CITY OF LOS ANGELES
OFFICE OF THE CITY CLERK
ROOM 395, CITY HALL
LOS ANGELES, CALIFORNIA 90012
CALIFORNIA ENVIRONMENTAL QUALITY ACT

PROPOSED MITIGATED NEGATIVE DECLARATION

LEAD CITY AGENCY	COUNCIL DISTRICT
City of Los Angeles	CD 10 - HERB J. WESSON, JR.
PROJECT TITLE	**CASE NO.**
ENV-2015-540-MND	DIR-2015-539-SPR

PROJECT LOCATION
3200-3208 W 6th Street and 601-617 S Vermont Avenue

PROJECT DESCRIPTION
The Project includes the construction of a seven-story, mixed-use building containing approximately 98,000 square feet of floor area, including 29,000 square feet of museum space and 103 residential units, on a 26,257-square-foot site. The applicant proposes to set aside 11 percent, or 12 units, of 103 units for habitation by Very Low Income Households, per Government Code Section 65915. The building will have a maximum height of 100 feet, measured from grade to the highest point of the roof structure. The Project will provide a minimum of 44 residential parking spaces and 43 museum parking spaces, and 57 parking spaces to replace existing public parking spaces on the project site, in a three-level subterranean parking garage. The Project will provide a minimum of 182 bicycle parking spaces. The new building will provide a minimum of 10,300 square feet of open space, including terraces, private balconies, and interior common open space. The development of the Project requires an export of approximately 36,100 cubic yards of earth material.

The applicant requests a Site Plan Review for a development Project, which creates an increase of 50 or more dwelling units. The applicant proposes to set aside a percentage of dwelling units for affordable housing for a density bonus; however, the applicant does not request any on- or off-menu incentives.

NAME AND ADDRESS OF APPLICANT IF OTHER THAN CITY AGENCY
Korean American Museum, Inc.
3540 Wilshire Boulevard
Los Angeles, CA 90010

FINDING:
The City Planning Department of the City of Los Angeles has Proposed that a mitigated negative declaration be adopted for this project because the mitigation measure(s) outlined on the attached page(s) will reduce any potential significant adverse effects to a level of insignificance

(CONTINUED ON PAGE 2)

SEE ATTACHED SHEET(S) FOR ANY MITIGATION MEASURES IMPOSED.

Any written comments received during the public review period are attached together with the response of the Lead City Agency. The project decision-make may adopt the mitigated negative declariation, amend it, or require preparation of an EIR. Any changes made should be supported by substantial evidence in the record and appropriate findings made.

THE INITIAL STUDY PREPARED FOR THIS PROJECT IS ATTACHED.

NAME OF PERSON PREPARING THIS FORM	TITLE	TELEPHONE NUMBER
NURI CHO	City Planning Associate	(213) 978-1177

ADDRESS	SIGNATURE (Official)	DATE
200 N. SPRING STREET, 7th FLOOR LOS ANGELES, CA. 90012	Kinchia Gardner	4/17/17

III-90. Air Quality

- Air Quality impacts from project implementation due to construction-related emissions may occur. However, the potential impact may be mitigated to a less than significant level by the following measures:
- AQ-1 All off-road construction equipment greater than 50 hp shall meet US EPA Tier 4 emission standards, where available, to reduce NOx, PM10 and PM2.5 emissions at the Project site. In addition, all construction equipment shall beoutfitted with Best Available Control Technology devices certified by CARB. Anyemissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.
- AQ-2 Require the use of 2010 and newer diesel haul trucks (e.g., material delivery trucks and soil import/export) and if the Lead Agency determines that 2010 model year or newer diesel trucks cannot be obtained, the Lead Agency shallrequire trucks that meet U.S. EPA 2007 model year NOx emissions requirements.
- AQ-3 At the time of mobilization of each applicable unit of equipment, a copy of each unit's certified tier specification, BACT documentation, and CARB or SCAQMD operating permit shall be provided.

IV-20. Habitat Modification (Nesting Native Birds, Non-Hillside or Urban Areas)

- The project will result in the removal of vegetation and disturbances to the ground and therefore may result in take of nesting native bird species. Migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (50 C.F.R Section 10.13). Sections 3503, 3503.5 and 3513 of the California Fish and Game Code prohibit take of all birds and their active nests including raptors and other migratory nongame birds (as listed under the Federal MBTA).
- Proposed project activities (including disturbances to native and non-native vegetation, structures and substrates) should take place outside of the breeding bird season which generally runs from March 1- August 31 (as early as February 1 for raptors) to avoid take (including disturbances which would cause abandonment of active nests containing eggs and/or young). Take means to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill (Fish and Game Code Section 86).
- If project activities cannot feasibly avoid the breeding bird season, beginning thirty days prior to the disturbance of suitable nesting habitat, the applicant shall:
- Arrange for weekly bird surveys to detect any protected native birds in the habitat to be removed and any other such habitat within properties adjacent to the project site, as access to adjacent areas allows. The surveys shall be conducted by a qualified biologist with experience in conducting breeding bird surveys. The surveys shall continue on a weekly basis with the last survey being conducted no more than 3 days prior to the initiation of clearance/construction work.
- If a protected native bird is found, the applicant shall delay all clearance/construction disturbance activities within 300 feet of suitable nesting habitat for the observed protected bird species until August 31.
- Alternatively, the Qualified Biologist could continue the surveys in order to locate any nests. If an active nest is located, clearing and construction within 300 feet of the nest or as determined by a qualified biological monitor, shall be postponed until the nest is vacated and juveniles have fledged and when there is no evidence of a second attempt at nesting. The buffer zone from the nest shall be established in the field with flagging and stakes. Construction personnel shall be instructed on the sensitivity of the area.
- The applicant shall record the results of the recommended protective measures described above to document compliance with applicable State and Federal laws pertaining to the protection of native birds. Such record shall be submitted and received into the case file for the associated discretionary action permitting the project.

IV-70. Tree Removal (Non-Protected Trees)

- Environmental impacts from project implementation may result due to the loss of significant trees on the site. However, the potential impacts will be mitigated to a less than significant level by the following measures:
- Prior to the issuance of any permit, a plot plan shall be prepared indicating the location, size, type, and general condition of all existing trees on the site and within the adjacent public right(s)-of-way.
- Removal or planting of any tree in the public right-of-way requires approval of the Board of Public Works. Contact Urban Forestry Division at: 213-847-3077. All trees in the public right-of-way shall be provided per the current standards of the Urban Forestry Division, Bureau of Street Services, Department of Public Works.

IV-90. Tree Removal (Public Right-of-Way)

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- Removal of trees in the public right-of-way requires approval by the Board of Public Works.

- The required Tree Report shall include the location, size, type, and condition of all existing trees in the adjacent public right-of-way and shall be submitted for review and approval by the Urban Forestry Division of the Bureau of Street Services, Department of Public Works (213-847-3077).
- The plan shall contain measures recommended by the tree expert for the preservation of as many trees as possible. Measures such as replacement by a minimum of 24-inch box trees in the parkway and on the site, on a 1:1 basis, shall be required for the unavoidable loss of significant (8-inch or greater trunk diameter, or cumulative trunk diameter if multi-trunked, as measured 54 inches above the ground) trees in the public right-of-way.
- All trees in the public right-of-way shall be provided per the current Urban Forestry Division standards.

XII-20. Increased Noise Levels (Demolition, Grading, and Construction Activities)

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- Construction and demolition shall be restricted to the hours of 7:00 am to 6:00 pm Monday through Friday, and 8:00 am to 6:00 pm on Saturday.
- Demolition and construction activities shall be scheduled so as to avoid operating several pieces of equipment simultaneously, which causes high noise levels.
- The project contractor shall use power construction equipment with state-of-the-art noise shielding and muffling devices.
- The construction contractor shall use on-site electrical sources or solar generators to power equipment rather than diesel generators where feasible.

XIV-10. Public Services (Fire)

- Environmental impacts may result from project implementation due to the location of the project in an area having marginal fire protection facilities. However, this potential impact will be mitigated to a less than significant level by the following measure:
- The following recommendations of the Fire Department relative to fire safety shall be incorporated into the building plans, which includes the submittal of a plot plan for approval by the Fire Department either prior to the recordation of a final map or the approval of a building permit. The plot plan shall include the following minimum design features: fire lanes, where required, shall be a minimum of 20 feet in width; all structures must be within 300 feet of an approved fire hydrant, and entrances to any dwelling unit or guest room shall not be more than 150 feet in distance in horizontal travel from the edge of the roadway of an improved street or approved fire lane.

XIV-20. Public Services (Police – Demolition/Construction Sites)

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- Temporary construction fencing shall be placed along the periphery of the active construction areas to screen as much of the construction activity from view at the local street level and to keep unpermitted persons from entering the construction area.

XVI-30. Transportation (Haul Route)

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- The developer shall install appropriate traffic signs around the site to ensure pedestrian and vehicle safety.
- The applicant shall be limited to no more than two trucks at any given time within the site's staging area.
- There shall be no staging of hauling trucks on any streets adjacent to the project, unless specifically approved as a condition of an approved haul route.
- No hauling shall be done before 9 a.m. or after 3 p.m.
- Trucks shall be spaced so as to discourage a convoy effect.
- On substandard hillside streets, only one hauling truck shall be allowed on the street at any time.
- A minimum of two flag persons are required. One flag person is required at the entrance to the project site and one flag person at the next intersection along the haul route.
- Truck crossing signs are required within 300 feet of the exit of the project site in each direction.
- The owner or contractor shall keep the construction area sufficiently dampened to control dust caused by grading and hauling, and at all times shall provide reasonable control of dust caused by wind.
- Loads shall be secured by trimming and watering or may be covered to prevent the spilling or blowing of the earth material.
- Trucks and loads are to be cleaned at the export site to prevent blowing dirt and spilling of loose earth.
- No person shall perform grading within areas designated "hillside" unless a copy of the permit is in the possession of a responsible person and available at the site for display upon request.

- A log documenting the dates of hauling and the number of trips (i.e. trucks) per day shall be available on the job site at all times.
- The applicant shall identify a construction manager and provide a telephone number for any inquiries or complaints from residents regarding construction activities. The telephone number shall be posted at the site readily visible to any interested party during site preparation, grading and construction.

XVI-40. Safety Hazards

- Environmental impacts may result from project implementation due to hazards to safety from design features (e.g., sharp curves or dangerous intersections) or incompatible uses. However, the potential impacts can be mitigated to a less than significant level by the following measure:
- The developer shall install appropriate traffic signs around the site to ensure pedestrian, bicycle, and vehicle safety.
- The applicant shall submit a parking and driveway plan that incorporates design features that reduce accidents, to the Bureau of Engineering and the Department of Transportation for approval.

XVI-50. Inadequate Emergency Access

- Environmental impacts may result from project implementation due to inadequate emergency access. However, these impacts can be mitigated to a less than significant level by the following measure:
- The applicant shall submit a parking and driveway plan to the Bureau of Engineering and the Department of Transportation for approval that provides code-required emergency access.

XVI-80. Transportation/Traffic

- The project will result in impacts to transportation and/or traffic systems. However, the impact can be reduced to a less than significant level though compliance with the following measure(s):
- Applicant shall plan construction and construction staging as to maintain pedestrian access on adjacent sidewalks throughout all construction phases. This requires the applicant to maintain adequate and safe pedestrian protection, including physical separation (including utilization of barriers such as K-Rails or scaffolding, etc.) from work space and vehicular traffic and overhead protection, due to sidewalk closure or blockage, at all times.
- Temporary pedestrian facilities should be adjacent to the project site and provide safe, accessible routes that replicate as nearly as practical the most desirable characteristics of the existing facility.
- Covered walkways shall be provided where pedestrians are exposed to potential injury from falling objects.
- Applicant shall keep sidewalk open during construction until only when it is absolutely required to close or block sidewalk for construction staging. Sidewalk shall be reopened as soon as reasonably feasible taking construction and construction staging into account.

XIX-20. Effects On Human Beings

- The project has potential environmental effects which cause substantial adverse effects on human beings, either directly or indirectly. However, these potential impacts will be mitigated to a less than significant level through compliance with the above mitigation measures.

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CALIFORNIA ENVIRONMENTAL QUALITY ACT

INITIAL STUDY
and CHECKLIST

(CEQA Guidelines Section 15063)

LEAD CITY AGENCY: City of Los Angeles	**COUNCIL DISTRICT:** CD 10 - HERB J. WESSON, JR.	**DATE:**
RESPONSIBLE AGENCIES: Department of City Planning		
ENVIRONMENTAL CASE: ENV-2015-540-MND	**RELATED CASES:** DIR-2015-539-SPR	
PREVIOUS ACTIONS CASE NO.:	☐ Does have significant changes from previous actions. ✔ Does NOT have significant changes from previous actions.	

PROJECT DESCRIPTION:
A NEW, 7-STORY, MIXED-USE APARTMENT BUILDING WITH 2-FLOORS OF MUSEUM SPACE, 5-FLOORS OF RESIDENTIAL ,101 UNITS AND 3 LEVELS OF PARKING.

ENV PROJECT DESCRIPTION:
The Project includes the construction of a seven-story, mixed-use building containing approximately 98,000 square feet of floor area, including 29,000 square feet of museum space and 103 residential units, on a 26,257-square-foot site. The applicant proposes to set aside 11 percent, or 12 units, of 103 units for habitation by Very Low Income Households, per Government Code Section 65915. The building will have a maximum height of 100 feet, measured from grade to the highest point of the roof structure. The Project will provide a minimum of 44 residential parking spaces and 43 museum parking spaces, and 57 parking spaces to replace existing public parking spaces on the project site, in a three-level subterranean parking garage. The Project will provide a minimum of 182 bicycle parking spaces. The new building will provide a minimum of 10,300 square feet of open space, including terraces, private balconies, and interior common open space. The development of the Project requires an export of approximately 36,100 cubic yards of earth material.

The applicant requests a Site Plan Review for a development Project, which creates an increase of 50 or more dwelling units. The applicant proposes to set aside a percentage of dwelling units for affordable housing for a density bonus; however, the applicant does not request any on- or off-menu incentives.

ENVIRONMENTAL SETTINGS:
The Project site consists of four contiguous lots comprised of approximately 26,257 square feet of lot area, bound by West 6th Street to the north, South Vermont Avenue to the east, a 20-foot alley to the west, and C2-2-zoned lots to the south. The Project site is zoned C2-2 and designated for Regional Center Commercial land uses by the Wilshire Community Plan.

The Project site is currently improved with a public parking lot containing 57 parking spaces, which the applicant proposes to replace in a subterranean parking garage. There are eight non-protected trees on the Project site and four non-protected street trees, all of which will be removed as part of the proposed Project.

Properties to the east, across Vermont Avenue, are zoned C2-2, designated for Regional Center Commercial land uses, and developed with Young Oak Kim Middle School. Properties to the north, across 6th Street, are zoned C2-1, designated for Community Commercial land uses, and improved with Walgreens and associated surface parking lot and an 11-story, mixed-use building with Staples Office Supply. Properties to the west, across the alley, are zoned C2-2, designated for Regional Center Commercial land uses and improved with two-story commercial and retail buildings. Properties to the south are zoned C2-2, designated for Regional Center Commercial land uses, and improved with Denny's, auto sales use, and associated parking lots. The Wilshire/Vermont Metro station is located within a block to the south of the Project site, serving Purple and Red Lines.

Sixth Street is designated as Avenue II and Vermont Avenue is designated as Avenue I by the City's General Plan, Mobility Plan 2035 ("Mobility Plan"). The Project site is located within a Methane Zone, but is not located within any seismic hazard areas, including Alquist-Priolo Fault Zone, landslide, liquefaction, preliminary fault rupture study area, or tsunami inundation zone. The Project Site is also not located in an airport hazard, coastal, farmland, very high fire hazard severity zone, flood, watercourse, hazardous waste, oil well, or special grading area.

PROJECT LOCATION: 3200-3208 W 6th Street and 601-617 S Vermont Avenue		
COMMUNITY PLAN AREA: WILSHIRE **STATUS:** ✔ Does Conform to Plan ☐ Does NOT Conform to Plan	**AREA PLANNING COMMISSION:** CENTRAL	**CERTIFIED NEIGHBORHOOD COUNCIL:** WILSHIRE CENTER - KOREATOWN
EXISTING ZONING: C2-2	**MAX. DENSITY/INTENSITY ALLOWED BY ZONING:** 200 SF of Lot Area per DU	**LA River Adjacent:**
GENERAL PLAN LAND USE: REGIONAL CENTER COMMERCIAL	**MAX. DENSITY/INTENSITY ALLOWED BY PLAN DESIGNATION:** 200 SF of Lot Area per DU	
	PROPOSED PROJECT DENSITY: 103 DU	

Determination (To Be Completed By Lead Agency)

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

✔ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions on the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

	City Planning Associate	(213) 978-1177
Signature	Title	Phone

Evaluation Of Environmental Impacts:

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less that significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of a mitigation measure has reduced an effect from "Potentially Significant Impact" to "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR, or negative declaration. Section 15063 (c)(3)(D). In this case, a brief discussion should identify the following:
   a. Earlier Analysis Used. Identify and state where they are available for review.
   b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A sources list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
   a. The significance criteria or threshold, if any, used to evaluate each question; and
   b. The mitigation measure identified, if any, to reduce the impact to less than significance.

Environmental Factors Potentially Affected:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ AESTHETICS	☐ GREEN HOUSE GAS EMISSIONS	☐ POPULATION AND HOUSING	✔ MANDATORY FINDINGS OF SIGNIFICANCE
☐ AGRICULTURE AND FOREST RESOURCES	☐ HAZARDS AND HAZARDOUS MATERIALS	✔ PUBLIC SERVICES	
✔ AIR QUALITY	☐ HYDROLOGY AND WATER QUALITY	☐ RECREATION	
✔ BIOLOGICAL RESOURCES	☐ LAND USE AND PLANNING	✔ TRANSPORTATION/TRAFFIC	
☐ CULTURAL RESOURCES	☐ MINERAL RESOURCES	☐ TRIBAL CULTURAL RESOURCES	
☐ GEOLOGY AND SOILS	✔ NOISE	☐ UTILITIES AND SERVICE SYSTEMS	

INITIAL STUDY CHECKLIST (To be completed by the Lead City Agency)

Background

PROPONENT NAME:
Korean American Museum, Inc.

PHONE NUMBER:
(213) 388-4229

APPLICANT ADDRESS:
3540 Wilshire Boulevard
Los Angeles, CA 90010

AGENCY REQUIRING CHECKLIST:
Department of City Planning

DATE SUBMITTED:
02/05/2015

PROPOSAL NAME (if Applicable):
Korean American National Museum

		Potentially significant impact	Less than significant with mitigation incorporated	Less than significant impact	No impact
I. AESTHETICS					
a.	Have a substantial adverse effect on a scenic vista?				✓
b.	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				✓
c.	Substantially degrade the existing visual character or quality of the site and its surroundings?				✓
d.	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				✓
II. AGRICULTURE AND FOREST RESOURCES					
a.	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?				✓
b.	Conflict with existing zoning for agricultural use, or a Williamson Act contract?				✓
c.	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				✓
d.	Result in the loss of forest land or conversion of forest land to non-forest use?				✓
e.	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				✓
III. AIR QUALITY					
a.	Conflict with or obstruct implementation of the applicable air quality plan?			✓	
b.	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?		✓		
c.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?		✓		
d.	Expose sensitive receptors to substantial pollutant concentrations?		✓		
e.	Create objectionable odors affecting a substantial number of people?			✓	
IV. BIOLOGICAL RESOURCES					
a.	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		✓		
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				✓
c.	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				✓
d.	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		✓		
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?		✓		
f.	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				✓
V. CULTURAL RESOURCES					

		Potentially significant impact	Less than significant with mitigation incorporated	Less than significant impact	No impact
a.	Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?				✓
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?			✓	
c.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			✓	
d.	Disturb any human remains, including those interred outside of formal cemeteries?			✓	
e.	CAUSE A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF A SITE, FEATURE, PLACE, CULTURAL LANDSCAPE, SACRED PLACE, OR OBJECT WITH CULTURAL VALUE TO A CALIFORNIA NATIVE AMERICAN TRIBE THAT IS LISTED OR DETERMINED ELIGIBLE FOR LISTING ON THE CALIFORNIA REGISTER OF HISTORICAL RESOURCES, LISTED ON A LOCAL HISTORICAL REGISTER,OR OTHERWISE DETERMINED BY THE LEAD AGENCY TO BE A TRIBAL CULTURAL RESOURCE?			✓	
VI. GEOLOGY AND SOILS					
a.	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			✓	
b.	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: Strong seismic ground shaking?			✓	
c.	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: Seismic-related ground failure, including liquefaction?				✓
d.	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: Landslides?				✓
e.	Result in substantial soil erosion or the loss of topsoil?			✓	
f.	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			✓	
g.	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			✓	
h.	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				✓
VII. GREEN HOUSE GAS EMISSIONS					
a.	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			✓	
b.	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			✓	
VIII. HAZARDS AND HAZARDOUS MATERIALS					
a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			✓	
b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			✓	
c.	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			✓	
d.	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				✓

		Potentially significant impact	Less than significant with mitigation incorporated	Less than significant impact	No impact
e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				✓
f.	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				✓
g.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				✓
h.	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				✓
IX. HYDROLOGY AND WATER QUALITY					
a.	Violate any water quality standards or waste discharge requirements?			✓	
b.	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of preexisting nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			✓	
c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?			✓	
d.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			✓	
e.	Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			✓	
f.	Otherwise substantially degrade water quality?			✓	
g.	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?			✓	
h.	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?			✓	
i.	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?			✓	
j.	Inundation by seiche, tsunami, or mudflow?			✓	
X. LAND USE AND PLANNING					
a.	Physically divide an established community?			✓	
b.	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			✓	
c.	Conflict with any applicable habitat conservation plan or natural community conservation plan?				✓
XI. MINERAL RESOURCES					
a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				✓
b.	Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				✓
XII. NOISE					
a.	Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		✓		

		Potentially significant impact	Less than significant with mitigation incorporated	Less than significant impact	No impact
b.	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			✓	
c.	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			✓	
d.	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		✓		
e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				✓
f.	For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				✓
XIII. POPULATION AND HOUSING					
a.	Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			✓	
b.	Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				✓
c.	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				✓
XIV. PUBLIC SERVICES					
a.	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: Fire protection?		✓		
b.	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: Police protection?		✓		
c.	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: Schools?			✓	
d.	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: Parks?			✓	
e.	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: Other public facilites?			✓	
XV. RECREATION					
a.	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			✓	
b.	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			✓	
XVI. TRANSPORTATION/TRAFFIC					

		Potentially significant impact	Less than significant with mitigation incorporated	Less than significant impact	No impact
a.	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?			✓	
b.	Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?				✓
c.	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				✓
d.	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?		✓		
e.	Result in inadequate emergency access?		✓		
f.	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				✓
XVII. TRIBAL CULTURAL RESOURCES					
a.	Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or			✓	
b.	Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.			✓	
XVIII. UTILITIES AND SERVICE SYSTEMS					
a.	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			✓	
b.	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			✓	
c.	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			✓	
d.	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			✓	
e.	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			✓	
f.	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			✓	
g.	Comply with federal, state, and local statutes and regulations related to solid waste?			✓	
XIX. MANDATORY FINDINGS OF SIGNIFICANCE					

		Potentially significant impact	Less than significant with mitigation incorporated	Less than significant impact	No impact
a.	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?			✔	
b.	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?			✔	
c.	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		✔		

Note: Authority cited: Sections 21083, 21083.05, Public Resources Code. Reference: Section 65088.4, Gov. Code; Sections 21080, 21083.05, 21095, Pub. Resources Code; *Eureka Citizens for Responsible Govt. v. City of Eureka* (2007) 147 Cal.App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th at 1109; *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.

DISCUSSION OF THE ENVIRONMENTAL EVALUATION (Attach additional sheets if necessary)

The Environmental Impact Assessment includes the use of official City of Los Angeles and other government source reference materials related to various environmental impact categories (e.g., Hydrology, Air Quality, Biology, Cultural Resources, etc.). The State of California, Department of Conservation, Division of Mines and Geology - Seismic Hazard Maps and reports, are used to identify potential future significant seismic events; including probable magnitudes, liquefaction, and landslide hazards. Based on applicant information provided in the Master Land Use Application and Environmental Assessment Form, impact evaluations were based on stated facts contained therein, including but not limited to, reference materials indicated above, field investigation of the project site, and any other reliable reference materials known at the time.

Project specific impacts were evaluated based on all relevant facts indicated in the Environmental Assessment Form and expressed through the applicant's project description and supportive materials. Both the Initial Study Checklist and Checklist Explanations, in conjunction with the City of Los Angeles's Adopted Thresholds Guide and CEQA Guidelines, were used to reach reasonable conclusions on environmental impacts as mandated under the California Environmental Quality Act (CEQA).

The project as identified in the project description may cause potentially significant impacts on the environment without mitigation. Therefore, this environmental analysis concludes that a Mitigated Negative Declaration shall be issued to avoid and mitigate all potential adverse impacts on the environment by the imposition of mitigation measures and/or conditions contained and expressed in this document; the environmental case file known as **ENV-2015-540-MND** and the associated case(s), **DIR-2015-539-SPR** . Finally, based on the fact that these impacts can be feasibly mitigated to less than significant, and based on the findings and thresholds for Mandatory Findings of Significance as described in the California Environmental Quality Act, section 15065, the overall project impact(s) on the environment (after mitigation) **will not:**

- Substantially degrade environmental quality.
- Substantially reduce fish or wildlife habitat.
- Cause a fish or wildlife habitat to drop below self sustaining levels.
- Threaten to eliminate a plant or animal community.
- Reduce number, or restrict range of a rare, threatened, or endangered species.
- Eliminate important examples of major periods of California history or prehistory.
- Achieve short-term goals to the disadvantage of long-term goals.
- Result in environmental effects that are individually limited but cumulatively considerable.
- Result in environmental effects that will cause substantial adverse effects on human beings.

ADDITIONAL INFORMATION:

All supporting documents and references are contained in the Environmental Case File referenced above and may be viewed in the EIR Unit, Room 763, City Hall.

For City information, addresses and phone numbers: visit the City's website at http://www.lacity.org ; City Planning - and Zoning Information Mapping Automated System (ZIMAS) cityplanning.lacity.org/ or EIR Unit, City Hall, 200 N Spring Street, Room 763. Seismic Hazard Maps - http://gmw.consrv.ca.gov/shmp/
Engineering/Infrastructure/Topographic Maps/Parcel Information - http://boemaps.eng.ci.la.ca.us/index01.htm or
City's main website under the heading "Navigate LA".

PREPARED BY:	TITLE:	TELEPHONE NO.:	DATE:
NURI CHO	Planning Assistant	(213) 978-1177	04/17/2017

	Impact?	Explanation	Mitigation Measures

APPENDIX A: ENVIRONMENTAL IMPACTS EXPLANATION TABLE

I. AESTHETICS			
a.	NO IMPACT	Senate Bill (SB) 743 was signed into law by Governor Brown in September 2013, which made several changes to the CEQA Review for Projects located in areas served by transit. Among other changes, SB 743 eliminates the need to evaluate aesthetic and parking impacts of a Project in some circumstances. Specifically, aesthetic and parking impacts of a residential, mixed-use residential, or employment center Project on an infill site within a transit priority area shall not be considered to have a significant impact on the environment. SB 743 defines a transit priority area as an area within one-half mile of a major transit stop that is existing or planned. A major transit stop is a site containing a rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the A.M. and P.M. peak commute periods. An infill site refers to a lot located within an urban area that has been previously developed, or a vacant site where at least 75 percent of the perimeter of the site adjoins, or is separated only by an improved public right-of-way from parcels that are developed with qualified urban uses. However, the exemption for aesthetic impacts does not include impacts to historic or cultural resources, per Section 21099 of the Public Resources Code (PRC). The Project involves the construction of a new seven-story, 100-foot tall, mixed-use development on an approximately 26,257-square-foot site. The new building will contain a total of approximately 98,000 square feet of floor area, including approximately 29,000 square feet of museum space and 103 dwelling units. The Project site is located approximately 0.1 miles from the Wilshire/Vermont station that serves Metro's Purple and Red Lines and is identified as being located within a transit priority area (City of Los Angeles Transit Priority Area Map, 2016). The Proposed Project is an infill development on a site	

	Impact?	Explanation	Mitigation Measures
		that adjoins parcels that are developed with various urban uses, including commercial and retail stores, market, offices, middle school, restaurants and residential units. Furthermore, the Project site does not contain any historic or cultural resources, as discussed in Section V. Cultural Resources of this Initial Study. The Project site is not located within an overlay area (e.g., Specific Plan, Community Design Overlay, or Historic Preservation Overlay Zone) or subject to land use regulations that expressly regulate a Project's aesthetic impacts (e.g., shade and shadow). As such, the Proposed Project meets all criteria specified in Section 21099 of the PRC. Therefore, the Project's impact on visual resources, aesthetic character, shade and shadow, light and glare, scenic vistas, State Scenic Highways, and parking are not considered significant per SB 743.	
b.	NO IMPACT	Senate Bill (SB) 743 was signed into law by Governor Brown in September 2013, which made several changes to the CEQA for Projects located in areas served by transit. Among other changes, SB 743 eliminates the need to evaluate aesthetic and parking impacts of a Project in some circumstances. Specifically, aesthetic and parking impacts of a residential, mixed-use residential, or employment center Project on an infill site within a transit priority area shall not be considered to have a significant impact on the environment. SB 743 defines a transit priority area as an area within one-half mile of a major transit stop that is existing or planned. A major transit stop is a site containing a rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the A.M. and P.M. peak commute periods. An infill site refers to a lot located within an urban area that has been previously developed, or a vacant site where at least 75 percent of the perimeter of the site adjoins, or is separated only by an improved public right-of-way from parcels that are developed with qualified urban uses. However, the exemption for aesthetic impacts does not include impacts to historic or cultural resources, per Section	

	Impact?	Explanation	Mitigation Measures
		21099 of the Public Resources Code (PRC). The Project involves the construction of a new seven-story, 100-foot tall, mixed-use development on an approximately 26,257-square-foot site. The new building will contain a total of approximately 98,000 square feet of floor area, including approximately 29,000 square feet of museum space and 103 dwelling units. The Project site is located approximately 0.1 miles from the Wilshire/Vermont station that serves Metro's Purple and Red Lines and is identified as being located within a transit priority area (City of Los Angeles Transit Priority Area Map, 2016). The Proposed Project is an infill development on a site that adjoins parcels that are developed with various urban uses, including commercial and retail stores, market, offices, middle school, restaurants and residential units. Furthermore, the Project site does not contain any historic or cultural resources, as discussed in Section V. Cultural Resources of this Initial Study. The Project site is not located within an overlay area (e.g., Specific Plan, Community Design Overlay, or Historic Preservation Overlay Zone) or subject to land use regulations that expressly regulate a Project's aesthetic impacts (e.g., shade and shadow). As such, the Proposed Project meets all criteria specified in Section 21099 of the PRC. Therefore, the Project's impact on visual resources, aesthetic character, shade and shadow, light and glare, scenic vistas, State Scenic Highways, and parking are not considered significant per SB 743.	
c.	NO IMPACT	Senate Bill (SB) 743 was signed into law by Governor Brown in September 2013, which made several changes to the CEQA for Projects located in areas served by transit. Among other changes, SB 743 eliminates the need to evaluate aesthetic and parking impacts of a Project in some circumstances. Specifically, aesthetic and parking impacts of a residential, mixed-use residential, or employment center Project on an infill site within a transit priority area shall not be considered to have a significant impact on the environment. SB 743 defines a transit priority area as an area within one-half mile of a major transit stop that is existing or planned. A major transit stop is a site	

Impact?	Explanation	Mitigation Measures
	containing a rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the A.M. and P.M. peak commute periods. An infill site refers to a lot located within an urban area that has been previously developed, or a vacant site where at least 75 percent of the perimeter of the site adjoins, or is separated only by an improved public right-of-way from parcels that are developed with qualified urban uses. However, the exemption for aesthetic impacts does not include impacts to historic or cultural resources, per Section 21099 of the Public Resources Code (PRC). The Project involves the construction of a new seven-story, 100-foot tall, mixed-use development on an approximately 26,257-square-foot site. The new building will contain a total of approximately 98,000 square feet of floor area, including approximately 29,000 square feet of museum space and 103 dwelling units. The Project site is located approximately 0.1 miles from the Wilshire/Vermont station that serves Metro's Purple and Red Lines and is identified as being located within a transit priority area (City of Los Angeles Transit Priority Area Map, 2016). The Proposed Project is an infill development on a site that adjoins parcels that are developed with various urban uses, including commercial and retail stores, market, offices, middle school, restaurants and residential units. Furthermore, the Project site does not contain any historic or cultural resources, as discussed in Section V. Cultural Resources of this Initial Study. The Project site is not located within an overlay area (e.g., Specific Plan, Community Design Overlay, or Historic Preservation Overlay Zone) or subject to land use regulations that expressly regulate a Project's aesthetic impacts (e.g., shade and shadow). As such, the Proposed Project meets all criteria specified in Section 21099 of the PRC. Therefore, the Project's impact on visual resources, aesthetic character, shade and shadow, light and glare, scenic vistas, State Scenic Highways, and parking are not considered significant per SB 743.	

	Impact?	Explanation	Mitigation Measures
d.	NO IMPACT	Senate Bill (SB) 743 was signed into law by Governor Brown in September 2013, which made several changes to the CEQA for Projects located in areas served by transit. Among other changes, SB 743 eliminates the need to evaluate aesthetic and parking impacts of a Project in some circumstances. Specifically, aesthetic and parking impacts of a residential, mixed-use residential, or employment center Project on an infill site within a transit priority area shall not be considered to have a significant impact on the environment. SB 743 defines a transit priority area as an area within one-half mile of a major transit stop that is existing or planned. A major transit stop is a site containing a rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the A.M. and P.M. peak commute periods. An infill site refers to a lot located within an urban area that has been previously developed, or a vacant site where at least 75 percent of the perimeter of the site adjoins, or is separated only by an improved public right-of-way from parcels that are developed with qualified urban uses. However, the exemption for aesthetic impacts does not include impacts to historic or cultural resources, per Section 21099 of the Public Resources Code (PRC). The Project involves the construction of a new seven-story, 100-foot tall, mixed-use development on an approximately 26,257-square-foot site. The new building will contain a total of approximately 98,000 square feet of floor area, including approximately 29,000 square feet of museum space and 103 dwelling units. The Project site is located approximately 0.1 miles from the Wilshire/Vermont station that serves Metro's Purple and Red Lines and is identified as being located within a transit priority area (City of Los Angeles Transit Priority Area Map, 2016). The Proposed Project is an infill development on a site that adjoins parcels that are developed with various urban uses, including commercial and retail stores, market, offices, middle school, restaurants and residential units. Furthermore, the Project site does not contain any historic or	

	Impact?	Explanation	Mitigation Measures
		cultural resources, as discussed in Section V. Cultural Resources of this Initial Study. The Project site is not located within an overlay area (e.g., Specific Plan, Community Design Overlay, or Historic Preservation Overlay Zone) or subject to land use regulations that expressly regulate a Project's aesthetic impacts (e.g., shade and shadow). As such, the Proposed Project meets all criteria specified in Section 21099 of the PRC. Therefore, the Project's impact on visual resources, aesthetic character, shade and shadow, light and glare, scenic vistas, State Scenic Highways, and parking are not considered significant per SB 743.	
II. AGRICULTURE AND FOREST RESOURCES			
a.	NO IMPACT	A significant impact may occur if a Project were to result in the conversion of State-designated agricultural land from agricultural use to another non-agricultural use. The Project site is currently improved with a surface parking lot. The Project site does not contain properties identified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as identified by the California Resource Agency. Therefore, no impact would occur.	
b.	NO IMPACT	A significant impact would occur if the Proposed Project conflict with existing agricultural zoning or agricultural parcels enrolled under the Williamson Act. The Project site is zoned C2-2. As the Project site and surrounding area do not contain farmland of any type, the Proposed Project would not conflict with a Williamson Act contract. Therefore, no impact would occur.	
c.	NO IMPACT	A significant impact may occur if a Project were to conflict with existing zoning for forest land or timber land. The Project site is currently zoned C2-2 and improved with a surface parking lot. Accordingly, the Proposed Project would not conflict with forest land or timberland zoning or result in the loss of forest land or conversion of forest land to non-forest use. Therefore, no impact would occur.	

	Impact?	Explanation	Mitigation Measures
d.	NO IMPACT	A significant impact may occur if a Project were to result in the loss of forest land. No forest land or timberland exists on the Project site or in the vicinity of the Project site. The site is currently developed with a surface parking lot and is located within a highly urbanized area of the Wilshire Community Plan. Therefore, no impact would occur.	
e.	NO IMPACT	A significant impact would occur if a Project results in the conversion of farmland to another non-agricultural use or forest land to non-forest land. The Project site is currently zoned C2-2 and developed with a surface parking lot. Neither the Project site or nearby properties are currently utilized for farmland or forest land. Therefore, the Project would have no impact on farmland or forest land.	
III. AIR QUALITY			
a.	LESS THAN SIGNIFICANT IMPACT	The proposed residential land use would neither conflict with the SCAQMD's 2012 Air Quality Management Plan (AQMP) nor jeopardize the region's attainment of air quality standards. The AQMP focuses on achieving clean air standards while accommodating population growth forecasts by the Southern California Association of Governments (SCAG). Specifically, SCAG's growth forecasts from the 2012 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) are largely built off local growth forecasts from local governments like the City of Los Angeles. The 2016 RTS/SCS accommodates up to 4,609,400 persons; 1,690,300 households; and 2,169,100 jobs by 2040. The Project site is located in the City's Wilshire Community Plan area. The Project is consistent with the City's projected growth capacity for the Community Plan area, which accommodated a projected population of 337,144 persons and housing base of 138,330 units by 2010. The Project could marginally increase population in the South Coast Air Basin. As such, the Project does not conflict with the population-based growth assumptions in the regional air plan and this impact is considered less than significant.	

	Impact?	Explanation	Mitigation Measures
b.	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	**The applicant submitted an Air Quality and Greenhouse Gas Emissions Study, prepared by DKA Planning in February 2016 (document included in Case file No. ENV-2015-540-MND). Construction-related emissions were estimated using the South Coast Air Quality Management District's (SCAQMD) CalEEMod 2013.2.2 model using assumptions from the Project's developer, including the Project's construction schedule for 17 months. The construction of the Project would produce VOC,NOx, CO, SOx, PM10 and PM2.5 emissions that do not exceed the SCAQMD's regional thresholds. Further, any concurrent work on phases during the construction period would not result in exceedances of these recommended thresholds. As a result, construction of the Project would not contribute substantially to an existing violation of air quality standards for regional pollutants. In terms of local air quality, the Project would not produce emissions that exceed the SCAQMD's recommended localized standards of significance for NO2 and CO during the construction phase. However, construction activities would produce PM10 and PM2.5 emissions that exceed localized thresholds recommended by the SCAQMD. The Project's construction impacts on localized air quality would be less than significant with implementation of the referenced mitigation measures. Additionally, the Project is required to comply with SCAQMD Rule 403, which governs construction activities, and Rule 1114, which governs the VOC content of architectural coatings. The project also would produce long-term air quality emissions in the region primarily from motor vehicles that access the Project site. Operational emissions would not exceed SCAQMD's regional significance thresholds for VOC, NOx, CO, PM10 and PM2.5 emissions. As a result, the Project's operational impacts on regional air quality are considered less than significant. With regard to localized air quality impacts, the Project would emit minimal emissions of NO2, CO, PM10, and PM2.5 from**	**III-90**

	Impact?	Explanation	Mitigation Measures
		area and energy sources on-site. These localized emissions would not approach the SCAQMD's localized significance thresholds that signal when there could be human health impacts at nearby sensitive receptors during long-term operations. The Project's operational impacts on localized air quality are considered less than significant. As shown in Table 7 Estimated Daily Construction Emissions by Phase – Mitigated and Table 8 Maximum Daily Construction Emissions – Mitigated (document included in Case file No. ENV-2015-540-MND), implementation of the referenced mitigation measures would substantially reduce PM10 and PM2.5 emissions during the grading phase and daily emissions in any of the two calendar years in which construction occurs would be below SCAQMD significance thresholds. Resulting emissions would be considered less than significant. Therefore, Project impacts would be less than significant with mitigation measures.	
c.	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	For regional ozone precursors, the Project would not exceed SCAQMD mass emission thresholds for ozone precursors during construction. As such, the Project's impact on cumulative ozone precursor emissions would be considered less than significant. Similarly, regional emissions of PM10 and PM2.5 would not exceed mass thresholds established by the SCAQMD; therefore, construction emissions impacts would be considered less than significant. When considering local impacts, cumulative construction emissions are considered when Projects are within close proximity of each other that could result in larger impacts on local sensitive receptors. If any other proposed Projects were to undertake construction concurrently with the proposed Project, localized CO, PM2.5, PM10, and NO2 concentrations would not exceed ambient air quality standards at nearby receptors. The application of LST thresholds to each cumulative Project in the local area would help ensure that each project does not	III-90

	Impact?	Explanation	Mitigation Measures
		produce localized hotspots of CO, PM2.5, PM10 and NO2. Any projects that would exceed LST thresholds would perform dispersion modeling to confirm whether health-based air quality standards would be violated and mitigate any significant localized emissions accordingly. Receptors that are located further away would not be threatened with exceedances of health-based standards, and emissions significantly disperse as a function of atmospheric stability, mixing heights, and other variables, with distance a critical factor. The SCAQMD's LST thresholds recognize the influence of a receptor's proximity, setting LST mass emissions thresholds that generally double with every doubling of distance. As such, the cumulative impact of construction projects on local sensitive receptors would be considered less than significant (refer to Air Quality and Greenhouse Gas Emissions Study included in Case No. ENV-2015-540-MND). Construction of the Project would produce cumulative considerable emissions of localized nonattainment pollutants PM10 and PM2.5. However, implementation of the referenced mitigation measures and SCAQMD Rule 403, which governs construction activities, and Rule 1114, which governs the VOC content of architectural coatings, would reduce potential impacts to less than significant levels. As for cumulative operational impacts, the proposed land use will not produce cumulatively considerable emissions of nonattainment pollutants at the regional or local level. Therefore, Project impacts would be less than significant with mitigation measures.	
d.	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	Sensitive receptors near the Project site includes Wilshire-Vermont Station Apartments to the west of the site, Young Oak Kim Academy to the east of the site, Ambassador Apartments to the northwest of the site, and multi-family residences to the south of the site. These nearby receptors could be exposed to substantial concentrations of localized pollutants PM10 and PM2.5 from construction of the Project. However, implementation	III-90

	Impact?	Explanation	Mitigation Measures
		of the referenced mitigation measures and SCAQMD Rule 403, which governs construction activities, and Rule 1114, which governs the VOC content of architectural coatings, would reduce potential impacts to less than significant levels. The Project would generate long-term emissions from mobile sources that would generate negligible pollutant concentrations of CO, NO2, PM2.5 or PM10 at sensitive receptors and would be considered less than significant. Long-term operations of the Project would not result in exceedances of CO air quality standards at roadways in the area. Additionally, traffic levels of service in the vicinity of the Project would not be significantly impacted by traffic volumes from the development under existing or 2018 horizon scenarios. In addition, the Project would not significantly increase the percentage of vehicles operating in cold start mode or substantially worsen traffic flow. Finally, the Project would not result in any substantial emissions of TACs during the construction or operations phase. Based on the limited activity of TAC sources, the Project would not warrant the need for a health risk assessment associated with on-site activities. Therefore, Project impacts would be less than significant with mitigation measures.	
e.	LESS THAN SIGNIFICANT IMPACT	A significant impact would occur if objectionable odors are generated that would adversely impact sensitive receptors. Odors are typically associated with industrial Projects involving the use of chemicals, solvents, petroleum products, and other strong-smelling elements used in manufacturing processes, as well as in sewage treatment facilities and landfills. As the Proposed Project involves the construction of a new mixed-use development, the Project would not involve any elements related to these types of activities and no odors from these types of uses are anticipated. Potential operational odor impacts would be less than significant. During the construction phase, activities associated with the operation of construction equipment and the application of asphalt and architectural coatings may produce	

	Impact?	Explanation	Mitigation Measures
		discernible odors typical of most construction sites. Although these odors could be a source of nuisance to adjacent receptors, they are temporary and intermittent in nature. The odors associated with the construction activities would be less than significant.	
IV. BIOLOGICAL RESOURCES			
a.	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	**A Project would have a significant impact on biological resources if it could result in: (a) the loss of individuals, or the reduction of existing habitat, of a state or federal listed endangered, threatened, rare, protected, candidate, or sensitive species or a Species of Special Concern; (b) the loss of individuals or the reduction of existing habitat of a locally designated species or a reduction in a locally designated natural habitat or plant community; or (c) interference with habitat such that normal species behaviors are disturbed (e.g., from the introduction of noise, light) to a degree that may diminish the chances for long-term survival of a sensitive species. The Project site is located in a highly urbanized area of the Wilshire Community Plan. The Project site is currently improved with a public parking lot containing 57 parking spaces. There are eight non-protected trees on the Project site and four non-protected street trees, which will be removed as part of the proposed Project. Some of these trees may provide habitat for nesting birds, which are protected under the Federal Migratory Bird Treaty Act (MBTA) (Title 33, United States Code, Section 703 et seq., see also Title 50, Code of Federal Regulation, Part 10) and Section 3503 of the California Department of Fish and Wildlife Code. Thus, the Project applicant shall comply with the mitigation measures to ensure that no significant impacts to nesting birds or sensitive biological species or habitat would occur. Furthermore, the project requires the removal of non-protected trees on site and in the public right-of-way. With implementation of the mitigation measures, the Project would have less than significant impacts.**	**IV-20, IV-70, IV-90**

	Impact?	Explanation	Mitigation Measures
b.	NO IMPACT	A significant impact would occur if any riparian habitat or natural community would be lost or destroyed as a result of urban development. The Project site does not contain any riparian habitat or contain any streams or watercourses that are necessary to support riparian habitat. Therefore, the Proposed Project would not have any impact on riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Services. No impact would occur.	
c.	NO IMPACT	A significant impact would occur if federally protected wetlands would be modified or removed by a Project. The site does not contain any federally protected wetlands, wetland resources, or other waters of the United States as defined by Section 404 of the Clean Water Act. Therefore, the Proposed Project would not have any effect on federally protected wetlands. No impact would occur.	
d.	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	**A significant impact would occur if the Proposed Project would interfere with, or remove access to, a migratory wildlife corridor or impede use of native wildlife corridor or impede use of native wildlife nursery sites. The Project site is located in a highly urbanized area of the Wilshire Community Plan. The Project site is currently improved with a public parking lot containing 57 parking spaces. For these reasons, there are no wildlife corridors or native wildlife nursery sites in the Proposed Project vicinity. However, there are eight non-protected trees on the Project site and four non-protected street trees, which will be removed as part of the proposed Project. These trees have the potential to support nesting migratory birds. Thus, the Project has the potential to result in the removal of vegetation and disturbances to the ground and therefore may result in take of nesting native bird species, which are protected per the Federal Migratory Bird Treaty Act (MBTA) (Title 33, United States Code, Section 703 et seq., see also Title 50, Code of Federal Regulation, Part 10) and Section 3503**	IV-20

	Impact?	Explanation	Mitigation Measures
		of the California Department of Fish and Wildlife Code. Thus, the Project applicant shall comply with the mitigation measures to ensure that no significant impacts to nesting birds or sensitive biological species or habitat would occur. With implementation of the mitigation measures, the Project would have less than significant impacts.	
e.	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	**A significant adverse impact would occur if a Project were to cause an impact that is inconsistent with local regulations pertaining to biological resources, such as the City of Los Angeles Protected Tree Ordinance No. 177,404. There are eight non-protected trees on the Project site and four non-protected street trees, which will be removed as part of the proposed Project; however, the referenced mitigation measure requires the applicant to replace these trees, which are also subject to the review and approval by the Board of Public Works, Urban Forestry Division. Therefore, the Proposed Project would not have the potential to conflict with any tree preservation ordinance and any potential impacts associated with the removal of street trees would be mitigated to less than significant levels.**	**IV-70, IV-90**
f.	NO IMPACT	A significant impact would occur if the Proposed Project would be inconsistent with any adopted habitat conservation plan. No Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan is applicable to the Project site. Therefore, the Project would not conflict with the provisions of any adopted conservation plan. No impact would occur.	
V. CULTURAL RESOURCES			
a.	NO IMPACT	A significant impact would occur if the Proposed Project would result in a substantial adverse change in the significance of an historical resource. The Project site is currently developed with a surface parking lot and does not contain any buildings that could be listed in any of the listings, databases, or sources identifying historical resources, including the National Register of Historic Places, California Register of Historical	

	Impact?	Explanation	Mitigation Measures
		Resources, California Historical Landmarks, California Points of Historical Interest, and the City's Historic Preservation Overlay Zones. In addition, the subject property does not contain any resources identified as historic by the Wilshire Center and Koreatown Recovery Redevelopment Area Historic Resources Survey Report prepared by the City of Los Angeles Community Redevelopment Agency and the Survey LA Los Angeles Historic Resources Survey - Wilshire Historic Resource Survey Report prepared by the Office of Historic Resources. Therefore, the Project would have no impacts on historic resources.	
b.	LESS THAN SIGNIFICANT IMPACT	A significant impact would occur if a known or unknown archaeological resource would be removed, altered, or destroyed as a result of the proposed development. Section 15064.5 of the State CEQA Guidelines defines significant archaeological resources as resources that meet the criteria for historical resources or resources that constitute unique archaeological resources. A Project-related significant impact could occur if a Project would significantly affect archaeological resources that fall under either of these categories. The Project site is not known to contain any archaeological resources (City of Los Angeles, Environmental and Public Facilities Maps, Prehistoric & Historic Archaeological Sites & Survey Areas, 1994). Construction of the Proposed Project would have no impacts on known archaeological resources. However, there is a remote possibility that archaeological resources exist below the surface, which could be encountered during site preparation and subsurface excavation. If archaeological resources are encountered during the course of Project development, all further development activity shall cease until a qualified archaeologist has evaluated the find in accordance with federal, state, and local guidelines, including those set forth in California Public Resources Code Section 21083.2. Personnel of the Proposed Project shall not collect or move any archaeological materials and associated materials. Construction activity may continue unimpeded on other portions of the Project site. The found deposits would be treated in accordance with federal, state,	

	Impact?	Explanation	Mitigation Measures
		and local guidelines, including those set forth in California Public Resources Code Section 21083.2. Therefore, impacts would be less than significant.	
c.	LESS THAN SIGNIFICANT IMPACT	A significant impact would occur if excavation or construction activities associated with the Proposed Project would disturb paleontological or unique geological features. The Project site is not known to contain any paleontological resources (City of Los Angeles, Environmental and Public Facilities Maps, Vertebrate Paleontological Resources, 1994) or unique geological features. Construction of the Proposed Project would have no impacts on known paleontological resources. However, there is a remote possibility that paleontological resources exist below the surface, which could be encountered during site preparation and subsurface excavation. If paleontological resources are discovered during excavation, grading, or construction, the City of Los Angeles Department of Building and Safety shall be notified immediately, and all work shall cease in the area of the find until a qualified paleontologist evaluates the find. Construction activity may continue unimpeded on other portions of the Project site. Any paleontological resources found would be treated in accordance with federal, state, and local guidelines, including those set forth in California Public Resources Code Section 21083.2. Therefore, impacts would be less than significant.	
d.	LESS THAN SIGNIFICANT IMPACT	A significant impact would occur if previously interred human remains would be disturbed during the Project development on the site. Although the potential is very low, human remains may be unexpectedly encountered during excavation and grading activities associated with the Proposed Project. While no formal cemeteries, other places of human interment, or burial grounds or sites are known to occur within the Project area, there is always a possibility that human remains may be unexpectedly encountered during construction. To ensure that the Project would not disturb any human remains, the Project applicant would be required to comply with the City's regulations related to the protection and treatment of human remains.	

