e-003	442.8065

Fast Food Restaurant w/o Drive Thru	447710	2.4100e-003	0.0220	0.0184	1.3000e-004	1.6700e-003	1.6700e-003	1.6700e-003	1.6700e-003	0.0000	23.8915	23.8915	4.6000e-004	4.4000e-004	24.0335
General Office Building	384703	2.0700e-003	0.0189	0.0158	1.1000e-004	1.4300e-003	1.4300e-003	1.4300e-003	1.4300e-003	0.0000	20.5292	20.5292	3.9000e-004	3.8000e-004	20.6512
High Turnover (Sit Down Restaurant)	2.53703e+006	0.0137	0.1244	0.1045	7.5000e-004	9.4500e-003	9.4500e-003	9.4500e-003	9.4500e-003	0.0000	135.3854	135.3854	2.5900e-003	2.4800e-003	136.1899
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0424	0.3726	0.2270	2.3100e-003	0.0293	0.0293	0.0293	0.0293	0.0000	420.0567	420.0567	8.0500e-003	7.7100e-003	422.5528

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	269285	65.1037	3.5400e-003	7.3000e-004	65.4107
City Park	11971.8	2.8944	1.6000e-004	3.0000e-005	2.9080
Condo/Townhouse High Rise	1.89466e+006	458.0628	0.0249	5.1600e-003	460.2224
Enclosed Parking with Elevator	2.42607e+006	586.5380	0.0319	6.6000e-003	589.3034
Fast Food Restaurant w/o Drive Thru	87529.6	21.1616	1.1500e-003	2.4000e-004	21.2614
General Office Building	540384	130.6458	7.1100e-003	1.4700e-003	131.2618
High Turnover (Sit Down Restaurant)	496001	119.9156	6.5200e-003	1.3500e-003	120.4810
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		1,384.3218	0.0753	0.0156	1,390.8486

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	267988	64.7899	3.5300e-003	7.3000e-004	65.0954
City Park	11971.8	2.8944	1.6000e-004	3.0000e-005	2.9080
Condo/Townhouse High Rise	1.88609e+006	455.9909	0.0248	5.1300e-003	458.1408
Enclosed Parking with Elevator	2.23781e+006	541.0243	0.0294	6.0900e-003	543.5751
Fast Food Restaurant w/o Drive Thru	85664.1	20.7106	1.1300e-003	2.3000e-004	20.8082
General Office Building	518186	125.2792	6.8200e-003	1.4100e-003	125.8698
High Turnover (Sit Down Restaurant)	485430	117.3598	6.3900e-003	1.3200e-003	117.9132
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		1,328.0489	0.0723	0.0149	1,334.3104

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.1049	0.0615	5.3410	2.8000e-004		0.0296	0.0296		0.0296	0.0296	0.0000	8.7316	8.7316	8.4200e-003	0.0000	8.9420
Unmitigated	3.1049	0.0615	5.3410	2.8000e-004		0.0296	0.0296		0.0296	0.0296	0.0000	8.7316	8.7316	8.4200e-003	0.0000	8.9420

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2509					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6927					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1613	0.0615	5.3410	2.8000e-004		0.0296	0.0296		0.0296	0.0296	0.0000	8.7316	8.7316	8.4200e-003	0.0000	8.9420
Total	3.1049	0.0615	5.3410	2.8000e-004		0.0296	0.0296		0.0296	0.0296	0.0000	8.7316	8.7316	8.4200e-003	0.0000	8.9420

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2509					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6927					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1613	0.0615	5.3410	2.8000e-004		0.0296	0.0296		0.0296	0.0296	0.0000	8.7316	8.7316	8.4200e-003	0.0000	8.9420
Total	3.1049	0.0615	5.3410	2.8000e-004		0.0296	0.0296		0.0296	0.0296	0.0000	8.7316	8.7316	8.4200e-003	0.0000	8.9420

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	130.2810	0.8902	0.0222	159.1618
Unmitigated	229.2399	1.4843	0.0372	277.4317

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	4.43047 / 2.79312	22.8552	0.1455	3.6500e-003	27.5813
City Park	0 / 0.953185	2.5603	1.4000e-004	3.0000e-005	2.5723
Condo/Townhouse High Rise	29.2542 / 18.4428	150.9112	0.9610	0.0241	182.1176
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0.600997 / 0.0383615	2.1857	0.0197	4.8000e-004	2.8225
General Office Building	7.49681 / 4.59482	38.3202	0.2462	6.1700e-003	46.3156
High Turnover (Sit Down Restaurant)	3.41172 / 0.217769	12.4075	0.1118	2.7500e-003	16.0224
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		229.2399	1.4843	0.0372	277.4317

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	2.65828 / 1.39656	12.9629	0.0873	2.1800e-003	15.7950
City Park	0 / 0.476593	1.2801	7.0000e-005	1.0000e-005	1.2862
Condo/Townhouse High Rise	17.5525 / 9.22142	85.5930	0.5763	0.0144	104.2934
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0.360598 / 0.0191807	1.3011	0.0118	2.9000e-004	1.6831
General Office Building	4.49809 / 2.29741	21.7580	0.1477	3.6900e-003	26.5494
High Turnover (Sit Down Restaurant)	2.04703 / 0.108885	7.3860	0.0671	1.6500e-003	9.5547
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		130.2810	0.8902	0.0222	159.1618

8.0 Waste Detail**8.1 Mitigation Measures Waste**

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	52.4335	3.0987	0.0000	129.9019
Unmitigated	218.4731	12.9114	0.0000	541.2578

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	62.05	12.5956	0.7444	0.0000	31.2050
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	1002.16	203.4294	12.0223	0.0000	503.9878
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	1.81	0.3674	0.0217	0.0000	0.9103
General Office Building	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	10.25	2.0807	0.1230	0.0000	5.1547
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		218.4731	12.9114	0.0000	541.2578

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	14.892	3.0229	0.1787	0.0000	7.4892
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	240.518	48.8231	2.8854	0.0000	120.9571
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0.4344	0.0882	5.2100e-003	0.0000	0.2185

General Office Building	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	2.46	0.4994	0.0295	0.0000	1.2371
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		52.4335	3.0987	0.0000	129.9019

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	92.0400	0.0000	0.0000	92.0400

11.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Miscellaneous	130	92.0400	0.0000	0.0000	92.0400
Total		92.0400	0.0000	0.0000	92.0400

Hollywood Center - West - Operations - Los Angeles-South Coast County, Annual

Hollywood Center - West - Operations

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	41.60	1000sqft	0.10	41,600.00	0
Enclosed Parking with Elevator	837.00	Space	0.51	414,005.00	0
Other Non-Asphalt Surfaces	11.90	1000sqft	0.10	11,900.00	0
User Defined Parking	1.64	User Defined Unit	0.14	1,636.00	0
City Park	0.79	Acre	0.10	34,205.00	0
Fast Food Restaurant w/o Drive Thru	1.98	1000sqft	0.10	1,983.00	0
High Turnover (Sit Down Restaurant)	11.24	1000sqft	0.10	11,237.00	0
Apartments Mid Rise	68.00	Dwelling Unit	0.20	67,500.00	194
Condo/Townhouse High Rise	449.00	Dwelling Unit	0.50	581,000.00	1284

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2027
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	488	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects (Jan 2017). Linearly adjusted to 45% RPS by 2027.

Land Use - see operational assumptions

Vehicle Trips - see operational assumptions. VMT and trips provided by traffic study.

Woodstoves - see operational assumptions

Energy Use - see operational assumptions. Lighting energy intensity of Parking Lot land use used as surrogate for public open space lighting energy intensity.

Solid Waste - see operational assumptions.

Energy Mitigation - The Project LEED checklist states it will be 20% more efficient than 2010 Ashrae 90.1 Standard. Therefore, compared to 2016 Title 24 Building Energy Efficiency that is based off of 2013 Ashrae 90.1 Standards, the Project will be 11.6% more efficient.

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	44,455.00	45,115.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	133,364.00	135,344.00
tblArchitecturalCoating	ConstArea_Parking	26,974.00	26,786.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	437,738.00	437,603.00
tblArchitecturalCoating	ConstArea_Residential_Interior	1,313,213.00	1,312,808.00
tblAreaCoating	Area_Nonresidential_Exterior	44455	45115
tblAreaCoating	Area_Nonresidential_Interior	133364	135344
tblAreaCoating	Area_Parking	26974	26786
tblAreaCoating	Area_Residential_Exterior	437738	437603
tblAreaCoating	Area_Residential_Interior	1313213	1312808
tblEnergyUse	LightingElect	0.00	0.35
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	57.80	0.00
tblFireplaces	NumberGas	381.65	0.00
tblFireplaces	NumberNoFireplace	6.80	0.00
tblFireplaces	NumberNoFireplace	44.90	0.00

tblFireplaces	NumberWood	3.40	0.00
tblFireplaces	NumberWood	22.45	0.00
tblFleetMix	UBUS	1.8620e-003	2.0710e-003
tblLandUse	LandUseSquareFeet	334,800.00	414,005.00
tblLandUse	LandUseSquareFeet	0.00	1,636.00
tblLandUse	LandUseSquareFeet	34,412.40	34,205.00
tblLandUse	LandUseSquareFeet	1,980.00	1,983.00
tblLandUse	LandUseSquareFeet	11,240.00	11,237.00
tblLandUse	LandUseSquareFeet	68,000.00	67,500.00
tblLandUse	LandUseSquareFeet	449,000.00	581,000.00
tblLandUse	LotAcreage	0.96	0.10
tblLandUse	LotAcreage	7.53	0.51
tblLandUse	LotAcreage	0.27	0.10
tblLandUse	LotAcreage	0.00	0.14
tblLandUse	LotAcreage	0.79	0.10
tblLandUse	LotAcreage	0.05	0.10
tblLandUse	LotAcreage	0.26	0.10
tblLandUse	LotAcreage	1.79	0.20
tblLandUse	LotAcreage	7.02	0.50
tblProjectCharacteristics	CO2IntensityFactor	1227.89	488
tblSolidWaste	SolidWasteGenerationRate	31.28	62.05
tblSolidWaste	SolidWasteGenerationRate	0.07	0.00
tblSolidWaste	SolidWasteGenerationRate	206.54	1,002.16
tblSolidWaste	SolidWasteGenerationRate	22.81	1.81
tblSolidWaste	SolidWasteGenerationRate	38.58	0.00
tblSolidWaste	SolidWasteGenerationRate	133.76	10.25
tblTripsAndVMT	VendorTripNumber	144.00	143.00
tblTripsAndVMT	WorkerTripNumber	594.00	593.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TL	8.70	0.00

tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HW_TL	14.70	0.00
tblVehicleTrips	HW_TL	14.70	0.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	4.31	0.00
tblVehicleTrips	ST_TR	696.00	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	158.37	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	3.43	0.00
tblVehicleTrips	SU_TR	500.00	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	131.84	0.00
tblVehicleTrips	WD_TR	6.65	0.00
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	4.18	0.00
tblVehicleTrips	WD_TR	716.00	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	127.15	0.00
tblWater	IndoorWaterUseRate	7,372,395.87	7,496,809.49
tblWater	OutdoorWaterUseRate	941,270.27	953,185.08
tblWater	OutdoorWaterUseRate	4,518,565.21	4,594,818.72
tblWoodstoves	NumberCatalytic	3.40	0.00
tblWoodstoves	NumberCatalytic	22.45	0.00
tblWoodstoves	NumberNoncatalytic	3.40	0.00
tblWoodstoves	NumberNoncatalytic	22.45	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.1045	0.0615	5.3381	2.8000e-004		0.0296	0.0296		0.0296	0.0296	0.0000	8.7316	8.7316	8.4000e-003	0.0000	8.9416
Energy	0.0445	0.3903	0.2369	2.4300e-003		0.0307	0.0307		0.0307	0.0307	0.0000	1,707.6372	1,707.6372	0.0838	0.0237	1,716.7799
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	218.4731	0.0000	218.4731	12.9114	0.0000	541.2578
Water						0.0000	0.0000		0.0000	0.0000	14.3380	196.7582	211.0963	1.4843	0.0372	259.2880
Total	3.1490	0.4518	5.5750	2.7100e-003	0.0000	0.0603	0.0603	0.0000	0.0603	0.0603	232.8111	1,913.1271	2,145.9382	14.4879	0.0608	2,526.2673

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.1045	0.0615	5.3381	2.8000e-004		0.0296	0.0296		0.0296	0.0296	0.0000	8.7316	8.7316	8.4000e-003	0.0000	8.9416
Energy	0.0424	0.3726	0.2270	2.3200e-003		0.0293	0.0293		0.0293	0.0293	0.0000	1,635.9814	1,635.9814	0.0803	0.0227	1,644.7391
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	52.4335	0.0000	52.4335	3.0987	0.0000	129.9019
Water						0.0000	0.0000		0.0000	0.0000	8.6028	111.4052	120.0080	0.8902	0.0222	148.8888
Total	3.1470	0.4341	5.5652	2.6000e-003	0.0000	0.0589	0.0589	0.0000	0.0589	0.0589	61.0364	1,756.1182	1,817.1545	4.0777	0.0449	1,932.4713

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.06	3.92	0.18	4.06	0.00	2.32	2.32	0.00	2.32	2.32	73.78	8.21	15.32	71.85	26.23	23.50

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
Condo/Townhouse High Rise	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
User Defined Parking	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	0.00	0.00	0.00	40.20	19.20	40.60	86	11	3
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Condo/Townhouse High Rise	0.00	0.00	0.00	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Fast Food Restaurant w/o Drive Thru	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down Restaurant)	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
User Defined Parking	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
City Park	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
Condo/Townhouse High Rise	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
Enclosed Parking with Elevator	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
Fast Food Restaurant w/o Drive Thru	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
General Office Building	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
High Turnover (Sit Down Restaurant)	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
Other Non-Asphalt Surfaces	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
User Defined Parking	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,215.9247	1,215.9247	0.0723	0.0150	1,222.1862
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,267.4466	1,267.4466	0.0753	0.0156	1,273.9734
NaturalGas Mitigated	0.0424	0.3726	0.2270	2.3200e-003		0.0293	0.0293		0.0293	0.0293	0.0000	420.0567	420.0567	8.0500e-003	7.7000e-003	422.5528
NaturalGas Unmitigated	0.0445	0.3903	0.2369	2.4300e-003		0.0307	0.0307		0.0307	0.0307	0.0000	440.1907	440.1907	8.4400e-003	8.0700e-003	442.8065

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	626752	3.3800e-003	0.0289	0.0123	1.8000e-004		2.3300e-003	2.3300e-003		2.3300e-003	2.3300e-003	0.0000	33.4459	33.4459	6.4000e-004	6.1000e-004	33.6446
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	4.13841e+006	0.0223	0.1907	0.0812	1.2200e-003		0.0154	0.0154		0.0154	0.0154	0.0000	220.8411	220.8411	4.2300e-003	4.0500e-003	222.1535
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	457597	2.4700e-003	0.0224	0.0188	1.3000e-004		1.7000e-003	1.7000e-003		1.7000e-003	1.7000e-003	0.0000	24.4191	24.4191	4.7000e-004	4.5000e-004	24.5642
General Office Building	433056	2.3400e-003	0.0212	0.0178	1.3000e-004		1.6100e-003	1.6100e-003		1.6100e-003	1.6100e-003	0.0000	23.1095	23.1095	4.4000e-004	4.2000e-004	23.2469
High Turnover (Sit Down Restaurant)	2.59305e+006	0.0140	0.1271	0.1068	7.6000e-004		9.6600e-003	9.6600e-003		9.6600e-003	9.6600e-003	0.0000	138.3750	138.3750	2.6500e-003	2.5400e-003	139.1973
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0445	0.3903	0.2369	2.4200e-003		0.0307	0.0307		0.0307	0.0307	0.0000	440.1907	440.1907	8.4300e-003	8.0700e-003	442.8065

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	592156	3.1900e-003	0.0273	0.0116	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	31.5997	31.5997	6.1000e-004	5.8000e-004	31.7875
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	3.90997e+006	0.0211	0.1802	0.0767	1.1500e-003		0.0146	0.0146		0.0146	0.0146	0.0000	208.6508	208.6508	4.0000e-003	3.8300e-003	209.8907
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	447710	2.4100e-003	0.0220	0.0184	1.3000e-004		1.6700e-003	1.6700e-003		1.6700e-003	1.6700e-003	0.0000	23.8915	23.8915	4.6000e-004	4.4000e-004	24.0335

General Office Building	384703	2.0700e-003	0.0189	0.0158	1.1000e-004	1.4300e-003	1.4300e-003	1.4300e-003	1.4300e-003	0.0000	20.5292	20.5292	3.9000e-004	3.8000e-004	20.6512
High Turnover (Sit Down Restaurant)	2.53703e+006	0.0137	0.1244	0.1045	7.5000e-004	9.4500e-003	9.4500e-003	9.4500e-003	9.4500e-003	0.0000	135.3854	135.3854	2.5900e-003	2.4800e-003	136.1899
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0424	0.3726	0.2270	2.3100e-003	0.0293	0.0293	0.0293	0.0293	0.0000	420.0567	420.0567	8.0500e-003	7.7100e-003	422.5528

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	269285	59.6072	3.5400e-003	7.3000e-004	59.9141
City Park	11971.8	2.6500	1.6000e-004	3.0000e-005	2.6636
Condo/Townhouse High Rise	1.89466e+006	419.3895	0.0249	5.1600e-003	421.5492
Enclosed Parking with Elevator	2.42607e+006	537.0179	0.0319	6.6000e-003	539.7833
Fast Food Restaurant w/o Drive Thru	87529.6	19.3750	1.1500e-003	2.4000e-004	19.4747
General Office Building	540384	119.6157	7.1100e-003	1.4700e-003	120.2316
High Turnover (Sit Down Restaurant)	496001	109.7914	6.5200e-003	1.3500e-003	110.3568
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		1,267.4466	0.0753	0.0156	1,273.9734

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	267988	59.3199	3.5300e-003	7.3000e-004	59.6253
City Park	11971.8	2.6500	1.6000e-004	3.0000e-005	2.6636
Condo/Townhouse High Rise	1.88609e+006	417.4926	0.0248	5.1300e-003	419.6425
Enclosed Parking with Elevator	2.23781e+006	495.3468	0.0294	6.0900e-003	497.8976
Fast Food Restaurant w/o Drive Thru	85664.1	18.9620	1.1300e-003	2.3000e-004	19.0597
General Office Building	518186	114.7021	6.8200e-003	1.4100e-003	115.2928
High Turnover (Sit Down Restaurant)	485430	107.4514	6.3900e-003	1.3200e-003	108.0047
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		1,215.9247	0.0723	0.0149	1,222.1862

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.1045	0.0615	5.3381	2.8000e-004		0.0296	0.0296		0.0296	0.0296	0.0000	8.7316	8.7316	8.4000e-003	0.0000	8.9416
Unmitigated	3.1045	0.0615	5.3381	2.8000e-004		0.0296	0.0296		0.0296	0.0296	0.0000	8.7316	8.7316	8.4000e-003	0.0000	8.9416

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2509					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6927					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1610	0.0615	5.3381	2.8000e-004		0.0296	0.0296		0.0296	0.0296	0.0000	8.7316	8.7316	8.4000e-003	0.0000	8.9416
Total	3.1045	0.0615	5.3381	2.8000e-004		0.0296	0.0296		0.0296	0.0296	0.0000	8.7316	8.7316	8.4000e-003	0.0000	8.9416

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2509					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6927					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1610	0.0615	5.3381	2.8000e-004		0.0296	0.0296		0.0296	0.0296	0.0000	8.7316	8.7316	8.4000e-003	0.0000	8.9416
Total	3.1045	0.0615	5.3381	2.8000e-004		0.0296	0.0296		0.0296	0.0296	0.0000	8.7316	8.7316	8.4000e-003	0.0000	8.9416

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	120.0080	0.8902	0.0222	148.8888
Unmitigated	211.0963	1.4843	0.0372	259.2880

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	4.43047 / 2.79312	21.0442	0.1455	3.6500e-003	25.7704
City Park	0 / 0.953185	2.3441	1.4000e-004	3.0000e-005	2.3562
Condo/Townhouse High Rise	29.2542 / 18.4428	138.9537	0.9610	0.0241	170.1601
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0.600997 / 0.0383615	2.0172	0.0197	4.8000e-004	2.6540
General Office Building	7.49681 / 4.59482	35.2857	0.2462	6.1700e-003	43.2812
High Turnover (Sit Down Restaurant)	3.41172 / 0.217769	11.4513	0.1118	2.7500e-003	15.0662
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		211.0962	1.4843	0.0372	259.2880

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	2.65828 / 1.39656	11.9396	0.0873	2.1800e-003	14.7718
City Park	0 / 0.476593	1.1721	7.0000e-005	1.0000e-005	1.1781
Condo/Townhouse High Rise	17.5525 / 9.22142	78.8367	0.5763	0.0144	97.5372
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0.360598 / 0.0191807	1.2009	0.0118	2.9000e-004	1.5829
General Office Building	4.49809 / 2.29741	20.0415	0.1477	3.6900e-003	24.8329
High Turnover (Sit Down Restaurant)	2.04703 / 0.108885	6.8172	0.0671	1.6500e-003	8.9859
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		120.0080	0.8902	0.0222	148.8888

8.0 Waste Detail**8.1 Mitigation Measures Waste**

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	52.4335	3.0987	0.0000	129.9019
Unmitigated	218.4731	12.9114	0.0000	541.2578

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	62.05	12.5956	0.7444	0.0000	31.2050
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	1002.16	203.4294	12.0223	0.0000	503.9878
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	1.81	0.3674	0.0217	0.0000	0.9103
General Office Building	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	10.25	2.0807	0.1230	0.0000	5.1547
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		218.4731	12.9114	0.0000	541.2578

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	14.892	3.0229	0.1787	0.0000	7.4892
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	240.518	48.8231	2.8854	0.0000	120.9571
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0.4344	0.0882	5.2100e-003	0.0000	0.2185

General Office Building	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	2.46	0.4994	0.0295	0.0000	1.2371
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		52.4335	3.0987	0.0000	129.9019

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Hollywood Center - West - Operations - Los Angeles-South Coast County, Annual

Hollywood Center - West - Operations

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	41.60	1000sqft	0.10	41,600.00	0
Enclosed Parking with Elevator	837.00	Space	0.51	414,005.00	0
Other Non-Asphalt Surfaces	11.90	1000sqft	0.10	11,900.00	0
User Defined Parking	1.64	User Defined Unit	0.14	1,636.00	0
City Park	0.79	Acre	0.10	34,205.00	0
Fast Food Restaurant w/o Drive Thru	1.98	1000sqft	0.10	1,983.00	0
High Turnover (Sit Down Restaurant)	11.24	1000sqft	0.10	11,237.00	0
Apartments Mid Rise	68.00	Dwelling Unit	0.20	67,500.00	194
Condo/Townhouse High Rise	449.00	Dwelling Unit	0.50	581,000.00	1284

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2030
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	444	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects (Jan 2017). Linearly adjusted to 50% RPS by 2030.

Land Use - see operational assumptions

Vehicle Trips - see operational assumptions. VMT and trips provided by traffic study.