	Impact?	Explanation	Mitigation Measures
		Therefore, impacts to human remains would be less than significant.	
VI. GEOLOGY AND SOILS			
a.	LESS THAN SIGNIFICANT IMPACT	Based upon the criteria established in the L.A. CEQA Thresholds Guide, a significant impact may occur if a Project site is located within a state-designated Alquist-Priolo Zone or other designated fault zone. According to ZIMAS, the Project site is located within the Puente Hills Blind Thrust Fault Zone. However, the Proposed Project would be designed and constructed in accordance with state and local Building Codes to reduce the potential for exposure of people or structures to seismic risks to the maximum extent possible. The Proposed Project would also be required to comply with the California Department of Conservation, Division of Mines and Geology (CDMG), which provides guidance for the evaluation and mitigation of earthquake related hazards, and with the seismic safety requirements in the Uniform Building Code (UBC) and the LAMC. Compliance with such requirements would reduce seismic ground shaking impacts to the maximum extent practicable with current engineering practices. The Project site does not fall within a currently designated California Division of Mines and Geology (CDMG) Earthquake Fault Rupture Hazard ("Alquist-Priolo") Zone. Thus, the Project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault on the Project site. Therefore, Project impacts would be less than significant.	
b.	LESS THAN SIGNIFICANT IMPACT	Based upon the criteria established in the L.A. CEQA Thresholds Guide, a significant impact may occur if a Project represents an increased risk to public safety or destruction of property by exposing people, property, or infrastructure to seismically induced ground shaking hazards that are greater than the average risk associated with other locations in Southern California. Given the Project site's location in a	

	Impact?	Explanation	Mitigation Measures
		seismically active region, the Project site could experience seismic groundshaking in the event of an earthquake. However, the Proposed Project would be designed and constructed in accordance with state and local Building Codes to reduce the potential for exposure of people or structures to seismic risks to the maximum extent possible. The Proposed Project would be required to comply with the California Department of Conservation, Division of Mines and Geology (CDMG), which provides guidance for the evaluation and mitigation of earthquake-related hazards, and with the seismic safety requirements in the Uniform Building Code (UBC) and the LAMC. Compliance with such requirements would reduce seismic ground shaking impacts to the maximum extent practicable with current engineering practices. Conformance with such regulations and the conditions of approval would minimize the potential for structural failure, injury, and loss of life during an earthquake event and thus, not cause or accelerate geologic hazards or expose people to substantial risk of injury. Therefore, Project impacts related to groundshaking would be less than significant.	
c.	NO IMPACT	Based upon the criteria established in the L.A. CEQA Thresholds Guide, a significant impact may occur if a Project site is located within a liquefaction zone. Liquefaction is defined as a loss of strength of saturated cohesionless soil caused by seismic shaking. Soil types most susceptible to liquefaction are loose, saturated silty to clean fine sands. According to ZIMAS, the Project site is not located within a defined liquefaction hazard zone based on the Seismic Hazards Report for the Hollywood Quadrangle (CDMG, 1999). Therefore, no impacts related to liquefaction would occur.	
d.	NO IMPACT	Based upon the criteria established in the L.A. CEQA Thresholds Guide, a Project would normally have a significant geologic hazard impact if it would cause or accelerate geologic hazards which would result in substantial damage to structures or infrastructure, or expose people to substantial risk of injury. According to ZIMAS, the Project site is not located	

	Impact?	Explanation	Mitigation Measures
		within a seismically-induced landslide zone. Therefore, no impacts to landslides would occur as a result of the Project.	
e.	LESS THAN SIGNIFICANT IMPACT	Based upon the criteria established in the L.A. CEQA Thresholds Guide, a Project would normally have significant sedimentation or erosion impact if it would: (a) constitute a geologic hazard to other properties by causing or accelerating instability from erosion; or (b) accelerate natural processes of wind and water erosion and sedimentation, resulting in sediment runoff or deposition which would not be contained or controlled on-site. During the Project's construction phase, activities such as excavation, grading, and site preparation could leave soils at the Project site susceptible to soil erosion. However, the Project developer would be required to implement SCAQMD Rule 403 – Fugitive Dust to minimize wind and water-borne erosion at the site. Also, the Project developer would be required to prepare and implement a Stormwater Pollution Prevention Plan (SWPPP), in accordance with the National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Storm Water Associated with Construction Activity and Land Disturbance Activities. The site-specific SWPPP would be prepared prior to earthwork activities and would be implemented during Project construction. The SWPPP would include best management practices (BMPs) and erosion control measures to prevent pollution in storm water discharge. Typical BMPs that could be used during construction include good-housekeeping practices (e.g., street sweeping, proper waste disposal, vehicle and equipment maintenance, concrete washout area, materials storage, minimization of hazardous materials, proper handling and storage of hazardous materials, etc.) and erosion/sediment control measures (e.g., silt fences, fiber rolls, gravel bags, storm water inlet protection, and soil stabilization measures, etc.). The SWPPP would be subject to review and approval by the City for compliance with the City's Development Best Management Practices Handbook, Part A, Construction Activities. Additionally, all Project construction activities would comply with the City's grading permit regulations,	

	Impact?	Explanation	Mitigation Measures
		which require the implementation of grading and dust control measures, including a wet weather erosion control plan if construction occurs during rainy season, as well as inspections to ensure that sedimentation and erosion is minimized. Through compliance with these existing regulations, the Project would not result in any significant impacts related to soil erosion during the construction phase. Additionally, during the Project's operational phase, most of the Project site would be developed with impervious surface, and all stormwater flows would be directed to storm drainage features and would not come into contact with bare soil surfaces. Thus, Project impacts related to erosion would be less than significant.	
f.	LESS THAN SIGNIFICANT IMPACT	Based upon the criteria established in the L.A. CEQA Thresholds Guide, a Project would normally have a significant geologic hazard impact if it could cause or accelerate geologic hazards causing substantial damage to structures or infrastructure, or expose people to substantial risk of injury. For the purpose of this specific issue, a significant impact may occur if the Proposed Project is built in an unstable area without proper site preparation or design features to provide adequate foundations for buildings, thus posing a hazard to life and property. According to ZIMAS, the Project site is not located within a landslide or liquefaction area. The Project's potential impacts related to soil instability are expected to be less than significant.	
g.	LESS THAN SIGNIFICANT IMPACT	A significant impact would occur if the proposed project would be built on expansive soils without proper site preparation or design features to provide adequate foundations for project buildings, thus, posing a hazard to life and property. Expansive soils have relatively high clay mineral and expand with the addition of water and shrink when dried, which can cause damage to overlying structures. However, the proposed project would be required to comply with the requirements of the UBC, LAMC, and other applicable building codes. Compliance with such requirements would reduce impacts related to expansive soils, and impacts would be less than significant.	

	Impact?	Explanation	Mitigation Measures
h.	NO IMPACT	This question would apply to the Proposed Project only if it was located in an area not served by an existing sewer system. The Project would connect to the City's existing sewer system and would not require the use of septic tanks or alternative wastewater disposal systems. Thus, the Project would not result in any impacts related to soils that are incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater. Therefore, no impacts related to this issue would occur.	
VII. GREEN HOUSE GAS EMISSIONS			
a.	LESS THAN SIGNIFICANT IMPACT	Greenhouse gases (GHG) are those gaseous constituents of the atmosphere, both natural and human generated, that absorb and emit radiation at specific wavelengths within the spectrum of terrestrial radiation emitted by the earth's surface, the atmosphere itself, and by clouds. The City has adopted the LA Green Plan to provide a citywide plan for achieving the City's GHG emissions targets, for both existing and future generation of GHG emissions. In order to implement the goal of improving energy conservation and efficiency, the Los Angeles City Council has adopted multiple ordinances and updates to establish the current Los Angeles Green Building Code (LAGBC) (Ordinance No.181,480). The LAGBC requires Projects to achieve a 20 percent reduction in potable water use and wastewater generation. Through required implementation of the LAGBC, the Proposed Project would be consistent with local and statewide goals and policies aimed at reducing the generation of GHGs. Therefore, the Proposed Project's generation of GHG emissions would not make a cumulatively considerable contribution to emissions and impacts would be less than significant.	
b.	LESS THAN SIGNIFICANT IMPACT	Although not specified in the L.A. CEQA Thresholds Guide, a significant impact would occur if the Proposed Project would conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. The Project would be consistent with a number of relevant	

Impact?	Explanation	Mitigation Measures
	plans and policies that govern climate change. At the regional level, 2012–2035 RTP/SCS is an applicable plan that defines strategies for reducing GHGs. In order to assess the Project's potential to conflict with 2012–2035 RTP/SCS, this section analyzes the Project's land use profiled for consistency with those in the Sustainable Communities Strategy. Generally, Projects are considered consistent with the provisions and general policies of applicable City and regional land use plans and regulations, such as SCAG's Sustainable Communities Strategy, if they are compatible with the general intent of the plans and would not preclude the attainment of their primary goals. The Project would accommodate regional growth projected by SCAG in the Los Angeles Planning Area by providing needed housing within infill sites that are adjacent to existing, approved, and planned infrastructure, urban services, transportation corridors, transit facilities, and major employment centers, in furtherance of SB 375 policies. The Los Angeles Green Building Ordinance requires that all Projects filed on or after January 1, 2014 comply with the Los Angeles Green Building Code as amended to comply with the 2013 CALGreen Code. Mandatory measures under the Green Building Ordinance that would help reduce GHG emissions include short and long term bicycle parking measures; designated parking measure; and electric vehicle supply wiring. The Project would comply with these mandatory measures, as the Project would provide on-site bicycle parking spaces. Furthermore, the Green Building Ordinance includes measures that would increase energy efficiency on the Project site, including installing Energy Star rated appliances and installation of water-conserving fixtures. Therefore, the Project is consistent with the Los Angeles Green Building Ordinance. The Project would comply with the City of Los Angeles' Green Building Ordinance standards that compel LEED certification, reduce emissions beyond a "Business-as-Usual" scenario, and are consistent with the AB 32 Scoping Plan's recommendation for communities to adopt building codes that go beyond the State's codes. The Project	

	Impact?	Explanation	Mitigation Measures
		would include design, construction, maintenance, and operation at the Leadership in Energy & Environmental Design (LEED) certified level. Projects that are LEED certified generally exceed Title 24 (2013) standards by at least 10 percent. As such, it would incorporate several design elements and programs that will reduce the carbon footprint of the development. As such, impacts would be less than significant.	
VIII. HAZARDS AND HAZARDOUS MATERIALS			
a.	LESS THAN SIGNIFICANT IMPACT	A significant impact would occur if the Proposed Project would create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Construction of the Proposed Project would involve the temporary use of hazardous materials that are typically necessary for construction of commercial and residential developments (e.g., paints, building materials, cleaners, and fuel for construction equipment). However, the transport, use, and disposal of construction-related hazardous materials would occur in conformance with all applicable local, state, and federal regulations governing such activities. Operation of the Project would involve the limited use and storage of common hazardous substances typical of those used in residential and commercial developments, including lubricants, paints, cleaning supplies, pesticides, and other landscaping supplies, and vehicle fuels, oils, and transmission fluids. No industrial uses or activities are proposed that would result in the use or discharge of unregulated hazardous materials and/or substances or create a public hazard through transport, use, or disposal. The proposed mixed-use development would not involve large quantities of hazardous materials that would require routine transport, use, or disposal. The Proposed Project's limited use of common hazardous materials can typically be disposed of at Class II or III landfills, which accept most common waste materials, such as those identified above. With compliance to applicable standards and regulations and adherence to manufacturer's instructions related to the transport, use, or disposal of hazardous materials, the Proposed	

	Impact?	Explanation	Mitigation Measures
		Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, and impacts would be less than significant.	
b.	LESS THAN SIGNIFICANT IMPACT	A significant impact would occur if the Proposed Project created a significant hazard to the public or environment due to a reasonably foreseeable release of hazardous materials. As discussed in Section VIII(a) above, all hazardous materials on site would be utilized in limited quantities and would comply with federal, state, and local regulations. Therefore, operational impacts would be less than significant. The Project site is located within a Methane Zone. However, the applicant is required to comply with City's regulations pertaining to ventilation and methane gas detection systems and LAMC Chapter IX Article 1 Division 71, Building Code – Methane Seepage Regulations. By complying with the City's regulations, the Project is not anticipated to create a significant hazard to the public or the environment. Impacts would be less than significant.	
c.	LESS THAN SIGNIFICANT IMPACT	A significant impact would occur if the Project site is located within one-quarter mile of an existing or proposed school site and is projected to release toxic emissions which would pose a health hazard beyond regulatory thresholds. The Project site is located within one-quarter mile of Everest Value Charter School, Los Angeles Pacific College, New Covenant Academy, and Young Oak Kim Academy. Although the Project site is located within a Methane Zone, the applicant is required to comply with City's regulations pertaining to ventilation and methane gas detection systems and LAMC Chapter IX Article 1 Division 71, Building Code – Methane Seepage Regulations. By complying with the City regulations, the Project is not anticipated to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of a school. The Project would have a less than significant impact.	

	Impact?	Explanation	Mitigation Measures
d.	NO IMPACT	A significant impact would occur if the Project site is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and would create a significant hazard to the public or the environment. The California Department of Toxic Substances Control (DTSC) maintains a database (EnviroStor) that provides access to detailed information on hazardous waste permitted sites and corrective action facilities as well as existing site cleanup information. EnviroStor also provides information on investigation, cleanup, permitting, and/or corrective actions that are planned, being conducted, or have been completed under DTSC's oversight. A review of EnviroStor did not identify any records of hazardous waste facilities on the Project site. Therefore, the Proposed Project would not be located on a site that is included on a list of hazardous materials sites or create a significant hazard to the public or the environment, and no impact would occur.	
e.	NO IMPACT	A significant impact would occur if the Proposed Project exposed persons residing or working in the area to risks associated with an airport or airstrip. The Project site is not located in an airport land use plan area or within two miles of any public or public use airports or private air strips. Therefore, the Proposed Project would not result in a safety hazard for people residing or working in the Project area, and no impact would occur.	
f.	NO IMPACT	A significant impact would occur if the Proposed Project would expose persons residing or working in the area to risks associated in proximity of an airport or airstrip. The Project site is not located in an airport land use plan area or within two miles of any public airports or private air strips. Therefore, the Project would not result in a safety hazard for people residing or working in the Project area, and no impact would occur.	
g.	NO IMPACT	A significant impact would occur if the Proposed Project would impair the implementation of an emergency response or evacuation plan or blockage of an emergency route. The proposed project would not require the closure of any public or private streets and would not impede emergency vehicle access to	

	Impact?	Explanation	Mitigation Measures
		the project site or surrounding area. Additionally, emergency access to and from the project site would be provided in accordance with requirements of the Los Angeles Fire Department (LAFD). Therefore, the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, and no impact would occur.	
h.	NO IMPACT	A significant impact would occur if the Proposed Project would expose people and structures to high risk of wildfire. The Project site is located in a highly urbanized area of the City, and no wildlands are adjacent to the Project site or within the vicinity. In addition, the Project site is not within a Very High Fire Hazard Severity Zone (ZIMAS). Therefore, the Proposed Project would not expose people or structures to a risk of loss, injury, or death involving wildland fires, and no impact would occur.	
IX. HYDROLOGY AND WATER QUALITY			
a.	LESS THAN SIGNIFICANT IMPACT	A significant impact would occur if the Proposed Project discharges water that does not meet the quality standards of agencies which regulate surface water quality and water discharge into storm water drainage systems. A significant impact would also occur if the Proposed Project would not comply with all applicable regulations with regard to surface water quality as governed by the Los Angeles Regional Water Quality Control Board (LARWQCB). As required under the National Pollution Discharge Elimination System (NPDES), the Project applicant is responsible for preparing a Storm Water Pollution Prevention Plan (SWPPP) to mitigate the effects of erosion and the inherent potential for sedimentation and other pollutants entering the stormwater system. The SWPPP would incorporate the required implementation of Best Management Practices (BMPs) for erosion control and other measures to meet the NPDES requirements for stormwater quality. The Project site is currently almost entirely covered with impervious surfaces. As such, the surface water runoff from the Project site would continue to be directed to adjacent storm drains and would not percolate into the groundwater table beneath the site. Potential impacts to	

	Impact?	Explanation	Mitigation Measures
		surface water runoff would be mitigated to a level of insignificance by incorporating stormwater pollution control measures. City of Los Angeles Ordinance No. 172,176 and Ordinance No. 173,494 specify Stormwater and Urban Runoff Pollution Control which require the application of Best Management Practices (BMP). Chapter IX, Division 70 of the LAMC addresses grading, excavations, and fills. Full compliance with the applicable regulations and implementation of BMPs would ensure that the operation of the Proposed Project would not violate any water quality standards or discharge requirements or otherwise substantially degrade water quality. Therefore, the Project's water quality impacts would be less than significant.	
b.	LESS THAN SIGNIFICANT IMPACT	A significant impact would occur if the Proposed Project would substantially deplete groundwater or interfere with groundwater recharge. The Proposed Project would not require the use of groundwater at the Project site. The Project site is currently almost entirely developed with a surface parking lot. As such, the Project site is almost entirely impervious, and the development of the Proposed Project would continue to direct surface water runoff to adjacent storm drains and would not percolate into the groundwater table beneath the site. Therefore, impacts related to groundwater would be reduced to less than significant.	
c.	LESS THAN SIGNIFICANT IMPACT	A significant impact would occur if the Proposed Project would substantially alter the drainage pattern of an existing stream or river so that erosion or siltation would result. The Project site is located in an urbanized area within the Wilshire Community Plan Area. No natural watercourses, including streams and rivers, exist on the Project site or in the Project vicinity, and the Project site does not drain towards a natural watercourse. Project construction would temporarily expose on-site soils to surface water runoff. However, compliance with construction-related Best Management Practices and the Storm Water Pollution Prevention Plan (SWPPP) would control and minimize erosion and siltation. During Project operation, storm water or any runoff irrigation waters would be directed	

	Impact?	Explanation	Mitigation Measures
		into existing storm drains that are currently receiving surface water runoff under existing conditions. Since the Project site is currently almost entirely impervious, impermeable surfaces resulting from the development of the Proposed Project would not substantially change the volume or direction of storm water runoff. Furthermore, Projects that involve construction during the rainy season that is between October 1 and April 15 are required to prepare a Wet Weather Erosion Control Plan. Accordingly, significant alterations to existing drainage patterns within the Project site and surrounding area would not occur. Therefore, the Proposed Project would result in a less than significant impact related to the alteration of drainage patterns and on- or off-site erosion or siltation.	
d.	LESS THAN SIGNIFICANT IMPACT	A significant impact would occur if the Proposed Project would substantially alter the drainage pattern of an existing stream or river such that flooding would result. There are no streams or rivers located in the Project vicinity. During the Project operation, stormwater or any runoff irrigation water would be directed into existing storm drains that are currently receiving surface water runoff under existing conditions. Since the Project site is almost entirely impervious, impermeable surfaces resulting from the development of the Project would not substantially change the volume of storm water runoff in a manner that would result in flooding on- or off-site. Accordingly, significant alterations to existing drainage patterns within the site and surrounding area would not occur. Therefore, the Proposed Project would result in less than significant impacts related to the alteration of drainage patterns and on- or off-site flooding.	
e.	LESS THAN SIGNIFICANT IMPACT	A significant impact would occur if runoff water would exceed the capacity of existing or planned storm drain systems serving the Project site or if the Proposed Project would substantially increase the probability that polluted runoff would reach the storm drain system. The Project site is currently almost entirely developed and impermeable. The Project site is currently fully improved with a surface parking lot and an existing retail building.	

	Impact?	Explanation	Mitigation Measures
		Almost the entire Project site is covered with impermeable surfaces. The Project site would continue to be covered with impermeable surfaces. Development of the Proposed Project would not alter the amount of runoff on the Project site. Furthermore, according to the Bureau of Sanitation's (BOS) preliminary evaluation of the Proposed Project's potential impacts to the wastewater and stormwater systems, the Project requires implementation of requirements in the Standard Urban Stormwater Mitigation Plan (SUSMP) and the recently adopted Low Impact Development (LID) requirements. In addition, the Project is required to implement stormwater control measures during its construction phase to lessen the impact of stormwater pollution. Projects that involve construction during the rainy season that is between October 1 and April 15 are required to prepare a Wet Weather Erosion Control Plan. Compliance with existing regulations would reduce impacts to a less than significant level.	
f.	LESS THAN SIGNIFICANT IMPACT	A significant impact would occur if the Proposed Project would substantially degrade water quality. As required under the National Pollution Discharge Elimination System (NPDES), the Project applicant is responsible for preparing a Storm Water Pollution Prevention Plan (SWPPP) to mitigate the effects of erosion and the inherent potential for sedimentation and other pollutants entering the stormwater system. The SWPPP would incorporate the required implementation of Best Management Practices (BMP) for erosion control and other measures to meet the NPDES requirements for stormwater quality. The Project site is currently almost entirely covered with impervious surfaces. As such, the surface water runoff from the Project site will continue to be directed to adjacent storm drains and would not percolate into the groundwater table beneath the site. Potential impacts to surface water runoff would be mitigated to a level of insignificance by incorporating stormwater pollution control measures. City of Los Angeles Ordinance No. 172,176 and Ordinance No. 173,494 specify Stormwater and Urban Runoff Pollution Control which require the application of the BMP. Chapter IX,	

	Impact?	Explanation	Mitigation Measures
		Division 70 of the LAMC addresses grading, excavations, and fills. The Proposed Project is required to comply with the City's regulations specified in the LAMC and the Ordinances. Full compliance with the applicable regulations and implementation of BMPs would ensure that the operation of the Proposed Project would not violate any water quality standards or discharge requirements or otherwise substantially degrade water quality. Therefore, the Project's water quality impacts would be less than significant.	
g.	LESS THAN SIGNIFICANT IMPACT	A significant impact would occur if the Proposed Project would place housing within a 100-year flood plain or other flood hazard delineation map. According to ZIMAS, the Project site is not located within a 100-year flood plain. Therefore, the proposed development is unlikely to place housing within a 100-year flood plain, and impacts would be less than significant.	
h.	LESS THAN SIGNIFICANT IMPACT	A significant impact would occur if the Proposed Project would place housing within a 100-year flood plain or other flood hazard delineation map. According to ZIMAS, the Project site is not located within a 100-year flood plain. Therefore, the proposed development is unlikely to place structures which would impede or redirect flood flows. Project impacts would be less than significant.	
i.	LESS THAN SIGNIFICANT IMPACT	A significant impact would occur if the Proposed Project would be located within an area susceptible to flooding as a result of the failure of a levee or dam. The Project site is not located within a flood hazard area. Accordingly, the Proposed Project is unlikely to expose people or structures to a significant risk of loss, injury, or death involving flooding. Therefore, the Proposed Project would have less than significant impacts.	
j.	LESS THAN SIGNIFICANT IMPACT	A significant impact would occur if the Proposed Project would be located within an area susceptible to flooding as a result of the failure of a levee or dam. The Project site is not located within a flood hazard area. Accordingly, the Proposed Project is unlikely to be inundated by seiche, tsunami, or mudflow. Therefore, the Proposed Project would have less than significant impacts.	

	Impact?	Explanation	Mitigation Measures
X. LAND USE AND PLANNING			
a.	LESS THAN SIGNIFICANT IMPACT	A significant impact would occur if the Proposed Project would be sufficiently large or configured in such a way so as to create a physical barrier within an established community. A physical division of an established community is caused by an impediment to through travel or a physical barrier, such as a new freeway with limited access between neighborhoods on either side of the freeway or major street closures. The Proposed Project would not involve any street vacation or closure or result in development of new thoroughfares or highways. The Proposed Project, which involves the construction of a new mixed-use development in an urbanized area in Los Angeles, would not divide an established community. Therefore, the Proposed Project would have less than significant impacts.	
b.	LESS THAN SIGNIFICANT IMPACT	A significant impact would occur if the Proposed Project would be inconsistent with applicable plans, policies, and zoning regulations. The Project site is located in the Wilshire Community Plan Area of the City of Los Angeles. The Project site is zoned C2-2 and designated for Regional Center Commercial land uses by the Wilshire Community Plan. The Project includes the construction of a seven-story, mixed-use building containing approximately 98,000 square feet of floor area, including 29,000 square feet of museum space and 103 residential units, on a 26,257-square-foot site. The applicant proposes to set aside 11 percent, or 12 units, of 103 units for habitation by Very Low Income Households. The building will have a maximum height of 100 feet, measured from the grade to the highest point of the roof structure. The Project will provide a minimum of 44 residential parking spaces and 43 museum parking spaces for the proposed project, and 57 parking spaces to replace existing public parking spaces on the project site, in a three-level subterranean parking garage. The Project will provide a minimum of 182 bicycle parking spaces. The new building will provide a minimum of 10,300 square feet of open space, including out-door terraces, private balconies, and interior common open space. The applicant	

	Impact?	Explanation	Mitigation Measures
		requests a Site Plan Review for a development that creates an increase of 50 or more dwelling units. The applicant proposes to set aside a percentage of dwelling units for affordable housing; however, the applicant does not request any on- or off-menu incentives. With the approval of the requested entitlements, the Proposed Project would be consistent with applicable plans, policies, and zoning regulations. Furthermore, approval of the Project's discretionary requests would not result in any adverse environmental impacts. Therefore, impacts would be less than significant.	
c.	NO IMPACT	A significant impact would occur if the Proposed Project were located within an area governed by a habitat conservation plan or natural community conservation plan. The Project site is not subject to any habitat conservation plan or natural community conservation plan. Therefore, no impact would occur.	
XI. MINERAL RESOURCES			
a.	NO IMPACT	A significant impact would occur if the Proposed Project would result in the loss of availability of known mineral resources of regional value or locally-important mineral resource recovery site. The Project site is not classified by the City as containing significant mineral deposits (City of Los Angeles, Environmental and Public Facilities Maps, Areas Containing Significant Mineral Deposits in the City of Los Angeles, 1995). Furthermore, the Project site is not identified by the City as being located in an oil field or a mineral extraction land use (City of Los Angeles, General Plan Safety element Exhibit E, Oil Field & Oil Drilling Areas in the City of Los Angeles, 1996). Therefore, the Proposed Project would not result in the loss of availability of any known regionally- or locally-valuable mineral resource. No impact would occur.	
b.	NO IMPACT	A significant impact would occur if the Proposed Project would result in the loss of availability of known mineral resources of regional value or locally-important mineral resource recovery site. The Project site is not classified by the City as containing significant mineral deposits (City of Los Angeles, Environmental and Public Facilities Maps, Areas Containing Significant Mineral Deposits in the City of Los Angeles, 1995). Furthermore, the	

	Impact?	Explanation	Mitigation Measures
		Project site is not identified by the City as being located in an oil field or a mineral extraction land use (City of Los Angeles, General Plan Safety element Exhibit E, Oil Field & Oil Drilling Areas in the City of Los Angeles, 1996). Therefore, the Proposed Project would not result in the loss of availability of any known regionally- or locally-valuable mineral resource. No impact would occur.	
XII. NOISE			
a.	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	**A significant impact may occur if the Proposed Project would generate excess noise that would cause the ambient noise environment at the Project site to exceed noise level standards set forth in the City of Los Angeles General Plan Noise Element and the City of Los Angeles Noise Ordinance. The City of Los Angeles has established policies and regulations concerning the generation and control of noise that could adversely affect its citizens and noise-sensitive land uses. Construction activity would result in temporary increases in ambient noise levels in the Project area on an intermittent basis. Noise levels would fluctuate depending on the construction phase, equipment type and duration of use, distance between the noise source and receptor, and presence or absence of noise attenuation barriers. Construction noise for the Project will cause a temporary increase in the ambient noise levels, but will be subject to the LAMC Sections 112.05 (Maximum Noise Level of Powered Equipment or Powered Hand Tools) and 41.40 (Noise Due to Construction, Excavation Work – When Prohibited) regarding construction hours and construction equipment noise thresholds. The Project shall comply with the City of Los Angeles General Plan Noise Element and Ordinance No. 161,574, which prohibits the emission of creation of noise beyond certain levels at adjacent uses unless technically infeasible. Compliance with the applicable regulations and mitigation measures would reduce impacts to a less than significant level.**	XII-20

	Impact?	Explanation	Mitigation Measures
b.	LESS THAN SIGNIFICANT IMPACT	A significant impact may occur if the Proposed Project would generate excessive groundborne vibration or groundborne noise levels that would cause a long-term annoyance or harm to human receptors or structural damage to buildings and foundations. Construction activities can generate varying degrees of vibration, depending on the construction procedures and the type of construction equipment used. High levels of vibration may cause physical personal injury or damage to buildings. However, vibrations rarely affect human health. The operation of construction equipment generates vibrations that spread through the ground and diminish with distance from the source. Unless heavy construction activities are conducted extremely close (within a few feet) to the neighboring structures, vibrations from construction activities rarely reach the levels that damage structures. By complying with regulations, the Project would result in a less than significant impact related to construction vibration.	
c.	LESS THAN SIGNIFICANT IMPACT	A significant impact would occur if the Project caused a substantial permanent increase in noise levels above existing ambient levels. As discussed in Section XII(a), upon completion and operation of the Proposed Project, on-site operational noise would be generated by heating, ventilation, and air conditioning (HVAC) equipment installed on the new structure. However, the noise levels generated by these equipment types are not anticipated to be substantially greater than those generated by the current HVAC equipment serving the existing buildings in the Project vicinity. Therefore, the project is expected to have a less than significant impact.	
d.	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	**A significant impact would occur if the Proposed Project resulted in substantial temporary or periodic increase in ambient noise levels. As discussed in Section XII(a), construction activities of the Proposed Project would result in temporary increases in noise levels in the Project area on an intermittent basis. Compliance with the City's regulations related to noise and implementation of the referenced mitigation measure would reduce the Project's potential**	**XII-20**

	Impact?	Explanation	Mitigation Measures
		impacts to a less than significant level.	
e.	NO IMPACT	A significant impact would occur if the Proposed Project would expose people residing or working in the Project area to excessive noise levels from a public airport or public use airport. The Proposed Project is not located within two miles of a public airport or public use airport. The Project site is located outside of the Los Angeles International Airport Land Use Plan area. No impact would occur.	
f.	NO IMPACT	A significant impact would occur if the Proposed Project would expose people residing or working in the Project area to excessive noise levels from a private airstrip. The Proposed Project is not within the vicinity of a private airstrip. No impact would occur.	
XIII. POPULATION AND HOUSING			
a.	LESS THAN SIGNIFICANT IMPACT	A significant impact would occur if the Proposed Project would induce substantial population growth that would not have otherwise occurred as rapidly or in as great a magnitude. The Proposed Project would result in the net increase of 103 residential dwelling units on the Project site. The 2016 RTS/SCS accommodates up to 4,609,400 persons; 1,690,300 households; and 2,169,100 jobs by 2040. The Project site is located in the City's Wilshire Community Plan area. The Project is consistent with the City's projected growth capacity for the Community Plan area, which accommodated a projected population of 337,144 persons and housing base of 138,330 units by 2010. The marginal increase in residential population resulting from the Proposed Project would not be considered substantial in consideration of anticipated growth for the Wilshire Community Plan. Therefore, the Project would have a less than significant impact related to substantial population growth.	
b.	NO IMPACT	A significant impact would occur if the Proposed Project would displace a substantial quantity of existing residences. The Project proposes to construct a mixed-use development including 103 residential dwelling units on a site that is developed with a surface parking lot. The Project would not displace any existing housing and does	

	Impact?	Explanation	Mitigation Measures
		not necessitate the construction of replacement housing elsewhere. No impact would occur.	
c.	NO IMPACT	A significant impact would occur if the Proposed Project would displace a substantial quantity of existing residences. The Project proposes to construct a mixed-use development including 103 residential dwelling units on a site that is developed with a surface parking lot. The Project would not displace any people and does not necessitate the construction of replacement housing elsewhere. No impact would occur.	
XIV. PUBLIC SERVICES			
a.	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	**A significant impact would occur if the Los Angeles Fire Department (LAFD) could not adequately serve the Proposed Project, necessitating a new or physically altered station. The Project site and the surrounding area are currently served by LAFD Station 29 located at 4029 Wilshire Boulevard, Station 6 located at 326 North Virgil Avenue, Station 11 located at 1819 7th Street, and Station 13 located at 2401 W. Pico Boulevard. The Project proposes a new seven-story mixed-use development containing 29,000 square feet of museum space and 103 residential dwelling units. The Proposed Project would generate new residents and visitors, which could potentially increase the demand for LAFD services. By incorporating the mitigation measure, the Project would have less than significant impacts on LAFD services.**	**XIV-10**
b.	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	**A significant impact would occur if the Los Angeles Police Department (LAPD) could not adequately serve the Proposed Project, necessitating a new or physically altered station. The Project site and the surrounding area are currently served by LAPD's West Bureau Olympic Station located at 1130 S. Vermont Avenue. The proposed mixed-use development will contain 103 residential dwelling units and 29,000 square feet of museum space. The Project would increase activity levels on the subject property during day and night, which may result in increased demand for police protection services. By incorporating**	**XIV-20**

	Impact?	Explanation	Mitigation Measures
		the referenced mitigation measures, the Project's impacts related to police protection would be reduced to less than significant.	
c.	LESS THAN SIGNIFICANT IMPACT	A significant impact would occur if the Proposed Project would include substantial employment or population growth, which could generate a demand for school facilities that would exceed the capacity of the school district. The applicant proposes a mixed-use development containing 103 residential dwelling units and 29,000 square feet of museum space. The Proposed Project would increase enrollment at schools that service the area. However, development of the Proposed Project would be subject to California government Code Section 65995, which would allow LAUSD to collect impact fees. Conformance to California Government Code Section 65995 is deemed to provide mitigation of impacts to school facilities. Therefore, impacts would be less than significant.	
d.	LESS THAN SIGNIFICANT IMPACT	A significant impact would occur if the Proposed Project would exceed the capacity or capability of local park systems to serve the Proposed Project. The Project site is located in close proximity to various parks and recreational facilities including Shatto Recreation Center at 3191 W. 4th Street, Seoul International Park at 3250 San Marino Street, and Lafayette Multipurpose Community Center and Skate Park. The Project proposes 103 residential dwelling units and 29,000 square feet of museum space, which would increase the net population and demand for park and recreation facilities. However, the Project will provide a minimum of 10,300 square feet of open space, including out-door terraces, private balconies, and interior common open space. These on-site open space areas and amenities would reduce impacts on existing parks and recreation facilities and would not result in substantial physical deterioration of these facilities. Accordingly, the Project would not result in substantial adverse physical impacts on parks. Therefore, impacts will be less than significant.	

	Impact?	Explanation	Mitigation Measures
e.	LESS THAN SIGNIFICANT IMPACT	A significant impact would occur if the Proposed Project would result in substantial employment or population growth that could generate a demand for other public facilities, such as libraries, which would exceed the capacity to service the Project site. The City of Los Angeles Public Library (LAPL) provides library services throughout the City. The nearest public libraries to the site include Pio Pico Library at 694 S. Oxford Ave. and Felipe De Neve Branch Library located at 2820 W. 6th St. As such, the Project site will be served by three public libraries to meet the demand of library services. Therefore, impacts would be less than significant.	
XV. RECREATION			
a.	LESS THAN SIGNIFICANT IMPACT	A significant impact would occur if the Proposed Project would exceed the capacity or capability of the existing park system and result in substantial physical deterioration of the facilities. The Project site is located in close proximity to various parks and recreational facilities including Shatto Recreation Center at 3191 W. 4th Street, Seoul International Park at 3250 San Marino Street, and Lafayette Multipurpose Community Center and Skate Park. The Project proposes 103 residential dwelling units and 29,000 square feet of museum space, which would increase the net population and demand for park and recreation facilities. However, the Project will provide a minimum of 10,300 square feet of open space, including out-door terraces, private balconies, and interior common open space. These on-site open space areas and amenities would reduce impacts on existing parks and recreation facilities and would not result in substantial physical deterioration of these facilities. Furthermore, the applicant is required to pay the Dwelling Unit Construction Tax for construction of residential dwelling units, pursuant to Los Angeles Municipal Code Section 21.10. Accordingly, the Project would not result in substantial physical deterioration of parks and recreational facilities. Impacts would be less than significant.	

	Impact?	Explanation	Mitigation Measures
b.	LESS THAN SIGNIFICANT IMPACT	A significant impact would occur if the Proposed Project would necessitate construction of new recreational facilities, which would adversely impact the environment, or require the expansion or development of parks or other recreational facilities in order to maintain acceptable service ratios or other performance objectives for parks. The Project site is located in close proximity to various parks and recreational facilities including Shatto Recreation Center at 3191 W. 4th Street, Seoul International Park at 3250 San Marino Street, and Lafayette Multipurpose Community Center and Skate Park. The Project proposes 103 residential dwelling units and 29,000 square feet of museum space, which would increase the net population and demand for park and recreation facilities. However, the Project will provide a minimum of 10,300 square feet of open space, including out-door terraces, private balconies, and interior common open space. These on-site open space areas and amenities would reduce impacts on existing parks and recreation facilities and would not result in substantial physical deterioration of these facilities. Therefore, impacts would be less than significant.	
XVI. TRANSPORTATION/TRAFFIC			
a.	LESS THAN SIGNIFICANT IMPACT	A significant impact would occur if a Project were to result in substantial increases in traffic volumes in the vicinity of the Project such that the existing street capacity experiences a decrease in the existing volume to capacity ratios, or experiences increased traffic congestion exceeding the Los Angeles Department of Transportation's (LADOT) recommended level of service. A traffic impact study and supplemental traffic analysis, prepared by Raju Associates dated December 16, 2015, for the mixed-use Project with 103 units and 30,937 square feet of museum space was submitted to the Department of Transportation (DOT). The Project is expected to generate 56 a.m. peak hour trips and 79 p.m. peak hour trips, and is not expected to result in any significant traffic impacts. In a letter dated, February 24, 2016, DOT concurred with the traffic impact study for the proposed Project. Additionally, the Project is required to comply with conditions imposed by DOT.	

	Impact?	Explanation	Mitigation Measures
		Therefore, the Project would have a less than significant impact on the performance of the circulation system.	
b.	NO IMPACT	A significant impact would also occur if the Proposed Project individually or cumulatively exceeded the service standards of the Metro's Congestion Management Program (CMP). The CMP is a State-mandated program designed to address the impact urban congestion has on local communities and the region as a whole. The CMP requires that new development Projects analyze potential impacts on CMP monitoring location, if an EIR is prepared for the Proposed Project. As an EIR is not being prepared for the Project, no CMP analysis is required. No impact would occur.	
c.	NO IMPACT	This question would apply to the Project only if it were an aviation-related use. The Project site does not contain any aviation-related uses and the proposed Project does not include development of any aviation-related uses. No impact would occur.	
d.	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	**A significant impact may occur if a Project were to include a new roadway design, introduce a new land use or Project features into an area with specific transportation requirements and characteristics that have not been previously experienced in that area, or if Project access or other features were designed in such a way as to create hazardous conditions. The Project does not include any sharp curves, dangerous intersections, or incompatible uses. However, the Project proposes an ingress and egress driveway from the alley to provide access to the parking garage. Without incorporating appropriate traffic signs and/or driveway design, the Project may increase safety hazards. In addition, the Project requires a haul route to export approximately 36,100 cubic yards of earth material and may potentially increase safety impacts on pedestrians during construction phases. With implementation of the referenced mitigation measures, potential impacts related to safety hazards would be reduced to less than significant levels.**	**XVI-30, XVI-40, XVI-80**

	Impact?	Explanation	Mitigation Measures
e.	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	**A significant impact may occur if the Project design would not provide emergency access meeting the requirements of the Los Angeles Fire Department, or in any other way threatened the ability of emergency vehicles to access and serve the Project site or adjacent uses. Development of the Project site may require temporary and/or partial street closures due to construction activities. While such closures may cause temporary inconvenience, they would not be expected to substantially interfere with emergency response or evacuation plans. The Proposed Project would not cause permanent alterations to vehicular circulation routes and patterns and/or impede public access or travel upon public rights-of-way. However, the building height exceeds 75 feet, which may impact emergency evacuation exits and routes in the surrounding area. Furthermore, the Project proposes an ingress and egress driveway from the alley to provide access into a three-level subterranean parking garage. As required per the referenced mitigation measure, the applicant shall submit a parking and driveway plan to the Bureau of Engineering and the Department of Transportation for approval that provides code-required emergency access. With the implementation of the referenced mitigation measure, the Project would have less than significant impacts.**	**XVI-50**
f.	NO IMPACT	A significant impact may occur if the Proposed Project would conflict with adopted policies or involve modification of existing alternative transportation facilities located on- or off-site. The Proposed Project would not require the disruption of public transportation services or the alteration of public transportation routes. Furthermore, the Proposed Project would not interfere with any Class I or Class II bikeway systems. The Proposed Project would have no impact, as it does not modify or conflict with any alternative transportation policies, plans, or programs.	
XVII. TRIBAL CULTURAL RESOURCES			

	Impact?	Explanation	Mitigation Measures
a.	LESS THAN SIGNIFICANT IMPACT	Assembly Bill 52 (AB 52) establishes a formal consultation process for California Native American Tribes to identify potential significant impacts to Tribal Cultural Resources, as defined in Public Resources Code §21074, as part of CEQA. As specified in AB 52, lead agencies must provide notice to tribes that are traditionally and culturally affiliated with the geographic area of a Proposed Project if the tribe has submitted a written request to be notified. The Native American Heritage Commission (NAHC) provided a list of Native American groups and individuals who might have knowledge of the religious and/or cultural significance of resources that may be in and near the Project site. An informational letter was mailed to a total of nine (9) Native Americans known to have resources in this area, on April 18, 2016, describing the Project and requesting any information regarding resources that may exist on or near the Project site. The Lead Agency received responses from the Soboban Band of Luiseno Indians and Fernandeno Tataviam Band of Mission Indians requesting additional information on the amount of export, consultation, and mitigation measures requiring the Project to have a Native American monitor present at the site during all construction activities. In response, the applicant submitted a technical study assessing the sensitivity for tribal cultural resources for the proposed Project, prepared by SWCA Environmental Consultants and dated October 10, 2016 (document available in Case file No. ENV-2015-540-MND), which conducted background research including a records search of the California Historic Resources Information System through the South Central Coastal Information Center at California State University, Fullerton; a review of relevant literature, archival documents, and maps located at various repositories; and a search of the Sacred Lands File through NAHC. The technical study concludes that no tribal cultural resources were identified within the Project area and that the site is not likely to contain tribal cultural resources beneath the surface obscured by pavement, and no mitigation measures are recommended for impacts to known tribal cultural resources. Therefore, the Lead Agency concludes that mutual	

	Impact?	Explanation	Mitigation Measures
		agreement cannot be reached, and the consultation per AB52 has ended after acting in good faith and reasonable effort, and the Project will have a less than significant impact.	
b.	LESS THAN SIGNIFICANT IMPACT	Assembly Bill 52 (AB 52) establishes a formal consultation process for California Native American Tribes to identify potential significant impacts to Tribal Cultural Resources, as defined in Public Resources Code §21074, as part of CEQA. As specified in AB 52, lead agencies must provide notice to tribes that are traditionally and culturally affiliated with the geographic area of a Proposed Project if the tribe has submitted a written request to be notified. The Native American Heritage Commission (NAHC) provided a list of Native American groups and individuals who might have knowledge of the religious and/or cultural significance of resources that may be in and near the Project site. An informational letter was mailed to a total of nine (9) Native Americans known to have resources in this area, on April 18, 2016, describing the Project and requesting any information regarding resources that may exist on or near the Project site. The Lead Agency received responses from the Soboban Band of Luiseno Indians and Fernandeno Tataviam Band of Mission Indians requesting additional information on the amount of export, consultation, and mitigation measures requiring the Project to have a Native American monitor present at the site during all construction activities. In response, the applicant submitted a technical study assessing the sensitivity for tribal cultural resources for the proposed Project, prepared by SWCA Environmental Consultants and dated October 10, 2016 (document available in Case file No. ENV-2015-540-MND), which conducted background research including a records search of the California Historic Resources Information System through the South Central Coastal Information Center at California State University, Fullerton; a review of relevant literature, archival documents, and maps located at various repositories; and a search of the Sacred Lands File through NAHC. The technical study concludes that no tribal cultural resources were identified within the Project area and that the site is not likely to contain tribal cultural resources	

	Impact?	Explanation	Mitigation Measures
		beneath the surface obscured by pavement, and no mitigation measures are recommended for impacts to known tribal cultural resources. Therefore, the Lead Agency concludes that mutual agreement cannot be reached, and the consultation per AB52 has ended after acting in good faith and reasonable effort, and the Project will have less than significant impact.	
XVIII. UTILITIES AND SERVICE SYSTEMS			
a.	LESS THAN SIGNIFICANT IMPACT	A significant impact would occur if the Proposed Project would exceed wastewater treatment requirements of the Los Angeles Regional Water Quality Control Board (LARWQCB). Ultimately, the sewage flow will be conveyed to the Hyperion Treatment Plan (HTP), which experiences an average daily flow of 362 million gallons per day (mgd), below the maximum capacity of 450 mgd. The HTP has sufficient capacity for the Proposed Project. Furthermore, all wastewater from the Project would be treated according to requirements of the NPDES permit authorized by the LARWQCB. Therefore, the Project would result in a less than significant impact related to wastewater treatment requirements.	
b.	LESS THAN SIGNIFICANT IMPACT	A significant impact would occur if the Proposed Project would increase water consumption or wastewater generation to such a degree that the capacity of facilities currently serving the Project site would be exceeded. As mentioned in Section XVII(a), the Hyperion Treatment Plant (HTP) has a design capacity to treat approxiamtely 450 mgd and currently treats an average daily flow of approximately 362 mgs. The Project's wastewater generation is well within the existing capacity and would not exceed the wastewater treatment requirements. The Los Angeles Department of Water and Power (LADWP) owns and operates the Los Angeles Aqueduct Filtration Plant (LAAFP) located in the Sylmar community of the City. LAAFP treats City water prior to distribution throughout LADWP's Central Water Service Area. The designated treatment capacity of LAAFP is 600 mgd with an average plant flow of 550 mgd during the summer months and 450 mgd in the non-summer months. Thus, the facility has between approximately 50 to 150 mgd of remaining	

	Impact?	Explanation	Mitigation Measures
		capacity depending on the season. The Proposed Project would generate water demand that is typical of residential and commercial uses, which would be a fraction of the remaining capacity currently available at LAAFP. The Project is also required to comply with the City's Low Impact Development Ordinance (Ordinance No. 181,899). Therefore, Project impacts would be less than significant.	
c.	LESS THAN SIGNIFICANT IMPACT	A significant impact may occur if the volume of stormwater runoff increases to a level exceeding the capacity of the storm drain system serving the Project site or if a Project would substantially increase the probability that polluted runoff would reach the storm drain system. The Project site is currently fully improved with a surface parking lot. Almost the entire Project site is covered with impermeable surfaces with some ornamental vegetation. The Project site would continue to be covered with impermeable surfaces, with some ornamental vegetation. Development of the Proposed Project would not alter the amount of runoff on the Project site. Furthermore, according to the Bureau of Sanitation's (BOS) preliminary evaluation of the Proposed Project's potential impacts to the wastewater and stormwater systems, the Project requires implementation of requirements in the Standard Urban Stormwater Mitigation Plan (SUSMP) and the recently adopted Low Impact Development (LID) requirements. In addition, the Project is required to implement stormwater control measures during its construction phase to lessen the impact of stormwater pollution. Projects that involve construction during the rainy season that is between October 1 and April 15 are required to prepare a Wet Weather Erosion Control Plan. Compliance with existing regulations would reduce the Project's impacts to a less than significant level.	
d.	LESS THAN SIGNIFICANT IMPACT	A significant impact may occur if a Project were to increase water consumption to such a degree that new water sources would need to be identified, or that existing resources would be consumed at a pace greater than planned for by purveyors, distributors, and service providers. The City's water supply comes	

	Impact?	Explanation	Mitigation Measures
		from local groundwater sources, the Los Angeles-Owens River Aqueduct, State Water Project, and from the Metropolitan Water District of Southern California, which is obtained from the Colorado River Aqueduct. These sources, along with recycled water, are expected to supply the City's water needs. According to the City's Urban Water Management Plan (UWMP), the City's Projected demand for water during dry seasons would be 2,236,000 acre-feet per year (afy) for 2015 and 2,188,000 afy for 2020. The Proposed Project's net increase for water demand would represent a fraction of the City's total demand. Additionally, the Proposed Project is consistent with growth Projections in the UWMP. The UWMP Projects adequate water supplies through 2020. In addition, pursuant to LAMC Section 122.03(a), the Project is required to utilize water-saving devices, including, but not limited to, urinals equipped with flushometer valves. The Project would also comply with the Water Management Ordinance (Ordinance No. 170,978). As such, the Proposed Project would have a less than significant impact.	
e.	LESS THAN SIGNIFICANT IMPACT	A significant impact may occur if a Project would increase wastewater generation to such a degree that the capacity of facilities currently serving the Project site would be exceeded. As stated in Section XVII(a) and (b), the sewage flow will be conveyed to the Hyperion Treatment Plan, which has sufficient capacity for the Proposed Project.	
f.	LESS THAN SIGNIFICANT IMPACT	A significant impact may occur if a Project were to increase solid waste generation to a degree such that the existing and Projected landfill capacity would be insufficient to accommodate additional solid waste. Solid waste generated within the City is disposed of at privately owned landfill facilities throughout Los Angeles County. While the Bureau of Sanitation provides waste collection services to single-family and some small multi-family developments, private haulers provide waste collection services for most multi-family residential and commercial developments within the City. Solid waste collected from the Proposed Project is anticipated to be hauled to Sunshine Canyon or Chiquita Canyon landfill. The	

	Impact?	Explanation	Mitigation Measures
		Proposed Project's solid waste generation would be typical of residential and commercial uses and would not create a need for an additional facility. Impacts would be less than significant.	
g.	LESS THAN SIGNIFICANT IMPACT	A significant impact may occur if a Project would generate solid waste that was not disposed of in accordance with applicable regulations. Solid waste generated on site by the Proposed Project would be disposed of in accordance with all applicable federal, state, and local regulations related to solid waste. The amount of Project-related waste disposed of at area landfills would be reduced through recycling and waste diversion programs implemented by the City, in accordance with the City's Solid Waste Management Policy Plan (CiSWMPP) and the Source Reduction and Recycling Element (SRRE). The Project would also comply with applicable regulatory measures, including the provisions of City's Ordinance No. 171,687 with regard to all new development. With the implementation of regulatory measures, the Proposed Project would have less than significant impacts.	
XIX. MANDATORY FINDINGS OF SIGNIFICANCE			
a.	LESS THAN SIGNIFICANT IMPACT	A significant impact may occur only if the Proposed Project would have an identified potentially significant impact for any of the environmental topics addressed in this Initial Study. The Proposed Project is located in a densely populated urban area and would have no unmitigatable impacts with respect to biological resources and cultural resources, provided the referenced mitigation measures listed previously are implemented. The Proposed Project would not degrade the quality of the environment, reduce or threaten any fish or wildlife species (endangered or otherwise), or eliminate important examples of the major periods of California history or prehistory. Impacts would be less than significant.	
b.	LESS THAN SIGNIFICANT IMPACT	A significant impact may occur if the Proposed Project, in conjunction with the related Projects in the area of the Project site, would result in impacts that would be significant when viewed separately, but would be significant when viewed cumulatively. As concluded in this analysis, the Proposed Project's	

	Impact?	Explanation	Mitigation Measures
		incremental contribution to cumulative impacts related to aesthetics, agriculture and forestry resources, air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, and utilities would be less than significant.	
c.	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	**A significant impact may occur if the Proposed Project has the potential to result in significant impacts, as discussed in the preceding sections. Based on the environmental analysis, the Proposed Project would not have significant environmental effects on human beings, either directly or indirectly. Any potentially significant impacts would be reduced to less than significant levels through the implementation of the applicable mitigation measures.**	**XIX-20**

SWCA
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October 10, 2016

Mr. Eli Amber and Mr. Garrett Lee
3470 Wilshire Boulevard Suite 700
Los Angeles, California 90010

Sent via e-mail to: eliamber@jamisonproperties.la and garrettlee@jamisonservices.com

RE: Tribal Cultural Resources Sensitivity Analysis for the Korean American National Museum Project, City and County of Los Angeles, California.

Dear Mr. Lee and Mr. Amber:

Under contract to Jamison Properties, SWCA Environmental Consultants (SWCA) has conducted a technical study assessing the sensitivity for tribal cultural resources (TCR) for the proposed Korean National American Museum Project (Proposed Project). The Proposed Project, located at 605 South Vermont Avenue in the Koreatown neighborhood of the City of Los Angeles (City), intends to remove an existing surface parking lot and construct a multi-level mixed-use structure containing museum space for the Korean American National Museum, apartments, and three levels of underground parking.

SWCA understands that the City, in its capacity as lead agency, is in the process of preparing a mitigated negative declaration (MND) for purposes of compliance with the California Environmental Quality Act (CEQA), and that the City has initiated consultation with Native American parties in accordance with Assembly Bill (AB) 52. During the AB 52 consultation process, the Fernadeño Tataviam Band of Mission Indians (Tataviam) expressed concerns about the potential for the presence of TCR—sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a Native American tribe (see below, Regulatory Framework). In their correspondence with the City (included as Attachment B), the Tataviam state that the Proposed Project is within an area considered to be sensitive for TCR based on the presence of "the village Yanga (spelled here Yaanga) and one known burial site" within 3 miles of the Proposed Project, and refer to maps included in an ethnographic report written by Dr. Chester King in 2004.[1] To further assess the potential for the Proposed Project to impact TCR, the City solicited an additional analysis focused on the following four questions:

1) Is Dr. Chester King's ethnographic study[2] a reliable source to determine the presence of TCR?
2) Is there any documentary evidence to establish the presence of TCR (e.g. village or burials sites) within a reasonable distance of the Proposed Project?
3) Is three miles an appropriate and reasonable threshold to determine a project's potential impact on any known TCR?
4) What mitigation measures are recommended if additional analysis concludes the Proposed Project may impact TCR?

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[1] King, Chester D. 2004. *Japchibit Ethnohistory.* Angeles National Forest, Topanga Anthropological Consultants, California.
[2] *Ibid.*

To address these questions, SWCA conducted background research that included the following: a records search of the California Historic Resources Information System (CHRIS) through the South Central Coastal Information Center (SCCIC) at California State University, Fullerton; a review of relevant literature, archival documents, and maps located at various repositories; and a search of the Sacred Lands File (SLF) through the Native American Heritage Commission (NAHC), who also provided a contact list of Native American representatives. After presenting relevant background information for the Proposed Project and methods used in the study, the report will address each of the four questions as they pertain to TCR. This study has not assessed impacts or sensitivity relevant to other types of (non-tribal) cultural resources, including built environment, historic archaeological resources, or paleontological resources.

This study was completed in accordance with the provisions and practices described in CEQA, Public Resources Code (PRC) Section 5024.1, Section 15064.5 of the Guidelines; Sections 21083.2 and 21084.1 of the Statutes of CEQA (Governor's Office of Planning and Research 1998); and in accordance with regulations set forth in the City of Los Angeles Municipal Code, Chapter 9, Article 1, Cultural Heritage Ordinance.

Cultural Resources Project Manager Chris Millington, M.A., Registered Professional Archaeologist (RPA), managed the study, conducted the background research, prepared figures, and authored this report. Cultural Resources Principal Investigator Heather Gibson, Ph.D., RPA, reviewed this report for quality assurance and quality control. Mr. Millington and Dr. Gibson both meet the Secretary of the Interior Standards Professional Qualifications for Archeology, including Prehistoric and Historical Archaeology. Technical Editor Peter Von der Porten edited the report. This report includes four attachments: (A) report figures; (B) AB 52 consultation correspondence; (C) SCCIC Records Search Results; and (D) NAHC SLF search and Native American Contacts results.

PROJECT DESCRIPTION

The Proposed Project is situated on a 0.56-acre (2269-sq. m) parcel (Project Area) in the City's Koreatown neighborhood within the Wilshire Community Plan Area (Figure 1). The Public Land Survey System classification for the Project Area is Township 1 South, Range 14 West, SE ¼ of the SE ¼ of Section 24 (San Bernardino Base and Meridian), as shown on the Hollywood, California, U.S. Geological Survey (USGS) 7.5-minute Quadrangle (Figure 2). The property is currently being used as a parking lot and occupies the full extent of one parcel, Assessor's Parcel Number (APN) 5502-025-900. The parcel is approximately 175 feet (53 m) long (north–south) by 140 feet (43 m) wide (east–west); it occupies the northeast corner of the 600 block of South Vermont Avenue, on the southwest corner of the intersection with West Sixth Street, bound by an alley to the west and an adjacent parcel to the south that currently contains a Denny's restaurant (Figure 3). The proposed development will be listed as 605 South Vermont Avenue, but previous addresses listed for the property include 601, 603, and 609.

The Project Area is situated one block north of a prominent segment of Wilshire Boulevard—a developmental focal point in the westward expansion of Los Angeles. This area features several historic districts and current and former sites of prominent historical buildings. Lafayette Park and MacArthur Park (formerly Westlake Park) are located 0.05 miles (0.08 km) and 0.5 miles (0.8 km) to the east, respectively. A segment of the Metro Red Line runs northwest–southeast below the surface of the lot to the northeast, possibly overlapping a small portion of the parcel; the Wilshire-Vermont station entrance is located across the street and south less than 500 feet on Vermont Avenue.

The Proposed Project plans to construct one multi-story mixed-use structure, including three levels of underground parking. The Korean American National Museum will be located on the first floor of the building with the remaining units allocated for residential apartments. The depth of the underground

parking is estimated at 38 feet and 4 inches (11.7 m). Development of the Proposed Project would require removal of the existing asphalt parking lot and excavation for the subsurface parking lot. At the time of this study, no other specific project designs, construction methods, or proposed alterations to the surroundings have been made available.

REGULATORY FRAMEWORK

This regulatory framework section identifies the state and local laws, statutes, guidelines, and regulations that govern the identification and treatment of cultural resources as well as the analysis of potential impacts to cultural resources. The lead agency must consider the provisions and requirements of this regulatory framework when rendering decisions on projects that have the potential to affect cultural resources.

State Regulations

California Environmental Quality Act

Treatment of cultural resources are implemented at the state level by the California Office of Historic Preservation (OHP), a division of the California Department of Parks and Recreation (DPR). The OHP is also tasked with carrying out the duties described in the Public Resources Code and maintaining the California Historic Resources Inventory (HRI) and California Register of Historic Resources (CRHR). The state-level regulatory framework also includes CEQA, which requires the identification and mitigation of substantial adverse impacts that may affect the significance of eligible historic and archaeological resources.

CEQA requires a lead agency to analyze whether historic and/or archaeological resources may be adversely impacted by a proposed project. Under CEQA, a "project that may cause a substantial adverse change in the significance of a historic resource is a project that may have a significant effect on the environment" (PRC Section 21084.1). Answering this question is a two-part process: first, the determination must be made as to whether the proposed project involves cultural resources. Second, if cultural resources are present, the proposed project must be analyzed for a potential "substantial adverse change in the significance" of the resource.

Historic Resources. According to CEQA Guidelines Section 15064.5, for the purposes of CEQA, historic resources are:

1. A resource listed in, or formally determined eligible for listing in, the California Register of Historical Resources (PRC 5024.1, Title 14 CCR, Section 4850 et seq.);
2. A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the PRC or identified as significance in a historic resources survey meeting the requirements of Section 5024.1(g) of the PRC;
3. Any building, structure, object, site, or district that the lead agency determines eligible for national, state, or local landmark listing; generally, a resource shall be considered by the lead agency to be historically significant (and therefore a historic resource under CEQA) if the resource meets the criteria for listing on the California Register (as defined in PRC Section 5024.1, Title 14 CCR, Section 4852).

Resources nominated to the CRHR must retain enough of their historic character or appearance to convey the reasons for their significance. Resources whose historic integrity (as defined in previous section) does

not meet National Register of Historic Places (NRHP) criteria may still be eligible for listing in the CRHR.

According to CEQA, the fact that a resource is not listed in or determined eligible for listing in the California Register or is not included in a local register or survey shall not preclude the lead agency from determining that the resource may be an historical resource (PRC Section 5024.1). Pursuant to CEQA, a project with an effect that may cause a substantial adverse change in the significance of a historical resource may have a significant effect on the environment (CEQA Guidelines, Section 15064.5(b).

Substantial Adverse Change and Indirect Impacts to Historical Resources. CEQA Guidelines specify that "substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (CEQA Guidelines, Section 15064.5). Material impairment occurs when a project alters in an adverse manner or demolishes "those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion" or eligibility for inclusion in the NRHR, CRHR, or local register. In addition, pursuant to CEQA Guidelines Section 15126.2, the "direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects."

Pursuant to CEQA Guidelines, Section 15378, study of a project under CEQA requires consideration of "the whole of an action, which has the potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment." CEQA Guidelines, Section15064d further define direct and indirect impacts:

1. A direct physical change in the environment is a physical change in the environment which is caused by and immediately related to the project.
2. An indirect physical change in the environment is a physical change in the environment which is not immediately related to the project, but which is caused indirectly by the project. If a direct physical change in the environment in turn causes another change in the environment, then the other change is an indirect physical change in the environment.
3. An indirect physical change is to be considered only if that change is a reasonably foreseeable impact which may be caused by the project.

Archeological Resources. In terms of archaeological resources, PRC Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type;
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

If it can be demonstrated that a proposed project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (PRC Sections 21083.2[a], [b], and [c]). CEQA notes that, if an archaeological resource is neither a unique archaeological resource nor an historical resource, the effects

of the project on those resources shall not be considered to be a significant effect on the environment (CEQA Guidelines, Section 15064.5(c)(4).

Human Remains. CEQA Guidelines also describe the procedures to be followed in the event of the unforeseen discovery of human remains. If human remains are discovered during the construction of the Proposed Project, no further disturbance to the site shall occur and the Los Angeles County Coroner must be notified (PRC Sections 15064.5 and 5097.98). If the Coroner determines the remains to be Native American, the coroner shall notify the Native American Heritage Commission (NAHC) within 48 hours. The NAHC shall identify the person or persons it believes to be the Most Likely Descendant (MLD) of the deceased, and the MLD may then make recommendations as to the disposition of the remains. Native American burials in California are also addressed in PRC Sections 5097.9 through 5097.991 and in Section 7050.5 of the California Health and Safety Code.

California Register of Historical Resources (CRHR). Created in 1992 and implemented in 1998, the CRHR is "an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change" (PRC Sections 21083.2 and 21084.1). Certain properties, including those listed in or formally determined eligible for listing in the NRHP, and California Historical Landmarks (CHL) numbered 770 and higher, are automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historical resources surveys or designated by local landmarks programs, may be nominated for inclusion in the CRHR. According to PRC Section 5024.1(c), a resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on NRHP criteria:

- Criterion 1: It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- Criterion 2: It is associated with the lives of persons important in our past.
- Criterion 3: It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
- Criterion 4: It has yielded, or may be likely to yield, information important in history or prehistory.

Resources nominated to the CRHR must retain enough of their historic character or appearance to convey the reasons for their significance. Resources whose historic integrity does not meet NRHP criteria may still be eligible for listing in the CRHR.

California State Assembly Bill 52. Assembly Bill 52 of 2014 (AB 52) amended PRC Section 5097.94 and added PRC Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3.

Consultation with Native Americans. AB 52 formalizes the lead agency – tribal consultation process, requiring the lead agency to initiate consultation with California Native American groups that are traditionally and culturally affiliated with the project, including tribes that may not be federally recognized. Lead agencies are required to begin consultation prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report.

Tribal Cultural Resources. Section 4 of AB 52 adds Sections 21074 (a) and (b) to the PRC, which address tribal cultural resources and cultural landscapes. Section 21074 (a) defines tribal cultural resources as one of the following:

1. Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

    a. Included or determined to be eligible for inclusion in the California Register of Historical Resources.

    b. Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Section 1 (a)(9) of AB 52 establishes that "a substantial adverse change to a tribal cultural resource has a significant effect on the environment." Effects on tribal cultural resources should be considered under CEQA. Section 6 of AB 52 adds Section 21080.3.2 to the PRC, which states that parties may propose mitigation measures "capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to a tribal cultural resource." Further, if a California Native American tribe requests consultation regarding project alternatives, mitigation measures, or significant effects to tribal cultural resources, the consultation shall include those topics (PRC Section 21080.3.2[a]). The environmental document and the mitigation monitoring and reporting program (where applicable) shall include any mitigation measures that are adopted (PRC Section 21082.3[a]).

Local Regulations

City of Los Angeles. The Proposed Project is located within the City of Los Angeles, and is also currently owned by the City.

Los Angeles Historic-Cultural Monuments. Local landmarks in the City of Los Angeles are known as Historic-Cultural Monuments (HCM) and are managed under the aegis of the City of Los Angeles Planning Department, Office of Historic Resources. A monument or local landmark is defined in the Cultural Heritage Ordinance as follows:

> Historic-Cultural Monument (Monument) is any site (including significant trees or other plant life located on the site), building or structure of particular historic or cultural significance to the City of Los Angeles, including historic structures or sites in which the broad cultural, economic or social history of the nation, State or community is reflected or exemplified; or which is identified with historic personages or with important events in the main currents of national, State or local history; or which embodies the distinguishing characteristics of an architectural type specimen, inherently valuable for a study of a period, style or method of construction; or a notable work of a master builder, designer, or architect whose individual genius influenced his or her age (Los Angeles Municipal Code Section 22.171.7; Added by Ordinance No. 178,402, Effective 4-2-07).

METHODS

The following section presents an overview of the methodology used to identify the potential for TCR within the Project Area and address specific questions related to the Yaanga village site and Native American burial sites in the region. All ground disturbances for the Proposed Project will be confined to

the Project Area. As such, this study considers potential impacts to TCR that could occur within the Project Area.

A records search of the CHRIS was conducted at the SCCIC in order to identify previously documented cultural resources within a 0.5-mile (0.8-km) radius of the Project Area. The SCCIC maintains records of previously documented cultural resources (including those that meet the definition of a TCR) and technical studies; it also maintains copies of the OHP's portion of the HRI. Additional background on the general vicinity of the Project Area was conducted through the NAHC SLF in order to determine if known TCRs are present within the vicinity of the Project Area, and to evaluate the potential for undocumented cultural resources not listed at the SCCIC. On September 15, 2016, SWCA requested a search of the SLF and a list of Native American contacts from the NAHC. The contact list includes tribal groups whom the NAHC recognizes as having traditional lands or cultural places located within the boundaries of a given county; this information is intended to be used as a source for cultural resource assessments (i.e. not formal consultation).

On September 8, 2016, Mr. Millington conducted a search of the CHRIS records at the SCCIC. The search included any previously recorded cultural resources and investigations within the Project Area and surrounding 0.5-mile (0.8-km) area. In addition to official maps and records, the following sources of information were consulted as part of the record search:

- NRHP;
- California State Historic Property Data Files;
- California State Historic Resources Inventory;
- CRHR;
- California State Historical Landmarks;
- California Points of Historical Interest;
- Office of Historic Preservation Archaeological Determinations of Eligibility; and
- City of Los Angeles Historic-Cultural Monuments List.

Concurrent with the CHRIS records search in September 2016, SWCA also completed property-specific historical and ethnographic context research to identify information relevant to the Proposed Project. Research focused on a variety of primary and secondary materials relating to the history and development of the Project Area and the properties it contains. Sources consulted included historical maps, aerial and ground photographs, written histories, building permits, city directories, ethnographic reports, soil reports, and other environmental data. These sources are identified in the footnotes throughout the document.

Environmental Data Resources, Inc. (EDR) provided SWCA with a data package including additional environmental documents for the Project Area and surrounding area within a 0.5-mile (0.8-km) radius. In addition, the following repositories, publications, and agencies were consulted to identify known historical land uses and the locations of research materials pertinent to the Project Area:

- Sanborn Fire Insurance Company Maps (Sanborn maps);
- Los Angeles Department of Building and Safety (building permits);
- USC Digital Library (historical photos); and
- USGS Topographic Maps.

SETTING

Environmental Setting

The Project Area is in the Los Angeles Basin, a broad, level plain defined by the Pacific Ocean to the west, the Santa Monica Mountains and Puente Hills to the north, and the Santa Ana Mountains and San Joaquin Hills to the south. This extensive alluvial wash basin is generally filled with Quaternary alluvial sediments.[3] It is drained by several major watercourses, including the Los Angeles, Rio Hondo, San Gabriel, and Santa Ana Rivers. The Project Area is approximately 3.8 miles (6.1 km) east of the Los Angeles River (LA River). Largely due to the reliable flow of water from the LA River and its tributaries, areas immediately adjacent to the LA River have been ideal for human habitation, both before and after the arrival of European settlers. Historically, the LA River shifted course with frequency across the basin (Figure 4), overflowing into its flood basins through the nineteenth century.

The Project Area is at an elevation of approximately 250 feet above mean sea level. An 1894 topographic map depicts the relative position of the Project Area south of what was then a tributary of Ballona Creek, within dissected sandy toeslopes formed southwest of the hills around Elysian Park (Figure 5). Before urbanization and surface modifications, the natural topography was characterized by gently rolling hills and small alluvial terraces (Figure 6). Soil tests performed in 2014 within the Project Area describe 18 to 23 feet (5.5 to 7.0 m) of artificial fill overlying quaternary alluvium (sand and rounded gravels); bedrock was encountered at 26 to 29 feet (7.9 to 8.8 m).

Cultural Setting

Prehistoric Overview

Numerous chronological sequences have been devised to aid in understanding cultural changes in Southern California. Building on early studies and focusing on data synthesis, a prehistoric chronology was developed for the Southern California coastal region that is still widely used today and is applicable to near-coastal and many inland areas.[4, 5] Four periods are presented in the prehistoric sequence: Early Man, Milling Stone, Intermediate, and Late Prehistoric. Although the synthesis initially lacked chronological precision due to a paucity of absolute dates,[6] this situation has been alleviated by the availability of thousands of radiocarbon dates that have been obtained by southern California researchers in the last three decades.[7] Several revisions have been made to the synthesis using radiocarbon dates and

[3] State of California, Resources Agency. 1991. *Geologic Map of California, Los Angeles Sheet*. Sacramento, CA: Department of Conservation, Division of Mines and Geology.

[4] Wallace, W.J. 1955. "A Suggested Chronology for Southern California Coastal Archaeology," *Southwestern Journal of Anthropology* 11(3):214–230.

[5] Wallace, W.J. 1978. "Post-Pleistocene Archaeology, 9000 to 2000 B.C., in California," in *Handbook of North American Indians*, vol. 8, Heizer, Robert F., volume editor, Sturtevant ,William G., general editor, pp. 25–36. Washington, D.C. Smithsonian Institution.

[6] Moratto, M.J. 1984. *California Archaeology*. New York, NY: Academic Press.

[7] Byrd, Brian F., and L. Mark Raab. 2007. "Prehistory of the Southern Bight: Models for a New Millennium," *California Prehistory*, Terry L. Jones and Kathryn A. Klar, ed., p. 217. New York: AltaMira Press.

projectile point assemblages.[8, 9, 10] The following provides a summary of prehistoric chronological sequences for Southern California coastal and near-coastal areas:

Horizon I – Early Man (ca. 10,000–6,000 B.C.). The earliest accepted dates for archaeological sites on the southern California coast are from two of the northern Channel Islands, located off the coast of Santa Barbara. On San Miguel Island, Daisy Cave clearly establishes the presence of people in this area about 10,000 years ago.[11] On Santa Rosa Island, human remains have been dated from the Arlington Springs site to approximately 13,000 years ago.[12] Present-day Orange and San Diego Counties contain several sites dating to 9,000 to 10,000 years ago.[13, 14, 15, 16] Although the dating of these finds remains controversial, several sets of human remains from the Los Angeles Basin (e.g., "Los Angeles Man," "La Brea Woman," and the Haverty skeletons) apparently date to the middle Holocene, if not earlier.[17]

Recent data from Horizon I sites indicate that the economy was a diverse mixture of hunting and gathering, with a major emphasis on aquatic resources in many coastal areas, and a greater emphasis on large-game hunting inland.[18]

Horizon II – Milling Stone (6,000 B.C.–3,000 B.C.). Set during a drier climatic regime than the previous horizon, the Milling Stone Horizon is characterized by subsistence strategies centered on collecting plant foods and small animals. The importance of the seed processing is apparent in the dominance of stone grinding implements in contemporary archaeological assemblages; namely, milling stones (metates) and handstones (manos). Recent research indicates that Milling Stone Horizon food procurement strategies

[8] Koerper, Henry C., and Christopher E. Drover. 1983. "Chronology Building for Coastal Orange County: The Case from CA-ORA-119-A," *Pacific Coast Archaeological Society Quarterly* 19(2):1–34.

[9] Koerper, Henry C., Roger D. Mason, and Mark L. Peterson. 2002. "Complexity, Demography, and Change in Late Holocene Orange County," *Catalysts to Complexity, Late Holocene Societies of the California Coast*, edited by Jon M. Erlandson and Terry L. Jones, pp. 63–81. *Perspectives in California Archaeology* Vol. 6. Costen Institute of Archaeology, University of California, Los Angeles.

[10] Mason, Roger D., and Mark L. Peterson. 1994. *Newport Coast Archaeological Project: Newport Coast Settlement Systems–Analysis and Discussion*, Vol. 1, part 1 of 2. Prepared by the Keith Companies. Copies on file at the South Central Coastal Information Center, California State University, Fullerton.

[11] Erlandson, Jon M. 1991. "Early Maritime Adaptations on the Northern Channel Islands," *Hunter-Gatherers of Early Holocene Coastal California*, J. M. Erlandson and R. Colten, ed., p. 105. Perspectives in California Archaeology, Vol. 1. Los Angeles, CA: Institute of Archaeology, University of California, Los Angeles.

[12] Johnson, J. R., T. W. Stafford, Jr., H. O. Ajie, and D. P. Morris. 2002. "Arlington Springs Revisited," *Proceedings of the Fifth California Islands Symposium*, D. R. Brown, K. C. Mitchell, and H. W. Chaney, ed., pp. 541–545. Santa Barbara, CA: Santa Barbara Museum of Natural History.

[13] Byrd and Raab (2007).

[14] Macko, Michael E. 1998. *The Muddy Canyon Archaeological Project: Results of Phase II Test Excavations and Phase III Data Recovery Excavations at Archaeological Sites within the Crystal Cove Planned Community, Phase IV, Tentative Tract 15447, San Joaquin Hills, Orange County, California*. Report on file, South Central Coastal Information Center, California State University, Fullerton.

[15] Mason, Roger D., and Mark L. Peterson. 1994. *Newport Coast Archaeological Project: Newport Coast Settlement Systems–Analysis and Discussion*, Vol. 1, part 1 of 2. Prepared by the Keith Companies. Copies on file at the South Central Coastal Information Center, California State University, Fullerton.

[16] Sawyer, William A., and Henry C. Koerper. 2006. "The San Joaquin Hills Venus: A Ceramic Figurine from CA-ORA-1405-B," *Contributions from Orange County, Presented in Remembrance of John Peabody Harrington*, Henry C. Koerper, ed., pp. 13–34. *Coyote Press Archives of California Prehistory*, No. 53. Salinas, CA: Coyote Press.

[17] Brooks, Sheilagh, Richard A. Brooks, G. E. Kennedy, J. Austin, James R. Firby, Louis A. Payen, Peter J. Slota, Jr., Christine A. Prior, and R. E. Taylor. 1990. "The Haverty Human Skeletons: Morphological, Depositional, and Geochronological Characteristics," *Journal of California and Great Basin Anthropology* 12(1): pp. 60-83.

[18] Jones, Terry L., Richard T. Fitzgerald, Douglas J. Kennett, Charles H. Miksicek, John L. Fagan, John Sharp, and Jon M. Erlandson. 2002. "The Cross Creek Site and Its Implications for New World Colonization," *American Antiquity* 67:213–230.

varied in both time and space, reflecting divergent responses to variable coastal and inland environmental conditions.[19]

Horizon III – Intermediate (3,000 B.C.–A.D. 500). The Intermediate Horizon is characterized by a shift toward a hunting and maritime subsistence strategy, along with a wider use of plant foods. An increasing variety and abundance of fish, land mammal, and sea mammal remains are found in sites from this period along the California coast. Related chipped stone tools suitable for hunting are more abundant and diversified, and shell fishhooks became part of the toolkit during this period. Mortars and pestles became more common during this period, gradually replacing manos and metates as the dominant milling equipment, signaling a shift away from the processing and consuming of hard seed resources to the increasing importance of the acorn.[20, 21]

Horizon IV – Late Prehistoric (A.D. 500–Historic Contact). In the Late Prehistoric Horizon, there was an increase in the use of plant food resources in addition to an increase in land and sea mammal hunting. There was a concomitant increase in the diversity and complexity of material culture during the Late Prehistoric, demonstrated by more classes of artifacts. The recovery of a greater number of small, finely chipped projectile points suggests increased use of the bow and arrow rather than the atlatl (spear thrower) and dart for hunting. Steatite cooking vessels and containers are also present in sites from this time, and there is an increased presence of smaller bone and shell circular fishhooks; perforated stones; arrow shaft straighteners made of steatite; a variety of bone tools; and personal ornaments such as beads made from shell, bone, and stone. There was also an increased use of asphalt for waterproofing and as an adhesive. Late Prehistoric burial practices are discussed in the Ethnographic Overview section below.

By A.D. 1000, fired clay smoking pipes and ceramic vessels were being used at some sites.[22, 23, 24, 25] The scarcity of pottery in coastal and near-coastal sites implies that ceramic technology was not well developed in that area, or that ceramics were obtained by trade with neighboring groups to the south and east. The lack of widespread pottery manufacture is usually attributed to the high quality of tightly woven and watertight basketry that functioned in the same capacity as ceramic vessels.

During this period, there was an increase in population size accompanied by the advent of larger, more permanent villages.[26] Large populations and, in places, high population densities are characteristic, with some coastal and near-coastal settlements containing as many as 1,500 people. Many of the larger settlements were permanent villages in which people resided year-round. The populations of these villages may have also increased seasonally.

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[19] Byrd and Raab (2007), p. 220.

[20] Glassow, Michael A., L. Wilcoxon, and J. M. Erlandson. 1988. "Cultural and Environmental Change during the Early Period of Santa Barbara Channel Prehistory," *The Archaeology of Prehistoric Coastlines*, G. Bailey and J. Parkington, ed., pp. 64–77. Cambridge, England: Cambridge University Press.

[21] True, Delbert L. 1993. "Bedrock Milling Elements as Indicators of Subsistence and Settlement Patterns in Northern San Diego County, California," *Pacific Coast Archaeological Society Quarterly* 29(2):1–26.

[22] Drover, Christopher E. 1971. "Three Fired-Clay Figurines from 4-Ora-64, Orange County, California," *Pacific Coast Archaeological Society Quarterly* 7(4):73–86.

[23] Drover, Christopher E., 1971, "Early Ceramics from Coastal Southern California," *Journal of California Anthropology* 2:101–107.

[24] Meighan, Clement W. 1954. "A Late Complex in Southern California Prehistory," *Southwestern Journal of Anthropology* 10(2):215–227.

[25] Warren, Claude N., and D. L. True. 1961. "The San Dieguito Complex and its Place in California Prehistory," *Archaeological Survey Annual Report* for 1960-1961, pp. 246–337. Los Angeles, CA: University of California, Los Angeles.

[26] Wallace, W.J. 1955. *A Suggested Chronology for Southern California Coastal Archaeology. Southwestern Journal of Anthropology* 11(3):223.

The period between A.D. 500 and European contact is divided into three regional patterns: Chumash (Santa Barbara and Ventura counties), Takic/Numic (Los Angeles, Orange, and western Riverside counties), and Yuman (San Diego County). The seemingly abrupt introduction of cremation, pottery, and small triangular arrow points in parts of modern-day Los Angeles, Orange, and western Riverside Counties at the beginning of the Late Prehistoric period is thought to be the result of a Takic migration to the coast from inland desert regions. Modern Gabrielino/Tongva, Juaneño, and Luiseño people in this region are considered to be the descendants of the Uto-Aztecan, Takic-speaking populations that settled along the California coast during this period.

Ethnographic Overview

The Project Area is located near the heart of Gabrielino/Tongva territory.[27, 28] Surrounding native groups included the Chumash and Tataviam/Alliklik to the north, the Serrano to the East, and the Luiseño/Juaneño to the south. There is well-documented interaction between the Gabrielino and many of their neighbors in the form of intermarriage and trade.

The name Gabrielino (sometimes spelled Gabrieleno or Gabrieleño) denotes those people who were administered by the Spanish from Mission San Gabriel. By the same token, Native Americans in the sphere of influence of Mission San Fernando were historically referred to as Fernandeño.[29] This group is now considered to be a regional dialect of the Gabrielino language, along with the Santa Catalina Island and San Nicolas Island dialects.[30] In the post-Contact period, Mission San Gabriel included natives of the greater Los Angeles area, as well as members of surrounding groups such as Kitanemuk, Serrano, and Cahuilla. There is little evidence that the people we call Gabrielino had a broad term for their group; rather, they identified themselves as an inhabitant of a specific community through the use of locational suffixes (e.g., a resident of Yaanga was called a Yabit).[31]

Native words that have been suggested as labels for the broader group of Native Americans in the Los Angeles region include Tongva (or Tong-v) and Kizh (Kij or Kichereno); although there is evidence that these terms originally referred to local places or smaller groups of people within the larger group now called Gabrielino.[32] Many present-day descendants of these people have taken on Tongva as a preferred group name because it has a native rather than Spanish origin and one group of descendants prefers the term Kizh.[33] The term Gabrielino/Tongva, which combines the most commonly used group names, is used in the remainder of this study to designate native people of the Los Angeles Basin and their descendants.

Gabrielino/Tongva lands encompassed the greater Los Angeles Basin and three Channel Islands: San Clemente, San Nicolas, and Santa Catalina. Their mainland territory was bounded on the north by the

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[27] Bean, Lowell J., and Charles R. Smith. 1978. "Gabrielino," *California*, Robert F. Heizer, ed., pp. 538–549. Handbook of North American Indians, Vol. 8, William C. Sturtevant, general editor. Washington, DC: Smithsonian Institution Press.

[28] Kroeber, Alfred J. 1976 [1925]. *Handbook of the Indians of California*. Bulletin 78, Bureau of American Ethnology, Smithsonian Institution. Government Printing Office, Washington, D.C. Reprinted 1976 by Dover Publications, Inc., New York.

[29] Ibid.

[30] Bean and Smith. 1978. Gabrielino. In *California*, edited by Robert F. Heizer, pp. 538–549. Handbook of North American Indians, Vol. 8, William C. Sturtevant, general editor, Smithsonian Institution Press, Washington, D.C.

[31] Dakin, Susanna Bryant. 1978 [1939]. *A Scotch Paisano in Old Los Angeles. Hugo Reid's Life in California, 1832-1852 Derived from His Correspondence*, p. 222. University of California Press, Berkeley, Los Angeles, and London.

[32] Heizer, Robert F. 1968. "Village Names in Twelve California Mission Records," Reports of the University of California, *Archaeological Survey*, no. 74.

[33] King, Chester D. 1994. *Native American Placenames in the Santa Monica Mountains National Recreation Area, Agoura Hills*. Topanga Anthropological Consultants, California.

Chumash at Topanga Creek, the Serrano at the San Gabriel Mountains in the east, and the Juaneño on the south at Aliso Creek.[34,35]

The Gabrielino/Tongva language, as well as that of the neighboring Juaneño/Luiseño, Tatataviam/Alliklik, and Serrano, belongs to Takic branch of the Uto-Aztecan language family, which can be traced to the Great Basin area.[36] This language family's origin differs substantially from that of the Chumash to the north and the Ipai, Tipai, and Kumeyaay farther south. The language of the Ipai, Tipai, and Kumeyaay is derived from the California-Delta branch of the Yuman-Cochimi language family, which originated in the American Southwest.[37] The Chumash language is unlike both the Yuman-Cochimi and Uto-Aztecan families, and may represent a separate lineage.[38] Linguistic analysis suggests that Takic-speaking immigrants from the Great Basin area began moving into southern California around 500 B.C.[39] This migration may have displaced both Chumashan- and Yuman-speaking peoples, but the timing and extent of the migrations and their impact on indigenous peoples is not well understood. The Gabrielino/Tongva language consisted of two main dialects, Eastern and Western; the Western included much of the coast and the Channel Island population.[40] Lands of the Western group encompassed much of the western Los Angeles Basin and San Fernando Valley, northward along the coast to the Palos Verdes Peninsula.[41]

Gabrielino/Tongva society was organized along patrilineal non-localized clans, a characteristic Takic pattern. Clans consisted of several lineages, each with their own ceremonial leader. The chief, or *tómyaar*, always came from the primary lineage of the clan/village. One or two clans generally made up the population of a village. Even though the Gabrielino/Tongva did not have a distinctly stratified society, there were two general classes of individuals: elites and commoners. The elites consisted of primary lineage members, other lineage leaders (who maintained a separate ceremonial language), the wealthy, and the elite families of the various villages who commonly married among themselves. The commoner class contained those from "fairly well-to-do and long-established lineages."[42] A third, lower class consisted of slaves taken in war and individuals, unrelated to the inhabitants, who drifted into the village.

The Gabrielino/Tongva established large, permanent villages in the fertile lowlands along rivers and streams, and in sheltered areas along the coast, stretching from the foothills of the San Gabriel Mountains to the Pacific Ocean. A total tribal population has been estimated of at least 5,000,[43] but recent ethnohistoric work suggests that a number approaching 10,000 seems more likely.[44] Several Gabrielino/Tongva villages appear to have served as trade centers, due in large part to their centralized geographic position in relation to the southern Channel Islands and to other tribes. These villages

[34] Bean and Smith (1978).

[35] Kroeber (1976 [1925]), p. 636.

[36] Mithun, Marianne. 2004 [1999]. *Languages of Native North America*, pp. 533-544. New York, NY: Cambridge University Press.

[37] Ibid, p. 577.

[38] Ibid, p. 390.

[39] Kroeber (1976 [1925]), p. 579.

[40] King, Chester D. 2004. *Japchibit Ethnohistory.* Angeles National Forest, Topanga Anthropological Consultants, California.

[41] McCawley, William. 1996. *The First Angelinos: The Gabrielino Indians of Los Angeles*, p. 47. Banning, CA: Malki-Ballena Press.

[42] Bean and Smith (1978), p. 543.

[43] *Ibid*, 540.

[44] O'Neil (2002).

maintained particularly large populations and hosted annual trade fairs that would bring their population to 1,000 or more for the duration of the event.[45]

Houses constructed by the Gabrielino/Tongva were large, circular, domed structures made of willow poles thatched with tule that could hold up to 50 people.[46] Other structures served as sweathouses, menstrual huts, ceremonial enclosures, and probably communal granaries. Cleared fields for races and games, such as lacrosse and pole throwing, were created adjacent to Gabrielino/Tongva villages.[47]

The Gabrielino/Tongva subsistence economy was centered on gathering and hunting. The surrounding environment was rich and varied, and the tribe exploited mountains, foothills, valleys, and deserts as well as riparian, estuarine, and open and rocky coastal eco-niches. As with most native Californians, acorns were the staple food (an established industry by the time of the early Intermediate period). Acorns were supplemented by the roots, leaves, seeds, and fruits of a wide variety of flora (e.g., islay, cactus, yucca, sages, and agave). Fresh- and saltwater fish, shellfish, birds, reptiles, and insects as well as large and small mammals were also consumed.[48, 49, 50]

A wide variety of tools and implements was employed by the Gabrielino/Tongva to gather and collect food resources. These included the bow and arrow, traps, nets, blinds, throwing sticks and slings, spears, harpoons, and hooks. Many plant foods were collected with woven seed beaters, several forms of burden baskets, carrying nets, and sharpened digging sticks, sometimes with stone weights fitted onto them. Groups residing near the ocean used ocean-going plank canoes (known as a ti'at) and tule balsa canoes for fishing, travel, and trade between the mainland and the Channel Islands. The ocean-going canoes were capable of holding six to 14 people and were also used for travel and trade between the mainland and the Channel Islands. The tule balsa canoes were used for near-shore fishing.[51, 52]

Gabrielino/Tongva people processed food with a variety of tools, including portable and bedrock mortars, pestles, basket hopper mortars, manos and metates, hammerstones and anvils, woven strainers and winnowers, leaching baskets and bowls, woven parching trays, knives, bone saws, and wooden drying racks. Food was consumed from a number of woven and carved wood vessels. The ground meal and unprocessed hard seeds were stored in large, finely woven baskets, and the unprocessed acorns were stored in large granaries woven of willow branches and raised off the ground on platforms. Santa Catalina Island steatite was used to make comals, ollas, and cooking vessels that would not crack after repeated firings. In addition to cooking vessels, steatite was used to make effigies, ornaments, and arrow straighteners.[53, 54, 55]

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[45] McCawley (1996), pp. 113-114.

[46] Bean and Smith (1978).

[47] McCawley (1996), p. 27.

[48] Bean and Smith (1978), p. 546.

[49] Kroeber (1976 [1925]), pp. 631-632.

[50] McCawley (1996), pp. 128-131.

[51] Blackburn, Thomas. 1963. *Ethnohistoric Descriptions of Gabrielino Material Culture.* Annual Report, Archaeological Survey. Los Angeles, CA: University of California, Los Angeles.

[52] McCawley (1996), pp. 117-127.

[53] *Ibid*, 129-138

[54] Blackburn (1963).

[55] Kroeber (1976 [1925]), pp. 631-639.

The Gabrielino/Tongva participated in an extensive exchange network, trading coastal goods for inland resources. They exported Santa Catalina Island steatite products, roots, seal and otter skins, fish and shellfish, red ochre, and lead ore to neighboring tribes, as well as people as far away as the Colorado River. In exchange they received ceramic goods, deer skin shirts, obsidian, acorns, and other items. This burgeoning trade was facilitated by the use of craft specialists, a standard medium of exchange (olivella bead currency), and the regular destruction of valuables in ceremonies that maintained a high demand for these goods.[56]

At the time of Spanish contact, the basis of Gabrielino/Tongva religious life was the Chinigchinich cult, which centered on the last of a series of heroic mythological figures. Chinigchinich gave instruction on laws and institutions, and also taught the people how to dance, the primary religious act for this society. He later withdrew into heaven, where he rewarded the faithful and punished those who disobeyed his laws.[57] The Chinigchinich religion seems to have been relatively new when the Spanish arrived. It was spreading south into the Southern Takic groups even as Christian missions were being built, and may represent a mixture of native and Christian belief and practices.[58]

Deceased Gabrielino/Tongva were either buried or cremated, with inhumation reportedly being more common on the Channel Islands and the neighboring mainland coast, and cremation predominating on the remainder of the coast and in the interior.[59, 60] Remains were buried in distinct burial areas, either associated with villages[61] or without apparent village association.[62, 63] Cremation ashes have been found in archaeological contexts buried within stone bowls and in shell dishes,[64] as well as scattered among broken ground stone implements.[65, 66] Archaeological data such as these correspond with ethnographic descriptions of an elaborate mourning ceremony that included a wide variety of offerings, including seeds, stone grinding tools, otter skins, baskets, wood tools, shell beads, bone and shell ornaments, and

[56] McCawley (1996), pp. 112-115.

[57] Kroeber (1976 [1925]), pp. 631-638.

[58] McCawley (1996), pp. 143-144.

[59] Harrington, John P. 1942. "Culture Element Distributions: XIX, Central California Coast," *Anthropological Records* 7:1. Berkeley, CA: University of California Press, Berkeley.

[60] McCawley (1996), p. 157.

[61] Altschul, Jeffrey H., and John G. Douglass, Richard Ciolek-Torrello, Sarah Van Galder, Benjamin R. Vargas, et al. 2007. "Life at the Nexus of the Wetlands and Coastal Prairie, West Los Angeles." In *Proceedings of the Society for California Archaeology*, Vol. 20, pp. 34–42.

[62] Goldberg. 1999. "The Metropolitan Water District of Southern California Headquarters Facility Project," *The People of Yaanga?: Archaeological Investigations at CA-LAN-1575/H.* Report on file, South Central Coastal Information Center, California State University, Fullerton.

[63] Frazier, Sara. 2000. "Protohistoric Burial Practices of the Gabrielino as Evidenced by the Comparison of Funerary Objects from Three Southern California Sites." In *Proceedings of the Society for California Archaeology*, Vol. 13, Judyth Reed, Greg Greenway, and Kevin McCormick, ed., pp. 169–176. Fresno, CA: Society for California Archaeology.

[64] Ashby, G.E., and J. W. Winterbourne. 1966. "A Study of Primitive Man in Orange County and Some of Its Coastal Areas," *Pacific Coast Archaeological Society Quarterly* 2(1):5–52.

[65] Altschul, et al. (2007).

[66] Cleland, James H., Andrew L. York, and Lorraine M. Willey. 2007. *Piecing Together the Prehistory of Landing Hill: A Place Remembered.* EDAW Cultural Publications No. 3. San Diego, CA: EDAW, Inc.

projectile points and knives.[67] Offerings varied with the sex and status of the deceased.[68, 69, 70] At the behest of the Spanish missionaries, cremation essentially ceased during the protohistoric period.[71] For inhumations, the deceased was wrapped in a covering, bound head to foot, with hands crooked upon their breast.[72] Archaeological examples of human remains in the Gabrielino/Tongva region dating to the Late Prehistoric and protohistoric periods are dominated by flexed or extended inhumations, with a smaller number of cremations. Grave goods associated with burials/cremations varied in quantity and content and included projectile points, beads, steatite objects, and asphaltum.[73] Well-preserved burial features have evidence of wrappings of net, hide blanket or cape, or a mat of tule reeds or sea grass.[74] At least one formal grave marker, an elaborately etched sandstone slab, was reported at a site between Los Angeles and the coast, near San Pedro, in 1885.[75]

Historic Overview

The post-Contact history of California is divided into three periods that are defined by the ruling national government: the Spanish period (1769–1822), the Mexican period (1822–1848), and the American period (1848–present). Each period is briefly described below. Some chronologies include the Mission period (1769–1834), defined by the active span of those Spanish, and later Mexican, Catholic institutions. The Protohistoric period is used here to refer to the era of initial interaction between Native Americans and European explorers and settlers, ranging from 1542 through the early 1800s in outlying areas, where a mixture of native and nonnative cultural traits can be observed archaeologically.

SPANISH PERIOD (1769–1822)

The first Europeans to observe what became southern California were members of the 1542–1543 expedition of Juan Rodriguez Cabrillo. When sailing past Santa Monica Bay, Cabrillo noted the numerous campfires of the Gabrielino/Tongva and thus named the area the Bay of Smokes. Cabrillo and other early explorers sailed along the coast and made limited expeditions into Alta (upper) California between 1529 and 1769. Although Spanish, Russian, and British explorers briefly visited Alta California during this nearly 250-year span, they did not establish permanent settlements.

Gaspar de Portolá and Franciscan Father Junípero Serra established the first Spanish settlement in Alta California at San Diego in 1769. Mission San Diego de Alcalá was the first of 21 missions built by the Spanish between 1769 and 1823. Portolá continued north, passing near the Project Area in August of 1769 (see Figure 7 for an approximation of the travel route), and reaching San Francisco Bay on October 31. The process of converting the local Native American population to Christianity through baptism and relocation to mission grounds was begun in this region by the Franciscan padres at the San Gabriel

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[67] Boscana, Gerónimo. 1846. *Chinigchinich: A Historical Account of the Origin, Customs, and Traditions of the Indians at the Missionary Establishment of St. Juan Capistrano, Alta-California; Called the Acagcahemem Nation*, p. 314. New York, NY: Wiley & Putnam.

[68] Dakin (1978 [1939]), pp. 234-235.

[69] Johnston, Bernice E., 1962, *California's Gabrielino Indians.* Frederick Webb Hodge Anniversary Publication Fund 8, Southwest Museum, Los Angeles 52-54.

[70] McCawley (1996), pp. 155-165.

[71] Ibid, p. 157.

[72] Dakin (1978 [1939]), p. 234.

[73] Frazier (2000), p. 175.

[74] McCawley (1996), p. 157.

[75] Blackburn (1963), p. 35.

Mission, which was established in 1771.[76] The San Fernando Mission was founded 26 years later, its location chosen as a stopping point between the San Gabriel and San Buenaventura missions.[77] Most Native Americans from the Los Angeles Basin were persuaded to settle in the vicinity of the two missions. These included the Eastern Gabrielino of the plains as far south as the Santa Ana River and west to the LA River. The padres also proselytized the Serrano of the San Gabriel and San Bernardino Mountains, as well as the Vanyume Serrano of the Mojave Desert; many of the western Cahuilla in the Coachella and San Jacinto Valley; some Luiseño of the San Jacinto Valley; and Western Gabrielino of the plains west of the LA River, San Fernando Valley, and the southern Channel Islands. The missions were charged with administering to the Native Americans within their areas. Although mission life gave the Native Americans the skills needed to survive in their rapidly changing world, the close quarters and regular contact with Europeans transmitted diseases for which they had no immunity, decimating their populations.[78]

MEXICAN PERIOD (1822–1848)

After the end of the Mexican Revolution against the Spanish crown (1810–1821), all Spanish holdings in North America (including both Alta and Baja California) became part of the newly formed Mexican Empire, and shortly thereafter, a constitutionally based United Mexican States. Under Mexican rule, the authority of the California missions gradually declined, culminating with their secularization. Events leading up to the secularization of the California missions spanned many years and much political upheaval, after which the Mexican Congress passed the Secularization Act in August 1833. Not only did the action divest the Franciscans of property, it also opened both of the Californias to colonization. The first 10 of the missions were secularized in 1834, San Gabriel among them.

Historical documents suggest that what followed was a period of intrigue, revolution, and lawlessness. With a disruption in trade came an increase in the number of American interlopers. Political resistance erupted on every front as Mexican citizens in California (*Californios*) vied for control of their ranchos against American intruders and Mexican authority. Although the Mexican government directed that each mission's lands, livestock, and equipment be divided among its neophytes, the majority of these holdings quickly fell into non-Indian hands. As mission landholdings passed into private hands, neophyte workers, who had become dependent on the missions, were left to fend for themselves.