Woodstoves - see operational assumptions

Energy Use - see operational assumptions. Lighting energy intensity of Parking Lot land use used as surrogate for public open space lighting energy

Solid Waste - see operational assumptions.

Energy Mitigation - The Project LEED checklist states it will be 20% more efficient than 2010 Ashrae 90.1 Standard. Therefore, compared to 2016 Title 24 Building Energy Efficiency that is based off of 2013 Ashrae 90.1 Standards, the Project will be 11.6% more efficient.

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	44,455.00	45,115.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	133,364.00	135,344.00
tblArchitecturalCoating	ConstArea_Parking	26,974.00	26,786.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	437,738.00	437,603.00
tblArchitecturalCoating	ConstArea_Residential_Interior	1,313,213.00	1,312,808.00
tblAreaCoating	Area_Nonresidential_Exterior	44455	45115
tblAreaCoating	Area_Nonresidential_Interior	133364	135344
tblAreaCoating	Area_Parking	26974	26786
tblAreaCoating	Area_Residential_Exterior	437738	437603
tblAreaCoating	Area_Residential_Interior	1313213	1312808
tblEnergyUse	LightingElect	0.00	0.35
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	57.80	0.00
tblFireplaces	NumberGas	381.65	0.00
tblFireplaces	NumberNoFireplace	6.80	0.00
tblFireplaces	NumberNoFireplace	44.90	0.00
tblFireplaces	NumberWood	3.40	0.00

tblFireplaces	NumberWood	22.45	0.00
tblLandUse	LandUseSquareFeet	334,800.00	414,005.00
tblLandUse	LandUseSquareFeet	0.00	1,636.00
tblLandUse	LandUseSquareFeet	34,412.40	34,205.00
tblLandUse	LandUseSquareFeet	1,980.00	1,983.00
tblLandUse	LandUseSquareFeet	11,240.00	11,237.00
tblLandUse	LandUseSquareFeet	68,000.00	67,500.00
tblLandUse	LandUseSquareFeet	449,000.00	581,000.00
tblLandUse	LotAcreage	0.96	0.10
tblLandUse	LotAcreage	7.53	0.51
tblLandUse	LotAcreage	0.27	0.10
tblLandUse	LotAcreage	0.00	0.14
tblLandUse	LotAcreage	0.79	0.10
tblLandUse	LotAcreage	0.05	0.10
tblLandUse	LotAcreage	0.26	0.10
tblLandUse	LotAcreage	1.79	0.20
tblLandUse	LotAcreage	7.02	0.50
tblProjectCharacteristics	CO2IntensityFactor	1227.89	444
tblSolidWaste	SolidWasteGenerationRate	31.28	62.05
tblSolidWaste	SolidWasteGenerationRate	0.07	0.00
tblSolidWaste	SolidWasteGenerationRate	206.54	1,002.16
tblSolidWaste	SolidWasteGenerationRate	22.81	1.81
tblSolidWaste	SolidWasteGenerationRate	38.58	0.00
tblSolidWaste	SolidWasteGenerationRate	133.76	10.25
tblTripsAndVMT	VendorTripNumber	144.00	143.00
tblTripsAndVMT	WorkerTripNumber	594.00	593.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TL	5.90	0.00

tblVehicleTrips	HW_TL	14.70	0.00
tblVehicleTrips	HW_TL	14.70	0.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	4.31	0.00
tblVehicleTrips	ST_TR	696.00	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	158.37	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	3.43	0.00
tblVehicleTrips	SU_TR	500.00	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	131.84	0.00
tblVehicleTrips	WD_TR	6.65	0.00
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	4.18	0.00
tblVehicleTrips	WD_TR	716.00	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	127.15	0.00
tblWater	IndoorWaterUseRate	7,372,395.87	7,496,809.49
tblWater	OutdoorWaterUseRate	941,270.27	953,185.08
tblWater	OutdoorWaterUseRate	4,518,565.21	4,594,818.72
tblWoodstoves	NumberCatalytic	3.40	0.00
tblWoodstoves	NumberCatalytic	22.45	0.00
tblWoodstoves	NumberNoncatalytic	3.40	0.00
tblWoodstoves	NumberNoncatalytic	22.45	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.1037	0.0614	5.3291	2.8000e-004		0.0296	0.0296		0.0296	0.0296	0.0000	8.7316	8.7316	8.3600e-003	0.0000	8.9405
Energy	0.0445	0.3903	0.2369	2.4300e-003		0.0307	0.0307		0.0307	0.0307	0.0000	1,593.3593	1,593.3593	0.0838	0.0237	1,602.5019
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	218.4731	0.0000	218.4731	12.9114	0.0000	541.2578
Water						0.0000	0.0000		0.0000	0.0000	14.3380	179.0177	193.3558	1.4843	0.0372	241.5475
Total	3.1481	0.4518	5.5659	2.7100e-003	0.0000	0.0603	0.0603	0.0000	0.0603	0.0603	232.8111	1,781.1086	2,013.9197	14.4879	0.0608	2,394.2478

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.1037	0.0614	5.3291	2.8000e-004		0.0296	0.0296		0.0296	0.0296	0.0000	8.7316	8.7316	8.3600e-003	0.0000	8.9405
Energy	0.0424	0.3726	0.2270	2.3200e-003		0.0293	0.0293		0.0293	0.0293	0.0000	1,526.3488	1,526.3488	0.0803	0.0227	1,535.1065
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	52.4335	0.0000	52.4335	3.0987	0.0000	129.9019
Water						0.0000	0.0000		0.0000	0.0000	8.6028	101.3604	109.9632	0.8902	0.0222	138.8440
Total	3.1461	0.4340	5.5561	2.6000e-003	0.0000	0.0589	0.0589	0.0000	0.0589	0.0589	61.0364	1,636.4409	1,697.4772	4.0776	0.0449	1,812.7930

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.06	3.92	0.18	4.06	0.00	2.32	2.32	0.00	2.32	2.32	73.78	8.12	15.71	71.85	26.23	24.29

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
Condo/Townhouse High Rise	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
User Defined Parking	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	0.00	0.00	0.00	40.20	19.20	40.60	86	11	3
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Condo/Townhouse High Rise	0.00	0.00	0.00	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Fast Food Restaurant w/o Drive Thru	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down Restaurant)	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
User Defined Parking	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
City Park	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
Condo/Townhouse High Rise	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
Enclosed Parking with Elevator	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
Fast Food Restaurant w/o Drive Thru	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
General Office Building	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
High Turnover (Sit Down Restaurant)	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
Other Non-Asphalt Surfaces	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
User Defined Parking	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,106.2922	1,106.2922	0.0723	0.0150	1,112.5537
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,153.1686	1,153.1686	0.0753	0.0156	1,159.6955
NaturalGas Mitigated	0.0424	0.3726	0.2270	2.3200e-003		0.0293	0.0293		0.0293	0.0293	0.0000	420.0567	420.0567	8.0500e-003	7.7000e-003	422.5528
NaturalGas Unmitigated	0.0445	0.3903	0.2369	2.4300e-003		0.0307	0.0307		0.0307	0.0307	0.0000	440.1907	440.1907	8.4400e-003	8.0700e-003	442.8065

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	626752	3.3800e-003	0.0289	0.0123	1.8000e-004		2.3300e-003	2.3300e-003		2.3300e-003	2.3300e-003	0.0000	33.4459	33.4459	6.4000e-004	6.1000e-004	33.6446
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	4.13841e+006	0.0223	0.1907	0.0812	1.2200e-003		0.0154	0.0154		0.0154	0.0154	0.0000	220.8411	220.8411	4.2300e-003	4.0500e-003	222.1535
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	457597	2.4700e-003	0.0224	0.0188	1.3000e-004		1.7000e-003	1.7000e-003		1.7000e-003	1.7000e-003	0.0000	24.4191	24.4191	4.7000e-004	4.5000e-004	24.5642
General Office Building	433056	2.3400e-003	0.0212	0.0178	1.3000e-004		1.6100e-003	1.6100e-003		1.6100e-003	1.6100e-003	0.0000	23.1095	23.1095	4.4000e-004	4.2000e-004	23.2469
High Turnover (Sit Down Restaurant)	2.59305e+006	0.0140	0.1271	0.1068	7.6000e-004		9.6600e-003	9.6600e-003		9.6600e-003	9.6600e-003	0.0000	138.3750	138.3750	2.6500e-003	2.5400e-003	139.1973
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0445	0.3903	0.2369	2.4200e-003		0.0307	0.0307		0.0307	0.0307	0.0000	440.1907	440.1907	8.4300e-003	8.0700e-003	442.8065

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	592156	3.1900e-003	0.0273	0.0116	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	31.5997	31.5997	6.1000e-004	5.8000e-004	31.7875
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	3.90997e+006	0.0211	0.1802	0.0767	1.1500e-003		0.0146	0.0146		0.0146	0.0146	0.0000	208.6508	208.6508	4.0000e-003	3.8300e-003	209.8907
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	447710	2.4100e-003	0.0220	0.0184	1.3000e-004		1.6700e-003	1.6700e-003		1.6700e-003	1.6700e-003	0.0000	23.8915	23.8915	4.6000e-004	4.4000e-004	24.0335

General Office Building	384703	2.0700e-003	0.0189	0.0158	1.1000e-004	1.4300e-003	1.4300e-003	1.4300e-003	1.4300e-003	0.0000	20.5292	20.5292	3.9000e-004	3.8000e-004	20.6512
High Turnover (Sit Down Restaurant)	2.53703e+006	0.0137	0.1244	0.1045	7.5000e-004	9.4500e-003	9.4500e-003	9.4500e-003	9.4500e-003	0.0000	135.3854	135.3854	2.5900e-003	2.4800e-003	136.1899
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0424	0.3726	0.2270	2.3100e-003	0.0293	0.0293	0.0293	0.0293	0.0000	420.0567	420.0567	8.0500e-003	7.7100e-003	422.5528

5.3 Energy by Land Use - Electricity

Unmitigated

Land Use	Electricity Use kWh/yr	Total CO2	CH4	N2O	CO2e
		MT/yr			
Apartments Mid Rise	269285	54.2327	3.5400e-003	7.3000e-004	54.5397
City Park	11971.8	2.4111	1.6000e-004	3.0000e-005	2.4247
Condo/Townhouse High Rise	1.89466e+006	381.5757	0.0249	5.1600e-003	383.7354
Enclosed Parking with Elevator	2.42607e+006	488.5983	0.0319	6.6000e-003	491.3637
Fast Food Restaurant w/o Drive Thru	87529.6	17.6280	1.1500e-003	2.4000e-004	17.7278
General Office Building	540384	108.8306	7.1100e-003	1.4700e-003	109.4466
High Turnover (Sit Down Restaurant)	496001	99.8922	6.5200e-003	1.3500e-003	100.4575
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		1,153.1686	0.0753	0.0156	1,159.6954

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	267988	53.9714	3.5300e-003	7.3000e-004	54.2768
City Park	11971.8	2.4111	1.6000e-004	3.0000e-005	2.4247
Condo/Townhouse High Rise	1.88609e+006	379.8498	0.0248	5.1300e-003	381.9997
Enclosed Parking with Elevator	2.23781e+006	450.6844	0.0294	6.0900e-003	453.2352
Fast Food Restaurant w/o Drive Thru	85664.1	17.2523	1.1300e-003	2.3000e-004	17.3500
General Office Building	518186	104.3601	6.8200e-003	1.4100e-003	104.9508
High Turnover (Sit Down Restaurant)	485430	97.7632	6.3900e-003	1.3200e-003	98.3165
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		1,106.2922	0.0723	0.0149	1,112.5537

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.1037	0.0614	5.3291	2.8000e-004		0.0296	0.0296		0.0296	0.0296	0.0000	8.7316	8.7316	8.3600e-003	0.0000	8.9405
Unmitigated	3.1037	0.0614	5.3291	2.8000e-004		0.0296	0.0296		0.0296	0.0296	0.0000	8.7316	8.7316	8.3600e-003	0.0000	8.9405

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2509					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6927					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1601	0.0614	5.3291	2.8000e-004		0.0296	0.0296		0.0296	0.0296	0.0000	8.7316	8.7316	8.3600e-003	0.0000	8.9405
Total	3.1036	0.0614	5.3291	2.8000e-004		0.0296	0.0296		0.0296	0.0296	0.0000	8.7316	8.7316	8.3600e-003	0.0000	8.9405

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2509					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6927					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1601	0.0614	5.3291	2.8000e-004		0.0296	0.0296		0.0296	0.0296	0.0000	8.7316	8.7316	8.3600e-003	0.0000	8.9405
Total	3.1036	0.0614	5.3291	2.8000e-004		0.0296	0.0296		0.0296	0.0296	0.0000	8.7316	8.7316	8.3600e-003	0.0000	8.9405

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	109.9632	0.8902	0.0222	138.8440
Unmitigated	193.3558	1.4843	0.0372	241.5475

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	4.43047 / 2.79312	19.2735	0.1455	3.6500e-003	23.9997
City Park	0 / 0.953185	2.1328	1.4000e-004	3.0000e-005	2.1448
Condo/Townhouse High Rise	29.2542 / 18.4428	127.2619	0.9610	0.0241	158.4683
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0.600997 / 0.0383615	1.8525	0.0197	4.8000e-004	2.4893
General Office Building	7.49681 / 4.59482	32.3187	0.2462	6.1700e-003	40.3141
High Turnover (Sit Down Restaurant)	3.41172 / 0.217769	10.5164	0.1118	2.7500e-003	14.1313
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		193.3557	1.4843	0.0372	241.5475

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	2.65828 / 1.39656	10.9392	0.0873	2.1800e-003	13.7713
City Park	0 / 0.476593	1.0664	7.0000e-005	1.0000e-005	1.0724
Condo/Townhouse High Rise	17.5525 / 9.22142	72.2306	0.5763	0.0144	90.9310
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0.360598 / 0.0191807	1.1029	0.0118	2.9000e-004	1.4850
General Office Building	4.49809 / 2.29741	18.3631	0.1477	3.6900e-003	23.1546
High Turnover (Sit Down Restaurant)	2.04703 / 0.108885	6.2611	0.0671	1.6500e-003	8.4298
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		109.9633	0.8902	0.0222	138.8440

8.0 Waste Detail**8.1 Mitigation Measures Waste**

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	52.4335	3.0987	0.0000	129.9019
Unmitigated	218.4731	12.9114	0.0000	541.2578

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	62.05	12.5956	0.7444	0.0000	31.2050
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	1002.16	203.4294	12.0223	0.0000	503.9878
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	1.81	0.3674	0.0217	0.0000	0.9103
General Office Building	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	10.25	2.0807	0.1230	0.0000	5.1547
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		218.4731	12.9114	0.0000	541.2578

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	14.892	3.0229	0.1787	0.0000	7.4892
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	240.518	48.8231	2.8854	0.0000	120.9571
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0.4344	0.0882	5.2100e-003	0.0000	0.2185

General Office Building	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	2.46	0.4994	0.0295	0.0000	1.2371
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		52.4335	3.0987	0.0000	129.9019

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Hollywood Center - West - Operations (Vegetation-Trees) - Los Angeles-South Coast County, Annual

Hollywood Center - West - Operations (Vegetation-Trees)
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	41.60	1000sqft	0.10	41,600.00	0
Enclosed Parking with Elevator	837.00	Space	0.51	414,005.00	0
Other Non-Asphalt Surfaces	11.90	1000sqft	0.10	11,900.00	0
User Defined Parking	1.64	User Defined Unit	0.14	1,636.00	0
City Park	0.79	Acre	0.10	34,205.00	0
Fast Food Restaurant w/o Drive Thru	1.98	1000sqft	0.10	1,983.00	0
High Turnover (Sit Down Restaurant)	11.24	1000sqft	0.10	11,237.00	0
Apartments Mid Rise	68.00	Dwelling Unit	0.20	67,500.00	194
Condo/Townhouse High Rise	449.00	Dwelling Unit	0.50	581,000.00	1284

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2024
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	533	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006
tblSequestration	NumberOfNewTrees		0.00		130.00

11.0 Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	92.0400	0.0000	0.0000	92.0400

11.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Miscellaneous	130	92.0400	0.0000	0.0000	92.0400
Total		92.0400	0.0000	0.0000	92.0400

**Hollywood Center Project
Greenhouse Gas Assessment**

ALL RESIDENTIAL SCENARIO

Scenario	Year	VMT/year	With EMFAC2014 (v1.0.7) Emission Factors					With EMFAC2017 (v1.0.2) Emission Factors				
			GHG Emissions (metric tons/year)					GHG Emissions (metric tons/year)				
			CO2 1	CH4 25	N2O 298	CO2e	CO2e g/mi	CO2 1	CH4 25	N2O 298	CO2e	CO2e g/mi
3 Months (WT)	2023	1,582,001	620.55	0.03	-	621	392.7	571.54	0.03	0.03	582	367.6
West Tower	2024	6,328,005	2,419.28	0.10	-	2,422	382.7	2,230.05	0.13	0.12	2,269	358.6
	2025	6,328,005	2,345.46	0.09	-	2,348	371.0	2,164.52	0.13	0.12	2,203	348.1
	1 Month (ET)	2026	7,032,303	2,537.66	0.10	-	2,540	361.2	2,342.26	0.14	0.13	2,384
East Tower	2027	14,779,580	5,204.76	0.20	-	5,210	352.5	4,801.20	0.29	0.26	4,886	330.6
	2028	14,779,580	5,092.74	0.19	-	5,098	344.9	4,690.43	0.28	0.26	4,774	323.0
	2029	14,779,580	4,994.23	0.19	-	4,999	338.2	4,591.09	0.28	0.25	4,673	316.2
	2030	14,779,580	4,908.67	0.18	-	4,913	332.4	4,502.26	0.27	0.25	4,583	310.1
	2031	14,779,580	4,838.51	0.17	-	4,843	327.7	4,422.66	0.27	0.24	4,502	304.6
	2032	14,779,580	4,773.26	0.17	-	4,778	323.3	4,351.99	0.26	0.24	4,431	299.8
	2033	14,779,580	4,717.02	0.17	-	4,721	319.4	4,289.83	0.26	0.24	4,368	295.5
	2034	14,779,580	4,669.43	0.16	-	4,673	316.2	4,234.86	0.26	0.24	4,312	291.7
	2035	14,779,580	4,630.26	0.16	-	4,634	313.6	4,187.11	0.25	0.24	4,264	288.5
	2036	14,779,580	4,601.88	0.16	-	4,606	311.6	4,147.33	0.25	0.23	4,223	285.8
	2037	14,779,580	4,577.89	0.15	-	4,582	310.0	4,113.25	0.25	0.23	4,189	283.4
	2038	14,779,580	4,559.86	0.15	-	4,564	308.8	4,084.58	0.25	0.23	4,160	281.5
	2039	14,779,580	4,546.57	0.15	-	4,550	307.9	4,060.81	0.25	0.23	4,136	279.8
	2040	14,779,580	4,537.28	0.15	-	4,541	307.2	4,041.32	0.25	0.23	4,116	278.5
	2041	14,779,580	4,530.06	0.15	-	4,534	306.8	4,025.19	0.25	0.23	4,100	277.4
	2042	14,779,580	4,526.75	0.15	-	4,530	306.5	4,012.89	0.25	0.23	4,088	276.6
	2043	14,779,580	4,525.89	0.15	-	4,530	306.5	4,003.50	0.24	0.23	4,079	276.0
	2044	14,779,580	4,526.51	0.15	-	4,530	306.5	3,996.25	0.24	0.23	4,072	275.5
	2045	14,779,580	4,528.31	0.14	-	4,532	306.6	3,990.70	0.24	0.23	4,066	275.1
	2046	14,779,580	4,532.01	0.14	-	4,536	306.9	3,987.37	0.24	0.23	4,063	274.9
2047	14,779,580	4,536.90	0.14	-	4,540	307.2	3,985.31	0.24	0.24	4,062	274.8	
2048	14,779,580	4,542.66	0.14	-	4,546	307.6	3,984.23	0.24	0.24	4,061	274.8	
2049	14,779,580	4,549.15	0.14	-	4,553	308.0	3,984.18	0.24	0.24	4,061	274.8	
2050	14,779,580	4,558.08	0.14	-	4,562	308.6	3,987.84	0.24	0.24	4,065	275.1	
2051	14,779,580	4,558.08	0.14	-	4,562	308.6	3,987.84	0.24	0.24	4,065	275.1	
2052	14,779,580	4,558.08	0.14	-	4,562	308.6	3,987.84	0.24	0.24	4,065	275.1	
2053	14,779,580	4,558.08	0.14	-	4,562	308.6	3,987.84	0.24	0.24	4,065	275.1	
2054	14,779,580	4,558.08	0.14	-	4,562	308.6	3,987.84	0.24	0.24	4,065	275.1	
2055	14,779,580	4,558.08	0.14	-	4,562	308.6	3,987.84	0.24	0.24	4,065	275.1	
2056	14,779,580	4,558.08	0.14	-	4,562	308.6	3,987.84	0.24	0.24	4,065	275.1	