If mission life was difficult for Native Americans, secularization was worse. After two generations of dependence upon the missions, they were suddenly disenfranchised. After secularization, "nearly all of the Gabrielinos went north while those of San Diego, San Luis and San Juan overran this county, filling the Angeles and surrounding ranchos with more servants than were required."[79]

Former mission lands were quickly divided and granted to private citizens for use as agricultural and pastoral land. Most of the land grants to Californios were located inland, a policy intended to increase the population away from the coastal areas where the Spanish settlements were concentrated.[80] John Russell Bartlett, visiting Los Angeles in 1852, reported the following:[81]

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[76] Engelhardt, Zephyrin. 1927a. *San Gabriel Mission and the Beginning of Los Angeles*. Mission San Gabriel, San Gabriel, California.

[77] Engelhardt, Zephyrin. 1927b. *San Fernando Rey, the Mission of the Valley*. Chicago, IL: Franciscan Herald Press.

[78] McCawley (1996).

[79] Dakin (1978 [1939]), p. 282.

[80] *Ibid.*

[81] Sugranes, Reverend Eugene. 1909. *The Old San Gabriel Mission: Historical Notes Taken from Old Manuscripts and Records Accurately Compiled after Diligent Research by Reverend Eugene Sugranes, C.M.F.* Self-published book, Los Angeles, CA, p. 76.

> *I saw more Indians about this place (Los Angeles) than in any part of California I had yet visited. They were chiefly mission Indians, i.e., those who had been connected with the mission and had derived their support from them until the suppression of those establishments. They are a miserable, squalid-looking set, squatting or lying about the corners of the streets, with no occupation.*

With no work at the mission, there was a far greater labor force in the region than could be employed.

After years of surreptitious commerce, the first party of American immigrants arrived in Los Angeles in 1841, including William Workman and John Rowland, who soon became influential landowners. As the possibility of a takeover of California by the United States loomed large in the 1840s, the Mexican government increased the number of land grants in an effort to keep the land in Mexican hands.[82] Governor Pío Pico and his predecessors made more than 600 rancho grants between 1833 and 1846, putting most of the state's lands into private ownership for the first time.[83] Trade in the region changed as well. British and American trade displaced supply ships from Mexico and, in 1841, the first party of American immigrants arrived at the Pueblo de Los Angeles.

AMERICAN PERIOD

The United States took control of California in 1846, seizing Monterey, San Francisco, San Diego, and Los Angeles with little resistance. Los Angeles soon slipped from American control, however, and was retaken in 1847. Approximately 600 U.S. sailors, marines, Army dragoons, and mountain men converged under the leadership of Colonel Stephen W. Kearney and Commodore Robert F. Stockton in early January of that year to challenge the California resistance, which was led by General Jose Maria Flores. The American party scored a decisive victory over the Californios in the Battle of the Rio San Gabriel and at the Battle of La Mesa the following day, effectively ending the war and opening the door for increased American immigration.[84]

Hostilities officially ended with the signing of the Treaty of Guadalupe Hidalgo in 1848, in which the United States agreed to pay Mexico $15 million for the conquered territory, including California, Nevada, Utah, parts of Colorado, Arizona, New Mexico, and Wyoming. This represented nearly half of Mexico's pre-1846 holdings. California joined the Union in 1850 as the 31st state.[85]

Los Angeles: From Pueblo to City

On September 4, 1781, forty-four settlers from Sonora, Mexico, accompanied by the governor, soldiers, mission priests, and several Native Americans, arrived at a site alongside the *Rio de Porciúncula* (later renamed the LA River).[86] They founded a pueblo called *La Reyna de los Angeles*, or the town of the

[82] Wilkman, Jon and Nancy Wilkman. 2006. *Picturing Los Angeles*. Salt Lake City, UT: Gibbs Smith.

[83] Gumprecht, Blake. 1999. *The Los Angeles River: Its Life, Death, and Possible Rebirth*. Baltimore, MD: Johns Hopkins University Press.

[84] Harlow, Neal. 1992. *California Conquered: The Annexation of a Mexican Province 1846-1850*. Berkeley, CA: University of California Press, Berkeley.

[85] Wilkman and Wilkman (2006).

[86] Ríos-Bustamante, Antonio. 1992. *Mexican Los Angeles: A Narrative and Pictorial History*. Mountain View, CA: Floricanto Press.

Queen of the Angels (cf. Weber).[87, 88] The site chosen for the new pueblo was elevated on a broad terrace 0.5 mile west of the river.[89] By 1786, the area's abundant resources allowed the pueblo to attain self-sufficiency, and funding by the Spanish government ceased.

Less than one month after the pueblo's founding, Los Angeles residents began constructing an extensive water management system. They diverted water from the river (near the present North Broadway bridge) into a ditch named the *Zanja Madre* (mother ditch), which in turn fed numerous smaller zanjas. The city's residents used this water for ranching and agriculture, as well as domestic purposes such as drinking, bathing, and clothes washing.[90] The Los Angeles zanja system was expanded and improved in subsequent decades and remained in use until the early 1900s, as many zanja segments were converted into masonry-lined canals, iron or cement pipes, or brick-lined, subsurface conduits.[91, 92, 93]

Alta California became a state in 1821, and the town slowly grew in size as the removal of economic restrictions attracted settlers to Los Angeles. The population continued to expand throughout the Mexican period, and, on April 4, 1850, only two years after the Mexican American War and five months prior to California's earning statehood, the City of Los Angeles was formally incorporated. Los Angeles maintained its role as a regional business center in the early American period and the transition of many former rancho lands to agriculture, as well as the development of citriculture in the late 1800s, further strengthened this status.[94] These factors, combined with the expansion of port facilities and railroads throughout the region, contributed to the real estate boom of the 1880s in Los Angeles.[95, 96]

Los Angeles continued to grow outward from the city core in the 20th century in part due to the discovery of oil and its strategic location as a wartime port. The military presence led to the aviation and eventually aerospace industries having a large presence in the city and region. Hollywood became the entertainment capital of the world through the presence of the film and television industries, and continues to tenuously maintain that position. With nearly four million residents, Los Angeles is the second largest city in the United States (by population), and it remains a city with worldwide influence, while continuing to struggle with its population's growth and needs.

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[87] Weber, Francis J. 1980. Nuestra Señora de Los Angeles (1966). In *The Old Plaza Church, A Documentary History*, compiled and edited by Francis J. Weber, pp. 203–211. Libra Press Limited, Hong Kong.

[88] Treutlein, Theodore E. 2004. *Los Angeles, California: The Question of the City's Original Spanish Name. In The Founding Documents of Los Angeles:* A Bilingual Edition, Doyce B. Nunis Jr., ed. Los Angeles, CA: Historical Society of Southern California.

[89] Gumprecht (1999).

[90] Newmark, Harris.1977. *Reminiscences of the Fifties. Los Angeles: Biography of a City*, John Caughey and LaRee Caughey, ed., pp. 132–140. Berkeley, CA: University of California Press, Berkeley.

[91] Costello, Julia G., and Larry Wilcoxon. 1978. *An Archaeological Assessment of Cultural Resources in Urban Los Angeles*. Prepared for the City of Los Angeles in connection with construction project La Placita de Dolores, LAN-887. On file at the South Central Coastal Information Center, California State University, Fullerton.

[92] Gumprecht (1999).

[93] Slawson, Dana N. 2006. *Mitigation of Impacts on the Zanja Madre Archaeological Feature, La Placita*. Report prepared by Greenwood and Associates for the Los Angeles Bureau of Engineering. On file at the South Central Coastal Information Center, California State University, Fullerton.

[94] Caughey and Caughey (1977).

[95] *Ibid.*

[96] Dumke, Glenn S. 1944. *The Boom of the Eighties in Southern California*. San Marino, CA: Huntington Library Publications.

Historical Development of the Project Area

Once situated amid barley and wheat fields, in the late-1800s the Project Area was on the margin of the great expanse beyond the western city limits of Los Angeles. Between the city boundary and the Pacific Ocean, there were very few historical land marks to break up the expanse of agricultural fields and grazing lands during the nineteenth century. In their book documenting the history of Wilshire Boulevard, Roderick and Lynxwiler quote the memoir of a nineteenth-century merchant named Harris Newmark who describes this area, "From Spring Street, west and as far as the coast, there was one huge field."[97] During the earlier division of Spanish holdings into land grants, a vast public space that included the Project Area separated the La Brea and Las Cienegas Ranchos to the west and the City of Los Angeles to the east. One important landmark was the *brea* "tar" pits (located west 3.6 miles [5.8 km] of the Project Area) that provided an important resource to both indigenous people and Spanish. Connecting these sundered population and resource centers was a loose network of Native American foot paths, trails rutted by Spanish expeditions, and Mission-era roads (see Figure 7). While the precision with which the early maps were drawn makes it difficult to make direct associations between the trails and later street alignments, some of these travel corridors would become formally designated routes. Kirkman's historical map of Los Angeles (ca. 1860–1937)[98] depicts one such east-west road—La Brea Road—located south of the Project Area along the same approximate route as the Portola Expedition. What roads had been established in the early twentieth century were infamous for their ruggedness (Figure 8).

An improved road (eventually named Wilshire Boulevard) was one of many developments included in Henry Gaylord Wilshire and his brother William's residential tract established in between Westlake Park (now MacArthur Park) and Lafayette Park. Henry had acquired land on the western edge of the city during the 1880s real estate boom and in 1895 he and his brother converted a 35-acre barley field into a subdivided housing tract for distinguished single-family homes for Los Angeles's wealthy elite.[99] In 1897 the city limit had expanded west to Vermont Avenue and road alignments were shifted to accommodate the modern urban grid oriented to the cardinal directions. The Wilshire Boulevard tract was successfully implemented as an elite residential community and its success led to additional land purchases in adjacent lots to the west, additional speculation and developments including more mansions and large residences with rich stylistic variations, including those in the Project Area.[100]

The 1907 Sanborn Fire Insurance Map for the Project Area shows one such residence on the corner, listed at 603 South Vermont Avenue (Figure 9). The footprint of this two-story dwelling strongly resembles a Victorian architectural layout and included a detached garage. The 1921 Sanborn Map shows a second dwelling constructed in the adjacent lot within the Project Area. Once the population boom of the 1920s hit, the lots between the larger mansions rapidly gave way to commercial developments as statutes on zoning restrictions were lightened through simple expiration and successful lobbying efforts. That transition is represented in historical developments within the Proposed Project parcel as the original residence was either moved or demolished and replaced with a brick two-part commercial block (Figure 10); the building was listed with addresses at 601, 603, 605, and 609 Vermont Avenue and others along Sixth Street at 3200, 3202, 3204, 3206, and 3208. The commercial building was in use through the 1960s as many of the Los Angeles's most prominent architectural works were constructed nearby such as the Bullocks Building on Wilshire (Figure 11). The building was razed in 1974 and converted to a parking lot.

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[97] Roderick, Kevin, and J. Eric Lynxwiler. 2005. Wilshire Boulevard: Grand Concourse of Los Angeles, Angel City Press, Santa Monica, California.

[98] Kirkman, George W. 1937. *Kirkman-Harriman Pictorial and historical map of Los Angeles County: 1860 A.D.-1937 A.D.*

[99] Roderick and Lynxwiler (2005).

[100] Wuellner, Margarita J., Jon L. Wilson, Marlise Fratinardo, Amanda Kainer, and Jessica Ritz. 2009. *Intensive Historic Resources Survey of the Wilshire Center and Koreatown Recovery Redevelopment Area, Los Angeles, California*. Prepared for Community Redevelopment Agency, City of Los Angeles.

RESULTS

CHRIS Records Search

Previously Conducted Cultural Resource Studies

Results of the cultural resources records search at the SCCIC indicate that 26 previous cultural resource studies have been conducted within 0.5 miles (0.8 km) of the Project Area; one of these was conducted in the Project Area. That study was conducted in 1983 as part of the Metro Rail Red Line Environmental Impact Report and was focused exclusively on historical architecture, as were the overwhelming majority of previous studies in the vicinity. Details pertaining to these investigations are presented in Attachment C, Table 1.

Previously Recorded Cultural Resources

A total of 27 resources have been previously documented within 0.5 miles (0.8 km) of the Project Area, all but one of which are historical buildings or structures. None of these are located in the Project Area. The SCCIC records search results identified 17 previously recorded cultural resources; 10 additional built environment resources were identified in a search of properties listed in the NRHP, CRHR, and Los Angeles HCM Reports. Details pertaining to these resources are presented in Attachment C, Table 2.

The only resource documented within 0.5 miles of the Project Area with an archaeological component is a historical site (P-19-003301 / CA-LAN-3301H) found during construction monitoring for the Metro Red Line. The site was located in the parcel across the street to the east of the Project Area between Vermont Avenue and Shatto Place. The site was recorded as a trash dump consisting of eight artifacts—fragments of amber glass, red brick, firebrick, clay floor tile, ceramic tiles, ceramic flower pot, and other miscellaneous construction debris. A segment of the light rail tracks and a second pair of rail tracks attributed to the Pacific Electric Red Car were also documented as part of the resource. The historical archaeological material was deposited in a small lens below the asphalt and was destroyed during grading for the Metro Red Line Vermont/Wilshire Station.

Literature Search

Yaanga and Other Native American Communities in Los Angeles. Ethnohistoric data indicate that the Gabrielino ethnographic village of *Yaanga* (also spelled *Yang-na*) was originally located in or near the Pueblo of Los Angeles, on the west bank of the LA River (see Figure 4). In 1852, Hugo Reid indicated that Yaanga and Los Angeles were one and the same.[101] Gabrielino informant José Zalvidea told ethnographer J.P. Harrington that Yaanga "is the old name of the site of the Los Angeles plaza" and the name means "it is alkali, like the earth is salty."[102] Alternate names associated with the community include *Iyakha* (meaning "poison oak" in Luiseño) and *Wenot* (meaning "river" in Gabrielino).[103, 104]

[101] Dakin (1978 [1939]), p., 220.

[102] McCawley (1996), p. 57.

[103] *Ibid.*

[104] Johnston (1962).

The village and its inhabitants were described as follows by Juan Crespi, a member of the 1769 Portolá expedition[105]:

> *This plain where the [Los Angeles] river runs is very extensive. It has good land for planting all kinds of grain and seeds, and is the most suitable site of all that we have seen for a mission, for it has all the requisites for a large settlement. As soon as we arrived about eight heathen from a good village came to visit us; they live in this delightful place among the trees on the river. They presented us with some baskets of pinole made from seeds of sage and other grasses. Their chief brought some strings of beads made of shells, and they threw us three handfuls of them. Some of the old men were smoking pipes well made of baked clay and they puffed at us three mouthfuls of smoke. We gave them a little tobacco and glass beads, and they went away well pleased.*

This initial mutual good will disappeared with the founding of the Pueblo of Los Angeles on the site, and the community of Yaanga was forcibly relocated at least twice during the ethnohistoric period, occupying several locations on the edge of town during the early 1800s. It was reportedly moved to the corner of Commercial and Alameda Streets in 1836 and given the name *Rancheria de los Poblanos*, accepting ex-neophytes from recently shuttered missions. The village was moved a second time in 1845 to the east side of the river, taking the name *Pueblito*, and it was finally razed in 1847.[106, 107] The community of *Geveronga*, which contributed 31 neophytes to the San Gabriel Mission between 1788 and 1809, may have been located nearby.[108]

The precise location of Ethnohistoric period (late seventeenth century) Native American communities within downtown Los Angeles, including Yaanga, Geveronga, and related settlements, is unclear (see Figure 7, Figure 12 – Figure 13). Historical records place Yaanga in the vicinity of the pueblo plaza, although historians and archaeologists have presented multiple possible village locations in this general area. Like the plaza itself, it is likely that the village was relocated from time to time due to major shifts of the LA River during wet years. Dillon[109] presented an exhaustive review of the potential locations most within several blocks of the current plaza. Johnston concluded that "in all probability *Yangna* lay scattered in a fairly wide zone along the whole arc [from the base of Fort Moore Hill to Union Station], and its bailiwick included as well seed-gathering grounds and oak groves where seasonal camps were set up." [110]

Little direct, indisputable archaeological evidence for this village has been produced to date. Archaeological materials reportedly were unearthed during the construction of Union Station in 1939 and

[105] Bolton, H. Eugene. 1927. *Fray Juan Crespi: Missionary Explorer on the Pacific Coast, 1769-1774.* University of California Press, Berkeley.

[106] McCawley (1996), p. 202.

[107] Singer, Clay A. 1981. *Preliminary Historic Archaeological Investigations at the Los Angeles Plaza Church*, p. 89. California State University Northridge Archaeological Research Center, Department of Anthropology.

[108] McCawley (1996), p. 57.

[109] Dillon, Brian D. 1994. *Alameda District Plan, Los Angeles, California: Prehistoric and Early Historic Archaeological Research.* On file, South Central Coastal Information Center, California Historical Resources Information System, California State University, Fullerton.

[110] Johnston (1962), p. 122.

"considerably more" during the rebuilding of the Bella Union Hotel in 1970.[111, 112] Protohisotic period Native American burials identified immediately south of Union Station are contemporary with Yaanga, but these excavations did not reveal archaeological deposits that were indicative of a village, and it is unclear whether this cemetery was adjacent to or affiliated with Yaanga.[113] In conclusion, the preponderance of the available evidence indicates that one or more early historic (ethnohistoric) Native American communities were situated west of the LA River in the vicinity of the current plaza site; the precise location of these communities remains unknown, however, and it is likely that at least some of the archaeological deposits associated with these communities have been removed by floods and construction activities in the years since their occupation.

Native American Coordination

In their capacity as Lead Agency, on April 18, 2016, the City initiated tribal consultation as part of AB 52 compliance (see Attachment B). The City mailed letters to nine tribal groups, including the following: Fernadeño Tataviam Band of Mission Indians, Gabrieleño Band of Mission Indians–Kizh Nation, Gabrielino Tongva Indians of California Tribal Council, Gabrielino/Tongva Nation, Gabrielino/Tongva San Gabriel Band of Mission Indians, Gabrielino-Tongva Tribe, San Fernando Band of Mission Indians, and Soboba Band of Luiseño Indians. To date, the City has received two replies, of which only the Fernadeño Tataviam Band of Mission Indians (Tataviam) sought consultation. In their letter dated April 28, 2016, the Tataviam solicited specific information on the amount of soil disturbance; the City replied to the letter May 26, 2016, asking for additional information on the presence of tribal cultural resources; in a follow-up letter dated July 6, 2016, the Tataviam stated that the Project Area was in the "sensitivity zone" for the Yaanga village and an unnamed burial site, and requested a Native American monitor be present for all ground disturbing activities. The remaining groups did not respond and SWCA is unaware of any other groups that have requested formal consultation.

On September 15, 2016, SWCA requested a search of the SLF and list of Native American contacts from the NAHC for the Project Area and surrounding areas within a 0.5-mile (0.8-km) radius. A response was received letter by email on September 16, 2016, stating that SLF results were negative. The NAHC letter provided a list of tribes with traditional lands or cultural places located in the Project Area search radius and comprises five representatives from Gabrielino-Tongva affiliated groups including the following: Gabrieleño Band of Mission Indians–Kizh Nation, Gabrielino/Tongva San Gabriel Band of Mission Indians, Gabrielino/Tongva Nation, Gabrielino Tongva Indians of California Tribal Council, and Gabrielino-Tongva Tribe. The contact list applies to those groups for whom the NAHC considers to have knowledge of these potentially sensitive areas to be used explicitly for cultural resources assessment, as opposed to formal Native American consultation. The results letter is included in Attachment D.

[111] Johnston (1962), p. 121.

[112] Robinson, W. W. 1979. *Land in California: The Story of Mission Lands, Ranchos, Squatters, Mining Claims, Railroad Grants, Land Scrip, Homesteads*, p. 12. Berkeley, CA: University of California Press, Berkeley.

[113] Goldberg. (1999), pp. 154-159.

Sensitivity for Tribal Cultural Resources

Question 1: Is Dr. Chester King's 2004 ethnographic study a reliable source to determine the presence of TCR?

Not as the only source. Dr. Chester King's 2004 report titled *Ethnographic Overview of the Angeles National Forest* includes several maps depicting territories and village locations for ethnographically documented Native American groups in the Southern California area. The report's stated purpose is to "describe the cultures of people who inhabited and used the Angeles National Forest in the past, and to document some of the uses, places of importance, issues, and concerns identified by current Native Americans descendants of these historical tribal groups."[114] This geographic range includes the Project Area and specifically discusses the village of Yaanga.[115] Dr. King uses the same documentary sources reviewed by SWCA above to summarize historical references to the village and cites archaeological studies with potentially associated discoveries (Sites CA-LAN-7/H and CA-LAN-1875/H). He also includes a list of individuals with Yabit kinship ties as recorded in the registers from San Gabriel and San Fernando Missions. The summary provided in Dr. King's report support SWCA's findings that the village site was located in downtown Los Angeles in the area near Union Station and the Plaza Church.[116] This is reflected in each of the maps included in King's report that show "Yabit" near the center of the Western Gabrielino territory (Figure 13). The methods and sources used to determine the village locations was not described in detail, but comparison with other ethnographic sources[117] show a general consistency in textual reference and map location (see Figure 7 and Figure 12).

Many authors have emphasized that the location of Native American village sites plotted on historical maps is intended to be viewed as representational more than spatially accurate, further emphasizing the need for site-specific analysis when considering sensitivity based on proximity to any mapped features. SWCA's background research for the Project Area and surrounding vicinity within a 0.5-mile (0.8-km) radius failed to find any indication of a Native American village, burial site, or any other type feature fitting the definition of a TCR. SWCA finds that Dr. King's 2004 study and similar works can be used to establish a general level of sensitivity for TCR as they relate to the potential ethnohistoric archaeological resources within Los Angeles County, broadly, but additional research and considerations of the physical setting (e.g. disturbances, topography, distance to known water sources) must be given when assessing a specific area for project related impacts.

Question 2: Is there any documentary evidence to establish the presence of TCR (e.g. village or burials sites) within a reasonable distance of the Proposed Project?

No. A CHRIS records search within a 0.5-mile (0.8-km) radius of the Project Area identified only one previously recorded historical archaeological site, located in the adjacent city block to the east near the intersection of Sixth Street and Shatto Place. No prehistoric or ethnohistoric archaeological sites have been documented in the Project Area or the surrounding area of the records search. The NAHC search of the SLF also did not identify any traditional lands or sites. Generally speaking, prehistoric archaeological sites are more likely to be found near sources of water. An 1894 topographic map shows the Project Area located approximately 600 feet (182 m) south of an unnamed stream that was once a tributary of Ballona Creek and the LA River before it changed courses (Figure 5). However, the stream appears to have been an intermittent or ephemeral stream that only contained water during the wet season for short periods of

[114] King (2004), p. 1.
[115] Ibid, pp. 101–104.
[116] Ibid, p. 104.
[117] McCawley (1996), p. 56.

time, and is one of many mapped in the area. There is no other evidence available to suggest the Project Area offered any consistent or seasonal sources of water or other associated resources that would increase the likelihood of a temporary Native American camp being present. By comparison, the confluence of the LA River and Arroyo Seco near the village site of Yaanga around the historic core of Los Angeles has a higher likelihood of containing prehistoric archaeological sites, consistent with ethnographically documented village site locations (see Figure 7, Figure 12 – Figure 13). As described above, there have been several historically documented changes in the courses of the LA River, notably two in 1815 and 1825, that influenced the segment nearest the Project Area, which at its closest was located perhaps 2.8 miles (4.5 km) to the southeast (Figure 4).

A review of ethnographic literature and maps indicate that the general area was actively used for transportation and routine foraging, but there are no named camps within at least 3 miles. Some travel routes appear to have been located nearby, but there is no evidence to suggest their presence in this portion of the Los Angeles Basin should be associated with an increase in the archaeological sensitivity for the Project Area. One archaeological site (CA-LAN-1875/H) documented near Union Station contained Native American burials and artifacts whose collective date ranges include the period during which Yaanga was thought to have been occupied.[118] Larger Native American burials sites have been documented near the Plaza Church and Mission San Gabriel, and more broadly in the cities of Santa Monica and Marina Del Rey.

Given the lack of previously documented prehistoric archaeological sites or ethnographically documented camps, and the low probability for prehistoric archaeological sites based on topography and hydrography, **SWCA finds a low sensitivity for TCR within the Project Area**. Extensive alterations to the landscape, including grading and import of artificial fill, further decrease the possibility of any archaeological material being preserved in the Project Area.

Question 3: Is three miles an appropriate and reasonable threshold to determine a project's potential impact to Yaanga, burials, or other potentially associated TCR?

No. All impacts resulting from ground disturbance will be confined to the Project Area and have no potential to impact TCR documented near the location reported for the Yaanga village site. While there is ambiguity in the precise location of Yaanga, there is a consensus among scholars that the location was within several blocks of the current plaza area in downtown Los Angeles, at least 3 miles east of the Project Area. This study found no documentary evidence suggesting that the Project Area specifically, or all areas in a 3-mile radius categorically, should be considered as having equivalent and high potential to contain TCR. Rather, site-specific conditions should be taken into consideration when assessing the potential for archaeological resources (including TCR) to occur in a specific location, especially when there have been impacts to the physical setting resulting from natural processes (e.g. erosion) or human activities (e.g. grading).

Question 4: What mitigation measures are recommended if additional analysis concludes the Proposed Project may impact TCR?

Those addressing the discovery of unanticipated finds. There were no TCR identified within the Project Area and SWCA finds that the Project Area is not likely to contain TCR beneath the surface obscured by pavement. Therefore, no mitigations measures are recommended for impacts to known TCR. However, standard mitigation measures related to the unanticipated discovery of archaeological resources and human remains are recommended for the project, as indicated below. SWCA recommends that the

[118] Goldberg. (1999).

Proposed Project will have no impact to TCR with the implementation of the following mitigation measures:

- If an archaeological resource is encountered, the City and Project Proponent shall be immediately notified and construction activities in the area of the discovery shall cease until a qualified archaeologist—one who meets the Secretary of the Interior's Professional Qualification Standards for archaeology (36 Code of Federal Regulations [CFR] 61)—can be consulted to assess the discovery in accordance with CEQA. Should any prehistoric or ethnohistoric archaeological resources be identified within the project area, Native American consulting parties shall be contacted regarding the disposition and treatment of these resources. If the discovery proves to be significant under CEQA and avoidance is not possible, the qualified archaeologist shall coordinate with the City to develop and implement a data recovery plan data recovery to reduce potential impacts to less than significant.

- In the event of the unanticipated discovery of human remains, work in the immediate vicinity of the find shall stop and no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to State of California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98. The County Coroner shall be notified of the find immediately. If the human remains are determined to be Native American or "ancient," the Coroner shall notify the NAHC, which will designate and notify a Native American most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and make recommendations regarding the treatment and disposition of human remains and items associated with Native American burials.

It should be noted that this study has not assessed impacts or sensitivity relevant to other types of (non-tribal) cultural resources, including built environment, historic archaeological resources, or paleontological resources. Additional mitigations measures may be appropriate related to these other types of resources.

Should you have any questions or require additional information or materials, please contact us at (626) 240-0587, or via email at cmillington@swca.com or hgibson@swca.com.

Sincerely,

Chris Millington, M.A., RPA
Archaeologist
Cultural Resources Project Manager

Heather Gibson, Ph.D., RPA
Archaeologist
Cultural Resources Principal Investigator

Attachment A. Report Figures
Attachment B. AB 52 Consultation Correspondence
Attachment C. SCCIC Records Search Results
Attachment D. NAHC SLF search and Native American Contacts results

Attachment A

Report Figures

Figure 1. Project vicinity map.

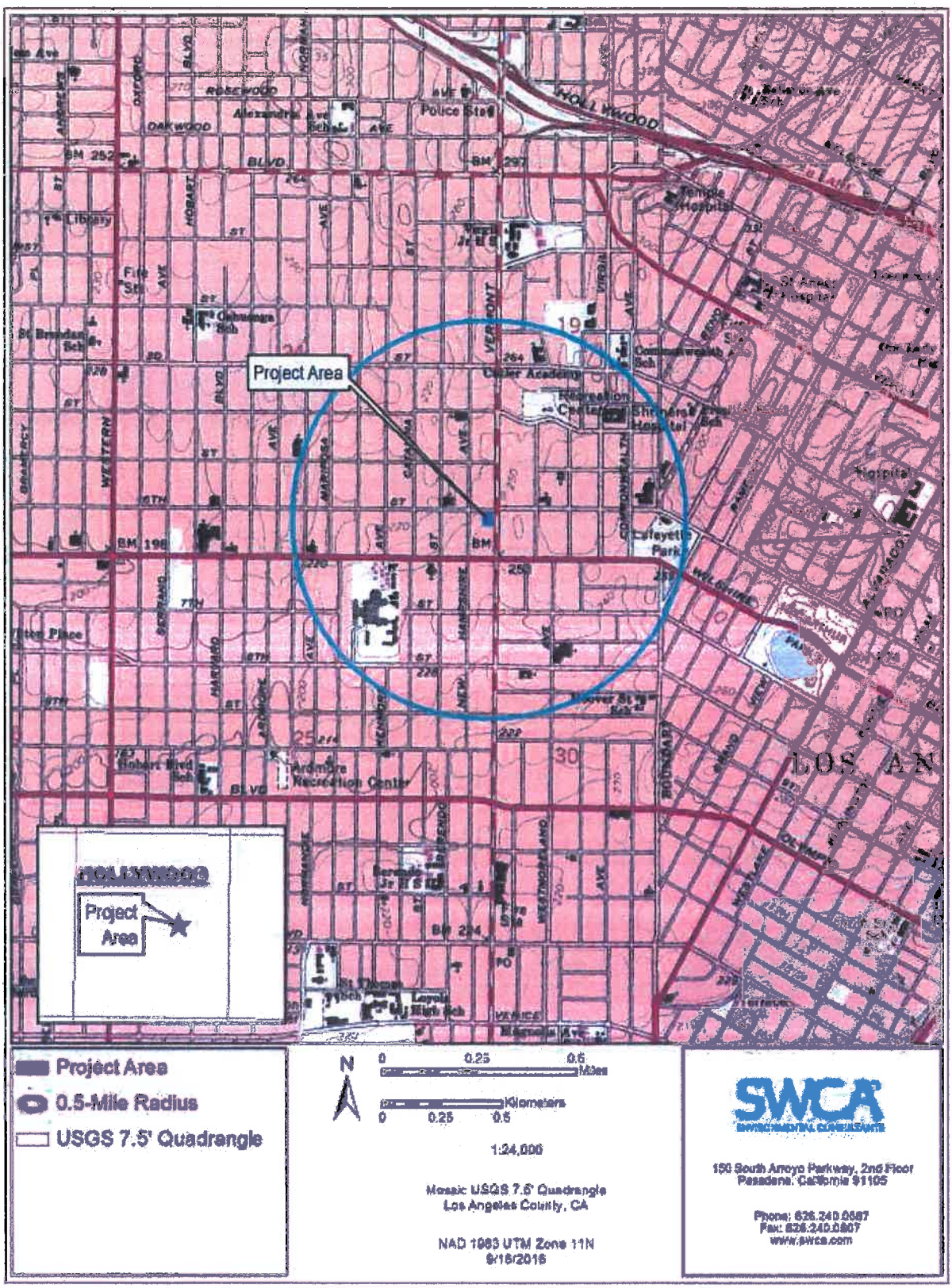

Figure 2. Project location map with 0.5-mile records search radius.

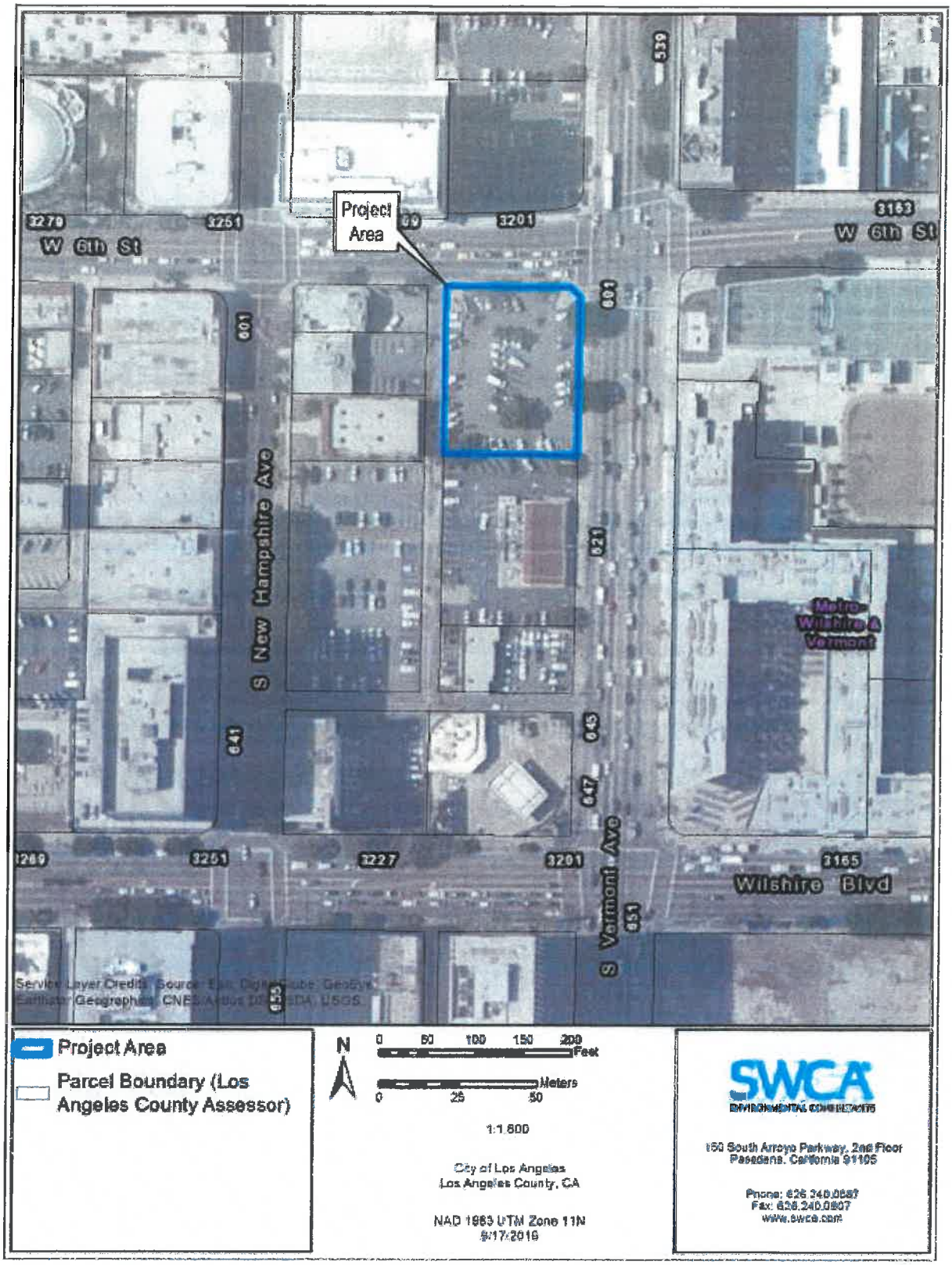

Figure 3. Project Area depicted as the subject property on an aerial photograph.

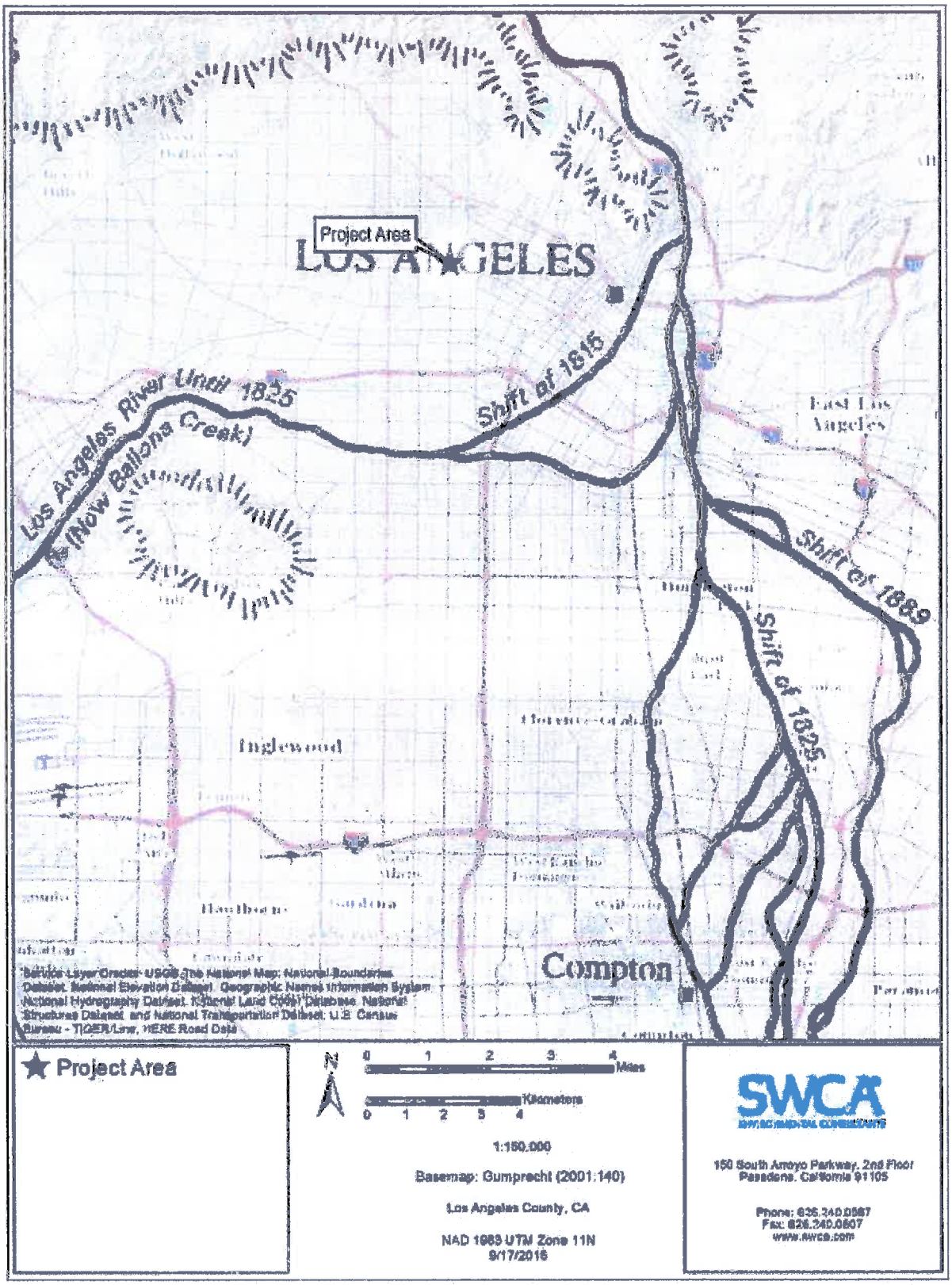

Figure 4. Changes in the course of the Los Angeles River (Gumprecht 2001:140).

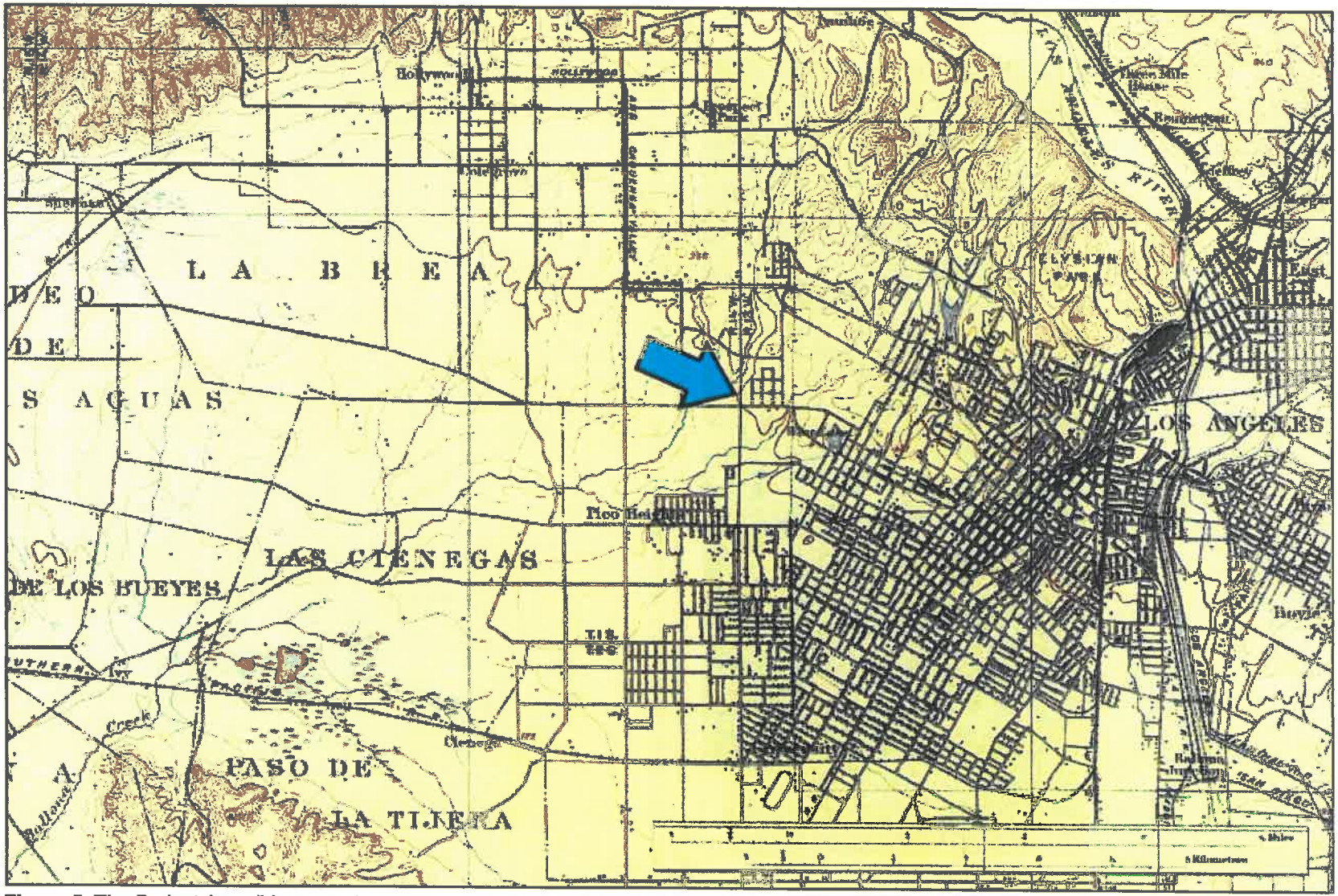

Figure 5. The Project Area (blue arrow) and surrounding topography as depicted on an 1894 USGS map (Los Angeles, 15-minute quadrangle); note the re-positioned scale from the original map in the lower-right corner.

Figure 6. Ca. 1930s photograph showing an alluvial terrace and stream course located north of the Project Area at Fourth Street and Westmoreland Avenue; view facing northwest. (Source: USC Digital Library).

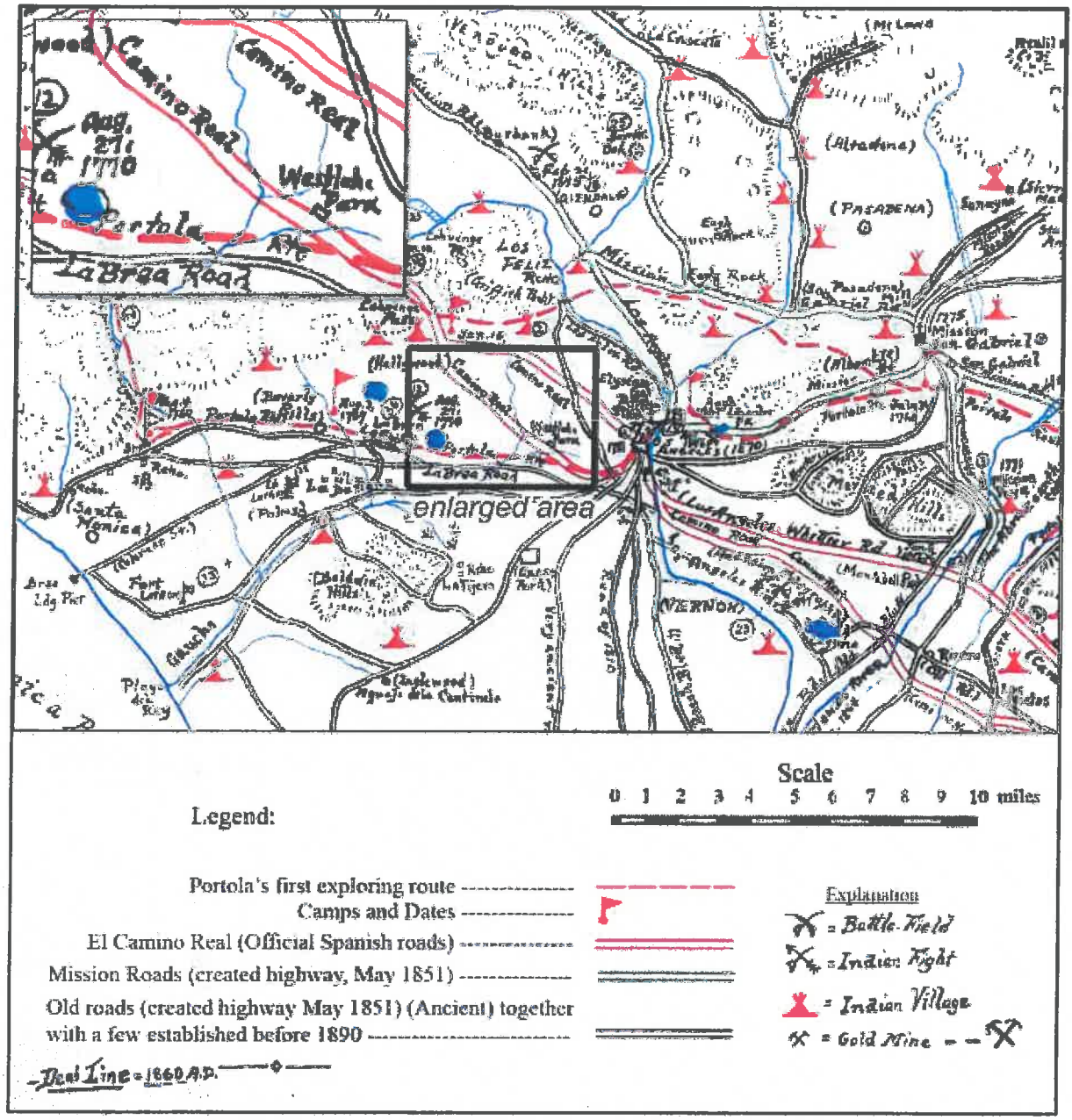

Figure 7. Reproduction and detailed view of Kirkman-Harriman pictorial and historical map of Los Angeles County: 1860 A.D.-1937 A.D. The Project Area is located 1 mile west of Westlake Park as seen in the enlarged inset. Note that the scale applies to basemap and not the enlargement, and that the distances and sizes of roads and historical markers is more representational than spatially accurate. (Source: Los Angeles Public Library).

Figure 8. 1915 view showing Vermont Avenue as an unpaved and rugged thoroughfare with some electrical infrastructure; facing south from First Street. (Source: USC Digital Library).

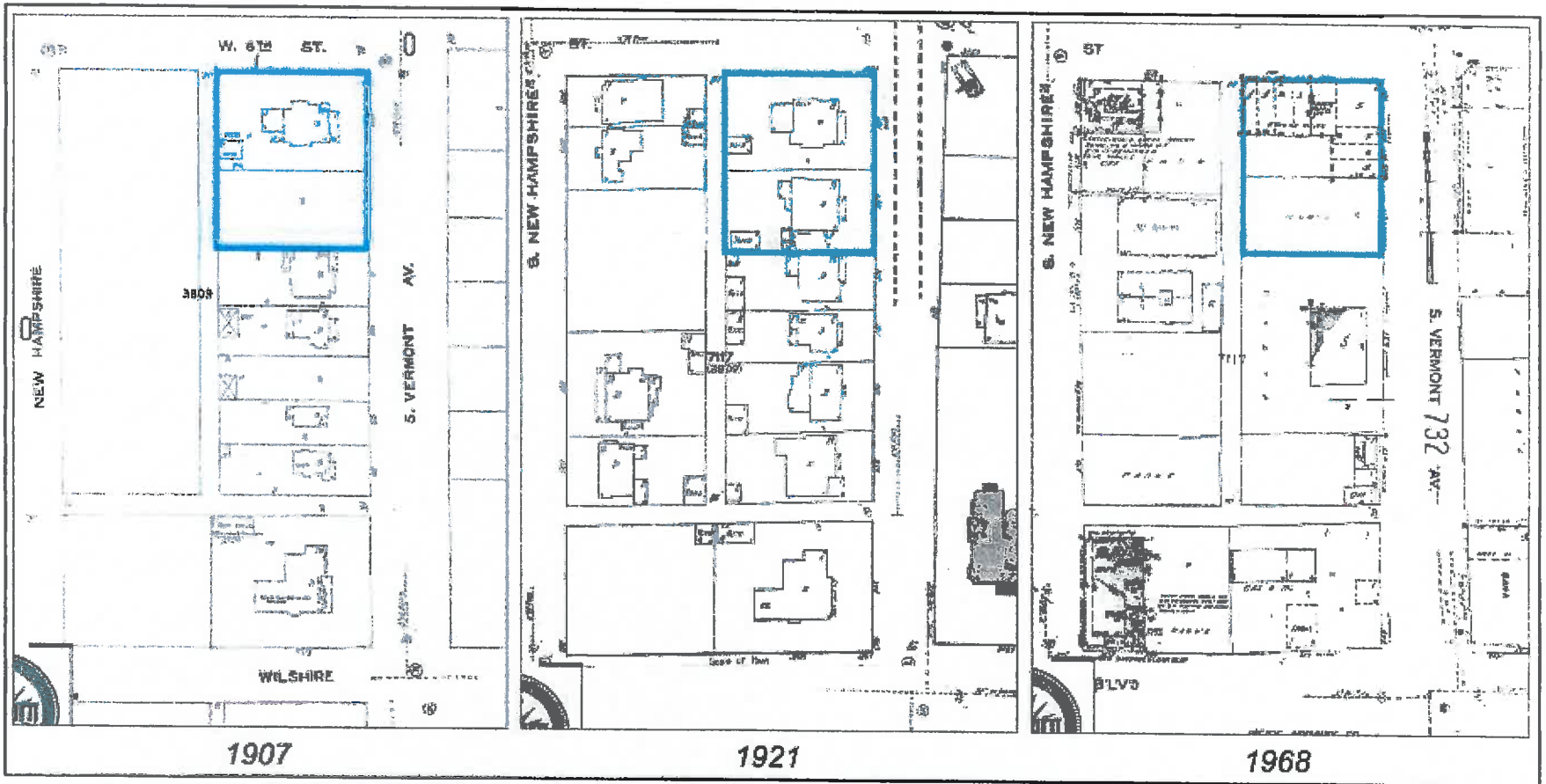

Figure 9. Project area (blue outlines) depicted on a 1907, 1921, and 1968 Sanborn Fire Insurance maps. The 1907 and 1921 maps show a two-story dwelling with detached garage at 603 S. Vermont Avenue and a second two-story dwelling in the southern portion of the parcel; the 1968 map features the two-part commercial building and adjacent parking lot constructed in the same footprint of the parcel. (Source: EDR).

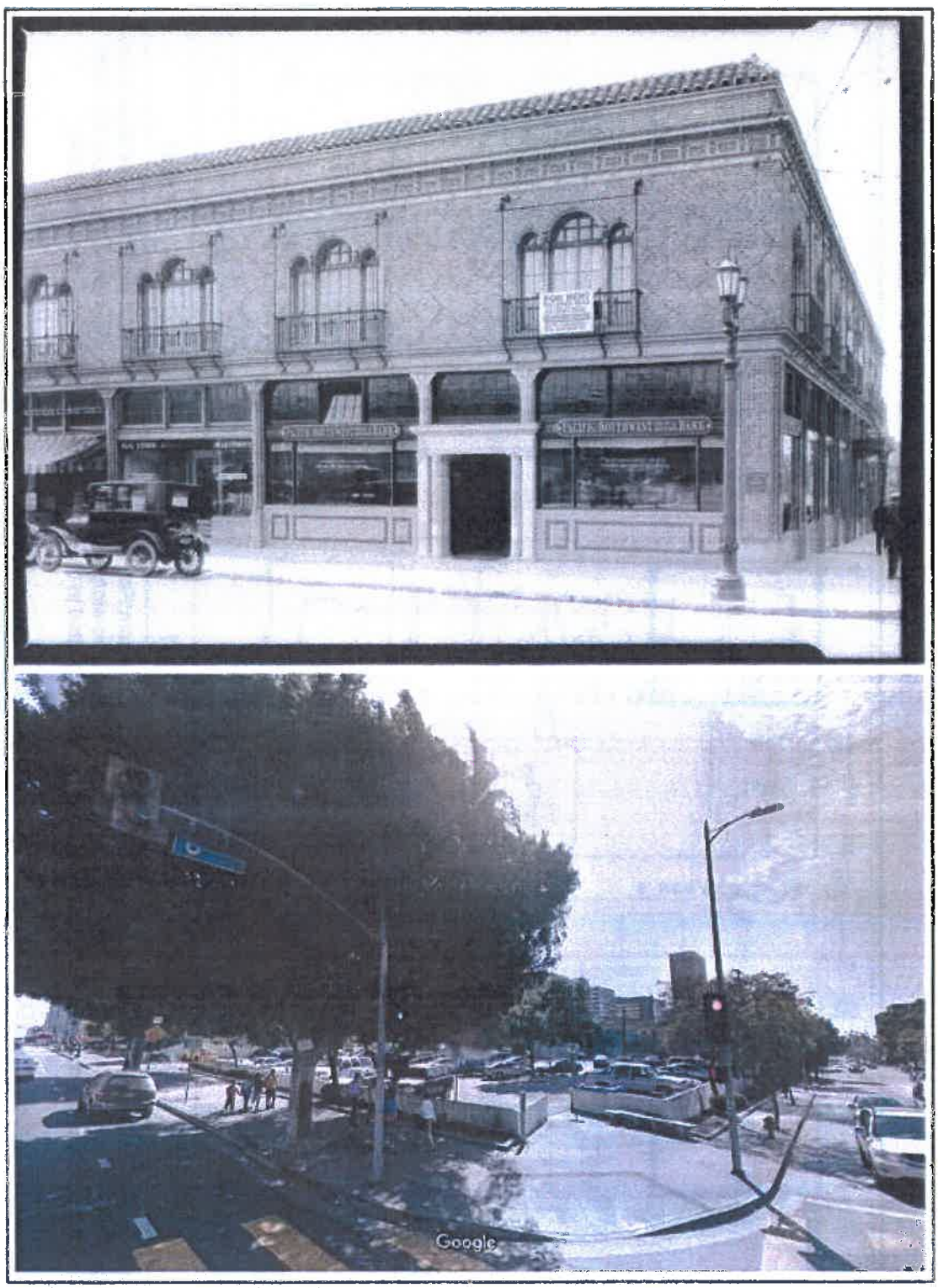

Figure 10. *Top*, 1925 view of the newly constructed two-part commercial block seen facing southwest from the corner of Sixth Street and Vermont. (Source: USC Digital Library). *Bottom*, 2015 view of the Project Area from the same approximate location at the 1925 photograph. (Source: Google Streetview).

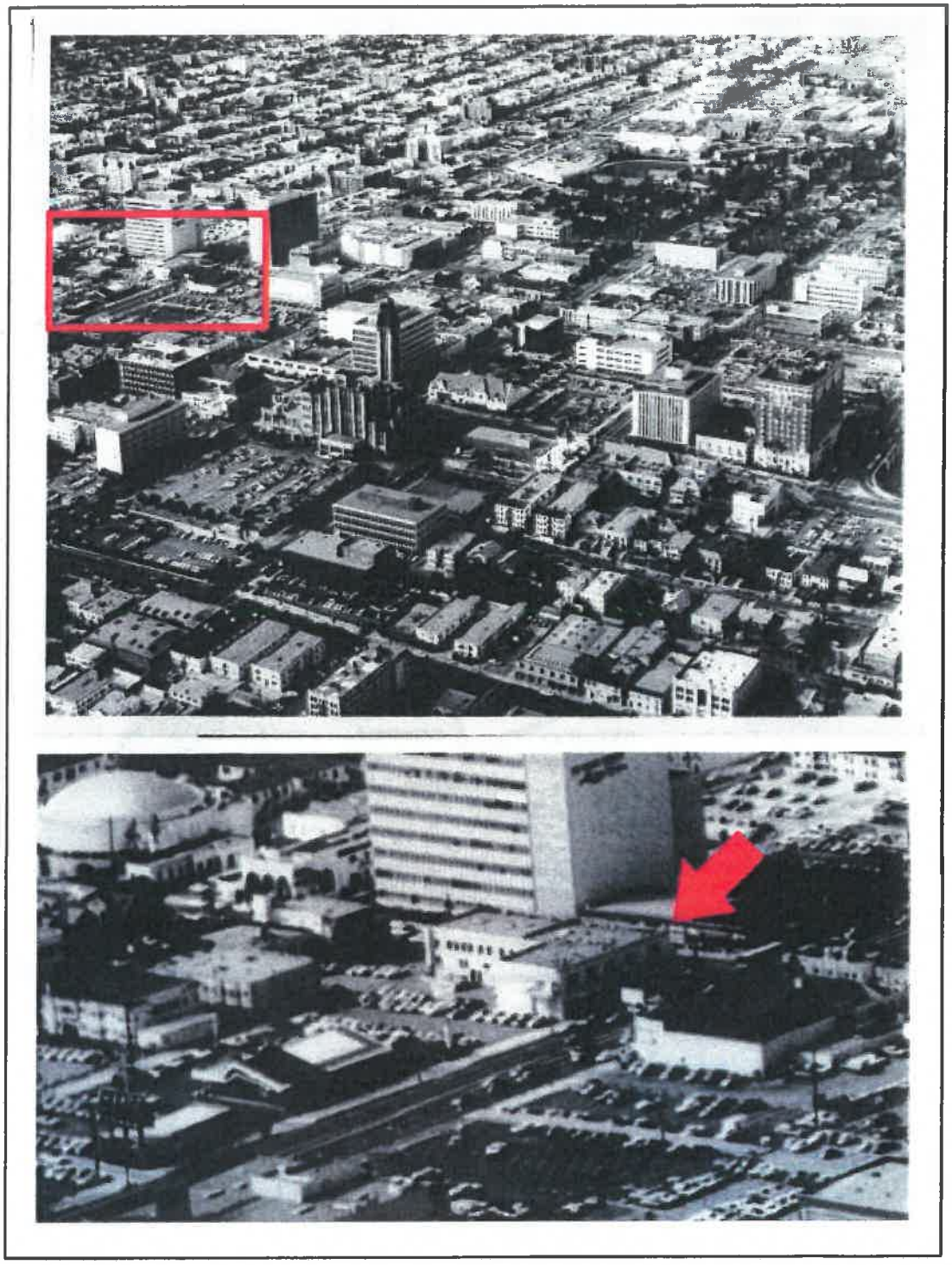

Figure 11. 1968 oblique angle aerial photograph of the Project Area showing the two-part commercial block shortly before it was demolished in 1974; view facing northwest. (Source: USC Digital Library).

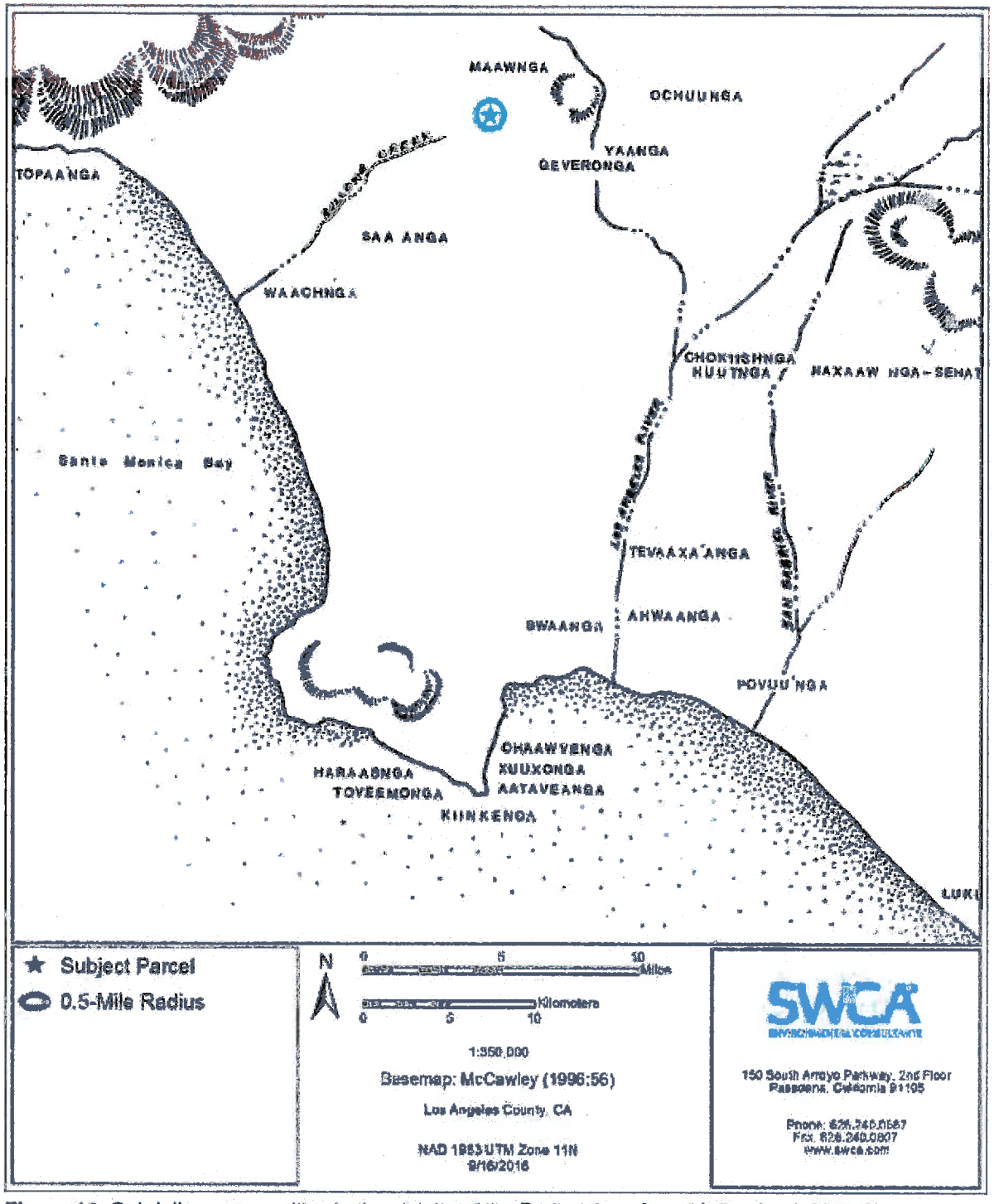

Figure 12. Gabrielino communities in the vicinity of the Project Area from McCawley (1998:56).

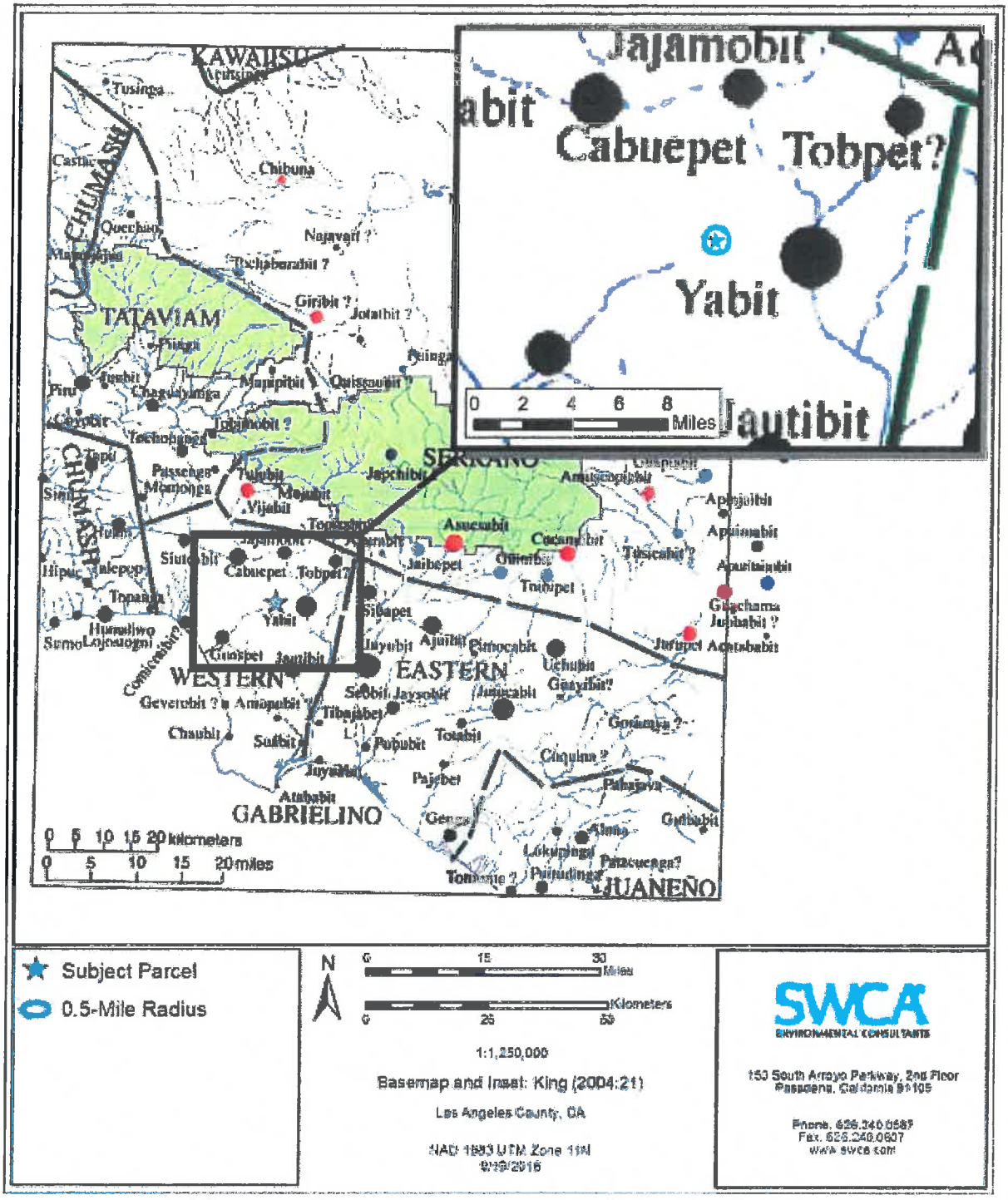

Figure 13. Native American settlements and boundaries surrounding the Project Area from King (2004:21).

Attachment B

AB 52 Consultation Correspondence

DEPARTMENT OF
CITY PLANNING

CITY PLANNING
COMMISSION

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PRESIDENT

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INFORMATION
http://planning.lacity.org

April 18, 2016

CASE No.: ENV-2015-540-MND
Project Address: 605 S. Vermont Ave.
Community Plan: Wilshire

Dear Tribal Representative:

This letter is to inform you that the Los Angeles Department of City Planning is reviewing the following proposed project:

> *The construction of a seven-level mixed-use building containing 103 dwelling units and 29,000 square feet of museum space with a three-level subterranean garage.*

Per AB 52, you have the right to consult on a proposed public or private project prior to the release of a negative declaration, mitigated negative declaration or environmental impact report. You have 30 calendar days from receipt of this letter to notify us in writing that you wish to consult on this project. Please provide your contact information and mail your request to:

Los Angeles Department of City Planning
Attn: Nuri Cho
200 N. Spring Street, Room 621
Los Angeles, CA 90012
Email: nuri.cho@lacity.org
Phone No.: (213) 978-1177

Sincerely,

Nuri Cho

City of Los Angeles
Department of City Planning

Affidavit of Mailing

Case Number: ENV-2015-540-MND

This Affidavit concerns the NAHC Tribal Consultation Letter.

I, Nuri Cho, certify that I am an employee of the City of Los Angeles, on April 18, 2016, mailed, postage prepaid, to the applicable California Native American Tribes parties, as indicated below, on the case indicated above, a true copy of which is attached:

NAHC Tribal Consultation Letter

Check Recipients Below:

- [x] Fernandeño Tataviam Band of Mission Indians
- [x] Gabrieleño Band of Mission Indians – Kizh Nation
- [x] Gabrielino Tongva Indians of California Tribal Council
- [x] Gabrielino/Tongva Nation
- [x] Gabrielino/Tongva Nation
- [x] Gabrielino/Tongva San Gabriel Band of Mission Indians
- [x] Gabrielino-Tongva Tribe
- [x] San Fernando Band of Mission Indians
- [x] Soboba Band of Luiseño Indians

Staff Signature

Rudy Ortega Jr.
Tribal President

Tribal Historic & Cultural Preservation Committee
Steve Ortega
Chairman
Arturo Paredes Jr.
David Ortega

Fernandeño Tataviam Band of Mission Indians
Tribal Historic & Cultural Preservation

April 28, 2016

Los Angeles Department of City Planning
Attn: Nuri Cho
200 N. Spring Street, Room 621
Los Angeles, CA 90012

RE: Formal Request for Tribal Consultation Pursuant to the California Environmental Quality Act (CEQA), Public Resources Code section 21080.3.1, subdivision (b), (d) and (e) for Case No.: ENV-2015-540-MND, 605 South Vermont Ave.

Dear Nuri Cho,

This letter constitutes a formal request for tribal consultation under the provisions of the California Environmental Quality Act (CEQA) (Public Resources Code section 21080.3.1 subdivisions (b), (d) and (e)) for the mitigation of potential impacts to tribal cultural resources for the above referenced project (Project).

The Fernandeño Tataviam Band of Mission Indians requests that the lead agency forward to the contact below the estimated cubic yards of soil disturbance for the Project. Additional data may be requested from your agency. Please contact Caitlin Gulley with any questions or for additional information:

Caitlin Gulley, Director
Tribal Historic and Cultural Preservation Department
1019 Second St.
San Fernando, CA 91340

Sincerely,

Sedna Villavicencio
Tribal Historic and Cultural Preservation Department

DEPARTMENT OF
CITY PLANNING

CITY PLANNING COMMISSION

DAVID H. J. AMBROZ
PRESIDENT

RENEE DAKE WILSON
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DANA M. PERLMAN

JAMES K. WILLIAMS
COMMISSION EXECUTIVE ASSISTANT II
(213) 978-1300

CITY OF LOS ANGELES
CALIFORNIA

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MAYOR

EXECUTIVE OFFICES
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(213) 978-1274

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DEPUTY DIRECTOR
(213) 978-1273

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INFORMATION
http://planning.lacity.org

May 26, 2016

Caitlin B. Gulley, Director
Fernandeño Tataviam Band of Mission Indians
Tribal Historic and Cultural Preservation Department
1019 Second Street, Suite 1
San Fernando, CA 91340

RE: AB 52 Tribal Consultation Process
605 S. Vermont Ave. ("Proposed Project")
(Case No. ENV-2015-540-MND)

Dear Ms. Gulley:

The Department of City Planning has received your letter dated April 28, 2016 in which the Fernandeño Tataviam Band of Mission Indians ("Tataviam") requested a formal request for consultation and that the City forward the estimated cubic yards of soil disturbance for the Project. This letter from the City memorializes the start of the consultation process between the Tataviam and the City, as the lead agency for the Proposed Project. In response to your specific request regarding potential soil disturbance, the Proposed Project is estimated to export approximately 36,076 cubic yards of soil from the specific project site.

To date, it remains unclear to the City whether there is any information/evidence that demonstrates the presence of tribal cultural resources at this specific project site, and the potential for any such resources to be potentially impacted as a result of implementing the Proposed Project, warranting specific mitigation measures. If you have additional information or evidence, we would like to schedule a meeting and/or ask that you submit that information/evidence to the City within 30 calendar days of this letter. If you require more time, please let us know. As the lead agency, we further ask that the City be invited to be part of any future discussion between you and the applicant as it pertains to the presence of tribal cultural resources.

Please do not hesitate to contact us at your earliest convenience.

Respectfully,

Nuri Cho
Planning Assistant
Central Project Planning Section
Department of City Planning

Rudy Ortega Jr.
Tribal President

Fernandeño Tataviam Band of Mission Indians
Tribal Historic & Cultural Preservation

July 6, 2016

Nuri Cho
Department of Planning
City of Los Angeles
200 N. Spring St.
Los Angeles, CA 90012

RE: Tribal Consultation Pursuant to the California Environmental Quality Act (CEQA), Public Resources Code section 21080.3.1, subdivision (b), (d) and (e) for Case No. ENV-2015-540-MND (Project)

Dear Mr. Cho,

This letter constitutes formal mitigation requests from the Fernandeño Tataviam Band of Mission Indians (Tataviam) for the above listed Project. Due to the facts that the Project property is located within the sensitivity zone of the village Yanga and one known burial site, and that the Project property was developed prior to the protections of CEQA and with superficial development, Tataviam recommends that the lead agency implement the language below as mitigation measures for the Project. Provided that the following recommendations are established by the lead agency, consultation may be concluded:

- All ground disturbing activities performed on the Project property shall be monitored by professional Native American monitors.
- The applicant shall retain one professional Native American monitor per excavation team to monitor all ground disturbing activities performed on the Project property.

Should the applicant desire the review of alternative mitigation measures, they may request a Consultation Form from the Tribal Historic and Cultural Preservation Department.

Sincerely,

Caitlin B. Gulley, Director
Tribal Historic and Cultural Preservation Department
cgulley@tataviam-nsn.us

Nuri Cho <nuri.cho@lacity.org>

Tribal Consultation: Case No. ENV-2015-580-MND

Caitlin Gulley <cgulley@tataviam-nsn.us> Thu, Jul 21, 2016 at 1:49 PM
To: Nuri Cho <nuri.cho@lacity.org>

1. yes
2. yes, please
3. 3 miles, you can reference our territory map on file with you department and the Chester King maps
4. they are public record

[Quoted text hidden]

Attachment C

South Central Coastal Information Center (SCCIC)
Records Search Results

Table 1. Previously Conducted Cultural Resources Studies within 0.8 km (0.5 Mile) of the Project Area

SCCIC Report Number	Title of Study	Author: Affiliation	Year	Proximity to Project Area
LA-10507	Technical Report - Historical/Architectural Resources - Los Angeles Rail Rapid Transit Project "Metro Rail" Draft Environmental Impact Statement and Environmental Impact Report	Anonymous: Westec Services, Inc.	1983	Within Project Area
LA-03496	Draft Environmental Impact Report Transit Corridor Specific Plan Park Mile Specific Plan Amendments	Anonymous: Los Angeles City Planning Department	1985	Outside (within 0.8 km [0.5 mile])
LA-07562	Additional Information for Dseis, Core Study Alignments 1, 2, 3, 4, and 5	Greenwood, Roberta S.: Greenwood and Associates	1987	Outside (within 0.8 km [0.5 mile])
LA-07565	Technical Report Archaeology Los Angeles Rail Rapid Transit Project "Metro Rail" Core Study, Candidate Alignments 1 to 5	Anonymous: Greenwood and Associates	1987	Outside (within 0.8 km [0.5 mile])
LA-07566	Technical Report Dseis, Core Study Alignments 1, 2, 3, 4, and 5	Hatheway, Roger G. and Peter, Kevin J.: Greenwood and Associates	1987	Outside (within 0.8 km [0.5 mile])
LA-08020	Technical Report: Cultural Resources Los Angeles Rail Rapid Transit Project "metro Rail" Core Study	Anonymous: Southern California Rapid Transit District	1987	Outside (within 0.8 km [0.5 mile])
LA-04312	Cultural Resource Assessment for the Los Angeles Cellular Telephone Company, Facility Number 171.1, Located at 690 Wilshire Place, City and County of Los Angeles, California	Duke, Curt: LSA Associates, Inc.	1999	Outside (within 0.8 km [0.5 mile])
LA-05074	Cultural Resource Assessment for Pacific Bell Wireless Facility La 239-04, County of Los Angeles, Ca	Duke, Curt: LSA Associates, Inc.	2000	Outside (within 0.8 km [0.5 mile])
LA-05100	Cultural Resource Assessment for Pacific Bell Wireless Facility La 239-03, County of Los Angeles, Ca	Lapin, Philippe: LSA Associates, Inc.	2000	Outside (within 0.8 km [0.5 mile])
LA-05344	Cultural Resource Assessment Cingular Wireless Facility No. Sm 057-01 Los Angeles County, California	Duke, Curt: LSA Associates, Inc.	2001	Outside (within 0.8 km [0.5 mile])
LA-06411	Cultural Resource Assessment/evaluation for Cingular Wireless Site La-239-05, Los Angeles County, California	McKenna, Jeanette A.: McKenna et al.	2001	Outside (within 0.8 km [0.5 mile])
LA-06465	Cultural Resource Assessment AT&T Wireless Services Facility No. D 423b Los Angeles County, California	Duke, Curt and Marvin, Judith: LSA Associates, Inc.	2002	Outside (within 0.8 km [0.5 mile])
LA-07066	Cultural Resource Assessment Cingular Wireless Facility No. Sm 201-01 Los Angeles County, California	Duke, Curt and Judith Marvin: LSA Associates, Inc.	2002	Outside (within 0.8 km [0.5 mile])
LA-07355	Cultural Resource Assessment for Cingular Wireless Facility Sm202-01 City of Los Angeles, California	Kyle, Carolyn E.: Kyle Consulting	2002	Outside (within 0.8 km [0.5 mile])
LA-07362	Cultural Resource Assessment Cingular Wireless Facility No. Sc-610-01 City and County of Los Angeles, California	Bartoy, Kevin M.: Pacific Legacy, Inc.	2004	Outside (within 0.8 km [0.5 mile])
LA-07380	Cultural Resources Investigations: a Reconnaissance Survey of the Proposed Central Los Angeles Area New Middle School No. 3, Los Angeles, California	McKenna, Jeanette A.: McKenna et al.	2004	Outside (within 0.8 km [0.5 mile])

Table 1. Previously Conducted Cultural Resources Studies within 0.8 km (0.5 Mile) of the Project Area

SCCIC Report Number	Title of Study	Author: Affiliation	Year	Proximity to Project Area
LA-07998	Historic Architectural Survey and Section 106 Compliance for a Proposed Wireless Telecommunications Service Facility Located on a Religious Building Located at 760 S. Westmoreland Avenue in the City of Los Angeles, (los Angeles County), California	Galvin, Andrea: Galvin & Associates	2004	Outside (within 0.8 km [0.5 mile])
LA-08251	Los Angeles Metro Red Line Project, Segments 2 and 3 Archaeological Resources Impact Mitigation Program Final Report of Findings	Gust, Sherri and Heather Puckett: Cogstone Resource Management, Inc.	2004	Outside (within 0.8 km [0.5 mile])
LA-11121	Request for Determination RE 36 CFR Part 800, Section 106 of the National Historic Preservation Act, Site Address: 621 South Virgil Avenue, Los Angeles, CA 90005	Beckley, Luvina: Korean American Commuinty Resource Center	2004	Outside (within 0.8 km [0.5 mile])
LA-09554	Cultural Resources Records Search and Site Visit Results for T-Mobile USA Candidate SV11705E (New Hampshire Apts), 275 South New Hampshire Avenue, Los Angeles, California.	Bonner, Wayne and Kathleen Crawford: Michael Brandman Associates	2009	Outside (within 0.8 km [0.5 mile])
LA-10620	Cultural resources Study of the 738 Mariposa Apt Project, AT&T Site No. A-EL0083B, 738 Mariposa Avenue, Los Angeles, California 90005	Supernowicz, Dana: Historic Resource Associates	2009	Outside (within 0.8 km [0.5 mile])
LA-11734	Cultural Resources Records Search and Site Visit Results for Sprint Nextel Candidate LA73XC209 (7th Shatto), 760 South Westmoreland Street, Los Angeles, Los Angeles County, California	Bonner, Wayne: Michael Brandman Associates	2012	Outside (within 0.8 km [0.5 mile])
LA-11942	Cultural Resources Records Search and Visit Results for T-Mobile West, LLC Candidate SV00239A (LA239 Equality Building) 621 South Virgil Avenue, Los Angeles, Los Angeles County, California	Bonner, Wayne: MBA	2012	Outside (within 0.8 km [0.5 mile])
LA-12170	Cultural Resources Records Search and Site Visit Results for T0Mobile West, LLC Candidate SV00201A(SM Mayan Bldg) 3049 West 8th Street, Los Angeles, Los Angeles County, California	Bonner, Wayne and Crawford, Kathleen: MBA	2012	Outside (within 0.8 km [0.5 mile])
LA-12395	Cultural Records Search and Site Visit Results for AT&T Mobility, LLC, Candidate EL0083 (738 Mariposa Apt), 738 South Mariposa Avenue, Los Angeles, Los Angeles County, California, CASPR No.3551015805	Bonner, Wayne and Crawford, Kathleen: EAS	2013	Outside (within 0.8 km [0.5 mile])
LA-12718	Cultural Resources Records Search and Site Visit Results for AT&T Mobility, LLC Candidate LAC171 (Wilshire/8th) 690 Wilshire Place, Los Angeles, Los Angeles County, California CASPR No. 3551014984	Bonner, Diane, Wills, Carrie, and Crawford, Kathleen: EAS	2014	Outside (within 0.8 km [0.5 mile])
LA-10507	Technical Report - Historical/Architectural Resources - Los Angeles Rail Rapid Transit Project "Metro Rail" Draft Environmental Impact Statement and Environmental Impact Report	Anonymous: Westec Services, Inc.	1983	Within Project Area

Table 2. Previously Recorded Cultural Resources within 0.5 Mile of the Project Area

Primary Number	Trinomial	Resource Type	Temporal Affiliation	Resource Description	Address	NRHP/CRHR/SHL Eligibility Status	Recording Year (Name, Affiliation)	Proximity to Project Area
P-19-003301	CA-LAN-003301H	Site	Historic	Wilshire/Vermont Station; MTA No. B211-216	NE corner of Wilshire Blvd and Vermont Ave Los Angeles	Not Evaluated	2003 (Robin Turner, Cogstone Resource Management)	Outside (within 0.8 km [0.5 mile])
P-19-166822	–	Building	Historic	Ambassador Hotel	3400 Wilshire Blvd Los Angeles	Demolished	1976 (D. Smith & T. Sitton, Natural History Museum)	Outside (within 0.8 km [0.5 mile])
P-19-166850	–	Building	Historic	Bullock's Wilshire	3050 Wilshire Blvd Los Angeles	NRHP-Listed (78000685); CRHR-Listed (HRI 020771); LA HCM (LA-56)	1977 (P.L. Gray, Los Angeles County Museum of Natural History)	Outside (within 0.8 km [0.5 mile])
P-19-166857	–	Building	Historic	Immanuel Presbyterian Church	3300 Wilshire Blvd Los Angeles	LA HCM (LA-743)	1976 (D. Smith & T. Sitton, Natural History Museum)	Outside (within 0.8 km [0.5 mile])
P-19-166951	–	Building	Historic	Korean Philadelphia Presbyterian Church (Temple Sinai East)	407 S New Hampshire Ave Los Angeles	LA HCM (LA-91)	1986 (S. Bourstein, SCRTD)	Outside (within 0.8 km [0.5 mile])
P-19-166991	–	Building	Historic	Brown Derby Restaurant	3377 Wilshire Blvd Los Angeles	Not Evaluated	1976 (D. Smith & T. Sitton, Natural History Museum)	Outside (within 0.8 km [0.5 mile])
P-19-167299	–	Building	Historic	Felipe de Neve Branch Library	2820 W 6th St Los Angeles (APN 5077-006-900)	NRHP-Listed (87001008); CRHR-Listed (HRI 021261); LA HCM (LA-452)	1978 (R. Mouck, J. Miller, R, Chattel, R. Lehrer, & D. Miller, Los Angeles Conservancy)	Outside (within 0.8 km [0.5 mile])
P-19-173512	–	Building	Historic	Parklane Apartments	3333 W 4th St Los Angeles	Not Evaluated	1986 (S Bourstein, SCRTD)	Outside (within 0.8 km [0.5 mile])
P-19-173542	–	Building	Historic	First Congressional Church of Los Angeles	540 S Commonwealth Ave Los Angeles (APN 5077-001-015)	LA HCM (LA-706)	1987 (D. Williams Hlava)	Outside (within 0.8 km [0.5 mile])
P-19-174876	–	Building, District	Historic	Sheraton Town House	2959 Wilshire Blvd Los Angeles	NRHP-Listed (96000821); CRHR-Eligible (HRI 088475); LA HCM (LA-576)	1994 (C. Anderson, City of Los Angeles Cultural Affairs Dept.)	Outside (within 0.8 km [0.5 mile])

Table 2. Previously Recorded Cultural Resources within 0.5 Mile of the Project Area

Primary Number	Trinomial	Resource Type	Temporal Affiliation	Resource Description	Address	NRHP/CRHR/SHL Eligibility Status	Recording Year (Name, Affiliation)	Proximity to Project Area
P-19-175724	–	District	Historic	700 Blocks of S Normandie & S Mariposa Ave	700 S Normandie & Mariposa Ave Los Angeles	Determined Eligible for NRHP	1994 (C. McAvoy, HRG)	Outside (within 0.8 km [0.5 mile])
P-19-186729	–	Building	Historic	United Commercial Food Workers Local 770	630 Shatto Pl Los Angeles (APN 5077-009-028)	Not Evaluated	2002 (J. Marvin, K.Harper, LSA)	Outside (within 0.8 km [0.5 mile])
P-19-187440	–	Building	Historic	First Baptist Church of L A	760 S Westmoreland Ave Los Angeles 90005 (APN 5077-019-017)	LA HCM (LA-237)	2004 (A. Galvin, Galvin & Associates)	Outside (within 0.8 km [0.5 mile])
P-19-187717	–	Building	Historic	The Mayan Building	2960-2982 Leeward	Not Evaluated	2002 (J. Marvin & S. Younger, LSA)	Outside (within 0.8 km [0.5 mile])
P-19-188452	–	Building	Historic	Wilshire Catalina	2875 W 8th Street	Not Evaluated	2008 (Crawford, K., Crawford Historic Services)	Outside (within 0.8 km [0.5 mile])
P-19-188870	–	Building	Historic	Hotel Chancellor	3049 W 8th St Los Angeles 90005 (APN 5094-010-009)	NRHP-Listed (05001496); CRHR-Listed (HRI 130637)	2005 (C. McAvoy, Historic Resources Group)	Outside (within 0.8 km [0.5 mile])
P-19-190072	–	Building	Historic	Korean Gospel Broadcasting Company, Equality Building	3325 Wilshire Blvd Los Angeles (APN 5502-027-010)	Not Evaluated	2012 (K.A. Crawford, Crawford Historic Services)	Outside (within 0.8 km [0.5 mile])
–	–	Structure	Historic	Brynmoor Apartments Neon Roof Sign	432-436 S. New Hampshire Ave	LA HCM (LA-641)	2008 (M. Fratinardo, PCR)	Outside (within 0.8 km [0.5 mile])
–	–	Building	Historic	Chapman Park Market Building	3451 W. 6th Street	LA HCM (LA-386)	2009 (A. Kainer, PCR)	Outside (within 0.8 km [0.5 mile])
–	–	Building	Historic	Chapman Park Studio Building (3501-3519 W. 6th Street)	3501 W. 6th Street	LA HCM (LA-280)	2009 (A. Kainer, PCR)	Outside (within 0.8 km [0.5 mile])
–	–	Structure	Historic	Embassy Apartments Neon Roof Sign	702-708 S. Mariposa Ave	LA HCM (LA-642)	2008 (A. Kainer, PCR)	Outside (within 0.8 km [0.5 mile])

Table 2. Previously Recorded Cultural Resources within 0.5 Mile of the Project Area

Primary Number	Trinomial	Resource Type	Temporal Affiliation	Resource Description	Address	NRHP/CRHR/SHL Eligibility Status	Recording Year (Name, Affiliation)	Proximity to Project Area
–	–	Building	Historic	Founder's Church of Religious Science	3281 West 6th St. & 550 S. Berendo St.	LA HCM (LA-727)	2009 (A. Kainer, PCR)	Outside (within 0.8 km [0.5 mile])
–	–	Building	Historic	Gless Apartments	353-357 S Kenmore Ave	LA HCM (LA-804)	2009 (PCR)	Outside (within 0.8 km [0.5 mile])
–	–	Building	Historic	I. Magnin and Company Building	3240 Wilshire Boulevard and 650-666 New Hampshire Avenue	LA HCM (LA-534)	2008 (M. Fratinardo, PCR)	Outside (within 0.8 km [0.5 mile])
–	–	Building	Historic	Normandie Hotel	605 S. Normandie Ave	LA HCM (LA-1013)	2009 (A. Kainer, PCR)	Outside (within 0.8 km [0.5 mile])
–	–	Structure	Historic	Superba Apartments Incandescent Roof Sign	335 S. Berendo Street	LA HCM (LA-643)	2009 (PCR)	Outside (within 0.8 km [0.5 mile])
–	–	Building	Historic	Wilshire Christian Church Building	3461 Wilshire Boulevard	LA HCM (LA-209)	2008 (A. Kainer, PCR)	Outside (within 0.8 km [0.5 mile])

Attachment D

NAHC SLF Search and
Native American Contacts List Results

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
(916) 373-3710
(916) 373-5471 FAX

September 16, 2016

Chris Millington
SWCA Environmental Consultants

Sent by E-mail: cmillington@swca.com

RE: Proposed Korean American National Museum (SWCA Project No. 40151.00) Project, City of Los Angeles; Hollywood USGS Quadrangle, Los Angeles County, California

Dear Mr. Millington:

Attached is a contact list of tribes with traditional lands or cultural places located within the boundaries of the above referenced counties. A search of the SFL was completed for the USGS quadrangle information provided with negative results.

Our records indicate that the lead agency for this project has not requested a Native American Consultation List for the purposes of formal consultation. Lists for cultural resource assessments are different than consultation lists. Please note that the intent of the referenced codes below is to avoid or mitigate impacts to tribal cultural resources, as defined, for California Environmental Quality Act (CEQA) projects under AB-52.

As of July 1, 2015, Public Resources Code Sections 21080.3.1 and 21080.3.2 **require public agencies** to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose mitigating impacts to tribal cultural resources:

> **Within 14 days** of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section. (Public Resources Code Section 21080.3.1(d))

The law does not preclude agencies from initiating consultation with the tribes that are culturally and traditionally affiliated with their jurisdictions. The NAHC believes that in fact that this is the best practice to ensure that tribes are consulted commensurate with the intent of the law.

In accordance with Public Resources Code Section 21080.3.1(d), formal notification must include a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation. The NAHC believes that agencies should also include with their notification letters information regarding any cultural resources assessment that has been completed on the APE, such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

   - A listing of any and all known cultural resources have already been recorded on or adjacent to the APE;
   - Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
   - If the probability is low, moderate, or high that cultural resources are located in the APE.

- Whether the records search indicates a low, moderate or high probability that unrecorded cultural resources are located in the potential APE; and
- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

   - Any report that may contain site forms, site significance, and suggested mitigation measurers.
   - All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure in accordance with Government Code Section 6254.10.

3. The results of any Sacred Lands File (SFL) check conducted through Native American Heritage Commission.

4. Any ethnographic studies conducted for any area including all or part of the potential APE; and

5. Any geotechnical reports regarding all or part of the potential APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS is not exhaustive, and a negative response to these searches does not preclude the existence of a cultural place. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the case that they do, having the information beforehand well help to facilitate the consultation process.

The results of these searches and surveys should be included in the "Tribal Cultural Resources" subsection of the Cultural Resources section of the environmental document submitted for review.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance we are able to assure that our consultation list contains current information.

If you have any questions, please contact me at my email address: gayle.totton@nahc.ca.gov.

Sincerely,

Gayle Totton, M.A., PhD.
Associate Governmental Program Analyst

Native American Heritage Commission
Native American Contact List
Los Angeles County
9/16/2016

Gabrieleno Band of Mission Indians - Kizh Nation
Andrew Salas, Chairperson
P.O. Box 393
Covina, CA, 91723
Phone: (626)926-4131
gabrielenoindians@yahoo.com

Duplicate

Gabrieleno Band of Mission Indians - Kizh Nation
Andrew Salas, Chairperson
P.O. Box 393 Gabrielino
Covina, CA, 91723
Phone: (626)926-4131
gabrielenoindians@yahoo.com

Gabrieleno/Tongva San Gabriel Band of Mission Indians
Anthony Morales, Chairperson
P.O. Box 693 Gabrielino
San Gabriel, CA, 91778
Phone: (626) 483 - 3564
Fax: (626)286-1262
GTTribalcouncil@aol.com

Gabrielino /Tongva Nation
Sandonne Goad, Chairperson
106 1/2 Judge John Aiso St., Gabrielino
#231
Los Angeles, CA, 90012
Phone: (951)807-0479
sgoad@gabrielino-tongva.com

Gabrielino Tongva Indians of California Tribal Council
Robert F. Dorame, Chairperson
P.O. Box 490 Gabrielino
Bellflower, CA, 90707
Phone: (562)761-6417
Fax: (562)761-6417
gtongva@verizon.net

Gabrielino-Tongva Tribe
Linda Candelaria, Co-Chairperson
1999 Avenue of the Stars, Suite Gabrielino
1100
Los Angeles, CA, 90067
Phone: (626) 676 - 1184

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Korean American National Museum, Los Angeles County.

Air Quality and Greenhouse Gas Emissions Study

Prepared for:

Jamison Properties, LP
3470 Wilshire Boulevard, Suite 700
Los Angeles, CA 90010

Prepared by:

DKA Planning
1513 W. Sepulveda Boulevard, Suite D
Torrance, CA 90501

February 2016

PROJECT DESCRIPTION

The site of the proposed Project (the "Project") is located at 605 South Vermont Avenue, Los Angeles, California. The Project includes development of 103 multi-family residential units, 30,000 square feet of museum space for the Korean American National Museum, and a 2,500 square foot coffee shop. Construction would take approximately 17 months.

SCOPE OF WORK

This Air Quality and Greenhouse Gas Emissions Study follows the requirements of CEQA and is based on the Project Description, construction details provided by the Client, and the following tasks:

TASK 1 – CHARACTERIZE EXISTING CONDITIONS

The characterization of the existing conditions will include a description of the regulatory setting, thresholds of significance, and existing sources of emissions relative to the Project site for both Air Quality and Greenhouse Gas Emissions.

TASK 2 – ASSESS CONSTRUCTION IMPACTS

Air Quality: The short-term localized and regional criteria pollutant emissions associated with construction of the Project will be estimated using the CalEEMod 2013.2.2 model. The assessment of construction-related air quality impacts will focus on fugitive dust emissions from earth moving and nitrogen oxides emissions generated by haul trucks and other diesel-fueled construction equipment. Estimated emissions for Project construction will be compared to the South Coast Air Quality Management District's (SCAQMD) daily local and regional construction emissions to determine significance.

The air quality construction assessment will also include a discussion of odors and toxic air contaminants (TAC). The qualitative odor discussion will discuss potential sources of odors. The TAC assessment will qualitatively discuss exposure based on the duration of construction activity.

The consistency of construction impacts with the City of Los Angeles' Air Quality Element, SCAQMD Air Quality Management Plan (AQMP), and other plans and policies will be assessed.

Greenhouse Gases: Direct and indirect greenhouse gas emissions generated during construction activities will be estimated and disclosed.

TASK 3 – ASSESS OPERATIONAL IMPACTS

Air Quality: A thorough assessment of the Project's direct and indirect air quality impacts will be conducted and will include the following:

- Assess the stationary source, area source, and mobile source emissions from operation of the Project, following the occupancy of the Project. The emissions will be compared to the SCAQMD's significance thresholds to determine the

Project's impact on local and regional air quality. Mobile source emissions will be quantified based on the traffic analysis prepared for the Project and using CalEEMod, EMFAC, and other appropriate air quality models.

- Localized concentrations of carbon monoxide along key roadways affected by the Project will be analyzed.

- Project impacts related to odor and TACs will be qualitatively discussed, particularly as odors and TACs could affect off-site sensitive receptors.

- Cumulative impacts of the Project on localized and regional air quality will be evaluated. To that end, the Project's consistency with the AQMP, the City's Air Quality Element, and other relevant documents will be discussed.

Greenhouse Gas Emissions: The Project's direct and indirect greenhouse gas emissions will be assessed, quantified, and converted to CO_2e emissions, using recommended global warming potential conversion factors. The Project's consistency with federal, state, and local climate action plans also will be discussed.

TASK 4 – IDENTIFY MITIGATION MEASURES

If any significant Air Quality or Greenhouse Gas Emissions impacts are identified, mitigation measures will be identified to reduce the emissions to below the applicable significance thresholds, where possible.

AIR QUALITY

Pollutants and Effects

Criteria air pollutants are defined as pollutants for which the federal and State governments have established ambient air quality standards for outdoor concentrations. The federal and State standards have been set at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons from illness or discomfort. Pollutants of concern include carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter 2.5 microns or less in diameter ($PM_{2.5}$), particulate matter ten microns or less in diameter (PM_{10}), and lead (Pb). These pollutants are discussed below.

- Carbon Monoxide (CO) is a colorless and odorless gas formed by the incomplete combustion of fossil fuels. It is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas, automobile exhaust accounts for the majority of emissions. CO is a non-reactive air pollutant that dissipates relatively quickly, so ambient concentrations generally follow the spatial and temporal distributions of vehicular traffic. Concentrations are influenced by local meteorological conditions, primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, a typical situation at dusk in urban areas between November and February. Inversions are an atmospheric condition in which a layer of warm air traps cooler air near the surface of the earth, preventing the normal rising of surface air. The highest concentrations occur during the colder months of the year when inversion conditions are more frequent. CO is a health concern because it competes with oxygen, often replacing it in the blood and reducing the blood's ability to transport oxygen to vital organs. Excess CO exposure can lead to dizziness, fatigue, and impair central nervous system functions.

- Ozone (O_3) is a colorless gas that is formed in the atmosphere when reactive organic gases (ROG) and nitrogen oxides (NO_X) react in the presence of ultraviolet sunlight. O_3 is not a primary pollutant; rather, it is a secondary pollutant formed by complex interactions of two pollutants directly emitted into the atmosphere. The primary sources of ROG and NO_X, the components of O_3, are automobile exhaust and industrial sources. Meteorology and terrain play major roles in O_3 formation. Ideal conditions occur during summer and early autumn, on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. The greatest source of smog-producing gases is the automobile. Short-term exposure (lasting for a few hours) to O_3 at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes.

- Nitrogen Dioxide (NO_2) like O_3, is not directly emitted into the atmosphere but is formed by an atmospheric chemical reaction between nitric oxide (NO) and atmospheric oxygen. NO and NO_2 are collectively referred to as NO_X and are major contributors to O_3 formation. NO_2 also contributes to the formation of PM_{10}. High concentrations of NO_2 can cause breathing difficulties and result in a brownish-red cast to the atmosphere with reduced visibility. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase of bronchitis in children (2-3 years old) has been observed at concentrations below 0.3 ppm.

- Sulfur Dioxide (SO_2) is a colorless, pungent gas formed primarily by the combustion of sulfur-containing fossil fuels. Main sources of SO_2 are coal and oil used in power plants and industries. Generally, the highest levels of SO_2 are found near large industrial complexes. In recent years, SO_2 concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO_2 and limits on the sulfur content of fuels. SO_2 is an irritant gas that attacks the throat and lungs. It can cause acute respiratory symptoms and diminished ventilator function in children. SO_2 can also yellow plant leaves and erode iron and steel.

- Particulate Matter (PM) consists of small liquid and solid particles floating in the air, including smoke, soot, dust, salts, acids, and metals and can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. Fine particulate matter, or $PM_{2.5}$, is roughly 1/28 the diameter of a human hair and results from fuel combustion (e.g. motor vehicles, power generation, industrial facilities), residential fireplaces, and wood stoves. In addition, $PM_{2.5}$ can be formed in the atmosphere from gases such as SO_2, NO_X, and VOC. Inhalable particulate matter, or PM_{10}, is about 1/7 the thickness of a human hair. Major sources of PM_{10} include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions.