**Hollywood Center Project
Greenhouse Gas Assessment**

RESIDENTIAL/HOTEL SCENARIO

Scenario	Year	VMT/year	With EMFAC2014 (v1.0.7) Emission Factors					With EMFAC2017 (v1.0.2) Emission Factors				
			GHG Emissions (metric tons/year)					GHG Emissions (metric tons/year)				
			CO2 1	CH4 25	N2O 298	CO2e	CO2e g/mi	CO2 1	CH4 25	N2O 298	CO2e	CO2e g/mi
3 Months (WT)	2023	1,561,470	612.49	0.03	-	613	392.7	564.12	0.03	0.03	574	367.6
West Tower	2024	6,245,880	2,387.88	0.10	-	2,390	382.7	2,201.11	0.13	0.12	2,240	358.6
	2025	6,245,880	2,315.02	0.09	-	2,317	371.0	2,136.43	0.13	0.12	2,174	348.1
	1 Month (ET)	2026	7,169,056	2,587.01	0.10	-	2,590	361.2	2,387.80	0.14	0.13	2,430
East Tower	2027	17,323,995	6,100.80	0.20	-	6,107	352.5	5,627.76	0.34	0.31	5,728	330.6
	2028	17,323,995	5,969.50	0.19	-	5,975	344.9	5,497.92	0.33	0.30	5,596	323.0
	2029	17,323,995	5,854.03	0.19	-	5,859	338.2	5,381.48	0.32	0.30	5,478	316.2
	2030	17,323,995	5,753.73	0.18	-	5,759	332.4	5,277.36	0.32	0.29	5,372	310.1
	2031	17,323,995	5,671.49	0.17	-	5,677	327.7	5,184.05	0.31	0.29	5,277	304.6
	2032	17,323,995	5,595.02	0.17	-	5,600	323.3	5,101.22	0.31	0.28	5,193	299.8
	2033	17,323,995	5,529.09	0.17	-	5,534	319.4	5,028.35	0.30	0.28	5,119	295.5
	2034	17,323,995	5,473.30	0.16	-	5,478	316.2	4,963.93	0.30	0.28	5,054	291.7
	2035	17,323,995	5,427.39	0.16	-	5,432	313.6	4,907.96	0.30	0.28	4,998	288.5
	2036	17,323,995	5,394.12	0.16	-	5,399	311.6	4,861.33	0.30	0.27	4,950	285.8
	2037	17,323,995	5,366.00	0.15	-	5,371	310.0	4,821.38	0.29	0.27	4,910	283.4
	2038	17,323,995	5,344.87	0.15	-	5,349	308.8	4,787.78	0.29	0.27	4,876	281.5
	2039	17,323,995	5,329.29	0.15	-	5,334	307.9	4,759.91	0.29	0.27	4,848	279.8
	2040	17,323,995	5,318.41	0.15	-	5,323	307.2	4,737.06	0.29	0.27	4,825	278.5
	2041	17,323,995	5,309.95	0.15	-	5,314	306.8	4,718.16	0.29	0.27	4,806	277.4
	2042	17,323,995	5,306.06	0.15	-	5,310	306.5	4,703.73	0.29	0.27	4,792	276.6
	2043	17,323,995	5,305.05	0.15	-	5,309	306.5	4,692.74	0.29	0.27	4,781	276.0
	2044	17,323,995	5,305.79	0.15	-	5,310	306.5	4,684.24	0.29	0.27	4,773	275.5
	2045	17,323,995	5,307.89	0.14	-	5,312	306.6	4,677.73	0.29	0.27	4,767	275.1
	2046	17,323,995	5,312.23	0.14	-	5,316	306.9	4,673.83	0.29	0.28	4,763	274.9
	2047	17,323,995	5,317.97	0.14	-	5,322	307.2	4,671.41	0.29	0.28	4,761	274.8
	2048	17,323,995	5,324.72	0.14	-	5,329	307.6	4,670.14	0.29	0.28	4,760	274.8
	2049	17,323,995	5,332.32	0.14	-	5,336	308.0	4,670.08	0.29	0.28	4,760	274.8
	2050	17,323,995	5,342.78	0.14	-	5,347	308.6	4,674.37	0.29	0.28	4,765	275.1
	2051	17,323,995	5,342.78	0.14	-	5,347	308.6	4,674.37	0.29	0.28	4,765	275.1
	2052	17,323,995	5,342.78	0.14	-	5,347	308.6	4,674.37	0.29	0.28	4,765	275.1
	2053	17,323,995	5,342.78	0.14	-	5,347	308.6	4,674.37	0.29	0.28	4,765	275.1
2054	17,323,995	5,342.78	0.14	-	5,347	308.6	4,674.37	0.29	0.28	4,765	275.1	
2055	17,323,995	5,342.78	0.14	-	5,347	308.6	4,674.37	0.29	0.28	4,765	275.1	
2056	17,323,995	5,342.78	0.14	-	5,347	308.6	4,674.37	0.29	0.28	4,765	275.1	

**Hollywood Center Project
Greenhouse Gas Assessment**

ALL RESIDENTIAL SCENARIO

Scenario	Year	VMT/year	With EMFAC2014 (v1.0.7) Emission Factors					With EMFAC2017 (v1.0.2) Emission Factors				
			GHG Emissions (metric tons/year)					GHG Emissions (metric tons/year)				
			CO2 1	CH4 25	N2O 298	CO2e	CO2e g/mi	CO2 1	CH4 25	N2O 298	CO2e	CO2e g/mi
3 Months (WT)	2023	1,125,826	441.61	0.02	-	442	392.7	406.73	0.02	0.02	414	367.6
West Tower	2024	4,503,304	1,721.67	0.07	-	1,723	382.7	1,587.01	0.10	0.09	1,615	358.6
	2025	4,503,304	1,669.14	0.07	-	1,671	371.0	1,540.37	0.09	0.08	1,567	348.1
	1 Month (ET)	2026	5,004,515	1,805.92	0.07	-	1,808	361.2	1,666.86	0.10	0.09	1,696
East Tower	2027	10,517,840	3,703.95	0.14	-	3,708	352.5	3,416.76	0.20	0.19	3,477	330.6
	2028	10,517,840	3,624.23	0.14	-	3,628	344.9	3,337.93	0.20	0.18	3,397	323.0
	2029	10,517,840	3,554.13	0.13	-	3,557	338.2	3,267.23	0.20	0.18	3,326	316.2
	2030	10,517,840	3,493.24	0.13	-	3,496	332.4	3,204.02	0.19	0.18	3,262	310.1
	2031	10,517,840	3,443.31	0.12	-	3,446	327.7	3,147.37	0.19	0.17	3,204	304.6
	2032	10,517,840	3,396.88	0.12	-	3,400	323.3	3,097.08	0.19	0.17	3,153	299.8
	2033	10,517,840	3,356.85	0.12	-	3,360	319.4	3,052.84	0.19	0.17	3,108	295.5
	2034	10,517,840	3,322.98	0.12	-	3,326	316.2	3,013.73	0.18	0.17	3,069	291.7
	2035	10,517,840	3,295.11	0.11	-	3,298	313.6	2,979.75	0.18	0.17	3,034	288.5
	2036	10,517,840	3,274.91	0.11	-	3,278	311.6	2,951.44	0.18	0.17	3,006	285.8
	2037	10,517,840	3,257.84	0.11	-	3,261	310.0	2,927.18	0.18	0.17	2,981	283.4
	2038	10,517,840	3,245.01	0.11	-	3,248	308.8	2,906.78	0.18	0.17	2,960	281.5
	2039	10,517,840	3,235.55	0.11	-	3,238	307.9	2,889.86	0.18	0.16	2,943	279.8
	2040	10,517,840	3,228.94	0.11	-	3,232	307.2	2,875.99	0.18	0.16	2,929	278.5
	2041	10,517,840	3,223.80	0.11	-	3,226	306.8	2,864.51	0.17	0.16	2,918	277.4
	2042	10,517,840	3,221.44	0.10	-	3,224	306.5	2,855.76	0.17	0.16	2,909	276.6
	2043	10,517,840	3,220.83	0.10	-	3,223	306.5	2,849.08	0.17	0.17	2,903	276.0
	2044	10,517,840	3,221.28	0.10	-	3,224	306.5	2,843.92	0.17	0.17	2,898	275.5
	2045	10,517,840	3,222.56	0.10	-	3,225	306.6	2,839.97	0.17	0.17	2,894	275.1
	2046	10,517,840	3,225.19	0.10	-	3,228	306.9	2,837.60	0.17	0.17	2,892	274.9
	2047	10,517,840	3,228.67	0.10	-	3,231	307.2	2,836.13	0.17	0.17	2,890	274.8
	2048	10,517,840	3,232.77	0.10	-	3,235	307.6	2,835.36	0.17	0.17	2,890	274.8
	2049	10,517,840	3,237.38	0.10	-	3,240	308.0	2,835.33	0.17	0.17	2,890	274.8
	2050	10,517,840	3,243.74	0.10	-	3,246	308.6	2,837.93	0.17	0.17	2,893	275.1
	2051	10,517,840	3,243.74	0.10	-	3,246	308.6	2,837.93	0.17	0.17	2,893	275.1
	2052	10,517,840	3,243.74	0.10	-	3,246	308.6	2,837.93	0.17	0.17	2,893	275.1
	2053	10,517,840	3,243.74	0.10	-	3,246	308.6	2,837.93	0.17	0.17	2,893	275.1
2054	10,517,840	3,243.74	0.10	-	3,246	308.6	2,837.93	0.17	0.17	2,893	275.1	
2055	10,517,840	3,243.74	0.10	-	3,246	308.6	2,837.93	0.17	0.17	2,893	275.1	
2056	10,517,840	3,243.74	0.10	-	3,246	308.6	2,837.93	0.17	0.17	2,893	275.1	

Sources: EMFAC2014; EMFAC2017; ESA 2018

**Hollywood Center Project
Greenhouse Gas Assessment**

ALL RESIDENTIAL SCENARIO

	Project Mobile Emissions using ITE Trip Generation Manual , 9 th Edition (EMFAC 2014)	Project Mobile Emissions using ITE Trip Generation Manual , 10 th Edition (EMFAC 2014) ^a	Net Change from ITE Trip Generation Manual , 9 th Edition	Project Mobile Emissions using ITE Trip Generation Manual , 9 th Edition (EMFAC 2017)	Project Mobile Emissions using ITE Trip Generation Manual , 10 th Edition (EMFAC 2017) ^a	Net Change from ITE Trip Generation Manual , 9 th Edition
Const Yr 1 / 2021						
Const Yr 2 / 2022						
Const Yr 3 / 2023	621	442	179	582	414	168
Const Yr 4 / 2024	2,422	1,723	698	2,269	1,615	654
Const Yr 5 / 2025	2,348	1,671	677	2,203	1,567	635
Const Yr 6 / 2026	2,540	1,808	732	2,384	1,696	687
2027	5,210	3,708	1,502	4,886	3,477	1,409
2028	5,098	3,628	1,470	4,774	3,397	1,377
2029	4,999	3,557	1,441	4,673	3,326	1,348
2030	4,913	3,496	1,417	4,583	3,262	1,322
2031	4,843	3,446	1,396	4,502	3,204	1,298
2032	4,778	3,400	1,378	4,431	3,153	1,278
2033	4,721	3,360	1,361	4,368	3,108	1,259
2034	4,673	3,326	1,348	4,312	3,069	1,243
2035	4,634	3,298	1,336	4,264	3,034	1,229
2036	4,606	3,278	1,328	4,223	3,006	1,218
2037	4,582	3,261	1,321	4,189	2,981	1,208
2038	4,564	3,248	1,316	4,160	2,960	1,200
2039	4,550	3,238	1,312	4,136	2,943	1,193
2040	4,541	3,232	1,309	4,116	2,929	1,187
2041	4,534	3,226	1,307	4,100	2,918	1,182
2042	4,530	3,224	1,306	4,088	2,909	1,179
2043	4,530	3,223	1,306	4,079	2,903	1,176
2044	4,530	3,224	1,306	4,072	2,898	1,174
2045	4,532	3,225	1,307	4,066	2,894	1,173
2046	4,536	3,228	1,308	4,063	2,892	1,172
2047	4,540	3,231	1,309	4,062	2,890	1,171
2048	4,546	3,235	1,311	4,061	2,890	1,171
2049	4,553	3,240	1,313	4,061	2,890	1,171
2050	4,562	3,246	1,315	4,065	2,893	1,172
2051	4,562	3,246	1,315	4,065	2,893	1,172
2052	4,562	3,246	1,315	4,065	2,893	1,172
2053	4,562	3,246	1,315	4,065	2,893	1,172
2054	4,562	3,246	1,315	4,065	2,893	1,172
2055	4,562	3,246	1,315	4,065	2,893	1,172
2056	4,562	3,246	1,315	4,065	2,893	1,172

Hollywood Center Project
Environmental Leadership Development Project
Greenhouse Gas Assessment - Residential Scenario with EMFAC2014

Year	Project Estimated Annual GHG Emissions									GHG Offsets	Net Change from Baseline	Exceeds Baseline?
	Project Construction and Operation (MTCO2e/year)											
	Construction	Electricity	Natural Gas	Mobile	Solid Waste	Water	Area	CO2 Seq.	Subtotal			
Construction Yr 1	1,945	-	-	-	-	-	-	-	1,945	1,945	-	NO
Construction Yr 2	1,614	-	-	-	-	-	-	-	1,614	1,614	-	NO
Construction Yr 3 ^a	1,300	334	106	621	19	40	12	-	2,431	2,431	-	NO
Construction Yr 4	1,955	1,334	422	2,422	130	159	48	(5)	6,464	6,464	-	NO
Construction Yr 5	1,555	1,334	422	2,348	130	159	48	(5)	5,991	5,991	-	NO
Construction Yr 6 ^b	1,395	1,428	461	2,540	142	171	52	(5)	6,184	6,184	-	NO
2027	-	2,350	887	5,210	272	290	96	(9)	9,096	9,096	-	NO
2028	-	2,350	887	5,098	272	290	96	(9)	8,984	8,984	-	NO
2029	-	2,350	887	4,999	272	290	96	(9)	8,885	8,885	-	NO
2030	-	2,139	887	4,913	272	271	96	(9)	8,569	8,569	-	NO
2031	-	2,139	887	4,843	272	271	96	(9)	8,499	8,499	-	NO
2032	-	2,139	887	4,778	272	271	96	(9)	8,434	8,434	-	NO
2033	-	2,139	887	4,721	272	271	96	(9)	8,377	8,377	-	NO
2034	-	2,139	887	4,673	272	271	96	(9)	8,329	8,329	-	NO
2035	-	2,139	887	4,634	272	271	96	(9)	8,290	8,290	-	NO
2036	-	2,139	887	4,606	272	271	96	(9)	8,262	8,262	-	NO
2037	-	2,139	887	4,582	272	271	96	(9)	8,238	8,238	-	NO
2038	-	2,139	887	4,564	272	271	96	(9)	8,220	8,220	-	NO
2039	-	2,139	887	4,550	272	271	96	(9)	8,206	8,206	-	NO
2040	-	2,139	887	4,541	272	271	96	(9)	8,197	8,197	-	NO
2041	-	2,139	887	4,534	272	271	96	(9)	8,190	8,190	-	NO
2042	-	2,139	887	4,530	272	271	96	(9)	8,186	8,186	-	NO
2043	-	2,139	887	4,530	272	271	96	(9)	8,186	8,186	-	NO
2044	-	2,139	887	4,530	272	271	96	(4)	8,191	8,191	-	NO
2045	-	2,139	887	4,532	272	271	96	(4)	8,193	8,193	-	NO
2046	-	2,139	887	4,536	272	271	96	(4)	8,197	8,197	-	NO
2047	-	2,139	887	4,540	272	271	96	-	8,205	8,205	-	NO
2048	-	2,139	887	4,546	272	271	96	-	8,211	8,211	-	NO
2049	-	2,139	887	4,553	272	271	96	-	8,218	8,218	-	NO
2050	-	2,139	887	4,562	272	271	96	-	8,227	8,227	-	NO
2051	-	2,139	887	4,562	272	271	96	-	8,227	8,227	-	NO
2052	-	2,139	887	4,562	272	271	96	-	8,227	8,227	-	NO
2053	-	2,139	887	4,562	272	271	96	-	8,227	8,227	-	NO
2054	-	2,139	887	4,562	272	271	96	-	8,227	8,227	-	NO
2055	-	2,139	887	4,562	272	271	96	-	8,227	8,227	-	NO
2056	-	2,139	887	4,562	272	271	96	-	8,227	8,227	-	NO

Notes:

- a. Based on the construction schedule, this year includes 3 months of operations of the West Site (first full year of West Site operation is expected to be 2024).
- b. Based on the construction schedule, this year includes 1 month of operations of the East Site (first full years of East Site operation is expected to be 2027).

**Hollywood Center Project
 Environmental Leadership Development Project
 Greenhouse Gas Assessment - Residential Scenario with EMFAC2017**

Year	Project Estimated Annual GHG Emissions									GHG Offsets	Net Change from Baseline	Exceeds Baseline?
	Project Construction and Operation (MTCO2e/year)											
	Construction	Electricity	Natural Gas	Mobile	Solid Waste	Water	Area	CO2 Seq.	Subtotal			
Construction Yr 1	1,945	-	-	-	-	-	-	-	1,945	1,945	-	NO
Construction Yr 2	1,614	-	-	-	-	-	-	-	1,614	1,614	-	NO
Construction Yr 3 ^a	1,300	334	106	582	19	40	12	-	2,391	2,391	-	NO
Construction Yr 4	1,955	1,334	422	2,269	130	159	48	(5)	6,312	6,312	-	NO
Construction Yr 5	1,555	1,334	422	2,203	130	159	48	(5)	5,846	5,846	-	NO
Construction Yr 6 ^b	1,395	1,428	461	2,384	142	171	52	(5)	6,027	6,027	-	NO
2027	-	2,350	887	4,886	272	290	96	(9)	8,772	8,772	-	NO
2028	-	2,350	887	4,774	272	290	96	(9)	8,660	8,660	-	NO
2029	-	2,350	887	4,673	272	290	96	(9)	8,559	8,559	-	NO
2030	-	2,139	887	4,583	272	271	96	(9)	8,239	8,239	-	NO
2031	-	2,139	887	4,502	272	271	96	(9)	8,158	8,158	-	NO
2032	-	2,139	887	4,431	272	271	96	(9)	8,087	8,087	-	NO
2033	-	2,139	887	4,368	272	271	96	(9)	8,024	8,024	-	NO
2034	-	2,139	887	4,312	272	271	96	(9)	7,968	7,968	-	NO
2035	-	2,139	887	4,264	272	271	96	(9)	7,920	7,920	-	NO
2036	-	2,139	887	4,223	272	271	96	(9)	7,879	7,879	-	NO
2037	-	2,139	887	4,189	272	271	96	(9)	7,845	7,845	-	NO
2038	-	2,139	887	4,160	272	271	96	(9)	7,816	7,816	-	NO
2039	-	2,139	887	4,136	272	271	96	(9)	7,792	7,792	-	NO
2040	-	2,139	887	4,116	272	271	96	(9)	7,772	7,772	-	NO
2041	-	2,139	887	4,100	272	271	96	(9)	7,756	7,756	-	NO
2042	-	2,139	887	4,088	272	271	96	(9)	7,744	7,744	-	NO
2043	-	2,139	887	4,079	272	271	96	(9)	7,735	7,735	-	NO
2044	-	2,139	887	4,072	272	271	96	(4)	7,733	7,733	-	NO
2045	-	2,139	887	4,066	272	271	96	(4)	7,727	7,727	-	NO
2046	-	2,139	887	4,063	272	271	96	(4)	7,724	7,724	-	NO
2047	-	2,139	887	4,062	272	271	96	-	7,727	7,727	-	NO
2048	-	2,139	887	4,061	272	271	96	-	7,726	7,726	-	NO
2049	-	2,139	887	4,061	272	271	96	-	7,726	7,726	-	NO
2050	-	2,139	887	4,065	272	271	96	-	7,730	7,730	-	NO
2051	-	2,139	887	4,065	272	271	96	-	7,730	7,730	-	NO
2052	-	2,139	887	4,065	272	271	96	-	7,730	7,730	-	NO
2053	-	2,139	887	4,065	272	271	96	-	7,730	7,730	-	NO
2054	-	2,139	887	4,065	272	271	96	-	7,730	7,730	-	NO
2055	-	2,139	887	4,065	272	271	96	-	7,730	7,730	-	NO
2056	-	2,139	887	4,065	272	271	96	-	7,730	7,730	-	NO

Notes:
 a. Based on the construction schedule, this year includes 3 months of operations of the West Site (first full year of West Site operation is expected to be 2024).
 b. Based on the construction schedule, this year includes 1 month of operations of the East Site (first full years of East Site operation is expected to be 2027).

**Hollywood Center Project
 Environmental Leadership Development Project
 Greenhouse Gas Assessment - Hotel Scenario with EMFAC2014**

Year	Project Estimated Annual GHG Emissions									GHG Offsets	Net Change from Baseline	Exceeds Baseline?
	Project Construction and Operation (MTCO2e/year)											
	Construction	Electricity	Natural Gas	Mobile	Solid Waste	Water	Area	CO2 Seq.	Subtotal			
Construction Yr 1	1,945	-	-	-	-	-	-	-	1,945	1,945	-	NO
Construction Yr 2	1,614	-	-	-	-	-	-	-	1,614	1,614	-	NO
Construction Yr 3 ^a	1,300	334	106	613	19	40	12	-	2,423	2,423	-	NO
Construction Yr 4	1,955	1,334	422	2,390	130	159	48	(5)	6,433	6,433	-	NO
Construction Yr 5	1,555	1,334	422	2,317	130	159	48	(5)	5,961	5,961	-	NO
Construction Yr 6 ^b	1,395	1,435	469	2,590	140	169	52	(5)	6,246	6,246	-	NO
2027	-	2,437	990	6,107	252	272	96	(9)	10,145	10,145	-	NO
2028	-	2,437	990	5,975	252	272	96	(9)	10,013	10,013	-	NO
2029	-	2,437	990	5,859	252	272	96	(9)	9,897	9,897	-	NO
2030	-	2,218	990	5,759	252	254	96	(9)	9,560	9,560	-	NO
2031	-	2,218	990	5,677	252	254	96	(9)	9,478	9,478	-	NO
2032	-	2,218	990	5,600	252	254	96	(9)	9,401	9,401	-	NO
2033	-	2,218	990	5,534	252	254	96	(9)	9,335	9,335	-	NO
2034	-	2,218	990	5,478	252	254	96	(9)	9,279	9,279	-	NO
2035	-	2,218	990	5,432	252	254	96	(9)	9,233	9,233	-	NO
2036	-	2,218	990	5,399	252	254	96	(9)	9,200	9,200	-	NO
2037	-	2,218	990	5,371	252	254	96	(9)	9,172	9,172	-	NO
2038	-	2,218	990	5,349	252	254	96	(9)	9,150	9,150	-	NO
2039	-	2,218	990	5,334	252	254	96	(9)	9,135	9,135	-	NO
2040	-	2,218	990	5,323	252	254	96	(9)	9,124	9,124	-	NO
2041	-	2,218	990	5,314	252	254	96	(9)	9,115	9,115	-	NO
2042	-	2,218	990	5,310	252	254	96	(9)	9,111	9,111	-	NO
2043	-	2,218	990	5,309	252	254	96	(9)	9,110	9,110	-	NO
2044	-	2,218	990	5,310	252	254	96	(4)	9,116	9,116	-	NO
2045	-	2,218	990	5,312	252	254	96	(4)	9,118	9,118	-	NO
2046	-	2,218	990	5,316	252	254	96	(4)	9,122	9,122	-	NO
2047	-	2,218	990	5,322	252	254	96	-	9,132	9,132	-	NO
2048	-	2,218	990	5,329	252	254	96	-	9,139	9,139	-	NO
2049	-	2,218	990	5,336	252	254	96	-	9,146	9,146	-	NO
2050	-	2,218	990	5,347	252	254	96	-	9,157	9,157	-	NO
2051	-	2,218	990	5,347	252	254	96	-	9,157	9,157	-	NO
2052	-	2,218	990	5,347	252	254	96	-	9,157	9,157	-	NO
2053	-	2,218	990	5,347	252	254	96	-	9,157	9,157	-	NO
2054	-	2,218	990	5,347	252	254	96	-	9,157	9,157	-	NO
2055	-	2,218	990	5,347	252	254	96	-	9,157	9,157	-	NO
2056	-	2,218	990	5,347	252	254	96	-	9,157	9,157	-	NO

Notes:

- a. Based on the construction schedule, this year includes 3 months of operations of the West Site (first full year of West Site operation is expected to be 2024).
- b. Based on the construction schedule, this year includes 1 month of operations of the East Site (first full years of East Site operation is expected to be 2027).