  $PM_{2.5}$ and PM_{10} pose a greater health risk than larger-size particles. When inhaled, they can penetrate the human respiratory system's natural defenses and damage the respiratory tract. $PM_{2.5}$ and PM_{10} can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances, such as lead, sulfates, and nitrates can cause lung damage directly. These substances can be absorbed into the blood stream and cause damage elsewhere in the body. These substances can transport absorbed gases, such as chlorides or ammonium, into the lungs and cause injury. Whereas PM_{10} tends to collect in the upper portion of the respiratory system, $PM_{2.5}$ is so tiny that it can penetrate deeper into the lungs and damage lung tissues. Suspended particulates also damage and discolor surfaces on which they settle, as well as produce haze and reduce regional visibility.

- Lead (Pb) in the atmosphere occurs as particulate matter. Sources of lead include leaded gasoline; the manufacturers of batteries, paint, ink, ceramics, and ammunition; and secondary lead smelters. Prior to 1978, mobile emissions were the primary source of atmospheric lead. Between 1978 and 1987, the phase-out of leaded gasoline reduced the overall inventory of airborne lead by nearly 95 percent. With the phase-out of leaded gasoline, secondary lead smelters, battery recycling, and manufacturing facilities have become lead-emission sources of greater concern.

  Prolonged exposure to atmospheric lead poses a serious threat to human health. Health effects associated with exposure to lead include gastrointestinal disturbances, anemia, kidney disease, and in severe cases, neuromuscular and neurological dysfunction. Of particular concern are low-level lead exposures during infancy and childhood. Such exposures are associated with decrements in neurobehavioral performance, including intelligence quotient performance, psychomotor performance, reaction time, and growth.

- Toxic Air Contaminants (TAC) are airborne pollutants that may increase a person's risk of developing cancer or other serious health effects. TACs include over 700 chemical compounds that are identified by State and federal agencies based on a review of available scientific evidence. In California, TACs are identified through a two-step process established in 1983 that includes risk identification and risk management.

Regulatory Setting

Federal

United States Environmental Protection Agency (USEPA). The USEPA is responsible for enforcing the Federal Clean Air Act (CAA), the legislation that governs air quality in the United States. USEPA is also responsible for establishing the National Ambient Air Quality Standards (NAAQS). NAAQS are required under the 1977 CAA and subsequent amendments. USEPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain types of locomotives. USEPA has jurisdiction over emission sources outside State waters (e.g., beyond the outer continental shelf) and establishes emission standards, including those for vehicles sold in States other than California, where automobiles must meet stricter emission standards set by CARB.

As required by the CAA, NAAQS have been established for seven major air pollutants: CO, NO_2, O_3, $PM_{2.5}$, PM_{10}, SO_2, and Pb. The CAA requires USEPA to designate areas as attainment, nonattainment, or maintenance for each criteria pollutant based on whether the NAAQS have been achieved. The federal standards are summarized in Table 1. The USEPA has classified the Los Angeles County portion of the South Coast Air Basin as nonattainment for O_3 and $PM_{2.5}$, attainment for PM_{10}, maintenance for CO, and attainment/unclassified for NO_2.

State

California Air Resources Board (CARB). In addition to being subject to the requirements of the CAA, air quality in California is also governed by more stringent regulations under the California Clean Air Act (CCAA). CARB, which became part of the California Environmental Protection Agency in 1991, is responsible for administering the CCAA and establishing the California Ambient Air Quality Standards (CAAQS). The CCAA, as amended in 1992, requires all air districts in the State to achieve and maintain the CAAQS, which are generally more stringent than the federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles.

CARB has broad authority to regulate mobile air pollution sources, such as motor vehicles. It is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. CARB established passenger vehicle fuel specifications, which became effective in March 1996. CARB oversees the functions of local air pollution control districts and air quality management districts, which, in turn, administer air quality activities at the regional and county levels. The State standards are summarized in Table 1.

TABLE 1:
STATE AND NATIONAL AMBIENT AIR QUALITY STANDARDS AND ATTAINMENT STATUS FOR THE SOUTH COAST AIR BASIN

Pollutant	Averaging Period	California		Federal	
		Standards	Attainment Status	Standards	Attainment Status
Ozone (O_3)	1-hour	0.09 ppm (180 µg/m³)	Nonattainment	--	--
	8-hour	0.070 ppm (137 µg/m³)	/a/	0.075 ppm (147 µg/m³)	Nonattainment
Respirable Particulate Matter (PM_{10})	24-hour	50 µg/m³	Nonattainment	150 µg/m³	Attainment
	Annual Arithmetic Mean	20 µg/m³	Nonattainment	--	--
Fine Particulate Matter ($PM_{2.5}$)	24-hour	--	--	35 µg/m³	Nonattainment
	Annual Arithmetic Mean	12 µg/m³	Nonattainment	12 µg/m³	Nonattainment
Carbon Monoxide (CO)	8-hour	9.0 ppm (10 mg/m³)	Attainment	9 ppm (10 mg/m³)	Maintenance
	1-hour	20 ppm (23 mg/m³)	Attainment	35 ppm (40 mg/m³)	Maintenance
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)	Attainment	53 ppb (100 µg/m³)	Unclassified/ Attainment
	1-hour	0.18 ppm (338 µg/m³)	Attainment	100 ppb (188 µg/m³)	Unclassified/ Attainment
Sulfur Dioxide (SO_2)	24-hour	0.04 ppm (105 µg/m³)	Attainment	--	Attainment
	1-hour	0.25 ppm (655 µg/m³)	Attainment	75 ppb (196 µg/m³)	Attainment
Lead (Pb)	30-day average	1.5 µg/m³	Attainment	--	--
	Calendar Quarter	--	--	0.15 µg/m³	Nonattainment

/a/ CARB has not determined 8-hour O_3 attainment status.
Source: CARB, Ambient Air Quality Standards, and attainment status, accessed October 20, 2014 (www.arb.ca.gov/desig/adm/adm.htm)

The CCAA requires CARB to designate areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data shows that a State standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a State standard and are not used as a basis for designating areas as nonattainment.

Local

South Coast Air Quality Management District (SCAQMD). The 1977 Lewis Air Quality Management Act merged four air pollution control districts to create the SCAQMD to coordinate air quality planning efforts throughout Southern California. It is responsible for monitoring air

quality, as well as planning, implementing, and enforcing programs designed to attain and maintain State and federal ambient air quality standards. Programs include air quality rules and regulations that regulate stationary sources, area sources, point sources, and certain mobile source emissions. The SCAQMD is also responsible for establishing stationary source permitting requirements and for ensuring that new, modified, or relocated stationary sources do not create net emission increases.

The SCAQMD monitors air quality over its jurisdiction of 10,743 square miles, including the South Coast Air Basin, which covers an area of 6,745 square miles and is bounded by the Pacific Ocean to the west; the San Gabriel, San Bernardino and San Jacinto mountains to the north and east; and the San Diego County line to the south. The Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. The SCAQMD also regulates the Riverside County portion of the Salton Sea Air Basin and Mojave Desert Air Basin.

All areas designated as nonattainment under the CCAA are required to prepare plans showing how they will meet the air quality standards. The SCAQMD prepares the Air Quality Management Plan (AQMP) to address CAA and CCAA requirements by identifying policies and control measures. On December 7, 2012, the SCAQMD adopted its 2012 AQMP, which is now the legally enforceable plan for meeting the 24-hour $PM_{2.5}$ strategy standard. The SCAQMD's pending Draft 2016 AQMP will develop strategies to meet the NAAQS for the 8-hour ozone standard by 2032, the annual $PM_{2.5}$ standard by 2021-2025, the 1-hour ozone standard by 2023, and the 24-hour $PM_{2.5}$ standard by 2019.

The Southern California Association of Governments (SCAG) assists by preparing the transportation portion of the AQMP through the adoption of its Regional Transportation Plan (RTP). This includes the preparation of a Sustainable Communities Strategy (SCS) that responds to planning requirements of SB 375 and demonstrates the region's ability to attain greenhouse gas reduction targets set forth in State law.

In its role as the local air quality regulatory agency, the SCAQMD also provides guidance on how environmental analyses should be prepared. This includes recommended thresholds of significance for evaluating air quality impacts.

City of Los Angeles. The City's General Plan includes an Air Quality Element that provides a policy framework that governs air quality planning within the City of Los Angeles. Adopted in November 1992, the Plan includes six goals, 15 objectives, and 30 policies that help define how the City will achieve its clean air goals.

In 2006, the City released its L.A. CEQA Thresholds Guide that provides guidance in the preparation of environmental documents. This included a chapter focusing on air quality. While it didn't set new thresholds of significance for air quality, it did suggest a process for evaluating projects and attempted to standardize analyses through prescribed protocols.

Air Pollution Climatology

The Project site is located within the Los Angeles County non-desert portion of the South Coast Air Basin. The Basin is in an area of high air pollution potential due to its climate and topography. The region lies in the semi-permanent high pressure zone of the eastern Pacific, resulting in a mild climate tempered by cool sea breezes with light average wind speeds. The Basin experiences warm summers, mild winters, infrequent rainfalls, light winds, and moderate humidity. This usually mild

climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. The Basin is a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean to the west and high mountains around the rest of its perimeter. The mountains and hills within the area contribute to the variation of rainfall, temperature, and winds throughout the region.

The Basin experiences frequent temperature inversions that help to form smog. While temperature typically decreases with height, it actually increases under inversion conditions as altitude increases, thereby preventing air close to the ground from mixing with the air above. As a result, air pollutants are trapped near the ground. During the summer, air quality problems are created due to the interaction between the ocean surface and the lower layer of the atmosphere. This interaction creates a moist marine layer. An upper layer of warm air mass forms over the cool marine layer, preventing air pollutants from dispersing upward. Additionally, hydrocarbons and NO_2 react under strong sunlight, creating smog. Light daytime winds, predominantly from the west, further aggravate the condition by driving air pollutants inland toward the mountains.

Air quality problems also occur during the fall and winter, when CO and NO_2 emissions tend to be higher. CO concentrations are generally worse in the morning and late evening (around 10:00 p.m.) when temperatures are cooler. High CO levels during the late evenings result from stagnant atmospheric conditions trapping CO. Since CO emissions are produced almost entirely from automobiles; the highest CO concentrations in the Basin are associated with heavy traffic. NO_2 concentrations are also generally higher during fall and winter days.

Air Monitoring Data

The SCAQMD monitors air quality conditions at 45 locations throughout the Basin. The Project Sites are located in SCAQMD's Central Los Angeles receptor area. Historical data from the area was used to characterize existing conditions in the vicinity of the Project area. Table 2 shows pollutant levels, State and federal standards, and the number of exceedances recorded in the area from 2012 through 2014. The one-hour State standard for O_3 was exceeded three times during this three-year period, the daily State standard for PM_{10} was exceeded eight times while the daily State standard for $PM_{2.5}$ was exceeded five times. CO and NO_2 levels did not exceed the CAAQS from 2012 to 2014.

Toxic Air Pollution

According to the SCAQMD's Multiple Air Toxics Exposure Study IV (MATES IV), the incidence of cancer over a lifetime in the US population is about 1 in 4, to 1 in 3, which translates into a risk of about 300,000 in 1 million (SCAQMD 2015). One study, the *Harvard Report on Cancer Prevention*, estimated that, of cancers associated with known risk factors, about 30 percent were related to tobacco, about 30 percent were related to diet and obesity, and about 2 percent were associated with environmental pollution related exposures (Harvard 1996). The potential cancer risk for a given substance is expressed as the incremental number of potential excess cancer cases per million people over a 70-year lifetime exposure at a constant annual average pollutant concentration. The risks are usually presented in chances per million. For example, if the cancer risks were estimated to be 100 per million, this would predict an additional 100 excess cases of cancer in a population of 1 million people over a 70-year lifetime.

TABLE 2: 2012-2014 AMBIENT AIR QUALITY DATA IN PROJECT VICINITY				
Pollutant	**Pollutant Concentration & Standards**	**Central Los Angeles**		
		2012	**2013**	**2014**
Ozone	Maximum 1-hour Concentration (ppm)	0.093	0.081	0.113
	Days > 0.09 ppm (State 1-hour standard)	0	0	3
	Days > 0.075 ppm (Federal 8-hour standard)	1	0	2
Carbon Monoxide	Maximum 1-hour Concentration (ppm)	N/A	N/A	N/A
	Days > 20 ppm (State 1-hour standard)	N/A	N/A	N/A
	Maximum 8-hour Concentration (ppm)	1.9	2.0	2.0
	Days > 9.0 ppm (State 8-hour standard)	0	0	0
Nitrogen Dioxide	Maximum 1-hour Concentration (ppm)	0.0773	0.0903	0.0821
	Days > 0.18 ppm (State 1-hour standard)	0	0	0
PM_{10}	Maximum 24-hour Concentration ($\mu g/m^3$)	80	57	66
	Days > 50 $\mu g/m^3$ (State 24-hour standard)	4	1	3
$PM_{2.5}$	Maximum 24-hour Concentration ($\mu g/m^3$)	58.7	43.1	N/A
	Days > 35 $\mu g/m^3$ (Federal 24-hour standard)	4	1	N/A
Sulfur Dioxide	Maximum 24-hour Concentration (ppm)	N/A	N/A	N/A
	Days > 0.04 ppm (State 24-hour standard)	N/A	N/A	N/A
Source: SCAQMD annual monitoring data (www.aqmd.gov/home/library/air-quality-data-studies/historical-data-by-year) accessed October 25, 2015. N/A: Not available at this monitoring station.				

As part of the SCAQMD's environmental justice initiatives adopted in late 1997, the SCAQMD adopted the MATES IV study in May 2015, which was a follow-up to the previous MATES I, II, and III air toxics studies conducted in the Basin. The MATES IV study was based on monitored data throughout the Basin and included a monitoring program, an updated emissions inventory of TACs, and a modeling effort to characterize carcinogenic risk across the Basin from exposure to TACs. The MATES IV study applied a 2-kilometer (1.24-mile) grid over the Basin and reported carcinogenic risk within each grid space (each covering an area of 4 square kilometers or 1.54 square miles). The study concluded that the average of the modeled air toxics concentrations measured at each of the monitoring stations in the Basin equates to a background cancer risk of approximately 897 in 1 million primarily due to diesel exhaust particulate matter (DPM). Using the MATES IV methodology, about 94 percent of the cancer risk is attributed to emissions associated with mobile sources, and about 6 percent of the risk is attributed to toxics emitted from stationary sources, which include industries, and businesses such as dry cleaners and chrome plating operations. The MATES IV study found lower ambient concentrations of most of the measured air toxics, as compared to the levels measured in the previous MATES III study finalized in September 2008.

Existing Emissions

The Project site includes a surface parking lot. To ensure a conservative analysis, this analysis assumes that the parking lot does not independently generate criteria pollutant emissions.

Sensitive Receptors

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. CARB has identified the following typical groups

who are most likely to be affected by air pollution: children under 14; the elderly over 65 years of age; athletes; and people with cardiovascular and chronic respiratory diseases. According to the SCAQMD, sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes.

There are several existing or reasonably foreseeable sensitive receptors near the Project site, including:

- Wilshire Vermont Station Apartments, 3185 Wilshire Boulevard; 75 feet west of the Project site. There are numerous other multi-family residential buildings on the east side of Manhattan Place with similar exposures to short-term emissions
- Young Oak Kim Academy, east of the Project site.
- Ambassador Apartments, Multi-family residences, 618 South New Hampshire Avenue; 92 feet northwest of the Project site.
- Multi-family residences, 781 Western Avenue; 120 feet south of the Project site.

III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the Project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. The proposed residential land use would neither conflict with the SCAQMD's 2012 Air Quality Management Plan (AQMP) nor jeopardize the region's attainment of air quality standards. The AQMP focuses on achieving clean air standards while accommodating population growth forecasts by the Southern California Association of Governments (SCAG). Specifically, SCAG's growth forecasts from the 2012 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) are largely built off local growth forecasts from local governments like the City of Los Angeles. The 2012 RTP/SCS accommodates up to 3,991,700 persons; 1,455,700 households; and 1,817,700 jobs in the City of Los Angeles by 2020. The Draft 2016 RTP/SCS, released for public review on December 4, 2015, accommodates 4,609,400 persons; 1,690,300 households; and 2,169,100 jobs by 2040.

The Project site is located in the City's Wilshire Community Plan area. The Community Plan implements land use standards of the General Plan Framework at the local level. The Project is consistent with the City's projected growth capacity for the Community Plan area, which accommodated a projected population of 337,144 persons and housing base of 138,330 units by 2010.[1] The City has not updated projections beyond 2010 for the Community Plan area.

The Project could add 251 residents to the Plan area, which would marginally increase population in the South Coast Air Basin. The Project site is classified as "Regional Center Commercial" in the Community Plan, a zoning classification that conditionally allows residential uses. As such, the RTP/SCS' assumptions about growth in the City accommodate housing and population growth on this site. As such, the Project does not conflict with the population-based growth assumptions in the regional air plan and this impact is considered less than significant.

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[1] *City of Los Angeles, Wilshire Community Plan, www.cityplanning.lacity.org/complan/pdf/wilcptxt.pdf. 1998.*

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less Than Significant with Mitigation Incorporated. Construction-related emissions were estimated using the South Coast Air Quality Management District's (SCAQMD's) CalEEMod 2013.2.2 model using assumptions from the Project's developer, including the Project's construction schedule of 17 months. Table 4 summarizes the proposed construction schedule that was modeled for air quality impacts.

TABLE 4:
PROPOSED CONSTRUCTION SCHEDULE

Phase	Duration	Notes
Demolition	7/1/16-7/15/16	2,900 tons of debris hauled off-site
Site Preparation	7/16/16-7/31/16	
Grading	8/1/16-8/31/16	36,076 cubic yards of export
Building Construction	9/1/16-12/1/17	
Architectural Coatings	8/1/17-11/1/17	
Source: DKA Planning, 2016		

As shown in Table 5, the construction of the Project would produce VOC, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$ emissions that do not exceed the SCAQMD's regional thresholds. Further, any concurrent work on phases during the construction period would not result in exceedances of these recommended thresholds. As a result, construction of the Project would not contribute substantially to an existing violation of air quality standards for regional pollutants (e.g., ozone). This impact is considered less than significant.

In terms of local air quality, the Project would not produce emissions that exceed the SCAQMD's recommended localized standards of significance for NO_2 and CO during the construction phase. However, construction activities would produce PM_{10} and $PM_{2.5}$ emissions that exceed localized thresholds recommended by the SCAQMD. As a result, construction impacts on localized air quality are considered significant but mitigable.

TABLE 5:
ESTIMATED DAILY CONSTRUCTION EMISSIONS BY PHASE - UNMITIGATED

	Pounds Per Day					
Construction Phase	**VOC**	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Demolition						
On-Site Emissions	<1	5	4	<1	6	1
Off-Site Emissions	<1	6	5	<1	<1	<1
Total Emissions	1	11	9	<1	6	1
Site Preparation						
On-Site Emissions	2	19	10	<1	1	1
Off-Site Emissions	<1	<1	<1	<1	<1	<1
Total Emissions	2	19	10	<1	1	1
Grading						
On-Site Emissions	5	52	33	<1	7	5
Off-Site Emissions	3	45	38	<1	3	1

TABLE 5: ESTIMATED DAILY CONSTRUCTION EMISSIONS BY PHASE - UNMITIGATED						
Total Emissions	8	97	71	<1	11	6
Building Construction						
On-Site Emissions	3	18	12	<1	1	1
Off-Site Emissions	<1	2	7	<1	1	<1
Total Emissions	3	20	19	<1	2	1
Architectural Coatings						
On-Site Emissions	19	4	4	<1	<1	<1
Off-Site Emissions	<1	<1	1	<1	<1	<1
Total Emissions	19	4	5	<1	<1	<1
Maximum Regional Total	19	97	71	<1	11	6
Regional Significance Threshold	75	100	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No
Maximum Localized Total	19	52	33	<1	7	5
Localized Significance Threshold	--	74	680	--	5	3
Exceed Threshold?	No	No	No	No	Yes	Yes

Source: DKA Planning, 2016 based on CalEEMod 2013.2.2 model runs. LST analyses based on 1 acre site with 25 meter distances to receptors in Central Los Angeles source receptor area.

Mitigation Measures AQ-1 through AQ-4 (below) call for the use of readily-available construction equipment that uses EPA-certified Tier 4 engines to reduce combustion-related $PM_{2.5}$ (and PM_{10}) emissions. Mitigation Measure AQ-5 addresses fugitive dust emissions of PM_{10} and $PM_{2.5}$ that would be regulated by SCAQMD Rule 403, which calls for Best Available Control Measures (BACM) that include watering portions of the site that are disturbed during grading activities and minimizing tracking of dirt onto local streets. It should be noted that Table 5 conservatively does not assume the application of BACMs to control fugitive dust.

The Project also would produce long-term air quality emissions in the region primarily from motor vehicles that access the Project site. The Project could add up to 997 net weekday vehicle trips to and from the Project site on a peak weekday at the start of operations in 2018.[2] Operational emissions would not exceed SCAQMD's regional significance thresholds for VOC, NO_X, CO, PM_{10}, and $PM_{2.5}$ emissions (Table 6). As a result, the Project's operational impacts on regional air quality are considered less than significant.

With regard to localized air quality impacts, the Project would emit minimal emissions of NO_2, CO, PM_{10}, and $PM_{2.5}$ from area and energy sources on-site. As shown in Table 6, these localized emissions would not approach the SCAQMD's localized significance thresholds that signal when there could be human health impacts at nearby sensitive receptors during long-term operations. The Project's operational impacts on localized air quality are considered less than significant.

[2] *DKA Planning, based on CalEEMod 2013.2.2 model analysis.*

TABLE 6: ESTIMATED DAILY OPERATIONS EMISSIONS						
	Pounds per Day					
Emission Source	**VOC**	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Area Sources	3	<1	9	<1	<1	<1
Energy Sources	<1	<1	<1	<1	<1	<1
Mobile Sources	4	9	38	<1	7	2
Total Operations	**6**	**10**	**47**	**<1**	**7**	**2**
Regional Significance Threshold	55	55	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No
Net Localized Total	**3**	**<1**	**9**	**<1**	**<1**	**<1**
Localized Significance Threshold	-	74	680	-	2	2
Exceed Threshold?	N/A	No	No	N/A	No	No

Source: DKA Planning 2016 based on CalEEMod 2013.2.2 model runs. LST analyses based on 1 acre site with 25 meter distances to receptors in Central Los Angeles source receptor area.

Mitigation Measures

To ensure that the Project would not result in any significant localized air quality impacts during construction, the following mitigation measures are required (refer to Table 5):

AQ-1 All off-road construction equipment greater than 50 hp shall meet U.S. EPA Tier 4 emission standards, where available, to reduce NO_x, PM_{10}, and $PM_{2.5}$ emissions at the Project site. In addition, all construction equipment shall be outfitted with Best Available Control Technology devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.

AQ-2 Require the use of 2010 and newer diesel haul trucks (e.g., material delivery trucks and soil import/export) and if the Lead Agency determines that 2010 model year or newer diesel trucks cannot be obtained, the Lead Agency shall require trucks that meet U.S. EPA 2007 model year NO_x emissions requirements.

AQ-3 At the time of mobilization of each applicable unit of equipment, a copy of each unit's certified tier specification, BACT documentation, and CARB or SCAQMD operating permit shall be provided.

AQ-4 Encourage construction contractors to apply for SCAQMD "SOON" funds. Incentives could be provided for those construction contractors who apply for SCAQMD "SOON" funds. The "SOON" program provides funds to accelerate clean up of off-road diesel vehicles, such as heavy duty construction equipment. More information on this program can be found at: http://www.aqmd.gov/home/programs/business/business-detail?title=off-road- diesel-engines&parent=vehicle-engine-upgrades.

AQ-5 Construction activities shall comply with SCAQMD Rule 403, including the following measures:

- Apply water to disturbed areas of the site three times a day
- Require the use of a gravel apron or other equivalent methods to reduce mud and dirt trackout onto truck exit routes
- Appoint a construction relations officer to act as a community liaison concerning on-site construction activity including resolution of issues related to PM generation.
- Limit soil disturbance to the amounts analyzed in the Final MND.
- All materials transported off-site shall be securely covered.
- Apply non-toxic soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for ten days or more).
- Traffic speeds on all unpaved roads to be reduced to 15 mph or less.

AQ-6 Architectural coatings and solvents applied during construction activities shall comply with SCAQMD Rule 1113, which governs the VOC content of architectural coatings.

As shown in Table 7, implementation of Mitigation Measures AQ-1 through AQ-6 would substantially reduce PM_{10} and $PM_{2.5}$ emissions during the grading phase below SCAQMD significance thresholds. Resulting emissions would be considered less than significant.

TABLE 7:
ESTIMATED DAILY CONSTRUCTION EMISSIONS BY PHASE - MITIGATED

Construction Phase	Pounds Per Day					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Demolition						
On-Site Emissions	<1	<1	4	<1	2	<1
Off-Site Emissions	<1	6	5	<1	<1	<1
Total Emissions	<1	6	9	<1	2	<1
Site Preparation						
On-Site Emissions	<1	1	10	<1	<1	<1
Off-Site Emissions	<1	<1	<1	<1	<1	<1
Total Emissions	<1	1	11	<1	<1	<1
Grading						
On-Site Emissions	1	13	33	<1	2	1
Off-Site Emissions	2	34	27	<1	2	1
Total Emissions	3	47	60	<1	4	2
Building Construction						
On-Site Emissions	1	5	31	<1	2	1
Off-Site Emissions	3	45	38	<1	3	1
Total Emissions	4	50	69	<1	4	2
Architectural Coatings						
On-Site Emissions	18	<1	4	<1	<1	<1
Off-Site Emissions	<1	<1	1	<1	<1	<1
Total Emissions	18	<1	5	<1	<1	<1

TABLE 7: ESTIMATED DAILY CONSTRUCTION EMISSIONS BY PHASE - MITIGATED						
Maximum Regional Total	18	50	69	<1	4	2
Regional Significance Threshold	75	100	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No
Maximum Localized Total	18	13	33	<1	2	1
Localized Significance Threshold	--	74	680	--	5	3
Exceed Threshold?	No	No	No	No	No	No
Source: DKA Planning, 2016 based on CalEEMod 2013.2.2 model runs. LST analyses based on 1 acre site with 25 meter distances to receptors in Central Los Angeles source receptor area.						

During the construction process, the building construction and architectural coatings processes could overlap at times between August 1, 2017 to November 1, 2017. While these could increase daily emissions if both activities occurred on the same day, such a worst-case scenario would still not exceed daily thresholds of significance established by the SCAQMD. As illustrated in Table 8, daily emissions in any of the two calendar years in which construction occurs would not exceed regional thresholds for criteria pollutants. Similarly, localized thresholds of significance would not be exceeded during these two potential periods of construction when overlap of phases could occur.

TABLE 8: MAXIMUM DAILY CONSTRUCTION EMISSIONS - MITIGATED						
	Pounds Per Day					
Construction Phase	**VOC**	**NOx**	**CO**	**SOx**	**PM_{10}**	**$PM_{2.5}$**
2016	8	97	70	<1	11	6
2017	22	23	23	<1	3	2
Regional Significance Threshold	75	100	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No
Maximum Localized Total	19	5	35	<1	2	1
Localized Significance Threshold	--	74	680	--	5	3
Exceed Threshold?	No	No	No	No	No	No
Source: DKA Planning, 2016 based on CalEEMod 2013.2.2 model runs. LST analyses based on 1 acre site with 25 meter distances to receptors in Central Los Angeles source receptor area.						

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Less Than Significant with Mitigation Incorporated. For regional ozone precursors, the Project would not exceed SCAQMD mass emission thresholds for ozone precursors during construction. As such, the Project's impact on cumulative ozone precursor emissions would be considered less than significant. Similarly, regional emissions of PM_{10} and $PM_{2.5}$ would not exceed mass thresholds established by the SCAQMD; therefore, construction emissions impacts would be considered less than significant.

When considering local impacts, cumulative construction emissions are considered when projects are within close proximity of each other that could result in larger impacts on local sensitive receptors. If any other proposed projects were to undertake construction concurrently with the proposed Project, localized CO, $PM_{2.5}$, PM_{10}, and NO_2 concentrations would not exceed ambient air quality standards at nearby receptors. The application of LST thresholds to each cumulative project in the local area would help ensure that each project does not produce localized hotspots of CO, $PM_{2.5}$, PM_{10}, and NO_2. Any projects that would exceed LST thresholds would perform dispersion modeling to confirm whether health-based air quality standards would be violated and mitigate any significant localized emissions accordingly. Receptors that are located further away would not be threatened with exceedances of health-based standards, and emissions significantly disperse as a function of atmospheric stability, mixing heights, and other variables, with distance a critical factor. The SCAQMD's LST thresholds recognize the influence of a receptor's proximity, setting LST mass emissions thresholds that generally double with every doubling of distance. As such, the cumulative impact of construction projects on local sensitive receptors would be considered less than significant (refer to Table 5).

Construction of the Project would produce cumulative considerable emissions of localized nonattainment pollutants PM_{10} and $PM_{2.5}$, as the anticipated emissions wouldn't exceed LST thresholds set by the SCAQMD. However, implementation of Mitigation Measures AQ-1 through AQ-6 would ensure that these impacts would be less than significant.

As for cumulative operational impacts, the proposed land use will not produce cumulatively considerable emissions of nonattainment pollutants at the regional or local level. Because the Project's air quality impacts would not exceed the SCAQMD's operational thresholds of significance as noted in Table 6, the Project's impacts on cumulative emissions of non-attainment pollutants is considered less than significant. The Project is a residential, museum, and coffee shop project that does not include major sources of combustion or fugitive dust. As a result, its localized emissions of PM_{10} and $PM_{2.5}$ would be minimal. Similarly, existing land uses in the area include residential and commercial land uses that do not produce substantial emissions of localized nonattainment pollutants.

d) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant with Mitigation Incorporated. Construction of the Project would not produce air emissions that significantly impact several existing sensitive receptors near the Project Site, including the following:

- Wilshire Vermont Station Apartments, 3185 Wilshire Boulevard; 75 feet west of the Project site. There are numerous other multi-family residential buildings on the east side of Manhattan Place with similar exposures to short-term emissions
- Young Oak Kim Academy, east of the Project site.
- Ambassador Apartments, Multi-family residences, 618 South New Hampshire Avenue; 92 feet northwest of the Project site.

- Multi-family residences, 781 Western Avenue; 120 feet south of the Project site.

As illustrated on Table 5, these nearby receptors could be exposed to substantial concentrations of localized pollutants PM_{10} and $PM_{2.5}$ from construction of the Project. Specifically, construction activities would exceed SCAQMD LST thresholds for PM_{10} and $PM_{2.5}$ and represent significant but mitigable impact. However, implementation of Mitigation Measures AQ-1 through AQ-6 would implement SCAQMD Rule 403 and enforce its regulations regarding VOC content for architectural coatings. As such, construction impacts would be less than significant.

The Project would generate long-term emissions from mobile sources that would generate negligible pollutant concentrations of CO, NO_2, $PM_{2.5}$, or PM_{10} at sensitive receptors and would be considered less than significant. Long-term operations of the Project would not result in exceedances of CO air quality standards at roadways in the area. This is due to three key factors. First, CO hotspots are extremely rare and only occur in the presence of unusual atmospheric conditions and extremely cold conditions, neither of which applies to this Project area. Second, auto-related emissions of CO continue to decline because of advances in fuel combustion technology in the vehicle fleet. Finally, the Project would not contribute to the levels of congestion that would be needed to produce the amount of emissions needed to trigger a potential CO hotspot.

Screening analysis guidelines for localized CO hotspot analyses from Caltrans recommend that projects in CO attainment areas focus on emissions from traffic intersections where air quality may get worse.[3] Specifically, projects that significantly increase the percentage of vehicles operating in cold start mode, significantly increase traffic volumes, or worsen traffic flow should be considered for more rigorous CO modeling. Traffic levels of service in the vicinity of the Project would not be significantly impacted by traffic volumes from the development under existing or 2018 horizon scenarios. In addition, the Project would not significantly increase the percentage of vehicles operating in cold start mode or substantially worsen traffic flow.

Finally, the Project would not result in any substantial emissions of TACs during the construction or operations phase. During the construction phase, the primary air quality impacts would be associated with the combustion of diesel fuels, which produce exhaust-related particulate matter that is considered a toxic air contaminant by CARB based on chronic exposure to these emissions.[4] However, construction activities would not produce chronic, long-term exposure to diesel particulate matter. During long-term project operations, the Project does not include typical sources of acutely and chronically hazardous TACs such as industrial manufacturing processes and automotive repair facilities. As a result, the Project would not create substantial concentrations of TACs. In addition, the SCAQMD recommends that health risk assessments be conducted for substantial sources of diesel particulate emissions (e.g., truck stops and warehouse distribution facilities) and has provided guidance for analyzing mobile source diesel emissions.[5] The Project would not generate a substantial number of truck trips. Based on the limited activity of TAC sources, the Project would not warrant the need for a health risk assessment associated with on-site activities. Therefore, Project impacts related to TACs would be less than significant.

e) Create objectionable odors affecting a substantial number of people?

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3 *Caltrans, Transportation Project-Level Carbon Monoxide Protocol, updated October 13, 2010.*

4 *California Office of Environmental Health Hazard Assessment. Health Effects of Diesel Exhaust. www. http://oehha.ca.gov/public_info/facts/dieselfacts.html*

5 *SCAQMD, Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Emissions, December 2002.*

Less Than Significant Impact. The Project would introduce residential, museum, and coffee shop land uses to the area but would not result in activities that create objectionable odors. It would not include any land uses typically associated with unpleasant odors and local nuisances (e.g., rendering facilities, dry cleaners). SCAQMD regulations that govern nuisances (i.e., Rule 402, Nuisances) would regulate any occasional odors associated with on-site uses, such as the proposed coffee shop. As a result, any odor impacts from the Project would be considered less than significant.

GREENHOUSE GAS EMISSIONS

VII. GREENHOUSE GAS EMISSIONS – Would the Project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact. The global nature of climate change creates unique challenges for assessing a project's climate change impact under CEQA, which focuses on cause and effect. When compared to the cumulative inventory of greenhouse gas (GHG) emissions across the globe, a single project's impact will be negligible. However, there is debate about whether a project's emissions are adding to the net emissions worldwide, or simply redistributing emissions that would have occurred anyway somewhere in the world.

Climate change analyses are also unique because emitting CO_2 into the atmosphere is not itself an adverse environmental effect. It is the increased concentration of CO_2 in the atmosphere resulting in global climate change and the associated consequences of climate change that results in adverse environmental affects (e.g., sea level rise, loss of snowpack, severe weather events). Although it is possible to estimate a project's incremental contribution of CO_2 into the atmosphere, it is typically not possible to determine whether or how an individual project's relatively small incremental contribution might translate into physical effects on the environment.

Pollutants and Effects

Various gases in the Earth's atmosphere, classified as atmospheric GHG emissions, play a critical role in determining the Earth's surface temperature. Solar radiation entering Earth's atmosphere is absorbed by the Earth's surface. When the Earth emits this radiation back toward space, the radiation changes from high-frequency solar radiation to lower-frequency infrared radiation. GHG emissions are transparent to solar radiation and absorb infrared radiation. As a result, radiation that otherwise would escape back into space is now retained, warming the atmosphere. This phenomenon is known as the greenhouse effect.

GHG emissions that contribute to the greenhouse effect include:

- Carbon Dioxide (CO_2) is released to the atmosphere when solid waste, fossil fuels (oil, natural gas, and coal), and wood and wood products are burned. CO_2 emissions from motor vehicles occur during operation of vehicles and operation of air conditioning systems. CO_2 comprises over 80 percent of GHG emissions in California.[6]

- Methane (CH_4) is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from the decomposition of organic waste in solid waste landfills, raising livestock, natural gas and petroleum systems, stationary and mobile combustion, and wastewater treatment. Mobile sources represent 0.5 percent of overall methane emissions.[7]

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6 *California Environmental Protection Agency, Climate Action Team Report to Governor Schwarzenegger and the Legislature, March 2006, p. 11.*

7 *United States Environmental Protection Agency, Inventory of U.S. Greenhouse Gas Emissions and Sinks, 1990-2003, April 2005 (EPA 430-R-05-003).*

- Nitrous Oxide (N_2O) is emitted during agricultural and industrial activities, as well as during combustion of solid waste and fossil fuels. Mobile sources represent about 14 percent of N_2O emissions.[8] N_2O emissions from motor vehicles generally occur directly from operation of vehicles.

- Hydrofluorocarbons (HFCs) are one of several high global warning potential (GWP) gases that are not naturally occurring and are generated from industrial processes. HFC (refrigerant) emissions from vehicle air conditioning systems occur due to leakage, losses during recharging, or release from scrapping vehicles at end of their useful life.

- Perfluorocarbons (PFCs) are another high GWP gas that are not naturally occurring and are generated in a variety of industrial processes. Emissions of PFCs are generally negligible from motor vehicles.
- Sulfur Hexafluoride (SF_6) is another high GWP gas that is not naturally occurring and are generated in a variety of industrial processes. Emissions of SF_6 are generally negligible from motor vehicles.

For most non-industrial development projects, motor vehicles make up the bulk of GHG emissions, particularly carbon dioxide, methane, nitrous oxide, and HFCs.[9] As illustrated in Table 7, the other GHG emissions are less abundant but have higher GWP than CO_2. To account for this higher potential, emissions of other GHG emissions are frequently expressed in the equivalent mass of CO_2, denoted as CO_2e. Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted. High GWP gases such as HFCs, PFCs, and SF_6 are the most heat-absorbent.

TABLE 7:
GLOBAL WARMING POTENTIAL FOR GREENHOUSE GASES

Greenhouse Gas	Global Warming Potential (100-Year)
Carbon Dioxide (CO_2)	1
Methane (CH_4)	28
Nitrous Oxide (N_2O)	265
Perfluorocarbons (PFCs)	7,000-11,000
Hydrofluorocarbons (HFCs)	100-12,000
Sulfur Hexafluoride (SF_6)	23,500

Source: California Air Resources Board, First Update to the Climate Change Scoping Plan. May 2014.

The effects of increasing global temperature are far-reaching and difficult to quantify. If the temperature of the ocean warms, it is anticipated that the winter snow season would be shortened. Snowpack in the Sierra Nevada provides both water supply (runoff) and storage (within the snowpack before melting), which is a major source of supply for the state. According to a California Energy Commission report, the snowpack portion of the supply could potentially decline by 70 to 90 percent by the end of the 21st century. This phenomenon could lead to significant

8 *United States Environmental Protection Agency, U.S. Adipic Acid and Nitric Acid N2O Emissions 1990-2020: Inventories, Projections and Opportunities for Reductions, December 2001*

9 *California Air Resources Board, Climate Change Emission Control Regulations, 2004*

challenges securing an adequate water supply for a growing state population. Further, the increased ocean temperature could result in increased moisture flux into the state; however, since this would likely increasingly come in the form of rain rather than snow in the high elevations, increased precipitation could lead to increased potential and severity of flood events, placing more pressure on California's levee/flood control system. Sea level has risen approximately seven inches during the last century and, according to the CEC report, it is predicted to rise an additional 22 to 35 inches by 2100, depending on the future GHG emissions levels. If this occurs, resultant effects could include increased coastal flooding, saltwater intrusion and disruption of wetlands. As the existing climate throughout California changes over time, mass migration of species, or worse, failure of species to migrate in time to adapt to the perturbations in climate, could also result.

While efforts to reduce the rate of GHG emissions continue, the State has developed a strategy to adapt the State's infrastructure to the impacts of climate change. The 2009 California Climate Adaptation Strategy (the "Strategy") analyzes risks and vulnerabilities and proposes strategies to reduce risks. The Strategy begins what will be an ongoing process of adaptation, as directed by Governor Schwarzenegger's Executive Order S-13-08. The Strategy analyzes two components of climate change: (1) projecting the amount of climate change that may occur using computer-based global climate models and (2) assessing the natural or human systems' abilities to cope with and adapt to change by examining past experience with climate variability and extrapolating from this to understand how the systems may respond to the additional impact of climate change. The Strategy's key preliminary adaptation recommendations include:

- Appointment of a Climate Adaption Advisory Panel;
- Improved water management in anticipation of reduced water supplies, including a 20 percent reduction in per capita water use by 2020 from 2011 levels;
- Consideration of project alternatives that avoid significant new development in areas that cannot be adequately protected from flooding due to climate change;
- Preparation of agency-specific adaptation plans, guidance or criteria by September 2010;
- Consideration of climate change impacts for all significant State projects;
- Assessment of climate change impacts on emergency preparedness;
- Identification of key habitats and development of plans to minimize adverse effects from climate change;
- Development of guidance by the California Department of Public Health by September 2010 for use by local health departments to assess adaptation strategies;
- Amendment of General Plans and Local Coastal Plans to address climate change impacts and to develop local risk reduction strategies; and
- Inclusion of climate change impact information into fire program planning by State fire fighting agencies.

Regulatory Setting

International

Kyoto Protocol

In 1988, the United Nations established the Intergovernmental Panel on Climate Change to evaluate the impacts of global warming and to develop strategies that nations could implement to curtail global climate change. In 1992, the United States (the "U.S.") joined other countries around the world in signing the United Nations' Framework Convention on Climate Change (the "UNFCCC") agreement with the goal of controlling greenhouse gas emissions. As a result, the Climate Change

Action Plan was developed to address the reduction of GHG emissions in the U.S. The plan currently consists of more than 50 voluntary programs for member nations to adopt.

The Kyoto Protocol (the "Protocol") is a treaty made under the UNFCCC and was the first international agreement to regulate GHG emissions. Some have estimated that if the commitments outlined in the Protocol are met, global GHG emissions could be reduced an estimated five percent from 1990 levels during the first commitment period of 2008-2012. Notably, while the U.S. is a signatory to the Kyoto protocol, Congress has not ratified the Protocol and the U.S. is not bound by the Protocol's commitments. In December 2009, international leaders from 192 nations met in Copenhagen to address the future of international climate change commitments post-Protocol.

The major feature of the Protocol is that it sets binding targets for 37 industrialized countries and the European community for reducing GHG emissions. The targets amount to an average of five percent reduction levels against 1990 levels over the five-year period 2008-2012. The major distinction between the Protocol and the UNFCCC is that while the UNFCCC encouraged industrialized countries to stabilize GHG emissions, the Protocol commits them to do so. Recognizing that developed countries are principally responsible for the current high levels of GHG emissions in the atmosphere as a result of more than 150 years of industrial activity, the Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities."

On December 12, 2015, a Conference of the Parties to the UNFCCC and the 11th session of the Kyoto Protocol negotiated an agreement in Paris that would keep the rise of temperature below 2 degrees Celsius. While 186 countries published their action plans detailing how they plan to reduce their GHG emissions, these reductions would still result in up to 3 degrees Celsius of global warming. The Paris agreement asks all countries to review their plans every five years from 2020, acknowledges that $100 billion is needed each year to enable countries to adapt to climate change. The agreement would be signed into law on April 22, 2016 and would require ratification by 55 countries representing 55 percent of emissions.

The Western Regional Climate Action Initiative (WCI)

The Western Regional Climate Action Initiative (the "WCI") is a partnership among seven states, including California, and four Canadian provinces to implement a regional, economy-wide cap-and-trade system to reduce global warming pollution. The WCI will cap GHG emissions from the region's electricity, industrial, and transportation sectors with the goal to reduce the heat trapping emissions that cause global warming to 15 percent below 2005 levels by 2020. When the WCI adopted this goal in 2007, it estimated that this would require 2007 levels to be reduced worldwide between 50 percent and 85 percent by 2050. California is working closely with the other states and provinces to design a regional GHG reduction program that includes a cap-and-trade approach. The California Air Resources Board's (CARB) planned cap and-trade program, discussed below, is also intended to link California and the other member states and provinces.

Federal

The U.S. Environmental Protection Agency (the "USEPA") has historically not regulated GHG emissions because it determined the Clean Air Act did not authorize it to regulate emissions that addressed climate change. In 2007, the U.S Supreme Court found that GHG emissions could be

considered within the Clean Air Act's definition of a pollutant.[10] In December 2009, USEPA issued an endangerment finding for GHG emissions under the Clean Air Act, setting the stage for future regulation. In September 2009, the National Highway Traffic Safety Administration and USEPA announced a joint rule that would tie fuel economy to GHG emission reduction requirements. By 2016, this could equate to an overall light-duty vehicle fleet average fuel economy of 35.5 miles per gallon.

In June 2013, President Obama announced a Climate Action Plan that calls for a number of initiatives, including funding $8 billion in advanced fossil energy efficiency projects, calls for federal agencies to develop new emission standards for power plants, invests in renewable energy sources, calling for adaptation programs, and leading international efforts to address climate change. In September 2013, USEPA announced its first steps to implement a portion of the Obama Climate Action Plan by proposing carbon pollution standards for new power plants. These proposals are undergoing the rulemaking process as of Fall 2013.

Vehicle Standards

Other regulations have been adopted to address vehicle standards including the USEPA and National Highway Traffic Safety Administration (the "NHTSA") joint rulemaking for vehicle standards.

- On March 30, 2009, the NHTSA issued a final rule for model year 2011.[11]
- On May 7, 2010, the USEPA and the NHTSA issued a final rule regulating fuel efficiency and GHG emissions pollution from motor vehicles for cars and light-duty trucks for model years 2012–2016.[12]
- On August 9, 2011, USEPA and NHTSA issued a Supplemental Notice of Intent announcing plans to propose stringent, coordinated federal GHG emissions and fuel economy standards for model year 2017-2025 light-duty vehicles.[13]
- NHSTA intends to set standards for model years 2022-2025 in a future rulemaking.[14]
- In addition to the regulations applicable to cars and light-duty trucks, on August 9, 2011, the USEPA and the NHTSA announced fuel economy and GHG emissions standards for medium- and heavy-duty trucks that applies to vehicles from model year 2014–2018.[15]

Energy Independence and Security Act (the "EISA")

Among other key measures, the EISA would do the following, which would aid in the reduction of national GHG emissions, both mobile and non-mobile:

1) Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard (RFS) requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.

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10 *Massachusetts v. Environmental Protection Agency et al (127 S. Ct. 1438 [2007])*

11 *NHSTA. 2009. Average Fuel Economy Standards Passenger Cars and Light Trucks Model Year 2011, Final Rule. 75 Fed. Reg. 25324.*

12 *USEPA. 2010. Light Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards, Final Rule. 75 Fed. Reg. 25324.*

13 *Available http://www.gpo.gov/fdsys/pkg/FR-2011-08-09/pdf/2011-19905.pdf. Accessed November 2011.*

14 *NHSTA. 2012. 2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards. 77 Fed. Reg. 62624.*

15 *USEPA Office of Transportation and Air Quality. 2011. EPA and NHTSA Adopt First-Ever Program to Reduce Greenhouse Gas Emissions and Improve Fuel Efficiency of Medium-and Heavy-Duty Vehicles. Available: http://www.epa.gov/otaq/climate/documents/420f11031.pdf. Accessed November 2011.*

2) Prescribe or revise standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.
3) While superseded by NHTSA and USEPA actions described above, EISA also set miles per gallon targets for cars and light trucks and directed the NHTSA to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.

Additional provisions of the EISA address energy savings in government and public institutions, promoting research for alternative energy, additional research in carbon capture, international energy programs, and the creation of "green jobs."

State

Assembly Bill 1493

California has adopted a series of laws and programs to reduce emissions of GHG emissions into the atmosphere. Assembly Bill (AB) 1493 was enacted in September 2003 and requires regulations to achieve "the maximum feasible reduction of greenhouse gases" emitted by vehicles used for personal transportation.

Executive Order S-3-05

On June 1, 2005, Governor Schwarzenegger issued Executive Order S-3-05, which set the following GHG emission reduction targets: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels. The California Environmental Protection Agency (the "Cal EPA") formed a Climate Action Team (CAT) that recommended strategies that can be implemented by state agencies to meet GHG emissions targets. The Team reported several recommendations and strategies for reducing GHG emissions and reaching the targets established in the Executive Order.[16] Furthermore, the report provided to Governor Schwarzenegger in 2006, referenced above, indicated that smart land use and increased transit availability should be a priority in the State of California.[17] According to the California Climate Action Team, smart land use is an umbrella term for strategies that integrate transportation and land-use decisions. Such strategies generally encourage jobs/housing proximity, promote transit-oriented development (TOD), and encourage high-density residential/commercial development along transit corridors. These strategies develop more efficient land-use patterns within each jurisdiction or region to match population increases, workforce, and socioeconomic needs for the full spectrum of the population.

Executive Order B-30-15

On April 29, 2015, Governor Brown issued an executive order setting a Statewide GHG reduction target of 40 percent below 1990 levels by 2030. This action aligns the State's GHG targets with those set in October 2014 by the European Union and is intended to help the State meets its target of reducing GHG emissions 80 percent below 1990 levels by 2050. The measure calls on State

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16 *California Climate Action Team, Climate Action Team Report to Governor Schwarzenegger and the Legislature, March 2006.*

17 *California Climate Action Team, Climate Action Team Report to Governor Schwarzenegger and the Legislature, March 2006, p. 57.*

agencies to implement measures accordingly and directs CARB to update the Climate Change Scoping Plan.

A recent study shows that the State's existing and proposed regulatory framework will allow the State to reduce its GHG emissions level to 40 percent below 1990 levels by 2030 (consistent with Executive Order B-30-15), and to 60 percent below 1990 levels by 2050. Even though this study did not provide an exact regulatory and technological roadmap to achieve the 2030 and 2050 goals, it demonstrated that various combinations of policies could allow the statewide emissions level to remain very low through 2050, suggesting that the combination of new technologies and other regulations not analyzed in the study could allow the State to meet the 2030 and 2050 targets.[18]

Assembly Bill 32

In September 2006, AB 32 was signed into law by Governor Arnold Schwarzenegger, focusing on achieving GHG emissions equivalent to statewide levels in 1990 by 2020. It mandates that CARB establish a quantified emissions cap, institute a schedule to meet the cap, implement regulations to reduce statewide GHG emissions from stationary sources, and develop tracking, reporting, and enforcement mechanisms to ensure that reductions are achieved.

AB 32 charges CARB with the responsibility to monitor and regulate sources of GHG emissions. On June 1, 2007, CARB adopted three early action measures: setting a low carbon fuel standard, reducing refrigerant loss from motor vehicle air conditioning maintenance, and increasing methane capture from landfills.[19] On October 25, 2007, CARB approved measures improving truck efficiency (i.e., reducing aerodynamic drag), electrifying port equipment, reducing PFCs from the semiconductor industry, reducing propellants in consumer products, promoting proper tire inflation in vehicles, and reducing sulfur hexaflouride emissions from the non-electricity sector. CARB also developed a mandatory reporting program on January 1, 2008 for large stationary combustion sources that emit more than 25,000 metric tons of CO_2 per year and make up 94 percent of the point source CO_2 emissions in California.

CARB developed an AB 32 Scoping Plan that contains strategies to achieve the 2020 emissions cap. This Scoping Plan, which was developed by CARB in coordination with the CAT, was first published in October 2008 (the "2008 Scoping Plan"). The 2008 Scoping Plan proposed a comprehensive set of actions designed to reduce overall GHG emissions in California, improve the environment, reduce the state's dependence on oil, diversify the state's energy sources, save energy, create new jobs, and enhance public health. An important component of the plan is a cap-and-trade program covering 85 percent of the state's emissions. Additional key recommendations of the 2008 Scoping Plan include strategies to enhance and expand proven cost-saving energy efficiency programs; implementation of California's clean cars standards and increasing the amount of clean and renewable energy used to power the state. Furthermore, the 2008 Scoping Plan proposes full deployment of the California Solar Initiative, high-speed rail, water-related energy efficiency measures, and a range of regulations to reduce emissions from trucks and from ships docked in California ports. As required by AB 32, CARB must update its Scoping Plan every five years to ensure that California remains on the path toward a low carbon future.

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[18] *Greenblatt, Jeffrey, Energy Policy, "Modeling California Impacts on Greenhouse Gas Emissions" (Vol. 78, pp. 158-172).*

[19] *California Air Resources Board, Proposed Early Action Measures to Mitigate Climate Change in California, April 20, 2007.*

In order to assess the scope of reductions needed to return to 1990 emissions levels, CARB first estimated the 2020 "business-as-usual" (BAU) GHG emissions in the 2008 Scoping Plan. These are the GHG emissions that would be expected to result if there were no GHG emissions reduction measures, and as if the state were to proceed on its pre-AB 32 GHG emissions track. After estimating that statewide 2020 BAU GHG emissions would be 596 metric tons, the 2008 Scoping Plan then identified recommended GHG emissions reduction measures that would reduce BAU GHG emissions by approximately 174 metric tons (an approximately 28.4 percent reduction) by 2020.

On August 19, 2011, following legal action in opposition to the Scoping Plan, CARB updated the Scoping Plan through a Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document (FED or 2011 Scoping Plan).[20] CARB updated their 2020 BAU emissions estimate to account for the effect of the 2007–2009 economic recession, new estimates for future fuel and energy demand, and the reductions achieved through implementation of regulations recently adopted for motor vehicles, building energy efficiency standards, and renewable energy.[21] Under that scenario, the State would have had to reduce its BAU GHG emissions by approximately 21.7 percent by 2020 (down from 28.4 percent).

On May 22, 2014, CARB approved its first update to the AB 32 Scoping Plan, recalculating 1990 GHG emissions using IPCC Fourth Assessment Report (AR4) released in 2007. It states that based on the AR4 global warming potentials, the 427 $MMTCO_2e$ 1990 emissions level and 2020 GHG emissions limit would be slightly higher than identified in the Scoping Plan, at 431 $MMTCO_2e$. Based on the revised estimates of expected 2020 emissions identified in the 2011 supplement to the FED and updated 1990 emissions levels identified in the draft first update to the Scoping Plan, achieving the 1990 emission level would require a reduction of 76 $MMTCO_2e$ (down from 507 $MMTCO_2e$) or a reduction by approximately 15.3 percent (down from 28.4 percent) to achieve in 2020 emissions levels in the BAU condition. CARB's First Update "lays the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050," and many of the emission reduction strategies recommended by CARB would serve to reduce the Project's post-2020 emissions level to the extent applicable by law by focusing on reductions from several sectors. [22,23]

As shown in Table 8, these reductions are to come from a variety of sectors, including energy, transportation, high-global warming potential sources, waste, and the State's cap-and-trade emissions program.

TABLE 8:
EMISSION REDUCTIONS NEEDED TO MEET AB 32 OBJECTIVES IN 2020

Sector	Million Metric Tons of CO_2e Reduction	Percent of Statewide CO_2e Inventory	Summary of Recommended Actions

[20] *California Air Resources Board, Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document (FED), Attachment D, August 19, 2011.*

[21] *California Air Resources Board, Greenhouse Gas Inventory – 2020 Emissions Forecast,* http://www.arb.ca.gov/cc/inventory/data/forecast.htm. *Accessed June 2015.*

[22] *CARB, First Update, p. 4, May 2014. See also* id. *at pp. 32–33 [recent studies show that achieving the 2050 goal will require that the "electricity sector will have to be essentially zero carbon; and that electricity or hydrogen will have to power much of the transportation sector, including almost all passenger vehicles."]*

[23] *CARB, First Update, Table 6: Summary of Recommended Actions by Sector, pp. 94-99, May 2014.*

Energy	-25	-4.9%	Reduce State's electric and energy utility emissions, reduce emissions from large industrial facilities, control fugitive emissions from oil and gas production, reduce leaks from industrial facilities
Transportation	-23	-4.5%	Phase 2 heavy-duty truck GHG standards, ZEV action plan for trucks, construct High Speed rail system from SF to LA, coordinated land use planning, Sustainable Freight Strategy
High Global Warming Potential	-5	-1.0%	Reduce use of high-GWP compounds from refrigeration, air conditioning, aerosols
Waste	-2	-0.4%	Eliminate disposal of organic materials at landfills, in-State infrastructure development, address challenges with composting and anaerobic digestion, additional methane control and landfills
Cap and Trade Reductions	-23	-4.5%	Statewide program that reduces emissions from regulated entities through performance-based targets
Total	**-78**	**-15.3%**	
Source: California Environmental Protection Agency, "First Update to the Climate Change Scoping Plan." May 2014.			

Nearly all reductions are to come from sources that are controlled at the statewide level by State agencies, including the Air Resources Board, Public Utilities Commission, High Speed Rail Authority, and California Energy Commission. The few actions that are directly or indirectly associated with local government control are in the Transportation sector, which is charged with reducing 4.5 percent of baseline 2020 emissions. Of these actions, only one (GHG reductions through coordinated planning) specifically identifies local governments as the responsible agency.

Cap And Trade

CARB adopted a California Cap-and-Trade Program pursuant to its authority under AB 32. The Cap-and-Trade Program is designed to reduce GHG emissions from major sources (deemed "covered entities") by setting a firm cap on statewide GHG emissions and employing market mechanisms to achieve AB 32's emission-reduction mandate of returning to 1990 levels of emissions by 2020. The statewide cap for GHG emissions from the capped sectors (e.g., electricity generation, petroleum refining, and cement production) commenced in 2013 and will decline over time, achieving GHG emission reductions throughout the program's duration.

Under the Cap-and-Trade Program, covered entities that emit more than 25,000 metric tons CO_2e per year must comply with the Cap-and-Trade Program. Triggering of the 25,000 metric tons CO_2e

per year "inclusion threshold" is measured against a subset of emissions reported and verified under the California Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (Mandatory Reporting Rule or "MRR"). CARB issues allowances equal to the total amount of allowable emissions over a given compliance period and distributes these to regulated entities. Covered entities are allocated free allowances in whole or part (if eligible), and may buy allowances at auction, purchase allowances from others, or purchase offset credits.

The Cap-and-Trade Program works with other direct regulatory measures and provides an economic incentive to reduce emissions. If California's direct regulatory measures reduce GHG emissions more than expected, then the Cap-and-Trade Program will be responsible for relatively fewer emissions reductions. If California's direct regulatory measures reduce GHG emissions less than expected, then the Cap-and-Trade Program will be responsible for relatively more emissions reductions. Thus, the Cap-and-Trade Program assures that California will meet its 2020 GHG emissions reduction mandate.

In sum, the Cap-and-Trade Program will achieve aggregate, rather than site-specific or project-level, GHG emissions reductions. Also, due to the regulatory framework adopted by CARB in AB 32, the reductions attributed to the Cap-and-Trade Program can change over time depending on the State's emissions forecasts and the effectiveness of direct regulatory measures.

As of January 1, 2015, the Cap-and-Trade Program covered approximately 85 percent of California's GHG emissions. The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap-and-Trade Program.

While the 2020 cap would remain in effect post-2020,[24] the Cap-and-Trade Program is not currently scheduled to extend beyond 2020 in terms of additional GHG emissions reductions.[25] However, CARB has expressed its intention to extend the Cap-and-Trade Program beyond 2020 in conjunction with setting a mid-term target. The "recommended action" in the First Update for the Cap-and-Trade Program is: "Develop a plan for a post-2020 Cap-and-Trade Program, including cost containment, to provide market certainty and address a mid-term emissions target."[26] The "expected completion date" for this recommended action is 2017.[27] It is therefore reasonable to assume that the Cap-and-Trade Program will extend beyond 2020.

Senate Bill 1368

Senate Bill (SB) 1368, requires the California Public Utilities Commission and the California Energy Commission to establish GHG emissions performance standards for the generation of electricity. These standards will also apply to power that is generated outside of California and imported into the state.

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[24] *California Health & Safety Code § 38551(a) ("The statewide greenhouse gas emissions limit shall remain in effect unless otherwise amended or repealed.")*

[25] *See AB 1288 (Atkins, introduced 2015) that would eliminate the December 31, 2020, limit on the Cap-and-Trade Program.*

[26] *CARB, First Update to the Climate Change Scoping Plan: Building on the Framework, at 98 (May 2014).*

[27] *Id.*

SB 97 & CEQA Guidelines

In August 2007, the California State Legislature adopted Senate Bill 97 (SB 97), requiring the Governor's Office of Planning and Research (the "OPR") to prepare and transmit new CEQA guidelines for the mitigation of GHG emissions or the effects of GHG emissions to the Resources Agency by July 1, 2009. In response to SB 97, the OPR adopted CEQA guidelines that became effective on March 18, 2010. The amendments provide guidance to public agencies on analysis and mitigation of the effects of GHG emissions in CEQA documents, including the following:

- Lead agencies should quantify all relevant GHG emissions and consider the full range of project features that may increase or decrease GHG emissions as compared to the existing setting;
- Consistency with the CARB Scoping Plan is not a sufficient basis to determine that a project's GHG emissions would not be cumulatively considerable;
- A lead agency may appropriately look to thresholds developed by other public agencies, including the CARB's recommended CEQA thresholds;
- To qualify as mitigation, specific measures from an existing plan must be identified and incorporated into the project. General compliance with a plan, by itself, is not mitigation;
- The effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impact analysis; and
- Given that impacts resulting from GHG emissions are cumulative, significant advantages may result from analyzing such impacts on a programmatic level. If analyzed properly, later projects may tier, incorporate by reference, or otherwise rely on the programmatic analysis.

State Bill 375

On September 30, 2008, SB 375 was instituted to help achieve AB 32 goals through regulation of cars and light trucks. SB 375 aligns three policy areas of importance to local government: (1) regional long-range transportation plans and investments; (2) regional allocation of the obligation for cities and counties to zone for housing; and (3) a process to achieve GHG emissions reductions targets for the transportation sector. It establishes a process for CARB to develop GHG emissions reductions targets for each region (as opposed to individual local governments or households). SB 375 also requires Metropolitan Planning Organizations (MPOs) to prepare a Sustainable Communities Strategy (SCS) within the Regional Transportation Plan (the "RTP") that guides growth while taking into account the transportation, housing, environmental, and economic needs of the region. SB 375 uses CEQA streamlining as an incentive to encourage residential projects, which help achieve AB 32 goals to reduce GHG emissions. While SB 375 does not prevent CARB from adopting additional regulations, such actions are not anticipated in the foreseeable future.[28]

On October 24, 2008, CARB published draft guidance for setting interim GHG emissions significance thresholds. This was the first step toward developing the recommended statewide interim thresholds of significance for GHG emissions that may be adopted by local agencies for their own use. The guidance does not attempt to address every type of project that may be subject to CEQA, but instead focuses on common project types that are responsible for substantial GHG emissions (i.e., industrial, residential, and commercial projects). CARB's preliminary proposal consisted of a quantitative threshold of 7,000 metric tons (MT) of CO_2e per year for operational

[28] *American Planning Association, California Chapter, Analysis of SB 375, http://www.calapa.org/-en/cms/?2841, accessed March 30, 2009.*

emissions (excluding transportation), and performance standards for construction and transportation emissions. Further, CARB's proposal sets forth draft thresholds for industrial projects that have high operational stationary GHG emissions, such as manufacturing plants, or uses that utilize combustion engines.[29] There is currently no timetable for finalized thresholds.

On September 23, 2010, CARB adopted regional targets for the reduction of GHG emissions applying to the years 2020 and 2035.[30] For the area under the Southern California Association of Governments' (SCAG) jurisdiction—including the Project area—CARB adopted Regional Targets for reduction of GHG emissions by 8 percent for 2020 and by 13 percent for 2035. On February 15, 2011, the CARB's Executive Officer approved the final targets.[31]

Title 24 Energy Efficiency Standards

California's Energy Efficiency Standards for Residential and Nonresidential Buildings, located at Title 24, Part 6 of the California Code of Regulations and commonly referred to as "Title 24," were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods.

California Green Building Standards

The California Green Building Standards Code, which is Part 11 of the California Code of Regulations (the "CCR"), is commonly referred to as the CALGreen Code. CALGreen was added to Title 24 to represent base standards for reducing water use, recycling construction waste, and reducing polluting materials in new buildings. In contrast, Title 24 focuses on promoting more energy-efficient buildings and considers the building envelope, heating and cooling, water heating, and lighting restrictions. The first edition of the CALGreen Code in 2008 contained only voluntary standards. The 2010 edition included mandatory requirements for state-regulated buildings and structures throughout California, including requirements for construction site selection, storm water control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, site irrigation conservation and more. The CALGreen Code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The CALGreen Code also requires building commissioning which is a process for the verification that all building systems, like heating and cooling equipment and lighting systems are functioning at their maximum efficiency. The updated 2013 CALGreen Code became effective January 1, 2014 and includes new requirements for additions to existing residential and non-residential development.

Regional

South Coast Air Quality Management District Recommendations for Significance Thresholds

The South Coast Air Quality Management District (the "SCAQMD") convened a GHG CEQA Significance Threshold Working Group to provide guidance to local lead agencies on determining

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29 *California Air Resources Board.* http://www.arb.ca.gov/cc/localgov/ceqa/meetings/102708/prelimdraftproposal102408.pdf

30 *California Air Resources Board. Notice of Decision: Regional Greenhouse Gas Emissions Reduction Targets for Automobiles and Light Trucks Pursuant to Senate Bill 375.* http://www.arb.ca.gov/cc/sb375/notice%20of%20decision.pdf

31 *CARB. 2011. Executive Order No. G-11-024: Relating to Adoption of Regional Greenhouse Gas Emission Reduction Targets for Automobiles and Light Trucks Pursuant to Senate Bill 375.*

significance for GHG emissions in their CEQA documents. Members included government agencies implementing CEQA and representatives from stakeholder groups that will provide input to the SCAQMD staff on developing GHG CEQA significance thresholds. On December 5, 2008, the SCAQMD Governing Board adopted interim GHG significance threshold for projects where the SCAQMD is lead agency. This threshold uses a tiered approach to determine a project's significance, with 10,000 metric tons of CO_2 equivalent ($MTCO_2e$) as a screening numerical threshold for stationary sources.

The SCAQMD has not adopted guidance for CEQA projects under other lead agencies. In September 2010, the Working Group released additional revisions which recommended a screening threshold of 3,500 $MTCO_2e$ for residential projects, 1,400 $MTCO_2e$ for commercial projects, and 3,000 $MTCO_2e$ for mixed use projects, additionally the Working Group identified project-level efficiency target of 4.8 $MTCO_2e$ per service population as a 2020 target and 3.0 $MTCO_2e$ per service population as a 2035 target. The recommended area wide or plan-level target for 2020 was 6.6 $MTCO_2e$ and the plan-level target for 2035 was 4.1 $MTCO_2e$. The SCAQMD has not established a timeline for formal consideration of these thresholds.[32] In the meantime, the project level thresholds are used as a non-binding guide; GHG emissions would be considered potentially significant in the absence of mitigation measures.

The SCAQMD has also adopted Rules 2700, 2701, and 2702 that address GHG emissions reductions. However, these rules address boilers and process heaters, forestry, and manure management projects, none of which are proposed or required by the Project.

SCAG Regional Transportation Plan/Sustainable Communities Strategy

SCAG's adopted its 2012-2035 Regional Transportation Plan Sustainable Communities Strategy (the "RTP/SCS") on April 4, 2012. The RTP/SCS plans to concentrate future development and provide higher intensity development, including residential development, in proximity to transit hubs in order to reduce vehicle miles traveled (VMT) and thereby reduce GHG emissions from personal vehicles. To conduct required modeling analysis for the 2012-2035 RTP/SCS, SCAG distributes the growth forecast to transportation analysis zones (TAZs) to capture localized effects of the interaction of land use and transportation. The TAZ level maps have been developed for the purpose of modeling performance only.[33] The growth and land use assumptions are to be adopted at the jurisdictional level.[34] Further, it is important to note that there is nothing in SB 375 that requires a city's "land use policies and regulations…to be consistent with the regional transportation plan or an alternative planning strategy."[35]

The RTP/SCS also includes an appendix listing examples of measures that could reduce impacts from planning, development and transportation.[36] It notes, however, that the example measures are "not intended to serve as any kind of checklist to be used on a project-specific basis." Since every project and project setting is different, project-specific analysis is needed to identify applicable and feasible mitigation. These mitigation measures are particularly important where streamlining

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32 *SCAG, Final PEIR for the 2012-2035 RTP/SCS, Appendix G. Accessible at http://rtpscs.scag.ca.gov/Documents/peir/2012fPEIR_AppendixG_ExampleMeasures.pdf*

33 *Southern California Association of Governments, 2012-2035 Regional Transportation Plan Sustainable Communities Strategy, p. 124.*

34 *Ibid.*

35 *California Gov't. Code §65080(b)(2)(E).*

36 *Southern California Association of Governments, Final PEIR, 2012-2035 RTP/SCS, Appendix G: http://rtpscs.scag.ca.gov/Documents/peir/2012/final/2012fPEIR_AppendixG_ExampleMeasures.pdf.*

mechanisms under SB 375 are utilized. Example GHG emissions reduction measures include the following:

- **GHG1**: SCAG member cities and the county governments may adopt and implement Climate Actions Plans (CAPS, also known as Plans for the Reduction of Greenhouse Gas Emissions as described in CEQA Guidelines Section 15183.5 Tiering and Streamlining the Analysis of Greenhouse Gas Emissions).

- **GHG2**: Project sponsors may require Best Available Control Technology (BACT) during construction and operation of projects, including:
  a) Solicit bids that include use of energy and fuel-efficient fleets;
  b) Solicit preference construction bids that use BACT, particularly those seeking to deploy zero- and/or near zero emission technologies;
  c) Employ use of alternative fueled vehicles;
  d) Use lighting systems that are energy efficient, such as LED technology;
  e) Use CEQA Guidelines Appendix F, Energy Conservation, to create an energy conservation plan;
  f) Streamline permitting process to infill, redevelopment, and energy-efficient projects;
  g) Use an adopted emissions calculator to estimate construction-related emissions;
  h) Use the minimum feasible amount of GHG-emitting construction materials that is feasible;
  i) Use of cement blended with the maximum feasible amount of flash or other materials that reduce GHG emissions from cement production;
  j) Use of lighter-colored pavement where feasible;
  k) Recycle construction debris to maximum extent feasible; and
  l) Plant shade trees in or near construction projects where feasible.

- **GHG3**: Local jurisdictions can and may establish a coordinated, creative public outreach activities, including publicizing the importance of reducing GHG emissions and steps community members may take to reduce their individual impacts.

- **GHG4**: Pedestrian and Bicycle Promotion: Local jurisdictions may work with local community groups and business associations to organize and publicize walking tours and bicycle events, and to encourage pedestrian and bicycle modes of transportation.

- **GHG5**: Waste Reduction: Local jurisdictions can and may organize workshops on waste reduction activities for the home or business, such as backyard composting, or office paper recycling, and may schedule recycling drop-off events and neighborhood chipping/mulching days.

- **GHG6**: Water Conservation: Local jurisdictions may organize support and/or sponsor workshops on water conservation activities, such as selecting and planting drought tolerant, native plants in landscaping, and installing advanced irrigation systems.

- **GHG7**: Energy Efficiency: Local jurisdictions may organize workshops on steps to increase energy efficiency in the home or business, such as weatherizing the home or building envelope, installing smart lighting systems, and how to conduct a self-audit for energy use and efficiency.

- **GHG8**: Schools Programs: Local jurisdictions may develop and implement a program to present information to school children about climate change and ways to reduce GHG emissions, and may support school-based programs for GHG reduction, such as school based trip reduction and the importance of recycling.

Local

In May 2007, the City released its Green LA Plan that sets a goal to reduce the generation of GHG emissions 35 percent below 1990 levels by 2030. Key strategies include increasing the generation of renewable energy, improving energy conservation and efficiency, and changing land use patterns to reduce dependence on autos.

The City adopted a Green Building Ordinance in April 2008 that calls for reduction of the use of natural resources for new development.[37] Larger projects must be certified at the Leadership in Energy and Environmental Design (LEED) certified level. LEED certification generally ensures that projects exceed Title 24 (2013) standards by at least 10 percent.[38] The City's ordinance affects the following types of development:[39]

- New non-residential building or structure of 50,000 gross square feet or more of floor area;
- New mixed-use or residential building of 50,000 gross square feet or more in excess of six stores;
- New mixed-use or residential building of six or fewer stories consisting of at least 50 dwelling units in a building, which has at least 50,000 gross square feet of floor area, and in which at least 80 percent of the building's floor area is dedicated to residential units;
- The alternation or rehabilitation of 50,000 gross square feet or more of floor area in an existing non-residential building for which construction costs exceed a valuation of 50 percent of the replacement cost of the existing building;
- The alteration of at least 50 dwelling units in an existing mixed-use or residential building, which has at least 50,000 gross square feet of floor area, for which construction costs exceed a valuation of 50 percent of the replacement cost of the existing building.

The City's Green Building Ordinance has several requirements that call for reductions in GHG emissions from reducing in energy use, water use, and solid waste generation from new non-residential and high-rise residential buildings, including:

Section 99.04.304.1. Irrigation Controllers. When automatic irrigation system controllers for landscaping are provided and installed at the time of final inspection, the controllers shall comply with the following:

1. Controllers shall be weather- or soil moisture-based controllers that automatically adjust irrigation in response to changes in plants' needs as weather conditions change;

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37 *City of Los Angeles, Ordinance No. 179820, added to LAMC as Section 16.10 (Green Building Program).*

38 *U.S. Green Building Council. "Interpretation 10396" accessed at http://www.usgbc.org/leed-interpretations?keys=10396 February 26, 2015.*

39 *Projects that voluntarily commit to LEED certification at the Silver level or higher received expedited processing from the City.*

2. Weather-based controllers without integral rain sensors or communication systems that account for local rainfall shall have a separate wired or wireless rain sensor that connects or communicates with the controller(s). Soil moisture-based controllers are not required to have rain sensor input. Buildings on sites with over 2,500 square feet of cumulative irrigated landscaped areas shall have irrigation controllers that meet the criteria in Section 99.04.304.1.

Section 99.04.303.4. Wastewater Reduction. Each building shall reduce by 20 percent wastewater by one of the following methods:

1. The installation of water conserving fixtures (water closets, urinals)
2. Utilizing non-potable water systems (captured rainwater, graywater, and municipally treated wastewater) complying with the current edition of the Los Angeles Plumbing Code or other methods.

Section 99.04.304.2. Outdoor Potable Water. Building on sites with 1,000 square feet or more of cumulative landscaped areas shall have separate meters or submeters for indoor and outdoor potable water use.

Section 99.04.304.3. Irrigation Design. Buildings on sites with 1,000 square feet or more of cumulative irrigated landscaped areas shall have irrigation controllers and sensors which include the following criteria and the manufacturer's recommendations.

Section 99.05.407.1. Weather Protection. Provide a weather-resistant exterior wall and foundation envelope as required by the Los Angeles Building Code section 1403.2 (Weather Protection) and California Energy Code Section 150, manufacturer's installation instructions, or local ordinance, whichever is more stringent.

Section 99.05.408. Construction Waste Reduction, Disposal And Recycling. Construction Waste Reduction of at Least 50 Percent. Comply with Section 66.32 et seq. of the LAMC.
Section 99.05.408.4. Excavated Soil and Land Clearing Debris. 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project and when approved by the Department, such material may be stockpiled on site until the storage site is developed.

Section 99.05.410.1. Recycling by Occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, and metals.

Section 99.05.504.3. Covering of Duct Openings and Protection of Mechanical Equipment During Construction. At the time of rough installation, or during storage of the construction site and until final startup of the heating and cooling equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheet metal or other methods acceptable to the Department to reduce the amount of dust or debris which may collect in the system.

Section 99.05.504.4.6. Resilient Flooring Systems. For 50 percent of floor area receiving resilient flooring, install resilient flooring complying with the VOC-emission limits defined in the 2009 Collaborative for High Performance Schools criteria and listed on its Low-emitting Materials List or certified under the Resilient Floor Covering Institute FloorScore program.

Existing Emissions

The Project site includes a surface parking lot. To ensure a conservative analysis, this analysis assumes that the parking lot does not independently generate GHG pollutant emissions.

Methodology

The methodology utilized for this analysis is based on a Technical Advisory released by the Governor's Office of Planning and Research (OPR) on June 19, 2008 titled *CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review*. Both one-time emissions and indirect emissions are expected to occur each year after build-out of the Project. One-time emissions from construction and vegetation removal were amortized over a 30-year period because no significance threshold has been adopted for such emissions. The Project emission reductions are results of Project's commitments and regulatory changes, which include the implementation of the Renewables Portfolio Standard (RPS) of 33 percent, the Pavley regulation and Advanced Clean Cars program mandating higher fuel efficiency standards for light-duty vehicles, and the Low Carbon Fuel Standard (LCFS).

The California Climate Action Registry (Climate Registry) General Reporting Protocol provides basic procedures and guidelines for calculating and reporting GHG emissions from a number of general and industry-specific activities.[40] The General Reporting Protocol is based on the "Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard" developed by the World Business Council for Sustainable Development and the World Resources Institute through "a multi-stakeholder effort to develop a standardized approach to the voluntary reporting of GHG emissions."[41] Although no numerical thresholds of significance have been developed, and no specific protocols are available for land use projects, the General Reporting Protocol provides a basic framework for calculating and reporting GHG emissions from the project. The information provided in this analysis is consistent with the General Reporting Protocol's 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 the following:

> Scope 1:Direct, on-site combustion of fossil fuels (e.g., natural gas, propane, gasoline, and diesel).
>
> Scope 2: Indirect, off-site emissions associated with purchased electricity or purchased steam.
>
> Scope 3: Indirect emissions associated with other emissions sources, such as third-party vehicles and embodied energy (e.g., energy used to convey, treat, and distribute water and wastewater).[42]

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40 *California Climate Action Registry, General Reporting Protocol Version 3.1, January 2009, www.sfenvironment.org/sites/default/files/fliers/files/ccar_grp_3-1_january2009_sfe-web.pdf, accessed March 2, 2015.*

41 *Ibid.*

42 *Embodied energy is a scientific term that refers to the quantity of energy required to manufacture and supply to the point of use a product, material, or service.*

The General Reporting Protocol provides a range of basic calculations methods. However, the General Reporting Protocol calculations are typically designed for existing buildings or facilities. These retrospective calculation methods are not directly applicable to planning and development situations where buildings do not yet exist.

CARB recommends consideration of indirect emissions to provide a more complete picture of the GHG footprint of a facility. Annually reported indirect energy usage aids the conservation awareness of a facility and provides information to CARB to be considered for future strategies.[43] For example, CARB has proposed requiring the calculation of direct and indirect GHG emissions as part of the AB 32 reporting requirements. Additionally, the Office of Planning and Research has noted that lead agencies "should 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."[44] Therefore, direct and indirect emissions have been calculated for the Project.

GHG emissions were quantified from construction and operation of the Project using SCAQMD's California Emissions Estimator Model (CalEEMod). Operational emissions include both direct and indirect sources including mobile sources, water use, solid waste, area sources, natural gas, and electricity use emissions. CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions associated with both construction and operations from a variety of land use projects. The model is considered by the SCAQMD to be an accurate and comprehensive tool for quantifying air quality and GHG impacts from land use projects throughout California.[45]

Significance Criteria

As discussed below, there are no adopted federal, State, or local thresholds of significance for judging a Project's impact on greenhouse gases and climate change applicable to this Project. As a result, this analysis relies on primary direction from the CEQA Guidelines. OPR's amendments to the CEQA Guidelines for GHGs were adopted by the Resources Agency on December 30, 2009, indicating that a project could have a significant impact if it would:

1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or
2. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Section 15064.4 of the CEQA Guidelines was adopted to assist lead agencies in determining the significance of the impacts of GHGs. It urges the quantification of GHG emissions where possible and includes language necessary to avoid an implication that a "life-cycle" analysis is required. It also recommends considering other qualitative factors that may be used in the determination of significance (i.e., extent to which the project may increase or reduce GHG emissions; whether the project exceeds an applicable significance threshold; and extent to which the project complies with

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43 *California Air Resources Board, Initial Statement of Reasons for Rulemaking, Proposed Regulation for Mandatory Reporting of Greenhouse Gas Emissions Pursuant to the California Global Warming Solutions Act of 2006 (AB 32), Planning and Technical Support Division Emission Inventory Branch, October 19, 2007, www.arb.ca.gov/regact/2007/ghg2007/isor.pdf, accessed March 2, 2015.*

44 *OPR Technical Advisory, p. 5.*

45 *See www.caleemod.com.*

regulations or requirements adopted to implement a reduction or mitigation of GHGs). Further, it states that:

1. A lead agency should consider the following factors, among others, when assessing the significance of greenhouse gas emissions on the environment:

    a. The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;
    b. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and
    c. 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. 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.

The current CEQA Guidelines do not establish a threshold of significance. Lead agencies are to establish thresholds in which a lead agency may appropriately look to thresholds developed by other public agencies, or suggested by other experts, such as CAPCOA, so long as any threshold chosen is supported by substantial evidence (see CEQA Guidelines Section 15064.7(c)). The CEQA Guidelines amendments also clarify that the effects of GHG emissions are cumulative. The CEQA Guidelines were amended in response to Senate Bill 97 to specify that compliance with a GHG emissions reduction plan renders a cumulative impact insignificant.

To qualify, such a plan or program must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency.[46] Examples of such programs include a "water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plans [and] plans or regulations for the reduction of greenhouse gas emissions."[47] Put another way, CEQA Guidelines Section 15064(h)(3) allows a lead agency to make a finding of non-significance for GHG emissions if a project compiles with the California Cap-and-Trade Program and/or other regulatory schemes to reduce GHG emissions.[48]

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[46] *Id.*

[47] *Id. (emphasis added).*

[48] *See, for example, San Joaquin Valley Air Pollution Control District, CEQA Determinations of Significance tor Projects Subject to ARB's GHG Cap-and-Trade Regulation, APR--2030 (June 25, 2014), in which the SJVAPCD "determined that GHG emissions increases that are covered under ARB's Cap-and-Trade regulation cannot constitute significant increases under CEQA..." Further, the South Coast Air Quality Management District (SCAQMD) has taken this position in CEQA documents it produced as a lead agency. The SCAQMD has prepared three Negative Declarations and one Draft Environmental Impact Report that demonstrate the SCAQMD has applied its 10,000 MTCO2e/yr. significance threshold in such a way that GHG emissions covered by the Cap-and-Trade Program do not constitute emissions that must be measured against the threshold. See: SCAQMD, Final Negative Declaration for: Ultramar Inc. Wilmington Refinery Cogeneration Project, SCH No. 2012041014 (October 2014) (www.aqmd.gov/docs/default-source/ceqa/documents/permit-projects/2014/ultramar_neg_dec.pdf?sfvrsn=2); SCAQMD, Final Negative Declaration tor Phillips 66 Los Angeles Refinery Carson Plant--Crude Oil Storage Capacity Project, SCH No. 2013091029 (December 2014) (www.aqmd.gov/docs/default-source/ceqa/documents/permit-projects/2014/phillips-66-fnd.pdf?sfvrsn=2); Final Mitigated Negative Declaration for Toxic Air Contaminant Reduction for Compliance with SCAQMD Rules 1420.1*

Although GHG emissions can be quantified, CARB, SCAQMD and the City of Los Angeles, have yet to adopt project-level significance thresholds for GHG emissions that would be applicable to the Project.[49] Per CEQA Guidelines Section 15064(h)(3), a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project will comply with an approved plan or mitigation program that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area of the project.[50]

Executive Orders S-3-05 and B-30-15, SB 375, SCAG's Sustainable Communities Strategy, and the City of Los Angeles Green Building Ordinance all apply to the Project and area all intended to reduce GHG emissions to meet the statewide targets set in AB 32.

Thus, in the absence of any adopted, quantitative threshold, the Project would not have a significant effect on the environment if the Project is found to be consistent with the following applicable regulatory plans and policies to reduce GHG emissions:

- Executive Orders S-3-05 and B-30-15;
- AB 32 Scoping Plan
- SCAG's Sustainable Communities Strategy; and
- City of Los Angeles Green Building Ordinance.

Construction Phase Impacts on Climate Change

Construction of the Project would emit GHG emissions through the combustion of fossil fuels by heavy-duty construction equipment and through vehicle trips generated by construction workers and vendors traveling to and from the Project site. These impacts would vary day to day over the 17-month duration of construction activities. As illustrated on Table 10, construction emissions of CO_2 would peak in 2016, when up to 17,205 pounds of CO_2e per day are anticipated following implementation of recommended Mitigation Measures AQ-1 through AQ-6. These emissions are further incorporated in the assessment of long-term operational impacts by amortizing them over a 30-year period, pursuant to guidance from the State and SCAQMD.

TABLE 10:
ESTIMATED CONSTRUCTION EMISSIONS – MITIGATED (Pounds per Day)

Construction Year	CO_2	CH_4	N_2O	CO_2e
2016	17,173	2	0	17,205
2017	3,849	<1	0	3,859

Source: DKA Planning 2016, based on CalEEMod 2013.2.2

GHG emissions were calculated for long-term operations. Both one-time emissions and indirect emissions are expected to occur each year after build-out of the Project. One-time emissions from

and 1402 at the Exide Technologies Facility in Vernon, CA, SCH No. 2014101040 (December 2014) (www.aqmd.gov/docs/default-source/ceqa/documents/permit-projects/2014/exide-mnd_final.pdf?sfvrsn=2); and Draft Environmental Impact Report for the Breitburn Santa Fe Springs Blocks 400/700 Upgrade Project, SCH No. 2014121014 (April 2014) (www.aqmd.gov/docs/default-source/ceqa/documents/permit-projects/2015/deir-breitburn-chapters-1-3.pdf?sfvrsn=2).

[49] *The South Coast Air Quality Management District formed a GHG Significance Threshold Working Group. Information on this Working Group is available at www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ghg-significance-thresholds/page/2 .*

[50] *14 CCR § 15064(h)(3).*

construction and vegetation removal were amortized over a 30-year period because no significance threshold has been adopted for such emissions. The Project emission reductions are results of Project's commitments and regulatory changes, which include the implementation of the Renewables Portfolio Standard (RPS) of 33 percent, the Pavley regulation and Advanced Clean Cars program mandating higher fuel efficiency standards for light-duty vehicles, and the Low Carbon Fuel Standard (LCFS).

This analysis compares the Project's GHG emissions to the emissions that would be generated by the Project in the absence of any GHG reduction measures (i.e., the No Action Taken ["NAT"]) Scenario. This approach mirrors the concepts used in the CARB's *Climate Change Scoping Plan* for the implementation of AB 32. This methodology is used to analyze consistency with applicable GHG reduction plans and policies and demonstrate the efficacy of the measures contained therein, but it is not a threshold of significance.

The analysis in this section includes potential emissions under NAT scenarios and from the Project at build-out based on actions and mandates expected to be in force in 2020. Early-action measures identified in the Climate Change Scoping Plan that have not been approved were not credited in this analysis. By not speculating on potential regulatory conditions, the analysis takes a conservative approach that likely overestimates the Project's GHG emissions at build-out.

The NAT scenario is used to establish a comparison with project-generated GHG emissions. The NAT scenario does not consider site-specific conditions, project design features, or prescribed mitigation measures. As an example, a NAT scenario would apply a base ITE trip-generation rate for the project and would not consider site-specific benefits resulting from the proposed mix of uses or close proximity to public transportation. The analysis below establishes NAT as complying with the minimum performance level required under Title 24. The NAT scenario also considers State mandates that were already in place when CARB prepared the *Supplemental FED* (e.g., Pavley I Standards, full implementation of California's Statewide Renewables Portfolio Standard beyond current levels of renewable energy, and the California Low Carbon Fuel Standard).

Emissions calculations for the Project include credits or reductions for the regulatory compliance measures and project design features set forth throughout this analysis, such as reductions in energy or water demand. In addition, as mobile source GHG emissions are directly dependent on the number of vehicle trips, a decrease in the number of Project generated trips as a result of project features will provide a proportional reduction in mobile source GHG emissions. This scenario conservatively did not include actions and mandates that are not already in place but are expected to be in force in 2020 (e.g., Pavley II), which could further reduce GHG emissions from use of light-duty vehicles by 2.5 percent.

As shown in Table 11, the emissions for the Project and its associated CARB 2020 NAT scenario are estimated to be 1,707 and 2,458 $MTCO_2e$ per year, respectively, which shows the Project will reduce emissions by 31 percent from the CARB 2020 NAT scenario. The Proposed Project would result in a 1,707 metric ton increase in CO_2e emissions annually. Based on these results, the Project is consistent with the reduction target as a numeric threshold (15.3 percent) set forth in the 2014 Revised AB 32 Scoping Plan.

TABLE 11:
ESTIMATED ANNUAL CO_2e GREENHOUSE GAS EMISSIONS (Metric Tons per Year)

Scenario and Source	NAT Scenario*	As Proposed Scenario	Reduction from NAT Scenario	Change from NAT Scenario
Area Sources	27	27	-	0%
Energy Sources	577	335	-242	-42%
Mobile Sources	1,706	1,198	-509	-30%
Waste Sources	35	35	-	0%
Water Sources	90	90	-	0%
Construction	23	23	-	0%
Total Emissions	2,458	1,707	-751	-31%
Existing Emissions		0		
Net Emissions		1,707		

Daily construction emissions amortized over 30-year period pursuant to SCAQMD guidance. Annual construction emissions derived by taking total emissions over duration of activities and dividing by construction period.

* NAT scenario does not assume 30% reduction in in mobile source emissions from Pavley emission standards (19.8%), low carbon fuel standards (7.2%), vehicle efficiency measures 2.8%); does not assume 42% reduction in energy production emissions from the State's renewables portfolio standard (33%), natural gas extraction efficiency measures (1.6%), and natural gas transmission and distribution efficiency measures (7.4%).

Source: DKA Planning, 2016.

The analysis in this report uses the 2014 Revised AB 32 Scoping Plan's statewide goals as one approach to evaluate the proposed project's impact (i.e., 15.3 percent reduction from NAT). The report's methodology is to compare the Project's emissions as proposed to the Project's emissions if the Project were built using a NAT approach in terms of design, methodology, and technology. This means the Project's emissions were calculated as if it was constructed with project design features to reduce GHG and with several regulatory measures adopted in furtherance of AB 32.

While the AB 32 Scoping Plan's cumulative statewide objectives were not intended to serve as the basis for project-level assessments, this analysis finds that its NAT comparison based on the Scoping Plan is appropriate because the proposed project would contribute to statewide GHG reduction goals. Specifically, the proposed project's mixed-use nature and location in an existing urban setting provide opportunities to reduce transportation-related emissions. It would eliminate many vehicle trips because travel to and from the project site could be captured by public transit and pedestrian travel instead. Further, its location along Vermont Avenue will result in substantial pass-by trips that result from simple visual exposure to travelers already on the roadway.

The proposed project's profile as an urban infill project with proximity to substantial public transit will produce reductions over land uses that are located in a more typical community that has not coordinated its land use and transportation planning. These would result in concomitant reductions in CO_2e emissions that far exceed the State's AB 32 Scoping Plan goal of a 4.5 percent reduction from the overall transportation sector by 2020. As such, this analysis concludes that the proposed project would meet and exceed its contribution to statewide climate change obligations that are under the control of local governments in their decisionmaking.

It should be noted that each source category of GHG emissions from the Project is subject to a number of regulations that directly or indirectly reduce climate change-related emissions:

- *Stationary and area sources*. Emissions from small on-site sources are subject to specific emission reduction mandates and/or are included in the State's Cap and Trade program.

- *Transportation*. Both construction and operational activities from the Project site would generate transportation-related emissions from combustion of fossil fuels that are covered in the State's Cap and Trade program.

- *Energy Use*. Both construction and operational activities from the Project site would generate energy-related emissions that are covered by the State's renewable portfolio mandates, including SB 350, which requires that at least 50 percent of electricity generated and sold to retail customers from renwable energy sources by December 31, 2030.

- *Building structures*. Operational efficiences will be built into the project that reduce energy use and waste, as mandated by CALGreen building codes.

- *Water and wastewater use*. The Project would be subject to drought-related water conservation emergency orders and related State Water Quality Control Board restrictions.

- *Major appliances*. The Project would include major appliances that are regulated by California Energy Commission requirements for energy efficiency.

- *Solid waste management*. The Project would be subject to solid waste diversion policies administered by CalRecycle that reduce GHG emissions.

In addition to the GHG emission reductions described above, it is important to note that the CO_2 estimates from mobile sources (particularly CO_2, CH_4, and N_2O emissions) are likely much greater than the emissions that would actually occur. The methodology used assumes that all emissions sources are new sources and that emissions from these sources are 100 percent additive to existing conditions. This is a standard approach taken for air quality analyses. In many cases, such an assumption is appropriate because it is impossible to determine whether emissions sources associated with a project move from outside the air basin and are in effect new emissions sources, or whether they are sources that were already in the air basin and just shifted to a new location. Because the effects of GHGs are global, a project that shifts the location of a GHG-emitting activity (e.g., where people live, where vehicles drive, or where companies conduct business) would result in no net change in global GHG emissions levels.

For example, if a substantial portion of California's population migrated from the South Coast Air Basin to the San Joaquin Valley Air Basin, this would likely decrease GHG emissions in the South Coast Air Basin and increase emissions in the San Joaquin Valley Air Basin, but little change in overall global GHG emissions. However, if a person moves from one location where the land use pattern requires auto use (e.g., commuting, shopping) to a new development that promotes shorter and fewer vehicle trips, more walking, and overall less energy usage, then it could be argued that the new development would result in a potential net reduction in global GHG emissions.

As described throughout this analysis, the Project contains numerous regulatory compliance measures and project design features that would reduce the Project's GHG emissions profile and would represent improvements vis-à-vis the NAT scenario. Thus, the Project's emissions reductions as compared to the NAT Scenario demonstrate consistency with GHG Reduction Plans, Executive Orders S-3-05 and B-30-15, SCAG's Sustainable Communities Strategy, and the City of Los Angeles' Green Building Ordinance.

As a result of this and the analysis of net emissions, the Project's contribution to global climate change is not "cumulatively considerable" and is considered less than significant.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact. The Project would contribute to cumulative increases in GHG emissions over time in the absence of policy intervention. As noted earlier, the Project would be consistent with a number of relevant plans and policies that govern climate change.

Consistency with the AB 32 Scoping Plan

The AB 32 Scoping Plan provides the basis for policies that will reduce cumulative GHG emissions within California to 1990 levels by 2020. Table 12 evaluates the Project's consistency with the AB 32 Scoping Plan to determine whether it will result in adverse cumulative impacts to global climate change. The Project is consistent with the AB 32 Scoping Plan's focus on emission reductions from several key sectors, including the following:

- **Energy Sector:** Continued improvements in California's appliance and building energy efficiency programs and initiatives, such as the State's zero net energy building goals, would serve to reduce the Project's emissions level.[51] Additionally, further additions to California's renewable resource portfolio would favorably influence the Project's emissions level.[52]

- **Transportation Sector:** Anticipated deployment of improved vehicle efficiency, zero emission technologies, lower carbon fuels, and improvement of existing transportation systems all would serve to reduce the Project's emissions level.[53]

- **Water Sector:** The Project's emissions level would be reduced as a result of further desired enhancements to water conservation technologies.[54]

- **Waste Management Sector:** Plans to further improve recycling, reuse and reduction of solid waste would beneficially reduce the Project's emissions level.[55]

TABLE 12:
PROJECT CONSISTENCY WITH AB 32 SCOPING PLAN
GREENHOUSE GAS EMISSION REDUCTION STRATEGIES

Strategy	Project Consistency
California Cap-and-Trade Program. Implement a broad-based California cap-and-trade program to provide a firm limit on emissions.	**Not Applicable.** The statewide program is not relevant to the Project.
California Light-Duty Vehicle Greenhouse Gas Standards. Implement adopted Pavley standards and planned second phase of	**Not Applicable.** The development of standards is not relevant to the Project.

[51] *CARB, First Update, pp. 37-39, 85, May 2014.*
[52] *CARB, First Update, pp. 40-41, May 2014.*
[53] *CARB, First Update, pp. 55-56, May 2014.*
[54] *CARB, First Update, p. 65, May 2014.*
[55] *CARB, First Update, p. 69, May 2014.*

TABLE 12: PROJECT CONSISTENCY WITH AB 32 SCOPING PLAN GREENHOUSE GAS EMISSION REDUCTION STRATEGIES	
Strategy	**Project Consistency**
the system. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.	
Energy Efficiency. Maximize energy efficiency building and appliance standards and pursue additional efficiency efforts including new technologies, and new policy and mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California.	**Consistent.** The Project is designed to meet Cal Green building standards by including several measures designed to reduce energy consumption.
Renewables Portfolio Standard. Achieve 33 percent renewable energy mix statewide.	**Consistent.** The Project would utilize energy from the Los Angeles Department of Water and Power, which has goals to diversify its portfolio of energy sources to increase the use of renewable energy.
Low-Carbon Fuel Standard. Develop and adopt the Low Carbon Fuel Standard.	**Not Applicable.** The statewide program is not relevant to the Project.
Regional Transportation-Related Greenhouse Gases. Develop regional greenhouse gas emissions reduction targets for passenger vehicles.	**Not Applicable.** The development of regional planning goals is not relevant to the Project. The Project's infill location near several bus routes (i.e., Metro) and Metro's Red Line station at Wilshire and Vermont on the same block makes it consistent with the smart growth objectives of the region's Sustainable Communities Strategy (SCS).
Vehicle Efficiency Measures. Implement light-duty vehicle efficiency measures.	**Not Applicable.** State agencies are responsible for implementing efficiency measures.
Goods Movement. Implement adopted regulations for the use of shore power for ships at berth. Improve efficiency in goods movement activities.	**Not Applicable.** State agencies are responsible for implementing regulations and promoting efficiency in goods movement.
Million Solar Roofs Program. Install 3,000 MW of solar-electric capacity under California's existing solar programs.	**Neutral.** The Project does not include solar roofs and is not part of the proposed Statewide initiative.
Medium/Heavy-Duty Vehicles. Adopt medium and heavy-duty vehicle efficiency measures.	**Not Applicable.** State agencies are responsible for implementing efficiency measures.
Industrial Emissions. Require assessment of large industrial sources to determine whether individual sources within a facility can cost-effectively reduce greenhouse gas emissions. Reduce greenhouse gas emissions from fugitive emissions from oil and gas extraction and gas transmission.	**Not Applicable.** This measure addresses industrial facilities.
High Speed Rail. Support implementation of a high speed rail system.	**Not Applicable.** This calls for the California High Speed Rail Authority and stakeholders to develop a statewide rail transportation system.
Green Building Strategy. Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.	**Consistent.** The Project is designed to meet Cal Green building standards and would include several measures designed to reduce energy consumption.
High Global Warming Potential Gases. Adopt measures to reduce high global warming potential gases.	**Not Applicable.** State agencies are responsible for implementing these measures.
Recycling and Waste. Reduce methane emissions at landfills. Increase waste diversion, composting and other beneficial uses of organic materials and mandate commercial recycling. Move toward zero waste.	**Consistent.** The Project is expected to have minimal impact on solid waste facilities.

TABLE 12: PROJECT CONSISTENCY WITH AB 32 SCOPING PLAN GREENHOUSE GAS EMISSION REDUCTION STRATEGIES	
Strategy	**Project Consistency**
Sustainable Forests. Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation.	**Not Applicable.** Resource Agency departments are responsible for implementing this measure.
Water. Continue efficiency programs and use cleaner energy sources to move and treat water.	**Consistent.** The Project would use water-efficient landscaping.
Agriculture. In the near-term, encourage investment in manure digester and at the five-year Scoping Plan update determine if the program should be made mandatory by 2020.	**Not Applicable.** The Project does not include agricultural facilities.
Source: DKA Planning, 2016.	

Based on this evaluation, this analysis finds the Project would be consistent with all feasible and applicable strategies recommended in the AB 32 Scoping Plan.

Consistency with SCAG's 2012-2035 RTP/SCS

At the regional level, 2012–2035 RTP/SCS is an applicable plan that defines strategies for reducing GHGs. In order to assess the Project's potential to conflict with 2012–2035 RTP/SCS, this section analyzes the Project's land use profiled for consistency with those in the Sustainable Communities Strategy. Generally, projects are considered consistent with the provisions and general policies of applicable City and regional land use plans and regulations, such as SCAG's Sustainable Communities Strategy, if they are compatible with the general intent of the plans and would not preclude the attainment of their primary goals.

Table 13 demonstrates the Project's consistency with the Actions and Strategies set forth in the 2012–2035 RTP/SCS. The Project would also be consistent with the applicable goals and principles set forth in the 2012–2035 RTP/SCS and the Compass Growth Vision Report. Therefore, the Project would be consistent with the GHG reduction related actions and strategies contained in the 2012–2035 RTP/SCS.