**Hollywood Center Project
 Environmental Leadership Development Project
 Greenhouse Gas Assessment - Hotel Scenario with EMFAC2017**

Year	Project Estimated Annual GHG Emissions									GHG Offsets	Net Change from Baseline	Exceeds Baseline?
	Project Construction and Operation (MTCO2e/year)											
	Construction	Electricity	Natural Gas	Mobile	Solid Waste	Water	Area	CO2 Seq.	Subtotal			
Construction Yr 1	1,945	-	-	-	-	-	-	-	1,945	1,945	-	NO
Construction Yr 2	1,614	-	-	-	-	-	-	-	1,614	1,614	-	NO
Construction Yr 3 ^a	1,300	334	106	574	19	40	12	-	2,384	2,384	-	NO
Construction Yr 4	1,955	1,334	422	2,240	130	159	48	(5)	6,282	6,282	-	NO
Construction Yr 5	1,555	1,334	422	2,174	130	159	48	(5)	5,817	5,817	-	NO
Construction Yr 6 ^b	1,395	1,435	469	2,430	140	169	52	(5)	6,086	6,086	-	NO
2027	-	2,437	990	5,728	252	272	96	(9)	9,766	9,766	-	NO
2028	-	2,437	990	5,596	252	272	96	(9)	9,634	9,634	-	NO
2029	-	2,437	990	5,478	252	272	96	(9)	9,516	9,516	-	NO
2030	-	2,218	990	5,372	252	254	96	(9)	9,173	9,173	-	NO
2031	-	2,218	990	5,277	252	254	96	(9)	9,078	9,078	-	NO
2032	-	2,218	990	5,193	252	254	96	(9)	8,994	8,994	-	NO
2033	-	2,218	990	5,119	252	254	96	(9)	8,920	8,920	-	NO
2034	-	2,218	990	5,054	252	254	96	(9)	8,855	8,855	-	NO
2035	-	2,218	990	4,998	252	254	96	(9)	8,799	8,799	-	NO
2036	-	2,218	990	4,950	252	254	96	(9)	8,751	8,751	-	NO
2037	-	2,218	990	4,910	252	254	96	(9)	8,711	8,711	-	NO
2038	-	2,218	990	4,876	252	254	96	(9)	8,677	8,677	-	NO
2039	-	2,218	990	4,848	252	254	96	(9)	8,649	8,649	-	NO
2040	-	2,218	990	4,825	252	254	96	(9)	8,626	8,626	-	NO
2041	-	2,218	990	4,806	252	254	96	(9)	8,607	8,607	-	NO
2042	-	2,218	990	4,792	252	254	96	(9)	8,593	8,593	-	NO
2043	-	2,218	990	4,781	252	254	96	(9)	8,582	8,582	-	NO
2044	-	2,218	990	4,773	252	254	96	(4)	8,579	8,579	-	NO
2045	-	2,218	990	4,767	252	254	96	(4)	8,573	8,573	-	NO
2046	-	2,218	990	4,763	252	254	96	(4)	8,569	8,569	-	NO
2047	-	2,218	990	4,761	252	254	96	-	8,571	8,571	-	NO
2048	-	2,218	990	4,760	252	254	96	-	8,570	8,570	-	NO
2049	-	2,218	990	4,760	252	254	96	-	8,570	8,570	-	NO
2050	-	2,218	990	4,765	252	254	96	-	8,575	8,575	-	NO
2051	-	2,218	990	4,765	252	254	96	-	8,575	8,575	-	NO
2052	-	2,218	990	4,765	252	254	96	-	8,575	8,575	-	NO
2053	-	2,218	990	4,765	252	254	96	-	8,575	8,575	-	NO
2054	-	2,218	990	4,765	252	254	96	-	8,575	8,575	-	NO
2055	-	2,218	990	4,765	252	254	96	-	8,575	8,575	-	NO
2056	-	2,218	990	4,765	252	254	96	-	8,575	8,575	-	NO

Notes:

- a. Based on the construction schedule, this year includes 3 months of operations of the West Site (first full year of West Site operation is expected to be 2024).
- b. Based on the construction schedule, this year includes 1 month of operations of the East Site (first full years of East Site operation is expected to be 2027).

Appendix C
California Air Resources Board,
Statewide Emission Factors
(EF) For Use With
AB 900 Projects, January 2017

Attachment 2
Statewide Emission Factors for Use With AB 900 Projects

Mobile-Source Emissions

Project applicants under AB 900 may use default GHG emission factors (EFs) from the California Emissions Estimator Model (CalEEMod). However, ARB acknowledges that CalEEMod does not contain the latest mobile-source emissions reductions from State and federal regulations. If an AB 900 project applicant does not wish to use CalEEMod EFs, and the project's mobile sources include "all vehicle classifications," the EFs provided via the EMFAC2014 Web Database provide a quick and easy way to access commonly used emission rates data. The Web Database contains daily emissions and emission rates data for all areas, calendar years and seasons.

See <https://www.arb.ca.gov/emfac/2014/>.

Electricity Emissions

An AB 900 project applicant may use the local electric utility provider's EFs and electricity intensities for today's electric supply generation.

If an applicant would like to use an EF that represents the State's Renewable Portfolio Standard (RPS) law and growth in electricity demand, the EF of 595 pounds CO₂/MWh may be used². This EF represents a "marginal" supply profile for new generation that will be added to the grid in the years 2020 and beyond, and is consistent with the methodology used in State emission rule impact assessments. It represents a generation supply mix of 67 percent natural gas-fueled combined cycle power plants, and 33 percent renewable energy. ARB believes this marginal profile represents new generation plans in any electric utility territory in California.

² LEV III Initial Statement Of Reasons (ISOR, Dec. 7, 2011), <http://www.arb.ca.gov/regact/2012/leviiighg2012/leviiighg2012.htm>, based on analysis with CA-GREET model.

Zelinka, Stephen@ARB

From: Alan Sako <ASako@esassoc.com>
Sent: Tuesday, May 29, 2018 3:27 PM
To: Zelinka, Stephen@ARB; Kimura, Lezlie@ARB
Cc: Khalatian, Edgar; Zachary Aarons; Mario Palumbo; Heidi Rous; Jay Ziff; Addie Farrell; Richard Lichtenstein; Chan, Jeremy B.; Gabe Kramer
Subject: Hollywood Center Project, Memorandum - Updates to Exhibit 7-GHG Report
Attachments: Memorandum - Updates to Exhibit 7-GHG Report.pdf

Steve:

Please find attached a memorandum that updates the truck idling GHG emissions. As stated in the memorandum, the updates to the truck idling results in a very slight increase in total Project construction GHG by approximately 80 metric tons of carbon dioxide equivalents (MTCO_{2e}), which is approximately 0.8% of the total Project construction GHG emissions. This change does not affect the Project's ability to meet the net zero GHG requirement under the "Jobs and Economic Improvement through Environmental Leadership Act" (Public Resources Code Section 21178 et seq.) nor does it alter any of the conclusions in the *Greenhouse Gas Emissions Methodology and Documentation* or the *Application for Environmental Leadership Development Project*.

Regarding schedule, could you please let us know when you expect CARB to complete your review?

Thank you very much,

Alan Sako, LEED AP BD+C
Senior Air Quality Scientist
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technical memorandum

date May 29, 2018

to Lezlie Kimura Szeto, California Air Resources Board
Stephen Zelinka, California Air Resources Board

from Alan Sako, Environmental Science Associates
Heidi Rous, Environmental Science Associates

subject Hollywood Center Project - Updates to the Greenhouse Gas Emissions Methodology and Documentation

On behalf of MCAF Vine LLC; 1750 North Vine LLC; 1749 North Vine Street LLC; 1770 Ivar LLC; 1733 North Argyle LLC; and 1720 North Vine LLC (collectively, the Applicant), ESA has prepared this technical memorandum in response to comments received from the California Air Resources Board (CARB) on the Hollywood Center Project *Greenhouse Gas Emissions Methodology and Documentation*, which is provided as Exhibit 7 to the *Application for Environmental Leadership Development Project* (May 2018).

The comments from CARB indicated that the GHG emissions from truck idling during construction may have been underestimated. In addition, CARB requested that the unit labeling for the truck idling emissions factor be clarified. ESA updated the truck idling GHG emission calculations, as shown below in this memorandum. In addition, this memorandum clarifies the unit labeling for the truck idling emissions factor as requested by CARB.

As shown below, the updated truck idling GHG emissions results in a very slight increase in total Project construction GHG by approximately 80 metric tons of carbon dioxide equivalents (MTCO_{2e}), which is approximately 0.8% of the total Project construction GHG emissions. This change does not affect the Project's ability to meet the net zero GHG requirement under the "Jobs and Economic Improvement through Environmental Leadership Act" (Public Resources Code Section 21178 et seq.) nor does it alter any of the conclusions in the *Greenhouse Gas Emissions Methodology and Documentation* or the *Application for Environmental Leadership Development Project*.

Updates to Exhibit 7, Greenhouse Gas Emissions Methodology and Documentation

The updated text is shown as double-underlined text and deleted text is shown as strikeout text.

Table 2 on Page 17 is updated as follows:

**TABLE 2
ESTIMATED UNMITIGATED PROJECT CONSTRUCTION GREENHOUSE GAS EMISSIONS**

Emission Source	Annual GHG Emissions ^a (MTCO ₂ e)
Construction Year 1	<u>1,982</u> 1,945
Construction Year 2	<u>1,616</u> 1,614
Construction Year 3	1,300
Construction Year 4	<u>1,992</u> 1,955
Construction Year 5	<u>1,557</u> 1,555
Construction Year 6	1,395

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

SOURCE: ESA 2018.

Table 19 on Page 43 is updated as follows (only the rows with construction emissions are shown; there are no changes to the other rows of this table):

**TABLE 19
WEST SITE + EAST SITE (RESIDENTIAL SCENARIO) – SUMMARY OF ANNUAL GHG EMISSIONS FOR PROJECT**

Year	Annual GHG Emissions (MTCO ₂ e/year)									Total ^{a,b}	Total ^{a,b}
	Construc- tion	Electricity	Natural Gas	Mobile (EMFAC 2014)	Mobile (EMFAC 2017)	Waste	Water and Waste Water	Area and Stationary	CO ₂ Seq. from Net New Vegetation ^a	(Using EMFAC 2014)	(Using EMFAC 2017)
Const Yr 1 / 2021	<u>1,982</u> 1,945	–	–	–	–	–	–	–	–	<u>1,982</u> 1,945	<u>1,982</u> 1,945
Const Yr 2 / 2022	<u>1,616</u> 1,614	–	–	–	–	–	–	–	–	<u>1,616</u> 1,614	<u>1,616</u> 1,614
Const Yr 3 / 2023 ^c	1,300	334	106	621	582	19	40	12	–	2,431	2,391
Const Yr 4 / 2024	<u>1,992</u> 1,955	1,334	422	2,422	2,269	130	159	48	(5)	<u>6,502</u> 6,464	<u>6,350</u> 6,312
Const Yr 5 / 2025	<u>1,557</u> 1,555	1,334	422	2,348	2,203	130	159	48	(5)	<u>5,992</u> 5,991	<u>5,847</u> 5,846
Const Yr 6 / 2026 ^d	1,395	1,435	461	2,540	2,384	142	171	52	(5)	6,184	6,027

Table 20 on Page 44 is updated as follows (only the rows with construction emissions are shown; there are no changes to the other rows of this table):

**TABLE 20
WEST SITE + EAST SITE (HOTEL SCENARIO) – SUMMARY OF ANNUAL GHG EMISSIONS FOR PROJECT**

Year	Annual GHG Emissions (MTCO ₂ e/year)									Total ^{a,b}	Total ^{a,b}
	Construction	Electricity	Natural Gas	Mobile (EMFAC 2014)	Mobile (EMFAC 2017)	Waste	Water and Waste Water	Area and Stationary	CO ₂ Seq. from Net New Vegetation	(Using EMFAC 2014)	(Using EMFAC 2017)
Const Yr 1 / 2021	<u>1,982</u> 1,945	–	–	–	–	–	–	–	–	<u>1,982</u> 1,945	<u>1,982</u> 1,945
Const Yr 2 / 2022	<u>1,616</u> 1,614	–	–	–	–	–	–	–	–	<u>1,616</u> 1,614	<u>1,616</u> 1,614
Const Yr 3 / 2023 ^c	1,300	334	106	613	574	19	40	12	–	2,423	2,384
Const Yr 4 / 2024	<u>1,992</u> 1,955	1,334	422	2,390	2,240	130	159	48	(5)	<u>6,471</u> 6,433	<u>6,320</u> 6,282
Const Yr 5 / 2025	<u>1,557</u> 1,555	1,334	422	2,317	2,174	130	159	48	(5)	<u>5,962</u> 5,961	<u>5,819</u> 5,817
Const Yr 6 / 2026 ^d	1,395	1,435	469	2,590	2,430	140	169	52	(5)	6,246	6,086

Table 21 on Page 48 is updated as follows (only the rows with construction emissions are shown; there are no changes to the other rows of this table):

**TABLE 21
WEST SITE + EAST SITE (RESIDENTIAL SCENARIO) – EVALUATION OF NET GHG EMISSIONS FOR THE PROJECT**

Year	Project Total (Using EMFAC 2014 for Mobile)	Project GHG Reductions from Offsets ^a	Net Change from Baseline	Project Total (Using EMFAC 2017 for Mobile)	Project GHG Reductions from Offsets ^a	Net Change from Baseline
Const Yr 1 / 2021	<u>1,982</u> 1,945	<u>1,982</u> 1,945	0	<u>1,982</u> 1,945	<u>1,982</u> 1,945	0
Const Yr 2 / 2022	<u>1,616</u> 1,614	<u>1,616</u> 1,614	0	<u>1,616</u> 1,614	<u>1,616</u> 1,614	0
Const Yr 3 / 2023	2,431	2,431	0	2,391	2,391	0
Const Yr 4 / 2024	<u>6,502</u> 6,464	<u>6,502</u> 6,464	0	<u>6,350</u> 6,312	<u>6,350</u> 6,312	0
Const Yr 5 / 2025	<u>5,992</u> 5,991	<u>5,992</u> 5,991	0	<u>5,847</u> 5,846	<u>5,847</u> 5,846	0
Const Yr 6 / 2026	6,184	6,184	0	6,027	6,027	0

Table 22 on Page 49 is updated as follows (only the rows with construction emissions are shown; there are no changes to the other rows of this table):

**TABLE 22
WEST SITE + EAST SITE (HOTEL SCENARIO) – EVALUATION OF NET GHG EMISSIONS FOR THE PROJECT**

Year	Project Total (EMFAC 2014 for Mobile)	Project GHG Reductions from Offsets ^a	Net Change from Baseline	Project Total (EMFAC 2017 for Mobile)	Project GHG Reductions from Offsets ^a	Net Change from Baseline
Const Yr 1 / 2021	<u>1,982</u> 1,945	<u>1,982</u> 1,945	0	<u>1,982</u> 1,945	<u>1,982</u> 1,945	0
Const Yr 2 / 2022	<u>1,616</u> 1,614	<u>1,616</u> 1,614	0	<u>1,616</u> 1,614	<u>1,616</u> 1,614	0
Const Yr 3 / 2023	2,423	2,423	0	2,384	2,384	0
Const Yr 4 / 2024	<u>6,471</u> 6,433	<u>6,471</u> 6,433	0	<u>6,320</u> 6,282	<u>6,320</u> 6,282	0
Const Yr 5 / 2025	<u>5,962</u> 5,961	<u>5,962</u> 5,961	0	<u>5,819</u> 5,817	<u>5,819</u> 5,817	0
Const Yr 6 / 2026	6,246	6,246	0	6,086	6,086	0

Page 127 (of 252) and Page 129 (of 252) of Exhibit 7, Appendix A are replaced with the following attached pages.

These pages update the truck idling GHG emissions supporting calculations (updated calculations in these spreadsheet pages are not shown in double underlined or strikeout text) and clarifies the idling emissions factor unit label from “grams/mile” to “grams/hour.” No update to the numerical values are needed.

Hollywood Center

On-Road Soil/Material Haul Truck Regional Emissions

On-Road Truck Total Emissions

Construction Phase	Source	Year	Daily One-Way Truck Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions CO2e (metric tons/year)
West Site							
Demolition	T7 - Single Construction	2021	23	2	8	30	2.29
Grading	T7 - Single Construction	2021	192	88	8	30	840.73
Foundations							
Shoring Wall	T7 - Single Construction	2021	20	19	8	7.5	5.18
Cast in Drilled Hole Foundation	T7 - Single Construction	2021	4	41	8	7.5	2.24
Mat Foundation (Continuous Pour)	T7 - Single Construction	2021	188	1	14	7.5	2.56
Column Footings	T7 - Single Construction	2021	42	4	8	7.5	2.29
Building Construction							
Structure Equipment Garage	T7 - Single Construction	2021	84	52	8	7.5	59.58
Structure Equipment Tower	T7 - Single Construction	2021/2022	42	42	8	7.5	24.06
Structure Equipment Affordable	T7 - Single Construction	2022	48	22	8	7.5	14.40
Retail	T7 - Single Construction	2022	28	2	8	7.5	0.76
							954.10
East Site							
Site Preparation	T7 - Single Construction	2024	36	2	8	30	3.44
Grading	T7 - Single Construction	2024	192	88	8	30	807.71
Foundations							
Shoring Wall	T7 - Single Construction	2024	20	16	8	7.5	4.18
Cast in Drilled Hole Foundation	T7 - Single Construction	2024	4	30	8	7.5	1.57
Mat Foundation (Continuous Pour)	T7 - Single Construction	2024	142	1	11	7.5	1.86
Column Footings	T7 - Single Construction	2024	42	4	8	7.5	2.20
Building Construction							
Structure Equipment Garage	T7 - Single Construction	2024	88	58	8	7.5	66.74
Structure Equipment Tower	T7 - Single Construction	2024/2025	40	82	8	7.5	42.89
Structure Equipment Affordable	T7 - Single Construction	2025	36	13	8	7.5	6.12
Retail	T7 - Single Construction	2025	60	3	8	7.5	2.35
							939.07

Source: Based on AECOM Tishman, 2018; Millennium Partners, 2018; ESA, 2018.

**Capitol Records
On-Road Soil/Material Haul Truck Regional Emissions**

On-Road Truck Idling Emissions

Construction Phase	Source	Year	Daily One-Way Truck Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	Idling Time per Truck (minutes)	Idling Emissions Factor (grams/hour mile)	Regional Emissions
							CO2e	CO2e (metric tons/year)
West Site								
Demolition	T7 - Single Construction	2021	23	2	8	15	6,401.61	0.07
Grading	T7 - Single Construction	2021	192	88	8	15	6,401.61	27.04
Foundations								
Shoring Wall	T7 - Single Construction	2021	20	19	8	15	6,401.61	0.61
Cast in Drilled Hole Foundation	T7 - Single Construction	2021	4	41	8	15	6,401.61	0.26
Mat Foundation (Continuous Pour)	T7 - Single Construction	2021	188	1	14	15	6,401.61	0.30
Column Footings	T7 - Single Construction	2021	42	4	8	15	6,401.61	0.27
Building Construction								
Structure Equipment Garage	T7 - Single Construction	2021	84	52	8	15	6,401.61	6.99
Structure Equipment Tower	T7 - Single Construction	2021/2022	42	42	8	15	6,401.61	2.82
Structure Equipment Affordable	T7 - Single Construction	2022	48	22	8	15	6,401.61	1.69
Retail	T7 - Single Construction	2022	28	2	8	15	6,401.61	0.09
							Total	40.15
East Site								
Site Preparation	T7 - Single Construction	2024	36	2	8	15	6,003.53	0.11
Grading	T7 - Single Construction	2024	192	88	8	15	6,003.53	25.36
Foundations								
Shoring Wall	T7 - Single Construction	2024	20	16	8	15	6,003.53	0.48
Cast in Drilled Hole Foundation	T7 - Single Construction	2024	4	30	8	15	6,003.53	0.18
Mat Foundation (Continuous Pour)	T7 - Single Construction	2024	142	1	11	15	6,003.53	0.21
Column Footings	T7 - Single Construction	2024	42	4	8	15	6,003.53	0.25
Building Construction								
Structure Equipment Garage	T7 - Single Construction	2024	88	58	8	15	6,003.53	7.66
Structure Equipment Tower	T7 - Single Construction	2024/2025	40	82	8	15	6,003.53	4.92
Structure Equipment Affordable	T7 - Single Construction	2025	36	13	8	15	6,003.53	0.70
Retail	T7 - Single Construction	2025	60	3	8	15	6,003.53	0.27
							Total	40.15

Source: Based on AECOM Tishman, 2018; Millennium Partners, 2018; ESA, 2018.

Pages 247 through 250 (of 252) of Exhibit 7, Appendix B are replaced with the following attached pages.

These pages replace the four summary tables at the end of Appendix B, based on the updated truck idling GHG emissions (updated calculations in these spreadsheet pages are not shown in double underlined or strikeout text).

**Hollywood Center Project
 Environmental Leadership Development Project
 Greenhouse Gas Assessment - Residential Scenario with EMFAC2014**

Year	Project Estimated Annual GHG Emissions									GHG Offsets	Net Change from Baseline	Exceeds Baseline?
	Project Construction and Operation (MTCO2e/year)											
	Construction	Electricity	Natural Gas	Mobile	Solid Waste	Water	Area	CO2 Seq.	Subtotal			
Construction Yr 1	1,982	-	-	-	-	-	-	-	1,982	1,982	-	NO
Construction Yr 2	1,616	-	-	-	-	-	-	-	1,616	1,616	-	NO
Construction Yr 3 ^a	1,300	334	106	621	19	40	12	-	2,431	2,431	-	NO
Construction Yr 4	1,992	1,334	422	2,422	130	159	48	(5)	6,502	6,502	-	NO
Construction Yr 5	1,557	1,334	422	2,348	130	159	48	(5)	5,992	5,992	-	NO
Construction Yr 6 ^b	1,395	1,428	461	2,540	142	171	52	(5)	6,184	6,184	-	NO
2027	-	2,350	887	5,210	272	290	96	(9)	9,096	9,096	-	NO
2028	-	2,350	887	5,098	272	290	96	(9)	8,984	8,984	-	NO
2029	-	2,350	887	4,999	272	290	96	(9)	8,885	8,885	-	NO
2030	-	2,139	887	4,913	272	271	96	(9)	8,569	8,569	-	NO
2031	-	2,139	887	4,843	272	271	96	(9)	8,499	8,499	-	NO
2032	-	2,139	887	4,778	272	271	96	(9)	8,434	8,434	-	NO
2033	-	2,139	887	4,721	272	271	96	(9)	8,377	8,377	-	NO
2034	-	2,139	887	4,673	272	271	96	(9)	8,329	8,329	-	NO
2035	-	2,139	887	4,634	272	271	96	(9)	8,290	8,290	-	NO
2036	-	2,139	887	4,606	272	271	96	(9)	8,262	8,262	-	NO
2037	-	2,139	887	4,582	272	271	96	(9)	8,238	8,238	-	NO
2038	-	2,139	887	4,564	272	271	96	(9)	8,220	8,220	-	NO
2039	-	2,139	887	4,550	272	271	96	(9)	8,206	8,206	-	NO
2040	-	2,139	887	4,541	272	271	96	(9)	8,197	8,197	-	NO
2041	-	2,139	887	4,534	272	271	96	(9)	8,190	8,190	-	NO
2042	-	2,139	887	4,530	272	271	96	(9)	8,186	8,186	-	NO
2043	-	2,139	887	4,530	272	271	96	(9)	8,186	8,186	-	NO
2044	-	2,139	887	4,530	272	271	96	(4)	8,191	8,191	-	NO
2045	-	2,139	887	4,532	272	271	96	(4)	8,193	8,193	-	NO
2046	-	2,139	887	4,536	272	271	96	(4)	8,197	8,197	-	NO
2047	-	2,139	887	4,540	272	271	96	-	8,205	8,205	-	NO
2048	-	2,139	887	4,546	272	271	96	-	8,211	8,211	-	NO
2049	-	2,139	887	4,553	272	271	96	-	8,218	8,218	-	NO
2050	-	2,139	887	4,562	272	271	96	-	8,227	8,227	-	NO
2051	-	2,139	887	4,562	272	271	96	-	8,227	8,227	-	NO
2052	-	2,139	887	4,562	272	271	96	-	8,227	8,227	-	NO
2053	-	2,139	887	4,562	272	271	96	-	8,227	8,227	-	NO
2054	-	2,139	887	4,562	272	271	96	-	8,227	8,227	-	NO
2055	-	2,139	887	4,562	272	271	96	-	8,227	8,227	-	NO
2056	-	2,139	887	4,562	272	271	96	-	8,227	8,227	-	NO

Notes:
 a. Based on the construction schedule, this year includes 3 months of operations of the West Site (first full year of West Site operation is expected to be 2024).
 b. Based on the construction schedule, this year includes 1 month of operations of the East Site (first full years of East Site operation is expected to be 2027).

**Hollywood Center Project
 Environmental Leadership Development Project
 Greenhouse Gas Assessment - Residential Scenario with EMFAC2017**

Year	Project Estimated Annual GHG Emissions									GHG Offsets	Net Change from Baseline	Exceeds Baseline?
	Project Construction and Operation (MTCO2e/year)											
	Construction	Electricity	Natural Gas	Mobile	Solid Waste	Water	Area	CO2 Seq.	Subtotal			
Construction Yr 1	1,982	-	-	-	-	-	-	-	1,982	1,982	-	NO
Construction Yr 2	1,616	-	-	-	-	-	-	-	1,616	1,616	-	NO
Construction Yr 3 ^a	1,300	334	106	582	19	40	12	-	2,391	2,391	-	NO
Construction Yr 4	1,992	1,334	422	2,269	130	159	48	(5)	6,350	6,350	-	NO
Construction Yr 5	1,557	1,334	422	2,203	130	159	48	(5)	5,847	5,847	-	NO
Construction Yr 6 ^b	1,395	1,428	461	2,384	142	171	52	(5)	6,027	6,027	-	NO
2027	-	2,350	887	4,886	272	290	96	(9)	8,772	8,772	-	NO
2028	-	2,350	887	4,774	272	290	96	(9)	8,660	8,660	-	NO
2029	-	2,350	887	4,673	272	290	96	(9)	8,559	8,559	-	NO
2030	-	2,139	887	4,583	272	271	96	(9)	8,239	8,239	-	NO
2031	-	2,139	887	4,502	272	271	96	(9)	8,158	8,158	-	NO
2032	-	2,139	887	4,431	272	271	96	(9)	8,087	8,087	-	NO
2033	-	2,139	887	4,368	272	271	96	(9)	8,024	8,024	-	NO
2034	-	2,139	887	4,312	272	271	96	(9)	7,968	7,968	-	NO
2035	-	2,139	887	4,264	272	271	96	(9)	7,920	7,920	-	NO
2036	-	2,139	887	4,223	272	271	96	(9)	7,879	7,879	-	NO
2037	-	2,139	887	4,189	272	271	96	(9)	7,845	7,845	-	NO
2038	-	2,139	887	4,160	272	271	96	(9)	7,816	7,816	-	NO
2039	-	2,139	887	4,136	272	271	96	(9)	7,792	7,792	-	NO
2040	-	2,139	887	4,116	272	271	96	(9)	7,772	7,772	-	NO
2041	-	2,139	887	4,100	272	271	96	(9)	7,756	7,756	-	NO
2042	-	2,139	887	4,088	272	271	96	(9)	7,744	7,744	-	NO
2043	-	2,139	887	4,079	272	271	96	(9)	7,735	7,735	-	NO
2044	-	2,139	887	4,072	272	271	96	(4)	7,733	7,733	-	NO
2045	-	2,139	887	4,066	272	271	96	(4)	7,727	7,727	-	NO
2046	-	2,139	887	4,063	272	271	96	(4)	7,724	7,724	-	NO
2047	-	2,139	887	4,062	272	271	96	-	7,727	7,727	-	NO
2048	-	2,139	887	4,061	272	271	96	-	7,726	7,726	-	NO
2049	-	2,139	887	4,061	272	271	96	-	7,726	7,726	-	NO
2050	-	2,139	887	4,065	272	271	96	-	7,730	7,730	-	NO
2051	-	2,139	887	4,065	272	271	96	-	7,730	7,730	-	NO
2052	-	2,139	887	4,065	272	271	96	-	7,730	7,730	-	NO
2053	-	2,139	887	4,065	272	271	96	-	7,730	7,730	-	NO
2054	-	2,139	887	4,065	272	271	96	-	7,730	7,730	-	NO
2055	-	2,139	887	4,065	272	271	96	-	7,730	7,730	-	NO
2056	-	2,139	887	4,065	272	271	96	-	7,730	7,730	-	NO

Notes:
 a. Based on the construction schedule, this year includes 3 months of operations of the West Site (first full year of West Site operation is expected to be 2024).
 b. Based on the construction schedule, this year includes 1 month of operations of the East Site (first full years of East Site operation is expected to be 2027).

**Hollywood Center Project
 Environmental Leadership Development Project
 Greenhouse Gas Assessment - Hotel Scenario with EMFAC2014**

Year	Project Estimated Annual GHG Emissions									GHG Offsets	Net Change from Baseline	Exceeds Baseline?
	Project Construction and Operation (MTCO2e/year)											
	Construction	Electricity	Natural Gas	Mobile	Solid Waste	Water	Area	CO2 Seq.	Subtotal			
Construction Yr 1	1,982	-	-	-	-	-	-	-	1,982	1,982	-	NO
Construction Yr 2	1,616	-	-	-	-	-	-	-	1,616	1,616	-	NO
Construction Yr 3 ^a	1,300	334	106	613	19	40	12	-	2,423	2,423	-	NO
Construction Yr 4	1,992	1,334	422	2,390	130	159	48	(5)	6,471	6,471	-	NO
Construction Yr 5	1,557	1,334	422	2,317	130	159	48	(5)	5,962	5,962	-	NO
Construction Yr 6 ^b	1,395	1,435	469	2,590	140	169	52	(5)	6,246	6,246	-	NO
2027	-	2,437	990	6,107	252	272	96	(9)	10,145	10,145	-	NO
2028	-	2,437	990	5,975	252	272	96	(9)	10,013	10,013	-	NO
2029	-	2,437	990	5,859	252	272	96	(9)	9,897	9,897	-	NO
2030	-	2,218	990	5,759	252	254	96	(9)	9,560	9,560	-	NO
2031	-	2,218	990	5,677	252	254	96	(9)	9,478	9,478	-	NO
2032	-	2,218	990	5,600	252	254	96	(9)	9,401	9,401	-	NO
2033	-	2,218	990	5,534	252	254	96	(9)	9,335	9,335	-	NO
2034	-	2,218	990	5,478	252	254	96	(9)	9,279	9,279	-	NO
2035	-	2,218	990	5,432	252	254	96	(9)	9,233	9,233	-	NO
2036	-	2,218	990	5,399	252	254	96	(9)	9,200	9,200	-	NO
2037	-	2,218	990	5,371	252	254	96	(9)	9,172	9,172	-	NO
2038	-	2,218	990	5,349	252	254	96	(9)	9,150	9,150	-	NO
2039	-	2,218	990	5,334	252	254	96	(9)	9,135	9,135	-	NO
2040	-	2,218	990	5,323	252	254	96	(9)	9,124	9,124	-	NO
2041	-	2,218	990	5,314	252	254	96	(9)	9,115	9,115	-	NO
2042	-	2,218	990	5,310	252	254	96	(9)	9,111	9,111	-	NO
2043	-	2,218	990	5,309	252	254	96	(9)	9,110	9,110	-	NO
2044	-	2,218	990	5,310	252	254	96	(4)	9,116	9,116	-	NO
2045	-	2,218	990	5,312	252	254	96	(4)	9,118	9,118	-	NO
2046	-	2,218	990	5,316	252	254	96	(4)	9,122	9,122	-	NO
2047	-	2,218	990	5,322	252	254	96	-	9,132	9,132	-	NO
2048	-	2,218	990	5,329	252	254	96	-	9,139	9,139	-	NO
2049	-	2,218	990	5,336	252	254	96	-	9,146	9,146	-	NO
2050	-	2,218	990	5,347	252	254	96	-	9,157	9,157	-	NO
2051	-	2,218	990	5,347	252	254	96	-	9,157	9,157	-	NO
2052	-	2,218	990	5,347	252	254	96	-	9,157	9,157	-	NO
2053	-	2,218	990	5,347	252	254	96	-	9,157	9,157	-	NO
2054	-	2,218	990	5,347	252	254	96	-	9,157	9,157	-	NO
2055	-	2,218	990	5,347	252	254	96	-	9,157	9,157	-	NO
2056	-	2,218	990	5,347	252	254	96	-	9,157	9,157	-	NO

Notes:
 a. Based on the construction schedule, this year includes 3 months of operations of the West Site (first full year of West Site operation is expected to be 2024).
 b. Based on the construction schedule, this year includes 1 month of operations of the East Site (first full years of East Site operation is expected to be 2027).

**Hollywood Center Project
 Environmental Leadership Development Project
 Greenhouse Gas Assessment - Hotel Scenario with EMFAC2017**

Year	Project Estimated Annual GHG Emissions									GHG Offsets	Net Change from Baseline	Exceeds Baseline?
	Project Construction and Operation (MTCO2e/year)											
	Construction	Electricity	Natural Gas	Mobile	Solid Waste	Water	Area	CO2 Seq.	Subtotal			
Construction Yr 1	1,982	-	-	-	-	-	-	-	1,982	1,982	-	NO
Construction Yr 2	1,616	-	-	-	-	-	-	-	1,616	1,616	-	NO
Construction Yr 3 ^a	1,300	334	106	574	19	40	12	-	2,384	2,384	-	NO
Construction Yr 4	1,992	1,334	422	2,240	130	159	48	(5)	6,320	6,320	-	NO
Construction Yr 5	1,557	1,334	422	2,174	130	159	48	(5)	5,819	5,819	-	NO
Construction Yr 6 ^b	1,395	1,435	469	2,430	140	169	52	(5)	6,086	6,086	-	NO
2027	-	2,437	990	5,728	252	272	96	(9)	9,766	9,766	-	NO
2028	-	2,437	990	5,596	252	272	96	(9)	9,634	9,634	-	NO
2029	-	2,437	990	5,478	252	272	96	(9)	9,516	9,516	-	NO
2030	-	2,218	990	5,372	252	254	96	(9)	9,173	9,173	-	NO
2031	-	2,218	990	5,277	252	254	96	(9)	9,078	9,078	-	NO
2032	-	2,218	990	5,193	252	254	96	(9)	8,994	8,994	-	NO
2033	-	2,218	990	5,119	252	254	96	(9)	8,920	8,920	-	NO
2034	-	2,218	990	5,054	252	254	96	(9)	8,855	8,855	-	NO
2035	-	2,218	990	4,998	252	254	96	(9)	8,799	8,799	-	NO
2036	-	2,218	990	4,950	252	254	96	(9)	8,751	8,751	-	NO
2037	-	2,218	990	4,910	252	254	96	(9)	8,711	8,711	-	NO
2038	-	2,218	990	4,876	252	254	96	(9)	8,677	8,677	-	NO
2039	-	2,218	990	4,848	252	254	96	(9)	8,649	8,649	-	NO
2040	-	2,218	990	4,825	252	254	96	(9)	8,626	8,626	-	NO
2041	-	2,218	990	4,806	252	254	96	(9)	8,607	8,607	-	NO
2042	-	2,218	990	4,792	252	254	96	(9)	8,593	8,593	-	NO
2043	-	2,218	990	4,781	252	254	96	(9)	8,582	8,582	-	NO
2044	-	2,218	990	4,773	252	254	96	(4)	8,579	8,579	-	NO
2045	-	2,218	990	4,767	252	254	96	(4)	8,573	8,573	-	NO
2046	-	2,218	990	4,763	252	254	96	(4)	8,569	8,569	-	NO
2047	-	2,218	990	4,761	252	254	96	-	8,571	8,571	-	NO
2048	-	2,218	990	4,760	252	254	96	-	8,570	8,570	-	NO
2049	-	2,218	990	4,760	252	254	96	-	8,570	8,570	-	NO
2050	-	2,218	990	4,765	252	254	96	-	8,575	8,575	-	NO
2051	-	2,218	990	4,765	252	254	96	-	8,575	8,575	-	NO
2052	-	2,218	990	4,765	252	254	96	-	8,575	8,575	-	NO
2053	-	2,218	990	4,765	252	254	96	-	8,575	8,575	-	NO
2054	-	2,218	990	4,765	252	254	96	-	8,575	8,575	-	NO
2055	-	2,218	990	4,765	252	254	96	-	8,575	8,575	-	NO
2056	-	2,218	990	4,765	252	254	96	-	8,575	8,575	-	NO

Notes:
 a. Based on the construction schedule, this year includes 3 months of operations of the West Site (first full year of West Site operation is expected to be 2024).
 b. Based on the construction schedule, this year includes 1 month of operations of the East Site (first full years of East Site operation is expected to be 2027).

Exhibit 3

Greenhouse Gas Emissions Offset Approach for the Hollywood Center Project / LEED Measures

NRDC Letter - Exhibits, 1-4, pdf

May 1, 2018

Ms. Lezlie Kimura Szeto, Manager
Sustainable Communities Policy & Planning Section
California Air Resources Board
1001 "I" Street
Sacramento, CA 95814

Re: Greenhouse Gas Emissions Offset Approach for the Hollywood Center Project

Dear Ms. Kimura Szeto:

This letter is provided as a supplement to the application filed by MCAF Vine LLC; 1750 North Vine LLC; 1749 North Vine Street LLC; 1770 Ivar LLC; 1733 North Argyle LLC; and 1720 North Vine LLC (collectively, the "Applicant"), who proposes to develop the Hollywood Center (the "Project") in the Hollywood community in the City of Los Angeles.

As you know, the Applicant has applied for certification by the Governor as a leadership project under the Jobs and Economic Improvement Through Environmental Leadership Act of 2011, as amended (collectively, "AB 900" or the "Act"). The application includes projected emissions for the Project that show certain projected net additional emissions of greenhouse gases (GHG) as a result of the construction of the Project and as a consequence of Project operations.

The Applicant has committed to no net increase in construction and operation-related GHG emissions. Consistent with policy recommendations included in California Air Resources Board's (CARB) California 2017 Climate Change Scoping Plan,¹ while offsets are a potential way to mitigate GHG emissions, other options will continue to be explored as well to the extent feasible, with the following order of preference: (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. To the extent offsets are used to mitigate GHG emissions, prior to issuance or any Certificate of Occupancy for any building in the Project, the Applicant or its successor shall enter into one or more contracts to purchase carbon credits issued by a recognized and reputable carbon registry, which contract, together with any previous contracts, shall evidence the purchase of carbon credits in an amount sufficient to offset the operational emissions attributable to each building constructed within the Project over the analysis horizon of 30 years. Prior to execution of the contract(s), the Applicant shall provide the lead agency (the City of Los Angeles) a calculation of the net

¹ The California 2017 Climate Change Scoping Plan is available at:
https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf

Ms. Kimura Szeto, Manager

Re: GHG Emissions Offset Approach for the Hollywood Center Project

May 1, 2018

Page 2

additional operational GHG emissions according to the methodology followed in the *Greenhouse Gas Emissions Methodology and Documentation for the Hollywood Center Project* document. The Applicant shall agree to promptly submit copies of executed contracts for purchased carbon credits to CARB and to the Governor's office. The commitments to enter into contracts to offset net additional GHG emissions will be incorporated as a condition of Project approval under the Public Resources Code sec. 21183(e), which is binding and enforceable by the lead agency.

The Applicant proposes to meet the requirement set forth in California Public Resources Code Section 21183(c), which requires that the Project demonstrate that it will not result in net additional emissions of GHG, through the implementation of GHG-reducing Project Design Features and/or acquisition of voluntary carbon credits sufficient to offset all projected additional emissions, in the following manner:

1. No later than six (6) months after the issuance of a Temporary Certificate of Occupancy for the Project, the Applicant shall commit to providing to the lead agency, the City of Los Angeles, a calculation of the net additional emissions resulting from the construction of the Project (the "Construction Emissions"), to be calculated in accordance with the methodology agreed upon by CARB in connection with the AB 900 certification of the Project (the "Agreed Methodology"). The Applicant shall provide courtesy copies of the calculations to CARB and the Governor's Office promptly following transmittal of the calculations to the City of Los Angeles. The Applicant shall enter into one or more contracts for the implementation of GHG-reducing Project Design Features and/or purchase voluntary carbon credits from a recognized and reputable carbon registry in an amount sufficient to offset the Construction Emissions. The Applicant shall provide courtesy copies of any such contracts to CARB and the Governor's Office promptly following the execution of such contracts.
2. Prior to issuance of any Certificate of Occupancy for the Project, the Applicant or its successor shall commit to entering into one or more contracts to purchase carbon credits from a recognized and reputable carbon registry (to be selected from an accredited registry), which contract, together with any previous contracts for the purchase of carbon credits, shall evidence the purchase of carbon credits in an amount sufficient to offset the Operational Emissions attributable to the Project, and shall be calculated on a net present value basis for a 30-year useful life.

Prior to execution of the contract(s), the Applicant and its consultant shall calculate the Operational Emissions, in accordance with the methodology described in the Applicant's "Application for Environmental Leadership Development Project," specifically the "Greenhouse Gas Emissions Methodology and Documentation" prepared by Environmental Science Associates (ESA).

Once the City has had an opportunity to review and approve the methodology and associated calculations, the Project Applicant shall provide copies of the calculation methodology to the CARB and Governor's Office of Planning and Research (OPR), which

NRDC Letter - Exhibits 1-4.pdf

Ms. Kimura Szeto, Manager
Re: GHG Emissions Offset Approach for the Hollywood Center Project
May 1, 2018
Page 3

is then subject to a determination signed by the Executive Officer of CARB pursuant to the procedures set forth in Section 6 of OPR's Guidelines. The City will issue a Certificate of Occupancy upon receipt of the following: (1) a fully executed copy of the carbon offset purchase agreement(s); (2) a final CARB Determination that the Project will not result in any net additional GHG emissions; and (3) a copy of OPR's Certification Letter for the Project.

3. The following project design features were accounted for in the AB 900 application for purposes of reducing GHG emissions and are, therefore, included as commitments in this letter.

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 incorporate heat island reduction strategies for 50 percent of the Project Site hardscapes or provide 100 percent structured parking for the Project uses and incorporate heat island reduction strategies for the Project roof areas.
- b. The Project will promote alternatives to conventionally fueled automobiles by providing electric vehicle charging stations and/or preferred parking for alternative-fuel vehicles, low-emitting, and fuel-efficient and ride-sharing vehicles.
- c. The Project will optimize building energy performance with a 20 percent reduction from the LEED baseline consistent with LEED requirements.
- d. The Project will reduce water consumption by 40 percent for indoor water and 50 percent for outdoor water from the LEED usage baseline.
- e. 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.

The commitments outlined herein will be incorporated into the Project's Final Environmental Impact Report (FEIR) as a proposed improvement measure. The Applicant will agree to comply with all improvement measures and mitigation measures contained in the FEIR through the Project's Mitigation Monitoring and Reporting Program,

Ms. Kimura Szeto, Manager
Re: GHG Emissions Offset Approach for the Hollywood Center Project
May 1, 2018
Page 4

which represents a binding and enforceable agreement with the Project's lead agency, the City of Los Angeles.

Should you have any questions, please do not hesitate to call Mario Palumbo at (212) 875-4900.

Sincerely,

MCAF Vine LLC; 1750 North Vine LLC; 1749 North Vine Street LLC; 1770 Ivar LLC; 1733 North Argyle LLC; and 1720 North Vine LLC

By: 
Name: Mario Palumbo
Its: Authorized Signatory

cc: City of Los Angeles, Department of City Planning
Edgar Khalatian, Partner, Mayer Brown LLP
Heidi Rous, Air Quality and Noise Group Director, ESA

Hollywood Center Project

Application for CEQA Streamlining

- **LEED Measures**

Hollywood Center

Project LEED Measures

The following list highlights the primary sustainability strategies expected to be implemented into the Hollywood Center Project to achieve Gold certification under the LEED v4 rating system. This is in addition to the strategies needed to reduce the greenhouse gas (GHG) emissions, as required by the California Air Resources Board (CARB).

Design

- Prior to Project approvals, a preliminary LEED action plan will be submitted to the City of Los Angeles Department of City Planning. Prior to issuance of a building permit, conduct a preliminary LEED meeting with a minimum of four key Project team members and the owner or owner's representative. As part of the meeting, review a LEED action plan that, at a minimum (1) determines the LEED certification level to pursue (Gold); (2) selects the LEED credits to meet the targeted certification level; and (3) identifies the responsible parties, including but not limited to the City of Los Angeles Department of Building and Safety, the City of Los Angeles Department of City Planning, and the City of Los Angeles Department of Public Works, Bureau of Engineering, to ensure the LEED requirements for each prerequisite and selected credit are met. Modifications to the selected criteria are permissible during construction as long as the targeted LEED certification level continues to be met.

Sustainable Sites

- Implementation of an erosion and sedimentation plan for all construction activities.
- Incorporate green roofs, rainwater capture, and pervious paving.
- Provision of heat island mitigation strategies for 50 percent of hardscapes or provide 100 percent structured parking.

Location and Transportation

- The Project would be located on land that has been previously developed and would be located on a site within one-quarter mile of surrounding high-density existing uses and within one-half mile of diverse land uses.
- The Project would be located within a one-quarter mile walking distance of existing or planned bus, streetcar, or rideshare stops, or within a one-half mile walking distance of existing or planned bus rapid transit stops, light or heavy rail stations, commuter rail stations or ferry terminals.
- The Project proposes a TDM package to encourage the use of non-auto modes and reduce vehicle trips, that could include the following measures:
 - Parking
 - Unbundle residential parking
 - Unbundle commercial parking coupled with pricing workplace parking and parking cash-out
 - Contribute to LADOT Express Park program to upgrade local parking meter technology
 - Daily parking discount for Metro Commuters
 - Transit
 - Provide a location on-site at which to purchase Metro passes and bus info
 - Transit subsidies (residential and commercial employees)
 - Provide parking spaces for monthly lease to non-resident Metro park n ride users
 - Provide discounted daily parking to non-resident Metro transit pass holders
 - Bus stop upgrades
 - Upgrade/repair public sidewalks on route to Metro Red Line Hollywood/Vine Station
 - Commute Trip Reductions
 - Commute trip reduction program:
 - rideshare (carpool/vanpool) matching and preferential parking
 - guaranteed ride home (e.g., monthly Uber/Lyft/taxi reimbursement)
 - alternative work schedules and telecommute
 - Business center/work center for residents working at home

- **Shared Mobility**
 - On-site car share
 - Rideshare matching
 - On-site bike share station and/or subsidized membership (residents, employees); on-site guest bike share service (hotel) (if/when public bike share comes to Hollywood)
 - LADOT Mobility Hub program
- **Bicycle Infrastructure**
 - Develop a bicycle amenities plan
 - Bicycle parking (indoors & outdoors)
 - Bike lockers, showers, and repair station
 - Convenient access to on-site bicycle facilities (wayfinding, etc.)
 - Contribution towards City's Bicycle Plan Trust Fund
- **Site Design**
 - Integrated pedestrian network within and adjacent to site (transit, bike, ped friendly)
- **Education & Encouragement**
 - Transportation information center, kiosks and/or other on-site measures
 - Tech-enabled mobility: website/mobile app (comprehensive commute planning, on-demand rideshare matching, shared-ride reservations, real-time traffic/transit information, push notifications about transportation choices, etc.)
 - Marketing and promotions (including digital gamification – participants can log trips for prizes, promotions, discounts for local merchants, incentives, etc.)
- **Management**
 - On-site TDM program coordinator and administrative support
 - Conduct user surveys
 - Join future Hollywood Transportation Management Organization (TMO)

Water Quality

- Installation of low-flow fixtures for residential uses.
- Incorporate graywater plumbing system.

- Installation of catch basin inserts and screens to provide runoff contaminant removal in accordance with City standards.
- Reduce water consumption by 40 percent for indoor water and 50 percent for outdoor water from the LEED usage baseline.

Energy Conservation and Efficiency

- Install new or use existing building-level energy meters, or submeters that can be aggregated to provide building-level data representing total building energy consumption.
- Avoid the use of chlorofluorocarbon (CFC)-based refrigerants in new heating, ventilating, air-conditioning, and refrigeration (HVAC&R) systems.
- Optimize building energy performance with a 20 percent reduction from the LEED baseline consistent with LEED requirements.
- Use of refrigerants that reduce ozone depletion.
- Engage in a contract for qualified green power and carbon offsets that have come online since January 1, 2005, for a minimum of five years, to be delivered at least annually. The contract must specify the provision of at least 50% or 100% of the project's energy from green power, carbon offsets, or renewable energy certificates (RECs). Green power and RECs must be Green-e Energy certified or the equivalent.

Solid Waste

- 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.
- Implementation of a construction waste management plan to recycle and/or salvage a minimum of 75 percent of the total construction and demolition material or generate no more than 2.5 pounds of construction waste per square foot (12.2 kilograms of waste per square meter) of the building's floor area.
- Diversion of construction materials from landfill. Diversion must include at least three material streams (e.g., recovery, reuse, and recycling).

Air Quality

- Avoid the use of chlorofluorocarbon (CFC)-based refrigerants in new heating, ventilating, air-conditioning, and refrigeration (HVAC&R) systems.
- Use of refrigerants that reduce ozone depletion.
- Ventilation system that supplies outdoor air to occupied spaces must have particle filters or air-cleaning devices that meet one of the following filtration media requirements:
 - Minimum efficiency reporting value (MERV) of 13 or higher, in accordance with ASHRAE Standard 52.2–2007; or
 - Class F7 or higher as defined by CEN Standard EN 779–2002, Particulate Air Filters for General Ventilation, Determination of the Filtration Performance.
- Meeting applicable California and/or Los Angeles air emissions requirements for all heating or cogeneration equipment utilized at the Project Site.
- Use of adhesives, sealants, paints, finishes, carpet, and other materials that emit low quantities of volatile organic compounds (VOCs) and/or other air pollutants.
- Development of an Indoor Air Quality Management Plan for construction and pre-occupancy phases.
- Installation of landscaping and canopy trees throughout the Project Site, including roof decks, pool decks, and terraces, to provide shading and capture carbon dioxide (CO₂) emissions.
- Provision of individual thermal comfort controls for 50 percent of building occupied spaces. For residential buildings, the credit can be achieved by providing access to operable windows. For commercial spaces, control must be provided to 50 percent of occupants in order to meet the intent of the credit.
- HVAC system design compliance to ASHRAE 55 or equivalent.

Zelinka, Stephen@ARB

From: Alan Sako <ASako@esassoc.com>
Sent: Thursday, May 17, 2018 2:12 PM
To: Kimura, Lezlie@ARB
Cc: Zelinka, Stephen@ARB; Kim, Margret@ARB; Zachary Aarons; Khalatian, Edgar; Mario Palumbo; Heidi Rous; Jay Ziff; Addie Farrell; Richard Lichtenstein; Chan, Jeremy B.; Gabe Kramer
Subject: RE: GHG Emissions Offset Approach for Hollywood Center Project

Lezlie:

The Applicant for the Hollywood Center Project confirms via this email that any potential GHG offsets for the Hollywood Center Project will be purchased and retired through an accredited registry, such as the American Climate Registry (ACR), Climate Action Reserve (CAR), and Verified Carbon Standard (VCS).

Alan Sako
Senior Air Quality Scientist
ESA | Environmental Science Associates
213.599.4300 main | 213.599.4301 fax | 310.566.8069 direct

From: Kimura, Lezlie@ARB [mailto:Lezlie.Kimura@arb.ca.gov]
Sent: Wednesday, May 16, 2018 12:30 PM
To: Alan Sako <ASako@esassoc.com>
Cc: Zelinka, Stephen@ARB <stephen.zelinka@arb.ca.gov>; Kim, Margret@ARB <Margret.Kim@arb.ca.gov>
Subject: GHG Emissions Offset Approach for Hollywood Center Project

Hi Alan,

Our legal team has been reviewing the Hollywood Center Application for Streamlining Judicial Review Under CEQA. One issue raised at this time is the language in the "Exhibit 3 - Greenhouse Gas Emissions Offset Approach for the Hollywood Center Project / LEED Measures". This letter indicates a mitigation option of purchasing the necessary greenhouse gas emission offset credits from a "recognized and reputable carbon registry". However, the current CARB preference is that these credits must be purchased and retired through an accredited registry, such as the American Climate Registry (ACR), Climate Action Reserve (CAR), and Verified Carbon Standard (VCS).

CARB intends to specify the use of only an accredited registry in any determination language for this and future AB 900 projects. While a revised Offset Approach letter does not need to be submitted at this time, we would like to have written confirmation via email that the applicant agrees that any potential GHG offsets for the Hollywood Center Project will be purchased and retired through an accredited registry such as those listed above.

If you have any questions about this, please contact me or Steve Zelinka for more details.

Thank you,



Lezlie Kimura Szeto, Manager
SUSTAINABLE COMMUNITIES POLICY & PLANNING SECTION
CALIFORNIA AIR RESOURCES BOARD
1001 "I" Street, Sacramento, CA 95814
PHONE: (916) 327-5985
EMAIL: Lezlie.Kimura@arb.ca.gov

EXHIBIT 2



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Upcoming Events

Categories

- Jun 1

[Deadline for Legacy Contract Assistance Applications](#)
- Jun 4

[Deadline for Auction Consignment \(August 2020 Joint Auction\)](#)
- Jun 10

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- [Summary of Market Transfers Completed in 2019](#)
- [Compliance](#)

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Climate Change Programs



Instrument Report

- [CITSS Registrants Report](#)
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Resources

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EXHIBIT 3

DISCUSSION DRAFT

CEQA AND CLIMATE CHANGE ADVISORY



December 2018

Discussion Draft

CEQA and Climate Change Advisory

I. INTRODUCTION

The role of the California Environmental Quality Act (CEQA)¹ in addressing climate change and greenhouse gas (GHG) emissions continues to be the topic of much discussion. That was true in June 2008 when the Governor’s Office of Planning and Research (OPR) first prepared an advisory on greenhouse gas impacts, and it continues to be true today. Since 2008, there have been developments in statutes, regulations, and science, as well as a growing body of case law focused on addressing climate change and greenhouse gas emissions.

This *discussion draft* contains initial thoughts on updates to the 2008 advisory. This document incorporates developments since June 2008, including regulatory changes made to the regulations that implement CEQA (commonly known as the “CEQA Guidelines”²) in late 2018 by the California Natural Resources Agency (Agency).³ Although this document largely focuses on project-level analyses of greenhouse gas impacts, Section IV briefly addresses community-scale greenhouse gas reduction plans as one pathway to streamline CEQA analyses. This discussion draft is intended to address some common issues and topics that arise in greenhouse gas emissions analyses under CEQA, but is not intended to address every single issue and topic.

OPR seeks your input on this discussion draft document. In particular, we seek comments on the following:

1. Are there any important points that we missed that we should address?
2. Do you have any suggestions on how to clarify the topics that we did address?

Since this discussion draft addresses the existing provisions in the CEQA statute and Guidelines as well as case law, OPR encourages commenters to focus their input on those directives.

¹ The CEQA statute is found at Public Resources Code section 21000 and following.

² The CEQA Guidelines are found at the California Code of Regulations, Title 14, section 15000 and following.

³ The California Office of Administrative Law (OAL) is currently reviewing the Agency’s rulemaking package for the updates to the CEQA Guidelines. OAL is anticipated to complete its review in late December 2018.

Input may be submitted electronically to comments@opr.ca.gov. Please submit all comments before **Friday, March 15 at 5:00 pm**.

OPR issues technical assistance on issues that broadly affect the practice of land use planning and CEQA. (Gov. Code, § 65040, subds. (g), (l), (m).) This discussion draft does not alter lead agency discretion in preparing environmental documents subject to CEQA. This document should not be construed as legal advice. OPR is not enforcing or attempting to enforce any part of the recommendations contained in this draft document. (Gov. Code, § 65035 [“It is not the intent of the Legislature to vest in the Office of Planning and Research any direct operating or regulatory powers over land use, public works, or other state, regional, or local projects or programs.”].)

The CEQA Guidelines do not require specific methodologies for determining environmental impacts, prescribe specific thresholds of significance, or require specific mitigation measures. Instead, the CEQA Guidelines acknowledge lead agency discretion in determining the appropriate methodologies, thresholds, and if necessary, mitigation measures that are tailored to the project. Approaches and methodologies for calculating greenhouse gas emissions and addressing the environmental impacts through CEQA review continue to improve and are increasingly available to assist public agencies to prepare their CEQA documents and make informed decisions. Many public agencies—along with academic, business, and community organizations—are striving to determine the appropriate means by which to evaluate and mitigate the impacts of proposed projects on climate change. Once finalized, the purpose of this document will be to provide advice and recommendations, which public agencies and other entities may use at their discretion.

II. BACKGROUND

The impacts of climate change pose an immediate and growing threat to California’s economy, environment, and to public health. Cities and counties will continue to experience the effects of climate change in various ways, including increased likelihood of droughts, flooding, wildfires, heat waves and severe weather. Climate change may result from natural factors, natural processes, and human activities that change the composition of the atmosphere and alter the surface and features of the land. Significant changes in global climate patterns are associated with global warming, an average increase in the temperature of the atmosphere near the Earth’s surface, attributed to accumulation of greenhouse gas emissions in the atmosphere. Greenhouse gases trap heat in the atmosphere, which in turn heats the surface of the Earth. Some greenhouse gas emissions occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities. The emission of greenhouse gases through the combustion of fossil fuels (i.e., fuels containing carbon) in conjunction with other human activities is the leading cause of climate change.

State law defines greenhouse gases to include the following: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride (Health and Safety Code, section 38505(g).) The most common greenhouse gas that results from human activity is carbon dioxide, followed by methane and nitrous oxide. Other contributors to climate change, such as black carbon, may also be appropriate for lead agencies to consider as part of the environmental analysis.

A. Regulatory Background, Relevant Statutes, Executive Orders, and Planning Documents

Various legislative mandates and state policies address the reduction of greenhouse gas emissions and establish quantitative emission reduction targets. For example:

- **Executive Order S-3-05** (2005) established a progressive series of targets: by 2010, reduce greenhouse gas emissions to 2000 levels; by 2020, reduce greenhouse gas emissions to 1990 levels; and by 2050, reduced greenhouse gas emissions to 80 percent below 1990 levels.
- **Assembly Bill 32** (2006, Nunez) requires statewide greenhouse gas reductions to 1990 levels by 2020 and continued reductions beyond 2020. The law requires the California Air Resources Board (CARB) to establish a program to track and report greenhouse gas emissions; approve a scoping plan for achieving the maximum technologically feasible and cost effective reductions from sources of greenhouse gas emissions; adopt early reduction measures to begin moving forward; and adopt, implement and enforce regulations to ensure the required reductions occur.
- Pursuant to **Senate Bill 375** (2008, Steinberg), CARB establishes greenhouse gas emissions reduction targets for metropolitan planning organizations (MPOs) to achieve based on land use patterns and transportation systems specified in Regional Transportation Plans and Sustainable Community Strategies. Current targets for the State's largest MPOs call for a 19 percent reduction in greenhouse gas emissions from cars and light trucks from 2005 emissions levels by 2035.⁴
- **Senate Bill 391** (Liu, 2009) requires the [California Transportation Plan](#) to support 80 percent reduction in greenhouse gas emissions below 1990 levels by 2050.
- **Executive Order B-16-12** (2012) specifies a greenhouse gas emissions reduction target of 80 percent below 1990 levels by 2050 specifically for transportation.

⁴ See the California Air Resources Board's February 2018 [Updated Staff Report](https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets), p. 34, available at <https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets>.

- **Executive Order B-30-15** (2015) extends the goal of AB 32 and sets a greenhouse gas emissions reduction goal of 40 percent below 1990 levels by 2030. The executive order also addresses the need for climate adaptation and directs state governments to take a number of actions, including factoring climate change in state agencies' planning and investment decisions.
- **Senate Bill 32** (2016, Pavley) codifies the 2030 emissions reduction goal of Executive Order B-30-15 by requiring a reduction goal of 40 percent below 1990 levels by 2030.
- CARB's [Mobile Source Strategy](#) (2016) describes California's strategy for containing air pollutant emissions from vehicles, and quantifies growth in vehicle miles traveled that is compatible with achieving state climate targets.
- CARB's [2017 Climate Change Scoping Plan](#) (2017 Scoping Plan) describes California's strategy for achieving the 2030 greenhouse gas emissions reduction target established by SB 32. The Scoping Plan also recognized the critical and complementary role of local governments in achieving the State's climate goals. (CARB, 2017, Scoping Plan, p. 97; see also Chapter 8 of OPR's General Plan Guidelines.)
- **Senate Bill 100** (2018, De León) establishes a state goal of 100 percent clean electricity goal by 2045, and advances the Renewables Portfolio Standard to 50 percent by 2025 and 60 percent by 2030.
- **Executive Order B-55-18** (2018) directs the state to achieve carbon neutrality no later than 2045 and achieve and maintain net negative emissions thereafter.

B. Requirements of CEQA and CEQA Guidelines Section 15064.4

CEQA is a public disclosure law that requires public agencies to make a good-faith, reasoned effort, based upon available information, to identify the potentially significant direct and indirect environmental impacts—including cumulative impacts—of a proposed project or activity. The CEQA process is intended to inform the public of the potential environmental effects of proposed government decisions and to encourage informed decision-making by public agencies. In addition, CEQA obligates public agencies to consider less environmentally-damaging alternatives and adopt feasible mitigation measures to reduce or avoid a project's significant impacts.

The lead agency is required to prepare an Environmental Impact Report (EIR), a Mitigated Negative Declaration (MND), or equivalent document, when it determines that the project's

impacts on the environment are potentially significant. This determination of significance must be based upon substantial evidence in light of all the information before the agency. The lead agency's evaluation of a project's environmental impacts "need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible." (CEQA Guidelines, § 15151.)

Although the CEQA Guidelines, at Appendix G, provide a checklist of suggested issues that should be addressed in an EIR, neither the CEQA statute nor the CEQA Guidelines prescribe thresholds of significance or particular methodologies for performing an impact analysis. This is left to lead agency judgment and discretion, based upon factual data and guidance from regulatory agencies and other sources where available and applicable. A threshold of significance is essentially the level at which a lead agency finds a particular environmental effect of a project to be significant. Compliance with a given threshold means the effect normally will be considered less than significant. Lead agencies are encouraged but not required to adopt thresholds of significance for environmental impacts. (CEQA Guidelines, § 15064.7, subd. (b).) Lead agencies may also use thresholds adopted or recommended by other agencies or recommended by experts, provided the lead agency's decision to use such thresholds is supported by substantial evidence. (*Id.*, subd. (c).) A lead agency may also use thresholds on a case-by-case basis. (*Id.*, subd. (b).) Even in the absence of clearly defined thresholds for greenhouse gas emissions, such emissions must be disclosed and mitigated to the extent feasible whenever the lead agency determines that the project contributes to a significant, cumulative climate change impact.

Through SB 97 (2007, Dutton), the Legislature acknowledged that greenhouse gas emissions and the effects of those emissions are appropriate subjects for CEQA analysis. SB 97 directed OPR to develop amendments to the CEQA Guidelines to address analysis and mitigation of the potential effects of greenhouse gas emissions in CEQA documents and processes. (Pub. Resources Code, § 21083.05.) The Agency adopted those amendments at CEQA Guidelines section 15064.4 in 2009. In late 2018, the Agency adopted further revisions to section 15064.4 that are intended to reflect recent case law and existing practice.

The revised CEQA Guidelines section 15064.4 states:

- (a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in section 15064. A lead agency shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:

- (1) Quantify greenhouse gas emissions resulting from a project; and/or

- (2) Rely on a qualitative analysis or performance based standards.
- (b) In determining the significance of a project's greenhouse gas emissions, the lead agency should focus its analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change. A project's incremental contribution may be cumulatively considerable even if it appears relatively small compared to statewide, national or global emissions. The agency's analysis should consider a timeframe that is appropriate for the project. The agency's analysis also must reasonably reflect evolving scientific knowledge and state regulatory schemes. A lead agency should consider the following factors, among others, when determining the significance of impacts from greenhouse gas emissions on the environment:
- (1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;
 - (2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
 - (3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions (see, e.g., section 15183.5(b)). Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project. In determining the significance of impacts, the lead agency may consider a project's consistency with the State's long-term climate goals or strategies, provided that substantial evidence supports the agency's analysis of how those goals or strategies address the project's incremental contribution to climate change and its conclusion that the project's incremental contribution is not cumulatively considerable.
- (c) A lead agency may use a model or methodology to estimate greenhouse gas emissions resulting from a project. The lead agency has discretion to select the model or methodology it considers most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change. The lead agency must support its selection of a model or methodology with

substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use.

The CEQA Guidelines generally address greenhouse gas emissions as a cumulative impact due to the global nature of climate change. (Pub. Resources Code, § 21083, subd. (b)(2).) As the California Supreme Court explained, “because of the global scale of climate change, any one project’s contribution is unlikely to be significant by itself.” (*Cleveland National Forest Foundation v. San Diego Assn. of Governments* (2017) 3 Cal.5th 497, 512.) A project’s significant greenhouse gas impacts must be disclosed and mitigated to the extent feasible whenever the lead agency determines that the project contributes to a significant, cumulative climate change impact. (CEQA Guidelines, §§ 15064.4, subd. (b), 15183.5.) Thus, “[t]he question therefore becomes whether the project’s incremental addition of greenhouse gases is ‘cumulatively considerable’ in light of the global problem, and thus significant.” (*Cleveland National Forest Foundation San Diego Assn. of Governments, supra*, 3 Cal.5th at 512, citation omitted.)

III. POTENTIAL APPROACHES

Each public agency that serves as a CEQA lead agency should develop its own approach to performing a climate change analysis for projects that generate greenhouse gas emissions. A consistent approach should be applied for the analysis of projects, and the analysis must keep pace with scientific knowledge and regulatory schemes. (*Cleveland National Forest Foundation v. San Diego Assn. of Governments, supra*, 3 Cal.5th at 519.) For these projects, compliance with CEQA entails three basic steps: identify and quantify the greenhouse gas emissions; determine the significance of those emissions in the context of climate change; and if the impact is found to be significant, identify alternatives and/or mitigation measures that will reduce the impact below significance.

Lead agencies must use their best efforts to determine whether greenhouse gases may be generated by a proposed project, and if so, quantify or estimate the GHG emissions by type and source. (CEQA Guidelines, § 15064.4, subd. (a).) Second, the lead agency must determine whether the project’s incremental contribution is cumulatively considerable. (*Id.*, § 15064.4, subd. (b), 15183.5.) When determining whether a project’s effects on climate change are “cumulatively considerable” even though its greenhouse gas contribution may be individually limited, the lead agency must consider the impact of the project when viewed in connection with the effects of past, current, and probable future projects. Finally, if the lead agency determines that the greenhouse gas emissions from the project as proposed are potentially significant, it must investigate and implement ways to avoid, reduce, or otherwise mitigate the impacts of those emissions.

The following discussion includes some general factors, based on existing laws and regulations, for lead agencies consider when analyzing whether a proposed project has the potential to cause a significant climate change impact on the environment.

A. Establish an Appropriate Methodology and Identify Greenhouse Gas Emissions

- Lead agencies shall make a good-faith effort, based on available information, to describe, evaluate, calculate, or estimate the amount of CO₂ and other greenhouse gas emissions from a project, including, but not limited to, the emissions associated with vehicle use, energy consumption, water usage and construction activities, and the impact on natural environments that sequester carbon. CEQA defines a “project” broadly to include “whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment.” (CEQA Guidelines, § 15378, subd. (a).) Thus, the analysis must consider all phases of the project.
- Lead agencies have the discretion to use a model or methodology to analyze greenhouse gas emissions that is appropriate for the project. (*Center for Biological Diversity v. Department of Fish & Wildlife* (2015) 62 Cal.4th 204, 228; see, e.g., *Eureka Citizens for Responsible Gov’t v. City of Eureka* (2007) 147 Cal.App.4th 357, 371-372) Various models exist that could be used in a greenhouse gases analysis, but not every model will be appropriate for every project. (CEQA Guidelines, § 15204, subd. (a).)
- A lead agency may take either a quantitative or qualitative approach to the environmental analysis. Under either approach, the lead agency’s analysis must demonstrate a good-faith effort to disclose the amount and significance of greenhouse gas emissions resulting from a project, based to the extent possible on scientific and factual data. (CEQA Guidelines, § 15064.4, subd. (a).) In preparing an EIR, a lead agency’s evaluation of project impacts need not be exhaustive, but an EIR’s sufficiency will be viewed in light of what is reasonably feasible. (*Id.*, § 15151.)
- A qualitative analysis may be appropriate in some circumstances. For instance, in some cases, methods do not exist to model project emissions, or the project is small in scale and quantification of emissions may not reveal information that would assist the lead agency in determining the significance of emissions. A lead agency is not required “to conduct every test or perform all research, study, and experimentation recommended or demanded by commentors.” (CEQA Guidelines, § 15204, subd. (a).) That said, a qualitative approach must still be based to the extent possible on scientific and factual data and demonstrate a good-faith effort at disclosure of project impacts. (*Ibid.*)

- Although a lead agency may use a qualitative approach to the impacts analysis, when possible, lead agencies should quantify the project's construction and operational greenhouse gas emissions, using available data and tools, to determine the amount, types, and sources of greenhouse gas emissions resulting from the project. Quantification may allow the lead agency to more accurately evaluate the project's emissions compared to state greenhouse gas reduction targets, which are in turn based on scientific consensus on the greenhouse gas emissions reduction needed to avert the worst effects of climate change. Even where a lead agency does not apply a numeric threshold of significance to a proposed project, quantification may still be useful for lead agencies to determine the significance of the project's greenhouse gas emissions. (See *Berkeley Keep Jets Over the Bay v. Bd. of Port Commissioners* (2001) 91 Cal.App.4th 1344, 1367-1370; but see *Mission Bay Alliance v. Office of Community Investment & Infrastructure* (2016) 6 Cal.App.5th 160, 200-202.) Additionally, quantification may be useful in indicating to the lead agency and the public whether emissions reductions are possible, and if so, from which sources. Thus, if quantification reveals that a substantial portion of a project's emissions result from energy use, a lead agency may consider whether design changes could reduce the project's energy demand.
- Technical resources, including a variety of modeling tools, are available to assist public agencies to quantify greenhouse gas emissions. (See Section IV below.) Emissions models for particular types of projects continue to improve. Lead agencies must make a good-faith effort to describe or calculate a project's greenhouse gas emissions based to the extent possible on available data. (CEQA Guidelines, § 15064.4, subd. (a); see also § 15151 [standards for adequacy of an EIR].) Perfection is not required.
- To determine transportation-generated greenhouse gas emissions in particular, lead agencies may decide it is appropriate to use the same method or methodology used to determine the transportation impacts associated with a project's vehicle miles traveled (VMT). For more information, lead agencies should refer to **Appendices A and B** of this discussion draft, and to OPR's [Technical Advisory on Evaluating Transportation Impacts in CEQA](#), which provides a potential method for connecting the greenhouse gas assessment to thresholds of significance based on state greenhouse gas emissions reduction goals. Using a consistent approach for both the greenhouse gas and transportation analyses can provide efficiency and consistency in the environmental analysis.
- There is no standard format for including the analysis in a CEQA document. A greenhouse gas/climate change analysis can be included in one or more of the typical

sections of an environmental document (e.g., air quality, transportation, energy) or may be provided in a separate section on cumulative impacts or climate change.

- When determining a project’s greenhouse gas emissions, lead agencies must describe the existing environmental conditions or setting, without the project, which normally constitutes the baseline physical conditions for determining whether a project’s impacts are significant. (CEQA Guidelines, § 15125.)

B. Determine Significance

- As with any environmental impact, lead agencies must determine what constitutes a significant impact on climate change that may be caused by the project’s physical changes. (Pub. Resources Code, § 21002; CEQA Guidelines, § 15064, subd. (d); *Protect the Historic Amador Waterways v. Amador Water Agency* (2003) 116 Cal.App.4th 1099, 1106-07.) Because the issue of climate change is discussed in a cumulative context, an important consideration in selecting and developing significance thresholds is identifying the level at which a project’s individual emissions would be cumulatively considerable. In the absence of regulatory standards for greenhouse gas emissions or other scientific data to clearly define what constitutes a “significant impact”, individual lead agencies may undertake a project by-project analysis, consistent with available guidance and current CEQA practice.
- The potential effects of a project may be individually limited but cumulatively considerable. (CEQA Guidelines, § 15064.4, subd. (b); *Cleveland National Forest Foundation v. San Diego Assn. of Governments, supra*, 3 Cal.5th at p. 515 [“The fact that a regional plan’s contribution to reducing greenhouse gas emissions is likely to be small on a statewide level is not necessarily a basis for concluding that its impact will be insignificant in the context of a statewide goal.”].) Lead agencies should not dismiss a proposed project’s direct and/or indirect climate change impacts without careful consideration, supported by substantial evidence. Documentation of available information and analysis should be provided for any project that may significantly contribute new greenhouse gas emissions, either individually or cumulatively, directly or indirectly (e.g., transportation impacts).
- Although climate change is ultimately a cumulative impact, not every individual project that emits greenhouse gases must necessarily be found to contribute to a significant cumulative impact on the environment.
- A number of models exist to quantify greenhouse gas emissions, and Guidelines section 15064.4, subdivision (b), provides a list of non-exhaustive factors that can be utilized by the lead agency when conducting an impacts analysis. Although the

sufficiency of an EIR is viewed in light of what is reasonably feasible, lead agencies must ensure that greenhouse gas impact analyses “stay in step with evolving scientific knowledge and state regulatory schemes.” (*Cleveland National Forest Foundation v. San Diego Assn. of Governments*, *supra*, 3 Cal.5th at p. 504.) As with the analyses for other environmental impacts under CEQA, the lead agency must support its analysis with substantial evidence.

- CEQA authorizes reliance on previously approved plans and mitigation programs that have adequately analyzed and mitigated greenhouse gas emissions to a less-than-significant level as a means to avoid or substantially reduce the cumulative impact of a project. (See Section D.)

1. *Thresholds of Significance*

A lead agency has the discretion to select and develop appropriate thresholds of significance to analyze a project’s environmental impacts, or rely on thresholds developed by other agencies that it deems applies to the project. The CEQA Guidelines define a “threshold of significance” as “an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant.” (CEQA Guidelines, § 15064.7, subd. (a).) The selection and development of thresholds requires a lead agency to “make a policy decision in distinguishing between substantial and insubstantial adverse environmental impacts based, in part, on the setting.” (*North Coast Rivers Alliance v. Marin Municipal Water Dist. Bd. of Directors* (2013) 216 Cal.App.4th 614, 625.) The California Supreme Court further explained that “[a]lthough lead agencies have discretion in designing an EIR, the exercise of that discretion must be ‘based to the extent possible on scientific and factual data.’” (*Cleveland National Forest Foundation v. San Diego Assn. of Governments*, *supra*, 3 Cal.5th at p. 515, quoting CEQA Guidelines, § 15064, subd. (b).)

The following discussion includes *some* of the methods that a lead agency may use in selecting the appropriate threshold below which the lead agency may find an impact is less than significant. The lead agency has the discretion to select the appropriate significance threshold, which may differ among projects depending on the project design, location, and other circumstances. Each case must be analyzed in light of its own facts and circumstances. The discussion below merely provides information on some of the significance thresholds that are currently in practice and have been identified by the courts as acceptable methods.

In the context of analyzing greenhouse gas emissions, the threshold of significance will assist the lead agency in determining whether a project’s incremental contribution of emissions is cumulatively considerable in light of the global issue. A lead agency should be able to

conclude that an impact on climate change is less than significant if, based on substantial evidence, the lead agency determines that a project's incremental contribution is not cumulatively considerable. That said, a lead agency must evaluate any substantial evidence supporting a fair argument that, despite compliance with thresholds, the project's impacts are nevertheless significant. (*Protect the Historic Amador Waterways*, *supra*, 116 Cal.App.4th at pp. 1108-1109.)

A lead agency may choose to review a project's environmental impacts using more than one threshold of significance. (*Cleveland National Forest Foundation v. San Diego Assn. of Governments*, *supra*, 3 Cal.5th at p. 507 [EIR proposed three different significance thresholds and applied each to three different years].) Regardless of which threshold or combination of thresholds the lead agency uses, the agency must support its analysis and significance determination with substantial evidence. (CEQA Guidelines, § 15064.7.)

a. Significance Threshold Based on Efficiency

A significance threshold that is based on an efficiency metric—rather than an absolute number—would allow lead agencies to compare projects of various types, sizes, and locations equally, and determine whether a project is consistent with the State's reduction goals. For example, an efficiency metric for a residential project can be expressed on a per-capita basis, and a metric for an office project can be expressed on a per-employee basis. A lead agency may use a threshold that another agency has developed or the lead agency may develop its own. In the context of analyzing greenhouse gas emissions, the California Supreme Court has explained that an efficiency metric is an appropriate method to measure impacts that are global, such as greenhouse gas emissions:

. . . the global scope of climate change and the fact that carbon dioxide and other greenhouse gases, once released into the atmosphere, are not contained in the local area of their emission means that the impacts to be evaluated are also global rather than local. For many air pollutants, the significance of their environmental impact may depend greatly on *where* they are emitted; for greenhouse gases, it does not. For projects, like the present residential and commercial development, which are designed to accommodate long-term growth in California's population and economic activity, this fact gives rise to an argument that a certain amount of greenhouse gas emissions is as inevitable as population growth. Under this view, a significance criterion framed in terms of efficiency is superior to a simple numerical threshold because CEQA is not intended as a population control measure.

(*Center for Biological Diversity v. Department of Fish & Wildlife*, 62 Cal.4th at pp. 219-220.)

A lead agency relying on an efficiency metric derived from statewide data should be careful to support with substantial evidence how the selected metric appropriately applies to the lead agency's impacts analysis for a particular project. Additionally, if relying on consistency with state plans as a basis for determining significance, a lead agency should align its quantitative metrics and locally-appropriate emission reductions goals with the methodology used to derive CARB's statewide per capita targets of no more than six metric tons CO₂e per capita by 2030 and no more than two metric tons CO₂e per capita by 2050. (CARB, 2017 Scoping Plan, pp. 98-99.)

b. Compliance with State Goals and Percentage Reduction from BAU Emissions

Pursuant to the California Supreme Court's decision in *Center for Biological Diversity v. Department of Fish & Wildlife, supra*, 62 Cal.4th 204, a lead agency may use compliance with state goals as a threshold. The most recently codified goal is contained in SB 32 (2016, Pavley), which codified the 2030 emissions reduction goal of Executive Order B-30-15 by requiring a reduction goal of 40 percent below 1990 levels by 2030. A lead agency may also choose to advance towards the State's goal of carbon neutrality by 2045 established by Executive Order B-55-18. This goal was established following the completion of the 2017 Scoping Plan and reflects the global scientific community's consensus of what is needed to avoid the worst impacts of climate change and maintain a climate of less than 2 degrees Celsius above the 20th century average. For a complete list of state goals, please see pages 3-4 of this document.

Agencies may also look to the state's percentage goal of reducing emissions below the "business as usual" (BAU) scenario discussed in CARB's Scoping Plan as the basis for a project's significance threshold. (*Center for Biological Diversity v. Department of Fish & Wildlife, supra*, 62 Cal.4th at p. 216.) The BAU scenario represents the forecast of greenhouse gas emission levels in the absence of conservation or regulatory efforts beyond what was in place when the forecast was made. (CARB, 2017 Scoping Plan, p. 22.) If a lead agency relies on the BAU scenario, the agency must be careful to support with substantial evidence the identified project-level percentage reduction of greenhouse gas emissions compared to BAU with achieving the statewide goal of percentage reduction from BAU emissions. The lead agency should rely on local or regional inventories of emissions that include land uses relevant to the project at hand. Notably, correlating the project-level percentage reduction with the statewide goals may be difficult to achieve in practice and thus this particular threshold may not be readily implemented.

c. Consistency with Relevant Regulations, Plans, Policies, and Regulatory Programs

Relevant regulations, plans, and policies adopted to reduce greenhouse gas emissions can assist in establishing a significance threshold. "Such requirements must be adopted by the

relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions.” (CEQA Guidelines, § 15064.4, subd. (b).) In *Center for Biological Diversity v. Department of Fish & Wildlife, supra*, the court noted that “[a] significance analysis based on compliance with such statewide regulations, however, only goes to impacts within the area governed by the regulations. That a project is designed to meet high building efficiency and conservation standards, for example, does not establish that its greenhouse gas emissions from transportation activities lack significant impacts.” (*Id.* at p. 229.)

A lead agency may also consider project compliance with community-scale climate action plans or other greenhouse gas emissions reductions plans prepared pursuant to CEQA Guidelines section 15183.5. (See *Center for Biological Diversity v. Department of Fish & Wildlife, supra*, 62 Cal.4th at 230 [discussing climate action plans or greenhouse gas emissions reduction plans as appropriate means to analyze a project’s greenhouse gas impact].) As discussed briefly in Section III.D. below, a lead agency may be able to streamline the environmental analysis if the proposed project is consistent with a greenhouse gas emissions reduction plan that meets the requirements of CEQA Guidelines section 15183.5.

d. Absolute Numerical/Quantitative Threshold

A lead agency may establish a numerical threshold of significance for greenhouse gas emissions expressed as an absolute number, or use an existing threshold that another agency has developed that it deems applies to a project, such as a local air district. (CEQA Guidelines, § 15064.4, subd. (b)(2); *Center for Biological Diversity v. Department of Fish & Wildlife, supra*, 62 Cal.4th at p. 230 [“a lead agency may rely on existing numerical thresholds of significance for greenhouse gas emissions, though . . . use of such thresholds is not required.”].) The numerical threshold would be the emissions level below which a project’s incremental contribution to global climate change would be less than “cumulatively considerable.” A lead agency may establish a threshold on a case-by-case basis, or apply a general-use threshold for different land use types and projects that the lead agency adopted pursuant to Guidelines section 15064.7, subdivision (b). (See CARB, 2017 Scoping Plan, p. 102 [“[I]ead agencies have the discretion to develop evidence-based numeric thresholds (mass emissions, per capita, or per service population) consistent with this Scoping Plan, the State’s long-term greenhouse gas goals, and climate change science.”].) A quantitative threshold should be based on compliance with statewide emission reductions targets, and the lead agency would need to ensure that the quantitative project-level threshold was properly correlated to statewide targets.

2. Timeframe for the Analysis of Impacts

The CEQA Guidelines acknowledge lead agency discretion in establishing the timeframe for the analysis of project impacts that is appropriate for the proposed project. (CEQA Guidelines, § 15064.4, subd. (b).) CEQA does not prescribe a particular horizon year or years. Lead agencies, however, must consider a project’s direct and indirect significant impacts on the environment, “giving due consideration to both the short-term and long-term effects.” (CEQA Guidelines, § 15126.2, subd. (a).) The Legislature also declared that state policy requires “governmental agencies at all levels to consider . . . long-term benefits and costs, in addition to short-term benefits and costs[.]” (Pub. Resources Code, § 21001, subd. (d).) Thus, a lead agency should be careful to select an appropriate timeframe for the analysis to adequately addresses all potentially significant short-term and long-term effects.

For some projects, a lead agency may determine that a timeframe of a few years is appropriate for the impacts analysis, such as for a project with only short-term impacts. But projects with a longer-term implementation period, such as a long-range planning document, will likely require a longer time horizon for the impacts analysis. For such projects, it would be appropriate for lead agencies to analyze the project’s greenhouse gas impacts for horizon years that are consistent with existing state policy and goals for greenhouse gas emission reductions. In analyzing a project’s impacts, a lead agency may also consider multiple horizon years.

In the past, lead agencies generally have analyzed project consistency with AB 32, which requires statewide greenhouse gas reductions to 1990 levels by 2020. But for longer-term projects, a 2020 time horizon will not be adequate in the near future because we will soon surpass that year. The California Supreme Court explained that for EIRs using a climate goal-consistency approach, “year 2020 goals will become a less definitive guide, especially for long term projects that will not begin operations for several years.” Rather, these EIRs “may in the near future need to consider the project’s effects on meeting longer term emissions reduction targets.” (*Center for Biological Diversity v. Department of Fish & Wildlife, supra*, 62 Cal.4th at p. 223.) The appropriate scope and timeframe for a lead agency’s greenhouse impacts analysis will likely evolve and shift over time. Thus, in developing and preparing evidence-based impact analyses, lead agencies “must ensure that CEQA analysis stays in step with evolving scientific knowledge and state regulatory schemes.” (*Cleveland National Forest Foundation v. San Diego Assn. of Governments, supra*, 3 Cal.5th at p. 519.)

C. Mitigate Impacts

- The lead agency must impose all mitigation measures that are necessary to reduce greenhouse gas emissions to a less-than-significant level. CEQA does not require mitigation measures that are infeasible for specific legal, economic, technological, or other reasons.

- Mitigation measures will vary with the type of project being contemplated, but may include alternative project designs or locations that conserve energy and water, measures that reduce vehicle miles traveled by fossil-fueled vehicles, measures that contribute to established regional or programmatic mitigation strategies, and measures that sequester carbon to offset the emissions from the project.
- In some cases, greenhouse gas emissions reduction measures will not be feasible or may not be effective at a project level. Rather, it may be more appropriate and more effective to develop and adopt program-level plans, policies and measures that will result in a reduction of greenhouse gas emissions on a community or regional level. Further, it may be more effective to incorporate greenhouse gas-reducing elements into the proposed project, such as using renewable non-emitting energy generated on-site and siting a project near transit.
- If there are not sufficient mitigation measures that the lead agency determines are feasible to achieve a less-than-significant level, the lead agency should adopt those measures that are feasible, and adopt a Statement of Overriding Considerations that explains why further mitigation is not feasible. A Statement of Overriding Considerations must be prepared when the lead agency has determined to approve a project for which certain impacts are unavoidable. These statements should explain the reasons why the impacts cannot be adequately mitigated in sufficient detail and discuss the project benefits that outweigh the unavoidable impacts. This discussion must be based on specific facts, so as not to be conclusory.
- Lead agencies may want to consider the loading order of mitigation measures to reduce or avoid greenhouse gas emissions that may be appropriate for a proposed project. OPR notes, however, that lead agencies have the discretion to determine the precise method of mitigation for their projects. (CEQA Guidelines, § 15126.4, subd. (a)(1)(B).) Additionally, the effectiveness and feasibility of any proposed mitigation measure is within the lead agency's discretion based on the substantial evidence before it.

As a first level of mitigation, lead agencies may determine it is appropriate to focus on all reasonable and feasible on-site strategies to reduce or avoid greenhouse gas emissions such as on-site design features. As the Scoping Plan recommends, lead agencies should “prioritize on-site design features that reduce emissions, especially from VMT, and direct investments in GHG reductions within the project’s region that contribute potential air quality, health, and economic co-benefits locally.” (CARB, 2017 Scoping Plan, p. 102; see also, OPR’s General Plan Guidelines.) Additionally, there may be practical reasons to prefer on-site mitigation. There may be

circumstances in which requiring on-site mitigation may result in various co-benefits for the project and local community, and that monitoring the implementation of such measures may be easier.

Next, if the project requires further mitigation, lead agencies may consider off-site measures that are additional to on-site measures. A lead agency has the discretion to select off-site mitigation measures that are based locally, regionally, or in-state over investments in out-of-state or international mitigation measures. As with on-site mitigation measures, there may be practical reasons related to prefer local off-site measures over measures farther afield. Examples of off-site mitigation could include funding a local or regional off-site greenhouse gas mitigation project or purchasing verifiable carbon credits. CEQA does not prohibit off-site mitigation measures, but lead agencies must support with substantial evidence in the record their determination that mitigation will be effective and fully enforceable. (CEQA Guidelines, § 15126.4.) To do so, lead agencies may need to require more stringent protocols to verify the effective and enforceability of off-site mitigation measures. (*Id.*, §§ 15126.4, 15364.)

D. Streamlining Greenhouse Gas Analyses Using Greenhouse Gas Emissions Reduction Plans

The Legislature has made it clear that lead agencies should tier or streamline their environmental documents whenever feasible, specifically stating that tiering “will promote construction of needed housing and other development projects” by streamlining regulatory procedures and avoiding repetitive analyses. (Pub. Resources Code, § 21093.) The Legislature’s declaration for tiering or streamlining is applicable to greenhouse gas emissions analyses because emissions resulting from individual projects may be best analyzed and mitigated at a programmatic level. To streamline the environmental analysis, a lead agency may consider preparation of a greenhouse gas emission reduction plan, such as a climate action plan, that is compliant with CEQA Guidelines section 15183.5. Later project-specific environmental documents may tier from and/or incorporate by reference the existing programmatic review so long as the plan meets the requirements in section 15183.5. (CEQA Guidelines, 15183.5, subd. (a); *Center for Biological Diversity v. Department of Fish & Wildlife*, *supra*, 62 Cal.4th at p. 230.) More detailed information and guidance on greenhouse gas emission reduction plans is contained in Chapter 8, Climate Change, of OPR’s General Plan Guidelines.

IV. GREENHOUSE GAS EMISSIONS TOOLS

Quantification would assist lead agencies in preparing an adequate analysis of greenhouse emissions using currently available data and tools. Quantification is possible using currently available tools for most, if not all, projects.

The following includes a list of some of the more useful climate change tools and resources that a lead agency can use to quantify greenhouse emissions and determine the significance of project impacts to climate change. Not every tool or resource will be appropriate for every project.

- **General Plan Guidelines:** State of California developed guidance on how to develop a general plan, and contains specific information on developing a qualified climate action plan (see Chapter 8, Climate Change), available at <http://www.opr.ca.gov/planning/general-plan/guidelines.html>
- **Cool California website:** State of California supported online resource that hosts links to various tools and case studies, available at <https://coolcalifornia.arb.ca.gov/>. This website also includes the Climate Action Map Portal (CAPMap), an open data tool provided by the California Air Resources Board to help local governments learn more about other climate action plans and climate change policies being implemented across the state.
- **California State Energy Efficiency Collaborative:** Outlines the steps to reduce greenhouse gas emissions and includes templates supported by the State of California, available at <http://californiaseec.org/>
- **California Air Pollution Control Officers Association (CAPCOA) website:** Outlines examples of policies and programs to reduce greenhouse gas emissions, available at <http://www.capcoa.org/>. Also see CAPCOA's white paper, "Quantifying Greenhouse Gas Mitigation Measures," August 2010, available at <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>.
- **California Emissions Estimator Model (CalEEMod):** Widely used for project-level greenhouse gas emissions quantification, available at <http://www.caleemod.com>
- **CARB's Emission Factors (EMFAC) Web Database:** Database containing emissions and emission rates data from motor vehicles, available at <https://www.arb.ca.gov/emfac/>

Appendix A: Analyzing Greenhouse Gas Emissions from Transportation

To streamline the analysis of transportation-generated greenhouse gas (GHG) emissions, lead agencies may use the same method or methodology used to determine the transportation impacts associated with a project's vehicle miles traveled (VMT). However, lead agencies have the discretion to use a model or methodology to analyze greenhouse gas emissions that is appropriate for the particular project. (*Center for Biological Diversity v. Department of Fish & Wildlife* (2015) 62 Cal.4th 204, 228.)

The following sections provide some guidance summarized from OPR's [Technical Advisory on Evaluating Transportation Impacts in CEQA](#), which may be useful to lead agencies when determining the greenhouse gas impacts associated with transportation. Lead agencies may refer to the technical advisory on transportation impacts for more detailed information on assessing vehicle travel and selecting an appropriate threshold. That technical advisory is non-regulatory and lead agencies may use the advisory at their discretion.

This appendix is a **discussion draft**. OPR invites the public to provide comments on this document.

Avoid truncating or discounting vehicle trips. CEQA requires environmental analyses to reflect a "good faith effort at full disclosure." (CEQA Guidelines, § 15151.) Thus, where methodologies exist that can estimate the full extent of vehicle travel from a project and associated greenhouse gas emissions, the lead agency should apply them to do so. Where vehicle miles traveled impacts will grow over time, analyses should consider both a project's short- and long-term effects associated with vehicle miles traveled and greenhouse gas emissions. Lead agencies should also consider all impacts and not truncate analyses because of jurisdictional or other boundaries. For additional details, see the "Consideration for All Projects" section of OPR's technical advisory.

Approach for Residential and Office Projects. Tour- and trip-based approaches⁵ are sound methods for assessing both vehicle miles traveled and greenhouse gas emissions from residential/office projects. These approaches are also the most straightforward methods for assessing reductions in vehicle miles traveled and greenhouse gas emissions from mitigation measures. For additional details, see the "Technical Considerations in Assessing Vehicle Miles Traveled" section of OPR's technical advisory.

⁵ See OPR's [Technical Advisory on Evaluating Transportation Impacts in CEQA](#), "Appendix 1: Considerations About Which VMT to Count", for a description of these approaches.

Approach for Retail and Transportation Projects. Generally, lead agencies should analyze the effects of a retail or transportation project by assessing the greenhouse gas emissions resulting from the change in total vehicle miles traveled⁶ because retail projects typically re-route travel from other retail destinations. A retail project might lead to increases or decreases in vehicle miles traveled and associated greenhouse gases, depending on previously existing retail travel patterns. For additional details, see the “Technical Considerations in Assessing Vehicle Miles Traveled” and “Considering the Effects of Transportation Projects on Vehicle Travel” sections and Appendix 2 of OPR’s technical advisory.

Land Use Plans. For land use plans, lead agencies should analyze the associated vehicle miles traveled and greenhouse gas emissions across the full area over which the plan may substantively affect travel patterns. This may include looking beyond the boundary of the plan or jurisdiction’s geography. Lead agencies should avoid under-counting the vehicle miles traveled and emissions associated with travel between the project and destinations that are located outside of the boundary of the plan or the jurisdiction’s geography. Lead agencies should count, in full, a project’s vehicle miles traveled and associated greenhouse gas emissions.

Analysis of specific plans may employ the same thresholds as the thresholds used for projects. A general plan, area plan, or community plan may have a significant greenhouse gas emissions impact if the proposed new residential, office, or retail land uses in the plan would exceed, in the aggregate, the respective vehicle miles traveled threshold recommended in OPR’s technical advisory.

Where the lead agency tiers from a general plan environmental impact report pursuant to CEQA Guidelines sections 15152 and 15166, the lead agency generally focuses on the environmental impacts that are specific to the later project and were not analyzed as significant impacts in the prior EIR. (Pub. Resources Code, § 21068.5; Guidelines, § 15152, subd. (a).) Thus, in analyzing the later project, the lead agency should focus on the greenhouse gas impacts that were not adequately addressed in the prior environmental impact report. In the tiered document, the lead agency should continue to apply the thresholds recommended above.

Using Vehicle Miles Traveled Data to Determine Greenhouse Gas Emissions. A lead agency may calculate transportation-generated greenhouse gas emissions from a project’s vehicle miles traveled either by using a CO₂ per vehicle miles traveled multiplier, or by using methods that factor in variations in vehicle speed (such as used in the Emission Factors (EMFAC) model).

⁶ See OPR’s [Technical Advisory on Evaluating Transportation Impacts in CEQA](#), “Appendix 1: Considerations About Which VMT to Count” and the “Assessing Change in Total VMT” section, for a description of this approach.

Appendix B: Potential Streamlining of the Greenhouse Gas Emissions Analysis for Transportation-Efficient Projects and Projects that Reduce Vehicle Miles Traveled

This appendix is a **discussion draft** of one potential pathway to streamline the project-level CEQA analyses for operational impacts associated with greenhouse gas emissions and vehicle miles traveled. This discussion draft appendix does not address potential streamlining for construction-related impacts. In addition to the main body of the discussion draft advisory, OPR invites the public to provide comments on this discussion draft appendix.

Most greenhouse gas (GHG) emissions that result from land use development in California come from transportation and building energy use.⁷ Building in a more transportation-efficient manner, so long as it is in accordance with best practices and building standards focused on building energy conservation, leads to overall energy savings and minimization of greenhouse gas emissions.

A path to streamline the transportation and greenhouse gas analyses may be possible for some projects, depending on the project-specific circumstances. Projects that produce low vehicle miles traveled (VMT) can be expected to have low transportation greenhouse gas emissions. Research shows that low-VMT land uses also tend to produce low levels of emissions associated with building energy.⁸ Further, in California, building energy efficiency standards and greenhouse gas emissions are moving toward carbon neutrality.⁹ Finally, appliance efficiency programs such as the United States Environmental Protection Agency's Energy Star program can also help reduce energy use.

Therefore, a land use development project that produces low vehicle miles traveled, achieves applicable building energy efficiency standards, uses no natural gas or other fossil fuels, and includes Energy Star appliances where available, may be able to demonstrate a less-than-significant greenhouse gas impact associated with project operation.

⁷ California Air Resources Board, California Greenhouse Gas Emissions Inventory, available at <https://www.arb.ca.gov/cc/inventory/data/data.htm>.

⁸ See Kevin Fang and Jamey Volker (Mar. 2017) *Cutting Greenhouse Gas Emissions Is Only the Beginning: A Literature Review of the Co-Benefits of Reducing Vehicle Miles Traveled*, available at https://ncst.ucdavis.edu/wp-content/uploads/2017/03/NCST-VMT-Co-Benefits-White-Paper_Fang_March-2017.pdf; see also Reid Ewing and Fang Rong (2018) *The Impact of Urban Form on U.S. Residential Energy Use*.

⁹ See, e.g., Title 24 of the California Code of Regulations, Executive Order B-55-18, and SB 100 (2018, de León).

Greenhouse Gas Emissions Associated with Transportation

California policy efforts to reduce transportation greenhouse gas emissions generally can be divided into three broad categories:

1. Addressing vehicle energy efficiency
2. Addressing carbon content of fuels
3. Addressing the amount of vehicle miles traveled

Land use development does not affect vehicle energy efficiency or the carbon content of fuels, but contributes to greenhouse gas emissions by adding vehicle travel or modifying vehicle travel patterns.

Pursuant to SB 743 (Steinberg, 2013), the CEQA Guidelines were amended to establish vehicle miles traveled as the metric of transportation impact statewide, replacing level of service (LOS). To provide technical assistance in implementing this change, OPR provides information that users can use at their discretion in its [Technical Advisory on Evaluating Transportation Impacts in CEQA](#). This technical advisory includes non-regulatory recommended approaches and methods for using the vehicle miles traveled metric for various project types. A lead agency could use the recommended methods and thresholds in OPR's technical advisory on transportation to help correlate the assessment of both vehicle miles traveled and transportation-sector greenhouse gas emissions. The recommendations for thresholds in that technical advisory are based on state climate goals.

For example, to streamline the CEQA analyses of both transportation greenhouse gas emissions and transportation impacts using the vehicle miles traveled metric, a lead agency could consider the following when analyzing the operation of proposed land use development projects:

Residential. A residential project that would generate vehicle travel that is 15 or more percent below existing residential vehicle miles traveled per capita, measured against the region or city, may have a less-than-significant impact both for transportation and the greenhouse gas emissions associated with transportation.

Office. An office project that would generate vehicle travel that is 15 or more percent below existing office vehicle miles traveled per employee, measured against the region, may have a less-than-significant impact for both transportation and the greenhouse gas emissions associated with transportation.

Retail. A retail development that leads to a reduction in vehicle miles traveled may have a less-than-significant impact both for transportation and the greenhouse gas emissions associated with transportation.

These potential suggested thresholds are based on the recommended methodology for calculating vehicle miles traveled in OPR's [Technical Advisory on Evaluating Transportation Impacts in CEQA](#). Because OPR's recommendations are non-binding and non-regulatory, a lead agency may use its discretion to undertake a different approach to analyzing transportation impacts. Accordingly, the potential suggested thresholds may not apply or be appropriate in those cases.

Greenhouse Gas Emissions Associated with Building Energy Use

The preceding section addressed greenhouse gas emissions from transportation associated with operation of a land use project. This section discusses greenhouse gas emissions associated with energy use associated with operation of project buildings.

Greenhouse gas emissions from buildings in California are generated mostly from the use of electricity and natural gas, mainly from space heating and cooling, water heating, use of lighting and electronics, and refrigeration. Title 24 of the California Code of Regulations, known as the California Building Standards Code or simply "Title 24," addresses the energy efficiency of buildings, while Title 20, known as the Appliance Efficiency Regulations, addresses the energy efficiency of federally and non-federally regulated appliances.

As stated earlier, in California, building energy efficiency standards and greenhouse gas emissions are moving toward carbon neutrality. Therefore, one can expect greater reductions in greenhouse gas emissions associated with electricity use in the future. Still, electricity use is likely to generate greenhouse gas emissions through approximately 2045, so it remains important to consider programs like the United States Environmental Protection Agency's Energy Star program, which certifies appliances that are particularly energy efficient. Meanwhile, appliances powered directly by natural gas or another fossil fuel would continue to emit greenhouse gas emissions.

In conclusion, a building designed to use electricity as its sole energy source (e.g., is not powered by natural gas), follows applicable Title 24 building standards codes, and uses only Energy Star-rated appliances for appliance types that are offered Energy Star ratings, may have a less-than-significant greenhouse gas impact with respect to energy use during building operations.

Greenhouse Gas Emissions Associated with Construction and Other Sources

In some situations, cumulative greenhouse gas emissions associated with construction from a land use development project may be orders of magnitude lower than the operational emissions from the project, simply because construction emissions are generally short term in duration compared to the project's overall lifetime. But due to differences in projects, it is difficult to make these conclusions in all cases. For example, some projects may have long construction periods (e.g., 20 years) and may result in a large amount of emissions that may be considered significant. Thus, while a lead agency may be able to streamline the greenhouse gas emissions analysis associated with a project's operational emissions, a lead agency should still carefully consider whether a project's construction emissions are cumulatively considerable.

Similarly, operational greenhouse gas emissions associated with water consumption and solid waste disposal are typically nominal in comparison to the operational emissions from transportation and building energy. However, a lead agency should consider whether there are unique circumstances associated with the project that would lead to significant emissions from water consumption and solid waste disposal.

Summary of Vehicle Miles Traveled and Greenhouse Gas Emissions Streamlining for Land Use Development Projects

In sum, a land use development consisting of residential, office, and/or retail, which meets the following criteria may have less-than-significant operational greenhouse emissions with respect to transportation and building energy:

1. Results in below threshold vehicle miles traveled, either without mitigation or after mitigation;
2. Uses only electricity (no natural gas or other fossil fuels), for energy in all buildings that constitute the project;
3. Uses Energy Star appliances for any appliance category where they are available; and
4. Is in alignment with applicable Title 24 building standards codes in effect at the time the project is constructed.

Transportation Projects

Generally, transportation projects affect greenhouse gas emissions mostly through their effect on vehicle miles traveled. Therefore, a transportation project that leads to a reduction in vehicle miles traveled, such as a transit or active transportation project, may be able to demonstrate a less-than-significant impact both for transportation and for the greenhouse gas emissions associated with project operations. Transit and active transportation projects

generally reduce vehicle miles traveled and greenhouse gas emissions from transportation operations.

EXHIBIT 4

[Overview](#)[Sustainability](#)[Supporting Our Economy](#)[News](#)

A National Model for Sustainability

Newhall Ranch will set a new standard for sustainability through a comprehensive array of green innovations onsite and within L.A. County, as well as funding direct emissions reduction activities locally, in California, and around the world. From green buildings that encourage energy efficiency to a robust transportation management program, Newhall Ranch will create a model for living and working sustainably in California.



Upholding Green Building & Design Standards

- Innovative energy efficiency measures and renewable energy generation (e.g., solar power) to design homes, commercial buildings and public facilities to meet Zero Net Energy standards within Newhall Ranch.

- State-of-the-art energy-efficient designs, including solar panels and

Show your support

Sign up to stay informed

Supporting CA Climate Change Goals

solar water heating.

All net greenhouse gas emissions from the project and its construction

- ✓ will be reduced or mitigated to zero.



Encouraging Sustainable Commuting

- ✓ Carshare and bikeshare programs.
- Subsidies for neighborhood electric
- ✓ vehicle purchases.
- Thousands of jobs created close to
- ✓ housing and shared workspaces.
- Investments to electrify buses, locally
- ✓ and regionally.



Net Zero Newhall advances the objectives of newly enacted SB 32, and supports Governor Jerry Brown’s legacy of leadership in addressing global climate change.



Preserving Natural Resources

- 10,000 acres of dedicated open space, including an uninterrupted High Country area larger than Griffith Park and New York’s Central Park
- ✓ combined.
- ✓ 50 miles of trails.
- State-of-the art water conservation measures, using reclaimed water for irrigation, drought-tolerant landscaping, and a water reclamation plant capable of recycling millions of
- ✓ gallons per day.
- \$13 million endowment to protect and enhance natural open space,
- ✓ wildlife and habitats in perpetuity.



Promoting Electric Vehicle Use

- ✓ An electric vehicle charging station in every home.
- 2,000 electric vehicle charging stations in Newhall Ranch commercial and community areas, with 2,000 additional offsite charging stations in strategic L.A. County locations.
- ✓ Subsidies for converting public transit buses to electric buses.
- Electric school bus program within
- ✓ Newhall Ranch.



Expanding Green Access

- ✓ Energy efficiency retrofits in disadvantaged communities.
- Rideshare subsidies for affordable
- ✓ housing residents.
- Transit subsidies for affordable housing residents and local
- ✓ employees.



Investing in Climate Action

In addition to comprehensive sustainability measures within the Newhall Ranch community, FivePoint will make investments to implement programs that directly reduce greenhouse gas emissions elsewhere in L.A. County, California and around

✓ the world. [Click here to learn how.](#)



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May 29, 2020

Via email to: mindy.nguyen@lacity.org

Mindy Nguyen
City of Los Angeles, Department of City Planning
221 North Figueroa Street, Suite 1350
Los Angeles, CA 90012

Re: Hollywood Center Project DEIR
Case Number: ENV-2018-2116-EIR
State Clearinghouse Number: 2018051002.

Dear Ms. Nguyen:

Thank you for the opportunity to comment on the Hollywood Center DEIR. These comments are on behalf of the Natural Resources Defense Council and our many thousands of members and activists throughout California. Our comments focus on the greenhouse gas (GHG) issues and analysis in the DEIR.

Preliminarily, the DEIR fails the requirement to clearly inform the public because its GHG numbers differ in an important way from those that the California Air Resources Board (CARB) relied on in certifying this project under AB 900. CARB used annual GHG projections over the assumed 30-year life of the project, see http://opr.ca.gov/ceqa/docs/ab900/20180626-FINAL_Hollywood_Center_CARB_Determination.pdf at Table 2, p.4. CARB assumed emissions out to 2056 of 264,813 MT CO₂e/year for the residential option and 293,187 MT CO₂e/year for the hotel option. But the DEIR only presents annual operational emissions for a single, unspecified year with 10 optional scenarios rather than two. See DEIR at IV.E-72. Thus cross-checking the DEIR GHG analysis with the CARB analysis is impossible, putting into doubt whether the project truly qualifies for AB 900 benefits and whether the DEIR GHG analysis tells the public anything of significance. This is not what CEQA requires.

An even larger issue is how the DEIR proposes to deal with the project's GHG emissions, whatever they are: without any mitigation except offsets. See DEIR IV.E-79. It is worth noting that offsets under the CARB cap and trade program are limited to 8% of credits needed and no more than one-half of the offset usage limit may be sourced from

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projects that do not provide direct environmental benefits in the state. *See* <https://ww3.arb.ca.gov/cc/capandtrade/capandtrade.htm>. By contrast, the offset proposal here is 100% without any requirement for direct local co-benefits, and without any showing that additional GHG reductions through project design elements are infeasible.

The issue of how to deal with GHG offsets under CEQA is now before the California Court of Appeal in *County of San Diego v. Sierra Club*, Case No. D075478 (Fourth Appellate District, Division One). In that case, the County of San Diego enacted a climate action plan to accelerate development of suburban sprawl subdivisions by implementing a GHG offset program. The San Diego plan gave unlimited discretion to the County Building Officer to approve GHG offsets. Sierra Club and others sued, claiming that this system for mitigation violates CEQA. The San Diego County trial court agreed, and the County's appeal was argued in early May, 2020.

In the San Diego matter, as here, the GHG offset provision at issue was not enforceable, verifiable, or additional to mitigation that would not have occurred without the project. Under CEQA, mitigation must actually avoid, lessen, or rectify the impact it is intended to mitigate (14 CCR (or "Guidelines") §15370(a), (c)). It must be fully enforceable. (*Ibid.*; §15126.4(a)(2).) And where mitigation has its own significant impacts, such secondary impacts must be appropriately disclosed and analyzed. (*Ibid.*; §15126.4(a)(1)(D).) None of those CEQA guidelines has been met in the Hollywood Center DEIR.

Moreover, the state Office of Planning and Research (OPR)'s guidance in the draft update to its advisory on CEQA and Climate Change¹ explains why GHG offsets should be local to the extent feasible. OPR's "CEQA and Climate Change Advisory" focuses on on-site and local measures in the region before moving to a broader geographic location. The Guidance states that "lead agencies should 'prioritize on-site design features that reduce emissions, especially from VMT, and direct investments in GHG reductions within the project's region that contribute potential air quality, health, and economic co-benefits locally.'"

OPR explains that "requiring on-site mitigation may result in various co-benefits for the project and local community, and that monitoring the implementation of such measures may be easier." OPR adds, "As with on-site mitigation measures, there may be practical reasons related to prefer local off-site measures over measures farther afield." Certainly,

¹ http://opr.ca.gov/docs/20181228-Discussion_Draft_Climate_Change_Advisory.pdf



monitoring the implementation of these measures is crucial to ensuring that the reductions are enforced.

And, with respect to what the CEQA record must contain to justify GHG offsets, OPR's guidance states:

CEQA does not prohibit off-site mitigation measures, but lead agencies must support with substantial evidence in the record their determination

that mitigation will be effective and fully enforceable. (CEQA Guidelines, § 15126.4.) To do so, lead agencies may need to require more stringent protocols to verify the effective [sic] and enforceability of off-site mitigation measures. (Id., §§ 15126.4, 15364.)

That substantial evidence is not present in the DEIR now under discussion. In particular, the DEIR does not specify the mechanisms by which the emission reductions by offset will be met and enforced, nor does it contain any formal protocols, like those vetted and approved by CARB for cap and trade offsets. The DEIR does not provide for any authority to enforce non-local offsets, nor does its terms provide for enforcement of offset requirements via a continuing contractual agreement after the developer has completed the project. Neither does the DEIR include any provision for enforcement if offsets are terminated (e.g., trees planted as offsets are cut down).

Critically, the DEIR does not establish performance standards or other requirements to ensure the effectiveness, enforceability or additionality of GHG offset credits. And because foreign offsets are generally cheaper, extensive use of foreign offsets can reasonably be expected². This makes oversight of the program extremely difficult, at best. Even having offsets in other parts of the State or country would make it difficult for the lead agency here to oversee implementation of offsets over time.

We expect the lead agency here to contend that selecting an offset from a CARB-approved registry makes the offset program CEQA compliant. But the analogy fails. CARB's offset regulations, authorized by Health and Safety Code ("HSC") section 38562(d), provide for offsets that are far more credible and limited than the purely voluntary offsets contemplated here. The voluntary market is completely separate from the CARB compliance market. CARB does not oversee the voluntary market in any way, nor does CARB regulate how voluntary credits are generated or used and the lead agency here does not regulate the use of that market in any way.

² The very large Newhall Ranch project claims to attain some GHG offsets from providing free cookstoves in Africa. See . <https://netzeronewhall.com/sustainability/>

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Under the CARB cap and trade program, a registry offset credit must “[r]epresent a GHG emission reduction ... that is real, additional, quantifiable, permanent, verifiable, and enforceable.” (California Code of Regulations (“CCR”) title 17, § 95970; § 95973.) “Additional” means GHG emission reductions that exceed those otherwise required by law and those that would otherwise occur in a business-as-usual scenario. (CCR title 17, § 95802, subd. (a).) There is also strict monitoring, reporting, and record retention requirements for offset projects. (CCR title 17, § 95976.) The credits must be “verifiable,” which means that the verification report complies with CARB’s Compliance Offset Protocols. (CCR title 17, § 95802, subd. (a).) They must also be “permanent,” which means that the GHG reductions are either irreversible or endure for at least 100 years. (Ibid.) In addition, offsets approved by CARB must conform to very restrictive offset “protocols,” adopted by CARB through formal rulemaking-like procedures. (17 CCR, §95972(a).) OPR reviews all offset projects that may be eligible for compliance offset credits under the Cap-and-Trade program, as well as all project documentation for those projects. CARB also has the enforcement authority to hold a particular party liable and to take appropriate action if any of the regulations for CARB offset credits are violated. (CCR title 17, § 95802, subd. (a).) Violations of these requirements may result in penalties. (CCR title 17, §§ 96013, 96014.) None of these elements exist for the Hollywood Center project.

Putting off GHG mitigation to an unspecified future time and program also violates CEQA’s prohibition against deferred mitigation. As the Court said in *Preserve Wild Santee v. City of Santee*, 210 Cal.App.4th 260, 280-281 (2012):

An EIR must describe feasible measures that could minimize significant adverse impacts. (Guidelines, § 15126.4, subd. (a)(1).) An EIR may not defer the formulation of mitigation measures to a future time, but mitigation measures may specify performance standards which would mitigate the project's significant effects and may be accomplished in more than one specified way. (Id., subd. (a)(1)(B).)

Thus, “ “for [the] kinds of impacts for which mitigation is known to be feasible, but where practical considerations prohibit devising such measures early in the planning process (e.g., at the general plan amendment or rezone stage), the agency can commit itself to eventually devising measures that will satisfy specific performance criteria articulated at the time of project approval. Where future action to carry a project forward is contingent on devising means to satisfy such criteria, the agency should be able to rely on its commitment as evidence that significant impacts will in fact be mitigated.” ’ ” (Defend the Bay v. City of Irvine

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(2004) 119 Cal.App.4th 1261, 1275–1276, 15 Cal.Rptr.3d 176.) Conversely, “[i]mpermissible deferral of mitigation measures occurs when an EIR puts off analysis or orders a report without either setting standards or demonstrating how the impact can be mitigated in the manner described in the EIR.’” (Clover Valley Foundation v. City of Rocklin (2011) 197 Cal.App.4th 200, 236, 128 Cal.Rptr.3d 733.)

The Hollywood Center DEIR is not based on a general plan amendment or a rezoning ordinance and so there is no reason to defer the description or timing of mitigation measures. Nor is it legitimate to claim credit for mitigation measures that are standardless (as in the San Diego case) and to be carried out by an unknown private agency over which the project’s lead agency has no control.

In sum, the Hollywood Center’s DEIR fails to comply with CEQA in its treatment of GHGs. In doing so it fails also to comply with State and City plans to reduce GHG emissions. The DEIR must be withdrawn and corrected to fix the deficiencies in its analysis and treatment of GHG emissions and mitigation.

Thank you for your consideration of these comments.

Yours truly,

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