TABLE 13: PROJECT CONSISTENCY WITH SCAG 2012-2035 RTP/SCS		
Actions and Strategies	**Responsible Party(ies)**	**Consistency Analysis[a]**
Land Use Actions and Strategies		
Coordinate ongoing visioning efforts to build consensus on growth issues among local governments and stakeholders.	SCAG	**Not Applicable.** The responsible party identified in the 2012–2035 RTP/SCS for implementation of this action/strategy is SCAG. Nonetheless, the City, which is the lead agency for the Project, regularly coordinates with SCAG on regional growth issues.
Provide incentives and technical assistance to local governments to encourage projects and programs that balance the needs of the region.	SCAG	**Not Applicable.** The responsible party identified in the 2012–2035 RTP/SCS for implementation of this action/strategy is SCAG. Nonetheless, the City, which is the lead agency for the Project, regularly coordinates with SCAG on its advancement of projects and programs that meet regional needs. Furthermore, the

TABLE 13: PROJECT CONSISTENCY WITH SCAG 2012-2035 RTP/SCS		
Actions and Strategies	**Responsible Party(ies)**	**Consistency Analysis[a]**
		Project would support this measure by providing needed housing.
Collaborate with local jurisdictions and agencies to acquire a regional fair share housing allocation that reflects existing and future needs.	SCAG Local Jurisdictions HCD	**Consistent.** The Project would accommodate regional growth projected by SCAG in the Los Angeles Planning Area by providing needed housing within infill sites that are adjacent to existing, approved, and planned infrastructure, urban services, transportation corridors, transit facilities, and major employment centers, in furtherance of SB 375 policies.
Expand Compass Blueprint program to support member cities in the development of bicycle, pedestrian, Safe Routes to Schools, Safe Routes to Transit, and ADA Transition plans.	SCAG State	**Not Applicable.** The responsible parties identified in the 2012–2035 RTP/SCS for implementation of this action/strategy are SCAG and the State of California. The Project would not impair SCAG or the State's expansion of the Compass Blueprint program. The network of streets surrounding the Project site provide sidewalks connected to transit stops to promote alternative transportation.
Continue to support, through Compass Blueprint, local jurisdictions and sub-regional COGs adopting neighborhood-oriented development, suburban villages, and revitalized main streets as livability strategies in areas not served by high-quality transit.	SCAG State Local Jurisdictions COGs	**Consistent.** The Project contains multi-family residential, museum, and dining uses in close proximity to jobs (including those that may be offered on-site), destinations, and other neighborhood services.
Encourage the use of range-limited battery electric and other alternative fueled vehicles through policies and programs, such as, but not limited to, neighborhood oriented development, complete streets, and Electric (and other alternative fuel) Vehicle Supply Equipment in public parking lots.	Local Jurisdictions COGs SCAG CTCs	**Consistent.** While the use of alternatively-fueled vehicles by the Project's future residents and occupants is market driven and beyond the direct control or influence of the Project Applicant, the Project would not impair the City's or SCAG's ability to encourage the use of alternatively-fueled vehicles through various policies and programs.
Continue to support, through Compass Blueprint, planning for new	SCAG State	**Not Applicable.** The responsible parties identified in the 2012–2035 RTP/SCS for implementation of this action/strategy are SCAG and the State of California.

TABLE 13: PROJECT CONSISTENCY WITH SCAG 2012-2035 RTP/SCS		
Actions and Strategies	**Responsible Party(ies)**	**Consistency Analysis[a]**
mobility modes such as range- limited Neighborhood Electric Vehicles (NEVs) and other alternative fueled vehicles.		However, as noted above, the Project would not impair any jurisdiction's ability to encourage the use of alternative-fueled vehicles.
Collaborate with the region's public health professionals to enhance how SCAG addresses public health issues in its regional planning, programming, and project development activities.	SCAG State Local Jurisdictions	**Consistent.** The Project would not impair the City's, SCAG's, or the State's ability to collaborate with the region's public health professionals regarding the integration of public health issues in regional planning. Additionally, the Project would encourage healthy lifestyles through the provision of bicycle parking spaces on-site. The Project would also incorporate measures to reduce air emissions and greenhouse gases, minimize hazards, and ensure water quality.
Support projects, programs, and policies that support active and healthy community environments that encourage safe walking, bicycling, and physical activity by children, including, but not limited to development of complete streets, school siting policies, joint use agreements, and bicycle and pedestrian safety education.	Local Jurisdictions SCAG	**Consistent.** The Project would encourage healthy lifestyles through the provision of bicycle parking spaces.
Seek partnerships with state, regional, and local agencies to acquire funding sources for innovative planning projects.	Local Jurisdictions SCAG State	**Consistent.** The Project would not impair the City's, SCAG's or the State's ability to seek partnerships in furtherance of funding acquisition. Additionally, the Project would support this measure by providing needed housing that would serve the community at large.
Update local zoning codes, General Plans, and other regulatory policies to accelerate adoption of land use strategies included in the 2012–2035 RTP/SCS Plan Alternative, or that have been formally adopted by any subregional COG that is consistent with regional goals.	Local Jurisdictions	**Consistent.** While not necessarily applicable on a project-specific basis, the Project would support this action/strategy via consistency with SCAG's 2012–2035 RTP/SCS Plan.

TABLE 13: PROJECT CONSISTENCY WITH SCAG 2012-2035 RTP/SCS		
Actions and Strategies	**Responsible Party(ies)**	**Consistency Analysis[a]**
Update local zoning codes, General Plans, and other regulatory policies to promote a more balanced mix of residential, commercial, industrial, recreational and institutional uses located to provide options and to contribute to the resiliency and vitality of neighborhoods and districts.	Local Jurisdictions	**Consistent.** While not necessarily applicable on a project-specific basis, the Project would support this action/strategy by offering housing opportunities.
Support projects, programs, policies and regulations that encourage the development of complete communities, which includes a diversity of housing choices and educational opportunities, jobs for a variety of skills and education, recreation and culture, and a full-range of shopping, entertainment and services all within a relatively short distance.	Local Jurisdictions SCAG	**Consistent.** The Project would include multi-family residential, museum, and restaurant uses in close proximity to jobs (including those that may be offered on-site), destinations, and other neighborhood services. Additionally, the Project includes a range of residential housing sizes and styles to serve the needs of a growing and increasingly diverse population within the City of Los Angeles.
Pursue joint development opportunities to encourage the development of housing and mixed-use projects around existing and planned rail stations or along high-frequency bus corridors, in transit-oriented development areas, and in neighborhood-serving commercial areas.	Local Jurisdictions CTCs	**Consistent.** The Project would accommodate regional growth projected by SCAG in the Los Angeles Planning Area within an infill site that is adjacent to existing, approved, and planned infrastructure, urban services, transportation corridors, transit facilities, and major employment centers in furtherance of SB 375 policies.
Working with local jurisdictions, identify resources that can be used for employing strategies to maintain and assist in the	SCAG Local Jurisdictions	**Consistent.** The Project includes a range of residential housing sizes and styles to serve the needs of a growing and increasingly diverse population within the City.

TABLE 13: PROJECT CONSISTENCY WITH SCAG 2012-2035 RTP/SCS		
Actions and Strategies	**Responsible Party(ies)**	**Consistency Analysis[a]**
development of affordable housing.		
Consider developing healthy community or active design guidelines that promote physical activity and improved health.	Local Jurisdictions	**Consistent.** As discussed above, the Project would encourage healthy lifestyles through the provision of bicycle parking.
Support projects, programs, policies, and regulations to protect resources areas, such as natural habitats and farmland, from future development.	Local Jurisdictions SCAG	**Not Applicable.** The Project neither protects nor threatens resource areas from urbanization.
Create incentives for local jurisdictions and agencies that support land use policies and housing options that achieve the goals of SB 375.	State SCAG	**Not Applicable.** The responsible parties identified in the 2012–2035 RTP/SCS for implementation of this action/strategy are SCAG and the State of California. In any event, the Project would be consistent with the overarching goal of SB 375 to reduce vehicle miles traveled and the corresponding emission of GHGs.
Continue partnership with regional agencies to increase availability of state funding for integrated land use and transportation projects in the region.	State SCAG	**Not Applicable.** The responsible parties identified in the 2012–2035 RTP/SCS for implementation of this action/strategy are SCAG and the State of California. The Project would not impair the ability of SCAG and the State to increase the availability of funding for certain types of projects.
Engage in a strategic planning process to determine the critical components and implementation steps for identifying and addressing open space resources, including increasing and preserving park space, specifically in park-poor communities.	Local Jurisdictions SCAG	**Consistent.** The Project would not impair the ability of the City and SCAG to engage in strategic planning processes to address recreational/park shortages in existing communities. As previously discussed, the Project offers housing opportunities.
Identify and map regional priority conservation areas for potential inclusion in future plans.	SCAG	**Not Applicable.** The responsible party identified in the 2012–2035 RTP/SCS for implementation of this action/strategy is SCAG. The Project would not impair SCAG's ability to implement this action/strategy.
Engage with various partners, including CTCs and local agencies, to determine priority	SCAG CTCs	**Not Applicable.** The responsible parties identified in the 2012–2035 RTP/SCS for implementation of this action/strategy are SCAG and CTCs. The Project would not impair the ability of SCAG and CTCs to engage

TABLE 13: PROJECT CONSISTENCY WITH SCAG 2012-2035 RTP/SCS		
Actions and Strategies	**Responsible Party(ies)**	**Consistency Analysis[a]**
conservation areas and develop an implementable plan.		with various partners on issues pertaining to conservation areas.
Develop regional mitigation policies or approaches for the 2016 RTP.	SCAG CTCs	**Not Applicable.** The responsible parties identified in the 2012–2035 RTP/SCS for implementation of this action/strategy are SCAG and CTCs. The Project would not impair the ability of SCAG and CTCs to develop regional mitigation policies or approaches for the future 2016 RTP.
Transportation Network Actions and Strategies		
Perform and support studies with the goal of identifying innovative transportation strategies that enhance mobility and air quality, and determine practical steps to pursue such strategies, while engaging local communities in planning efforts.	SCAG CTCs	**Not Applicable.** The responsible parties identified in the 2012–2035 RTP/SCS for implementation of this action/strategy are SCAG and CTCs. The Project would not impair the ability of SCAG and CTCs to perform and support various studies.
Cooperate with stakeholders, particularly county transportation commissions and Caltrans, to identify new funding sources and/or increased funding levels for the preservation and maintenance of the existing transportation network.	SCAG CTCs Local Jurisdictions	**Consistent.** While not necessarily applicable on a project-specific basis, the Project would support this action/strategy by providing an on-site circulation network to improve local access, with appropriate design considerations to ensure travel safety and reliability.
Expand the use of transit modes in our subregions such as BRT, rail, limited-stop service, and point-to-point express services utilizing the HOV and HOT lane networks.	SCAG CTCs Local Jurisdictions	**Consistent.** The Project would not impair the ability of SCAG, the CTCs, or the City to expand and extend the use of other transit modes to the Project Site.
Encourage transit providers to increase frequency and span of service in TOD/HQTA and along targeted corridors where cost-effective and where	SCAG CTCs	**Not Applicable.** The responsible parties identified in the 2012–2035 RTP/SCS for implementation of this action/strategy are SCAG and CTCs. The Project would not impair the ability of SCAG and CTCs to encourage transit provided to increase the frequency and span of service.

TABLE 13: PROJECT CONSISTENCY WITH SCAG 2012-2035 RTP/SCS		
Actions and Strategies	**Responsible Party(ies)**	**Consistency Analysis[a]**
there is latent demand for transit usage.		
Encourage regional and local transit providers to develop rail interface services at Metrolink, Amtrak, and high-speed rail stations.	SCAG CTCs Local Jurisdictions	**Consistent.** While this action/strategy is not necessarily applicable on a project-specific basis, the Project would not impair the ability of SCAG, CTCs, or the City to encourage rail interface services.
Expand the Toolbox Tuesdays program to include bicycle safety design, pedestrian safety design, ADA design, training on how to use available resources that expand understanding of where collisions are happening, and information on available grant opportunities to improve bicycle and pedestrian safety.	SCAG State	**Not Applicable.** The responsible parties identified in the 2012–2035 RTP/SCS for implementation of this action/strategy are SCAG and the State of California. However, the Project would neither support nor adversely impact the expansion of Toolbox Tuesday opportunities.
Prioritize transportation investments to support compact infill development that includes a mix of land uses, housing options, and open/park space, where appropriate, to maximize the benefits for existing communities, especially vulnerable populations, and to minimize any negative impacts.	SCAG CTCs Local Jurisdictions	**Consistent.** The Project represents infill development offering a multi-family residential uses in close proximity to jobs (including those that may be offered on-site), destinations, and other neighborhood services.
Explore and implement innovative strategies and projects that enhance mobility and air quality, including those that increase the walkability of communities and accessibility to transit via non-auto modes, including walking, bicycling, and neighborhood electric	SCAG CTCs Local Jurisdictions	**Consistent.** The Project is a bicycle-friendly development that would encourage residents to walk to nearby community-serving land uses. The Project Site is also located in a High Quality Transit Area as designated by the 2012-2035 RTP/SCS. The Project would also provide bicycle parking spaces in accordance with LAMC requirements for Project residents and visitors. By combining these uses, the Project would serve to reduce vehicle trips and thus vehicle miles traveled, thereby contributing to a reduction in air pollutant emissions.

TABLE 13: PROJECT CONSISTENCY WITH SCAG 2012-2035 RTP/SCS		
Actions and Strategies	**Responsible Party(ies)**	**Consistency Analysis[a]**
vehicles (NEVs) or other alternative fueled vehicles.		
Collaborate with local jurisdictions to plan and develop residential and employment development around current and planned transit stations and neighborhood commercial centers.	SCAG CTCs Local Jurisdictions	**Consistent.** All of the Project's residential units and jobs from the museum and coffee shop would be located within walking distance of existing and proposed neighborhood commercial centers, both on- and off-site, thus reducing the number and length of vehicle trips. The Project Site is also located in a High Quality Transit Area as designated by the 2012-2035 RTP/SCS, with access to bus transit and convenient location of the Metro Red Line stations at Wilshire/Western one block to the north.
Collaborate with local jurisdictions to provide a network of local community circulators that serve new TOD, HQTAs, and neighborhood commercial centers providing an incentive for residents and employees to make trips on transit.	SCAG CTCs Local Jurisdictions	**Consistent.** As discussed above, all of the Project's residential units would be located within walking distance of existing and proposed neighborhood commercial centers, both on- and off-site.
Similar to SCAG's partnership with the City of Los Angeles and LACMTA, offer to all County Transportation Commissions a mutually funded, joint first mile/last mile study for each region.	SCAG CTCs	**Not Applicable.** The responsible parties identified in the 2012–2035 RTP/SCS for implementation of this action/strategy are SCAG and CTCs. In any event, the Project would not impair SCAG's or the CTCs' ability to offer the mutually-funded study.
Develop first-mile/last-mile strategies on a local level to provide an incentive for making trips by transit, bicycling, walking, or neighborhood electric vehicle or other ZEV options.	CTCs Local Jurisdictions	**Consistent.** The Project would not impair the CTCs' or the City's ability to develop first-mile/last-mile strategies. In support of this action/strategy, 100 percent of the Project's residential units would be located within walking distance of existing and proposed neighborhood commercial centers.
Encourage transit fare discounts and local vendor product and service discounts for residents and employees of TOD/HQTAs or for a jurisdiction's local	Local Jurisdictions	**Consistent.** The Project would not impair the City's ability to encourage transit fare and other discounts.

TABLE 13: PROJECT CONSISTENCY WITH SCAG 2012-2035 RTP/SCS		
Actions and Strategies	**Responsible Party(ies)**	**Consistency Analysis[a]**
residents in general who have fare media.		
Work with transit properties and local jurisdictions to identify and remove barriers to maintaining on-time performance.	SCAG CTCs Local Jurisdictions	**Consistent.** The Project would not impair the SCAG's, CTCs', or the City's ability to work with transit properties to remove barriers to on-time performance.
Develop policies and prioritize funding for strategies and projects that enhance mobility and air quality.	State	**Not Applicable.** The responsible party identified in the 2012–2035 RTP/SCS for implementation of this action/strategy is the State of California.
Work with the California High-Speed Rail Authority and local jurisdictions to plan and develop optimal levels of retail, residential, and employment development that fully take advantage of new travel markets and rail travelers.	State	**Not Applicable.** The responsible party identified in the 2012–2035 RTP/SCS for implementation of this action/strategy is the State of California.
Work with state lenders to provide funding for increased transit service in TOD/HQTA in support of reaching SB 375 goals.	SCAG State	**Not Applicable.** The responsible parties identified in the 2012–2035 RTP/SCS for implementation of this action/strategy are SCAG and the State of California.
Continue to work with neighboring Metropolitan Planning Organizations to provide alternative modes for interregional travel, including Amtrak and other passenger rail services and an enhanced bikeway network, such as on river trails.	SCAG State	**Not Applicable.** The responsible parties identified in the 2012–2035 RTP/SCS for implementation of this action/strategy are SCAG and the State of California.
Encourage the development of new, short haul, cost-effective transit services such as DASH and demand responsive transit (DRT) in order to both serve and encourage development of	CTCs Municipal Transit Operators	**Not Applicable.** The responsible parties identified in the 2012–2035 RTP/SCS for implementation of this action/strategy are CTCs and Municipal Transit Operators.

TABLE 13: PROJECT CONSISTENCY WITH SCAG 2012-2035 RTP/SCS		
Actions and Strategies	**Responsible Party(ies)**	**Consistency Analysis[a]**
compact neighborhood centers.		
Work with the state legislature to seek funding for Complete Streets planning and implementation in support of reaching SB 375 goals.	SCAG State	**Not Applicable.** The responsible parties identified in the 2012–2035 RTP/SCS for implementation of this action/strategy are SCAG and the State of California.
Continue to support the California Interregional Blueprint as a plan that links statewide transportation goals and regional transportation and land use goals to produce a unified transportation strategy.	SCAG State	**Not Applicable.** The responsible parties identified in the 2012–2035 RTP/SCS for implementation of this action/strategy are SCAG and the State of California. Nonetheless, the Project would integrate land use and transportation concerns via development of multi-family residences in close proximity to the regional roadway network.
Transportation Demand Management (TDM) Actions and Strategies		
Examine major projects and strategies that reduce congestion and emissions and optimize the productivity and overall performance of the transportation system.	SCAG	**Not Applicable.** The responsible party identified in the 2012–2035 RTP/SCS for implementation of this action/strategy is SCAG.
Develop comprehensive regional active transportation network along with supportive tools and resources that can help jurisdictions plan and prioritize new active transportation projects in their cities.	SCAG CTCs Local Jurisdictions	**Consistent.** The Project would promote the development of a comprehensive regional active transportation network by locating more potential bicycle and pedestrians that would travel using non-motorized transportation modes.
Encourage the implementation of a Complete Streets policy that meets the needs of all users of the streets, roads and highways—including bicyclists, children, persons with disabilities, motorists, neighborhood electric vehicle (NEVs) users, movers of commercial	Local Jurisdictions COGs SCAG CTCs	**Not Applicable.** While the City would be the implementing agency for any Complete Streets project, the Project would neither benefit nor adversely affect the implementation of infrastructure that benefits alternative transportation modes.

TABLE 13: PROJECT CONSISTENCY WITH SCAG 2012-2035 RTP/SCS		
Actions and Strategies	**Responsible Party(ies)**	**Consistency Analysis[a]**
goods, pedestrians, users of public transportation and seniors—for safe and convenient travel in a manner that is suitable to the suburban and urban contexts within the region.		
Support work-based programs that encourage emission reduction strategies and incentivize active transportation commuting or ride-share modes.	SCAG Local Jurisdictions	**Not Applicable.** Future tenants of the residential spaces, museum, and coffee shop could be encouraged to utilize alternative transportation modes. The inclusion of bicycle parking for future residents will help promote active transportation modes.
Develop infrastructure plans and educational programs to promote active transportation options and other alternative fueled vehicles, such as neighborhood electric vehicles (NEVs), and consider collaboration with local public health departments, walking/biking coalitions, and/or Safe Routes to School initiatives, which may already have components of such educational programs in place.	Local Jurisdictions	**Not Applicable.** While local governments are responsible for implementing this, the Project would neither benefit nor adversely impact the City's development of infrastructure and education programs that promote alternative fueled vehicles or other initiatives that reduce congestion and air pollution.
Encourage the development of telecommuting programs by employers through review and revision of policies that may discourage alternative work options.	Local Jurisdictions CTCs	**Not Applicable.** While local governments are responsible for implementing this, the Project would neither benefit nor adversely impact the City's development of telecommuting programs by employers that reduce congestion and air pollution.
Emphasize active transportation and alternative fueled vehicle projects as part of complying with the	State SCAG Local Jurisdictions	**Not Applicable.** While local governments are responsible for implementing this, the Project would neither benefit nor adversely impact the City's development of active transportation and alternative fuel vehicle programs that promote alternative fueled

TABLE 13: PROJECT CONSISTENCY WITH SCAG 2012-2035 RTP/SCS		
Actions and Strategies	**Responsible Party(ies)**	**Consistency Analysis[a]**
Complete Streets Act (AB 1358).		vehicles or other initiatives that reduce congestion and air pollution.
Transportation System Management (TSM) Actions and Strategies		
Work with relevant state and local transportation authorities to increase the efficiency of the existing transportation system.	SCAG Local Jurisdictions State	**Consistent.** The Project would not impair the ability of SCAG, the City, or the State to work with transportation authorities to increase the efficiency of the existing transportation system. All improvements would be constructed in accordance with LADOT requirements, as appropriate. Further, the Project would mitigate any significant impacts to local and regional roadways to the extent feasible, as required by CEQA.
Collaborate with local jurisdictions and subregional COGs to develop regional policies regarding TSM.	SCAG COGs Local Jurisdictions	**Consistent.** The Project would not impair the ability of SCAG, the COGs, or the City to collaborate on the development of regional TSM policies. All Project transportation-related improvements would be developed in consultation with LADOT and/or transit service providers, as appropriate, and constructed in compliance with their respective standards.
Contribute to and utilize regional data sources to ensure efficient integration of the transportation system.	SCAG CTCs	**Not Applicable.** The responsible parties identified in the 2012–2035 RTP/SCS for implementation of this action/strategy are SCAG and CTCs. However, the Project traffic analysis is based on a traffic model developed by LADOT as the primary tool for forecasting traffic volumes within the City of Los Angeles. In addition, SCAG's regional data, including population, housing, and employment forecasts are used where appropriate throughout this analysis.
Provide training opportunities for local jurisdictions on TSM strategies, such as Intelligent Transportation Systems (ITS).	SCAG Local Jurisdictions	**Consistent.** While not necessarily applicable on a project-specific basis, the Project would not impair the ability of SCAG or the City to provide TSM strategy training. However, the Project would support transportation system management strategies via the provision of appropriate roadway improvements that meet LADOT requirements, as appropriate.
Collaborate with local jurisdictions and subregional COGs to continually update the ITS inventory.	SCAG COGS Local Jurisdictions	**Consistent.** The Project would not impair the ability of SCAG, the COGs, or the City to collaborate on updates to the ITS inventory. See the discussion above regarding the Project's support of transportation system management strategies.
Collaborate with CTCs to regularly update the county and regional ITS architecture.	SCAG CTCs Local Jurisdictions	**Consistent.** The Project does not impair the ability of SCAG, the CTCs, or the City to collaborate on updates to the ITS architecture.

TABLE 13: PROJECT CONSISTENCY WITH SCAG 2012-2035 RTP/SCS		
Actions and Strategies	**Responsible Party(ies)**	**Consistency Analysis[a]**
Collaborate with the state and federal Government and subregional COGs to examine potential innovative TDM/TSM strategies.	SCAG State COGs	**Not Applicable.** The responsible parties identified in the 2012–2035 RTP/SCS for implementation of this action/strategy are SCAG, the State of California, and the COGs.
Clean Vehicle Technology Actions and Strategies		
Develop a Regional PEV Readiness Plan with a focus on charge port infrastructure plans to support and promote the introduction of electric and other alternative fuel vehicles in Southern California.	SCAG	**Not Applicable.** The responsible party identified in the 2012–2035 RTP/SCS for implementation of this action/strategy is SCAG.
Support subregional strategies to develop infrastructure and supportive land uses to accelerate fleet conversion to electric or other near zero-emission technologies. The activities committed in the two subregions are put forward as best practices that others can adopt in the future.	SCAG Local Jurisdictions	**Consistent.** While the acceleration of fleet conversion by the Project's future residents is market driven and beyond the direct control or influence of the Project applicant, the Project would not impair the City's or SCAG's ability to support subregional strategies in furtherance of that conversion.
SCAG = Southern California Association of Governments *HCD = California Department of Housing and Community Development* *COG = subregional council of governments* *CTCs = county transportation commissions* *TOD = transit-oriented development* *HQTA = High Quality Transit Area* [a] *"Not Applicable" actions/strategies are those that are not identified for implementation by Local Jurisdictions. The Project's consistency with any actions/strategies identified for implementation by the Local Jurisdictions (i.e., the City of Los Angeles) is assessed above.* Source: SCAG 2012–2035 RTP/SCS, Chapter 4: Sustainable Communities Strategy, Tables 4.3 through 4.7; April 2012.		

Consistency with the City of Los Angeles Green Building Ordinance

The Los Angeles Green Building Ordinance requires that all Projects filed on or after January 1, 2014 comply with the Los Angeles Green Building Code as amended to comply with the 2013 CALGreen Code. Mandatory measures under the Green Building Ordinance that would help

reduce GHG emissions include short and long term bicycle parking measures; designated parking measure; and electric vehicle supply wiring. The Project would comply with these mandatory measures, as the Project would provide on-site bicycle parking spaces. Furthermore, the Green Building Ordinance includes measures that would increase energy efficiency on the Project Site, including installing Energy Star rated appliances and installation of water-conserving fixtures. Therefore, the Project is consistent with the Los Angeles Green Building Ordinance.

The Project would comply with the City of Los Angeles' Green Building Ordinance standards that compel LEED certification, reduce emissions beyond a "Business-as-Usual" scenario, and are consistent with the AB 32 Scoping Plan's recommendation for communities to adopt building codes that go beyond the State's codes. Under the City's Los Angeles Green Building Code, the Project must incorporate several measures and design elements that reduce the carbon footprint of the development:

The Project would include design, construction, maintenance, and operation at the Leadership in Energy & Environmental Design (LEED) certified level. Projects that are LEED certified generally exceed Title 24 (2013) standards by at least 10 percent.[56] As such, it would incorporate several design elements and programs that will reduce the carbon footprint of the development, including:

1. **GHG Emissions Associated with Planning and Design.** The Project must have measures to reduce storm water pollution, provide designated parking for bicycles and low-emission vehicles, have wiring for electric vehicles, reduce light pollution, and design grading and paving to keep surface water from entering buildings. This would include:

    - Reduced parking based on compliance with the City's bicycle parking ordinance.
    - Access to several public transportation lines. There are a number of local and Rapid buses operated by Metro that provide north-south and east-west service to the project vicinity. In addition, the Metro Red Line has a station at Wilshire/Vermont is located on the same block as the Project site.
    - Located near residential neighborhoods. The Project site's proximity to medium- and high-density residential neighborhoods increases the likelihood that more travel to and from the development will be made by non-motorized modes that will reduce potential GHG emissions.

2. **GHG Emissions Associated with Energy Demand.** The Project must meet Title 24 2013 standards and include Energy Star appliances, have pre-wiring for future solar facilities, and off-grid pre-wiring for future solar facilities. This includes:

    - Use of low-emitting paints, adhesives, carpets, coating, and other materials.
    - Equipment and fixtures will comply with the following where applicable:
        - Installed gas-fired space heating equipment will have an Annual Fuel Utilization Ratio of .90 or higher.
        - Installed electric heat pumps will have a Heating Seasonal Performance Factor of 8.0 or higher.
        - Installed cooling equipment will have a Seasonal Energy Efficiency Ratio higher than 13.0 and an Energy Efficiency Ratio of at least 11.5.
        - Installed tank type water heaters will have an Energy Factor higher than .6.

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[56] *U.S. Green Building Council. "Interpretation 10396" accessed at http://www.usgbc.org/leed-interpretations?keys=10396 February 26, 2015.*

- Installed tankless water heaters will have an Energy Factor higher than .80.
- Perform duct leakage testing to verify a total leakage rate of less than 6 percent of the total fan flow.
- Building lighting in the kitchen and bathrooms within the dwelling units will consist of at least 90 percent ENERGY STAR qualified hard-wired fixtures (luminaires).

- An electrical conduit will be provided from the electrical service equipment to an accessible location in the attic or other location suitable for future connection to a solar system. The conduit shall be adequately sized by the designer but shall not be less than one inch. The conduit shall be labeled as per the Los Angeles Fire Department requirements. The electrical panel shall be sized to accommodate the installation of a future electrical solar system.
- A minimum of 250 square feet of contiguous unobstructed roof area will be provided for the installation of future photovoltaic or other electrical solar panels. The location shall be suitable for installing future solar panels as determined by the designer.
- Appliances will meet ENERGY STAR if an ENERGY STAR designation is applicable for that appliance.

3. **GHG Emissions Associated with Water Use.** The Project would be required to provide a schedule of plumbing fixtures and fixture fittings that reduce potable water use within the development by at least 20 percent. It must also provide irrigation design and controllers that are weather- or soil moisture-based and automatically adjust in response to weather conditions and plants' needs. Wastewater reduction measures must be included that help reduce outdoor potable water use. This would include:

   - A schedule of plumbing fixtures and fixture fittings that will reduce the overall use of potable water within the building by at least 20 percent shall be provided. The reduction shall be based on the maximum allowable water use per plumbing fixture and fitting as required by the California Building Standards Code. The 20 percent reduction in potable water use shall be demonstrated by one of the following methods:
     - Each plumbing fixture and fitting shall meet reduced flow rates specified on Table 4.303.2; or
     - A calculation demonstrating a 20 percent reduction in the building "water use" baseline will be provided.
   - When single shower fixtures are served by more than one showerhead, the combined flow rate of all the showerheads will not exceed specified flow rates.
   - When automatic irrigation system controllers for landscaping are provided and installed at the time of final inspection, the controllers shall comply with the following:
     - Controllers shall be weather- or soil moisture-based controllers that automatically adjust irrigation in response to changes in plants' needs as weather conditions change;
     - Weather-based controllers without integral rain sensors or communication systems that account for local rainfall shall have a separate wired or wireless rain sensor that connects or communicates with the controller(s).

4. **GHG Emissions Associated with Solid Waste Generation.** The Project is subject to construction waste reduction of at least 50 percent. In addition, project site operations are subject to AB 939 requirements to divert 50 percent of solid waste to landfills through source reduction, recycling, and composting. The Project is required by the California

Solid Waste Reuse and Recycling Access Act of 1991 to provide adequate storage areas for collection and storage of recyclable waste materials.

5. **GHG Emissions Associated with Environmental Quality.** The Project must meet strict standards for any fireplaces and woodstoves, covering of duct openings and protection of mechanical equipment during constructions, and meet other requirements for reducing emissions from flooring systems, any CFC and halon use, and other project amenities. This would include:

    - Openings in the building envelope separating conditioned space from unconditioned space needed to accommodate gas, plumbing, electrical lines and other necessary penetrations must be sealed in compliance with the California Energy Code.
    - Provide flashing details on the building plans which comply with accepted industry standards or manufacturer's instructions around windows and doors, roof valley, and chimneys to roof intersections.

Taken together, these strategies encourage providing recreational, cultural, and a range of shopping, entertainment and services all within a relatively short distance; providing employment near current and planned transit stations and neighborhood commercial centers; and supporting alternative fueled and electric vehicles. As a result, the Project would be consistent with applicable State, regional and local GHG reduction strategies. Given that the Project would generate GHG emissions that are less than significant, and given that GHG emission impacts are cumulative in nature, the Project's incremental contribution to cumulatively significant GHG emissions would be less than cumulatively considerable, and impacts would be less than significant.

Cumulative Impacts

The emission of GHGs by a single project into the atmosphere is not itself necessarily an adverse environmental effect. Rather, it is the increased accumulation of GHG from more than one project and many sources in the atmosphere that may result in global climate change. The consequences of that climate change can cause adverse environmental effects. A project's GHG emissions typically would be very small in comparison to state or global GHG emissions and, consequently, they would, in isolation, have no significant direct impact on climate change. The State has mandated a goal of reducing statewide emissions to 1990 levels by 2020, even though statewide population and commerce is predicted to continue to expand. In order to achieve this goal, CARB is in the process of establishing and implementing regulations to reduce statewide GHG emissions. At a minimum, most project-related emissions, such as energy, mobile, and construction, would be covered by the Cap-and-Trade Program.

Currently, there are no applicable CARB, SCAQMD, or City of Los Angeles significance thresholds or specific reduction targets, and no approved policy or guidance to assist in determining significance at the project or cumulative levels. Additionally, there is currently no generally accepted methodology to determine whether GHG emissions associated with a specific project represent new emissions or existing, displaced emissions. Therefore, consistent with CEQA Guideline Section 15064h(3), the City as Lead Agency has determined that the Project's contribution to cumulative GHG emissions and global climate change would be less than significant if the Project is consistent with the applicable regulatory plans and policies to reduce Greenhouse Gas Emissions: Executive Orders S-3-05 and B-30-15; the RTP/SCS and the City of Los Angeles Green Building Ordinance.

Implementation of the Project's regulatory compliance measures and project design features, including State mandates, would contribute to GHG reductions. These reductions represent a reduction from NAT and support State goals for GHG emissions reduction. The methods used to establish this relative reduction are consistent with the approach used in the CARB's *Climate Change Scoping Plan* for the implementation of AB 32.

The Project is consistent with the approach outlined in CARB's *Climate Change Scoping Plan*, particularly its emphasis on the identification of emission reduction opportunities that promote economic growth while achieving greater energy efficiency and accelerating the transition to a low-carbon economy. In addition, as recommended by CARB's *Climate Change Scoping Plan*, the Project would use "green building" features as a framework for achieving cross-cutting emissions reductions as new buildings and infrastructure would be designed to achieve the standards of CALGreen.

As part of SCAG's 2012–2035 SCS/RTP, a reduction in VMT within the region is a key component to achieve the 2020 and 2035 GHG emission reduction targets established by CARB. The Project results in significant VMT reduction in comparison to NAT and would be consistent with the SCS/RTP.

The Project also would comply with the City of Los Angeles Green Building Code, which emphasizes improving energy conservation and energy efficiency, increasing renewable energy generation, and changing transportation and land use patterns to reduce auto dependence. The Project's regulatory compliance measures and project design features provided above and throughout this analysis would advance these objectives. Further, the related projects would also be anticipated to comply with many of these same emissions reduction goals and objectives (e.g., City of Los Angeles Green Building Code).

Additionally, the Project has incorporated sustainability design features in accordance with regulatory requirements as provided in the regulatory compliance measures throughout this analysis and project design features to reduce VMT and to reduce the Project's potential impact with respect to GHG emissions. With implementation of these features, the Project results in a 31 percent reduction in GHG emissions from NAT. The Project's GHG reduction measures make the Project consistent with AB 32.

The Project would also be consistent with applicable land use policies of the City of Los Angeles and SCAG's RTP/SCS pertaining to air quality, including reducing GHG emissions.

As discussed above, the Project is consistent with the applicable GHG reduction plans and policies. The NAT comparison and SCAQMD's draft service population target demonstrate the efficacy of the measures contained in these policies. Moreover, while the Project is not directly subject to the Cap and Program, that Program would indirectly reduce the Project's GHG emissions by regulating "covered entities" that affect the Project's GHG emissions, including energy, mobile, and construction emissions. More importantly, the Cap-and-Trade Program would backstop the GHG reduction plans and policies applicable to the Project in that the Cap-and-Trade Program would be responsible for relatively more emissions reductions should California's direct regulatory measures reduce GHG emissions less than expected. This would ensure that the GHG reduction targets of AB 32 are met.

Thus, given the Project's consistency with State, SCAG, and City of Los Angeles GHG emission reduction goals and objectives, the Project would not conflict with any applicable plan, policy, or

regulation of an agency adopted for the purpose of reducing the emissions of GHGs. In the absence of adopted standards and established significance thresholds, and given this consistency, it is concluded that the Project's impacts are not cumulatively considerable.

APPENDIX A

Modeling Results

605 S. Vermont Future

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High Turnover (Sit Down Restaurant)	2.50	1000sqft	0.05	2,500.00	0
Apartments Mid Rise	103.00	Dwelling Unit	0.25	60,000.00	295
User Defined Educational	30.00	User Defined Unit	0.20	30,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	11			**Operational Year**	2018
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 - Developer information

Construction Phase - Developer information

Off-road Equipment - Developer information

Off-road Equipment - Developer information

Off-road Equipment - Developer information

Off-road Equipment - Developer information

Off-road Equipment - Developer information

Grading - Developer information

Demolition - Developer information

Trips and VMT - Developer information

Woodstoves - Conservative assumption that all units have gas fireplaces

Construction Off-road Equipment Mitigation - Assumes SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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tblConstructionPhase	NumDays	1.00	10.00
tblConstructionPhase	PhaseEndDate	3/6/2018	11/1/2017
tblConstructionPhase	PhaseEndDate	7/29/2016	7/31/2016
tblConstructionPhase	PhaseStartDate	12/2/2017	8/1/2017
tblFireplaces	NumberGas	87.55	103.00
tblFireplaces	NumberNoFireplace	10.30	0.00
tblFireplaces	NumberWood	5.15	0.00
tblGrading	AcresOfGrading	8.63	0.50
tblGrading	AcresOfGrading	15.00	0.50
tblGrading	MaterialExported	0.00	36,076.00
tblLandUse	LandUseSquareFeet	103,000.00	60,000.00
tblLandUse	LandUseSquareFeet	0.00	30,000.00
tblLandUse	LotAcreage	0.06	0.05
tblLandUse	LotAcreage	2.71	0.25
tblLandUse	LotAcreage	0.00	0.20
tblOffRoadEquipment	HorsePower	62.00	226.00
tblOffRoadEquipment	HorsePower	78.00	89.00
tblOffRoadEquipment	HorsePower	9.00	84.00
tblOffRoadEquipment	HorsePower	81.00	97.00
tblOffRoadEquipment	HorsePower	162.00	81.00
tblOffRoadEquipment	HorsePower	162.00	255.00
tblOffRoadEquipment	HorsePower	361.00	97.00

tblOffRoadEquipment	LoadFactor	0.31	0.29
tblOffRoadEquipment	LoadFactor	0.48	0.20
tblOffRoadEquipment	LoadFactor	0.56	0.74
tblOffRoadEquipment	LoadFactor	0.73	0.37
tblOffRoadEquipment	LoadFactor	0.38	0.73
tblOffRoadEquipment	LoadFactor	0.38	0.40
tblOffRoadEquipment	LoadFactor	0.48	0.37
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	4.00	6.00
tblOffRoadEquipment	UsageHours	1.00	0.00
tblOffRoadEquipment	UsageHours	1.00	6.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	6.00	7.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblTripsAndVMT	HaulingTripLength	20.00	15.20
tblTripsAndVMT	HaulingTripLength	20.00	15.20
tblTripsAndVMT	VendorTripNumber	0.00	25.00
tblTripsAndVMT	VendorTripNumber	16.00	17.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	3.00	6.00
tblTripsAndVMT	WorkerTripNumber	8.00	6.00

tblTripsAndVMT	WorkerTripNumber	28.00	8.00
tblTripsAndVMT	WorkerTripNumber	88.00	80.00
tblTripsAndVMT	WorkerTripNumber	18.00	15.00
tblWoodstoves	NumberCatalytic	5.15	0.00
tblWoodstoves	NumberNoncatalytic	5.15	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					
2016	0.2557	2.1661	1.8333	3.6400e-003	0.1629	0.1006	0.2635	0.0546	0.0957	0.1503	0.0000	319.9667	319.9667	0.0354	0.0000	320.7099
2017	0.9889	2.3669	2.4076	4.3400e-003	0.1234	0.1436	0.2670	0.0330	0.1397	0.1727	0.0000	354.6378	354.6378	0.0441	0.0000	355.5648
Total	**1.2446**	**4.5330**	**4.2408**	**7.9800e-003**	**0.2863**	**0.2441**	**0.5304**	**0.0876**	**0.2354**	**0.3230**	**0.0000**	**674.6045**	**674.6045**	**0.0795**	**0.0000**	**676.2746**

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					
2016	0.0817	0.8443	1.7576	3.6400e-003	0.0821	0.0116	0.0937	0.0268	0.0109	0.0377	0.0000	319.9665	319.9665	0.0354	0.0000	320.7097
2017	0.6984	0.5594	2.2862	4.3400e-003	0.0782	6.9500e-003	0.0851	0.0219	6.6700e-003	0.0286	0.0000	354.6375	354.6375	0.0441	0.0000	355.5645
Total	**0.7801**	**1.4038**	**4.0438**	**7.9800e-003**	**0.1603**	**0.0186**	**0.1789**	**0.0487**	**0.0176**	**0.0663**	**0.0000**	**674.6041**	**674.6041**	**0.0795**	**0.0000**	**676.2742**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	37.32	69.03	4.65	0.00	44.02	92.38	66.28	44.38	92.55	79.49	0.00	0.00	0.00	0.00	0.00	0.00

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	0.4309	0.0124	1.0703	6.0000e-005		7.5700e-003	7.5700e-003		7.5500e-003	7.5500e-003	0.0000	26.4700	26.4700	2.2000e-003	4.5000e-004	26.6567
Energy	6.9300e-003	0.0609	0.0378	3.8000e-004		4.7900e-003	4.7900e-003		4.7900e-003	4.7900e-003	0.0000	333.5984	333.5984	7.5700e-003	2.5500e-003	334.5486
Mobile	0.5709	1.6324	6.3040	0.0159	1.0510	0.0232	1.0742	0.2815	0.0214	0.3029	0.0000	1,196.9385	1,196.9385	0.0475	0.0000	1,197.9354
Waste						0.0000	0.0000		0.0000	0.0000	15.6567	0.0000	15.6567	0.9253	0.0000	35.0877
Water						0.0000	0.0000		0.0000	0.0000	2.3698	80.6507	83.0205	0.2453	6.1400e-003	90.0757
Total	1.0088	1.7058	7.4121	0.0164	1.0510	0.0355	1.0866	0.2815	0.0337	0.3152	18.0265	1,637.6577	1,655.6841	1.2278	9.1400e-003	1,684.3041

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	0.4309	0.0124	1.0703	6.0000e-005		7.5700e-003	7.5700e-003		7.5500e-003	7.5500e-003	0.0000	26.4700	26.4700	2.2000e-003	4.5000e-004	26.6567
Energy	6.9300e-003	0.0609	0.0378	3.8000e-004		4.7900e-003	4.7900e-003		4.7900e-003	4.7900e-003	0.0000	333.5984	333.5984	7.5700e-003	2.5500e-003	334.5486
Mobile	0.5709	1.6324	6.3040	0.0159	1.0510	0.0232	1.0742	0.2815	0.0214	0.3029	0.0000	1,196.9385	1,196.9385	0.0475	0.0000	1,197.9354

Waste						0.0000	0.0000		0.0000	0.0000	15.6567	0.0000	15.6567	0.9253	0.0000	35.0877
Water						0.0000	0.0000		0.0000	0.0000	2.3698	80.6507	83.0205	0.2453	6.1300e-003	90.0720
Total	1.0088	1.7058	7.4121	0.0164	1.0510	0.0355	1.0866	0.2815	0.0337	0.3152	18.0265	1,637.6577	1,655.6841	1.2278	9.1300e-003	1,684.3003

	ROG	NOx	CO	SO2	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	0.11	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	7/1/2016	7/15/2016	5	11	
2	Site Preparation	Site Preparation	7/16/2016	7/31/2016	5	10	
3	Grading	Grading	8/1/2016	8/31/2016	5	23	
4	Building Construction	Building Construction	9/1/2016	12/1/2017	5	327	
5	Architectural Coating	Architectural Coating	8/1/2017	11/1/2017	5	67	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0.5

Acres of Paving: 0

Residential Indoor: 121,500; Residential Outdoor: 40,500; Non-Residential Indoor: 48,750; Non-Residential Outdoor: 16,250 (Architectural Coating –

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	0.00	81	0.73
Demolition	Excavators	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	0	0.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Site Preparation	Excavators	1	7.00	255	0.40

Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Rubber Tired Dozers	0	0.00	255	0.40
Site Preparation	Scrapers	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Grading	Bore/Drill Rigs	1	8.00	205	0.50
Grading	Cement and Mortar Mixers	1	8.00	9	0.56
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	6.00	174	0.41
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Rubber Tired Loaders	1	8.00	199	0.36
Grading	Sweepers/Scrubbers	1	8.00	64	0.46
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Welders	1	8.00	46	0.45
Building Construction	Aerial Lifts	1	6.00	226	0.29
Building Construction	Air Compressors	2	6.00	89	0.20
Building Construction	Cement and Mortar Mixers	2	8.00	84	0.74
Building Construction	Concrete/Industrial Saws	2	6.00	97	0.37
Building Construction	Cranes	1	6.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	0	0.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	1	6.00	0.00	287.00	14.70	6.90	15.20	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	6.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	11	8.00	25.00	4,510.00	14.70	6.90	15.20	LD_Mix	HDT_Mix	HHDT

Building Construction	11	80.00	17.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	15.00	1.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Replace Ground Cover

Water Exposed Area

Clean Paved Roads

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0310	0.0000	0.0310	4.7000e-003	0.0000	4.7000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7300e-003	0.0270	0.0210	3.0000e-005		1.9700e-003	1.9700e-003		1.8200e-003	1.8200e-003	0.0000	2.6068	2.6068	7.9000e-004	0.0000	2.6233
Total	2.7300e-003	0.0270	0.0210	3.0000e-005	0.0310	1.9700e-003	0.0330	4.7000e-003	1.8200e-003	6.5200e-003	0.0000	2.6068	2.6068	7.9000e-004	0.0000	2.6233

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	2.2300e-003	0.0329	0.0293	8.0000e-005	1.8700e-003	4.5000e-004	2.3200e-003	5.1000e-004	4.2000e-004	9.3000e-004	0.0000	7.4940	7.4940	6.0000e-005	0.0000	7.4952
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	1.4000e-004	2.1000e-004	2.1900e-003	0.0000	3.6000e-004	0.0000	3.7000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3529	0.3529	2.0000e-005	0.0000	0.3533
Total	**2.3700e-003**	**0.0331**	**0.0314**	**8.0000e-005**	**2.2300e-003**	**4.5000e-004**	**2.6900e-003**	**6.1000e-004**	**4.2000e-004**	**1.0300e-003**	**0.0000**	**7.8469**	**7.8469**	**8.0000e-005**	**0.0000**	**7.8485**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0115	0.0000	0.0115	1.7400e-003	0.0000	1.7400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4000e-004	1.4900e-003	0.0212	3.0000e-005		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	2.6067	2.6067	7.9000e-004	0.0000	2.6233
Total	**3.4000e-004**	**1.4900e-003**	**0.0212**	**3.0000e-005**	**0.0115**	**5.0000e-005**	**0.0116**	**1.7400e-003**	**5.0000e-005**	**1.7900e-003**	**0.0000**	**2.6067**	**2.6067**	**7.9000e-004**	**0.0000**	**2.6233**

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	2.2300e-003	0.0329	0.0293	8.0000e-005	1.2600e-003	4.5000e-004	1.7200e-003	3.6000e-004	4.2000e-004	7.8000e-004	0.0000	7.4940	7.4940	6.0000e-005	0.0000	7.4952
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	1.4000e-004	2.1000e-004	2.1900e-003	0.0000	2.3000e-004	0.0000	2.3000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.3529	0.3529	2.0000e-005	0.0000	0.3533
Total	**2.3700e-003**	**0.0331**	**0.0314**	**8.0000e-005**	**1.4900e-003**	**4.5000e-004**	**1.9500e-003**	**4.2000e-004**	**4.2000e-004**	**8.5000e-004**	**0.0000**	**7.8469**	**7.8469**	**8.0000e-005**	**0.0000**	**7.8485**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.1200e-003	0.0967	0.0476	9.0000e-005		5.3500e-003	5.3500e-003		4.9200e-003	4.9200e-003	0.0000	8.0369	8.0369	2.4200e-003	0.0000	8.0878
Total	**9.1200e-003**	**0.0967**	**0.0476**	**9.0000e-005**	**2.7000e-004**	**5.3500e-003**	**5.6200e-003**	**3.0000e-005**	**4.9200e-003**	**4.9500e-003**	**0.0000**	**8.0369**	**8.0369**	**2.4200e-003**	**0.0000**	**8.0878**

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	1.3000e-004	1.9000e-004	2.0000e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3208	0.3208	2.0000e-005	0.0000	0.3212
Total	**1.3000e-004**	**1.9000e-004**	**2.0000e-003**	**0.0000**	**3.3000e-004**	**0.0000**	**3.3000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.3208**	**0.3208**	**2.0000e-005**	**0.0000**	**0.3212**

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					1.0000e-004	0.0000	1.0000e-004	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	1.0400e-003	4.5000e-003	0.0523	9.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	8.0369	8.0369	2.4200e-003	0.0000	8.0878
Total	**1.0400e-003**	**4.5000e-003**	**0.0523**	**9.0000e-005**	**1.0000e-004**	**1.4000e-004**	**2.4000e-004**	**1.0000e-005**	**1.4000e-004**	**1.5000e-004**	**0.0000**	**8.0369**	**8.0369**	**2.4200e-003**	**0.0000**	**8.0878**

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	1.3000e-004	1.9000e-004	2.0000e-003	0.0000	2.1000e-004	0.0000	2.1000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.3208	0.3208	2.0000e-005	0.0000	0.3212
Total	**1.3000e-004**	**1.9000e-004**	**2.0000e-003**	**0.0000**	**2.1000e-004**	**0.0000**	**2.1000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.3208**	**0.3208**	**2.0000e-005**	**0.0000**	**0.3212**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0543	0.0000	0.0543	0.0289	0.0000	0.0289	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0608	0.5951	0.3746	5.9000e-004		0.0316	0.0316		0.0296	0.0296	0.0000	54.4731	54.4731	0.0149	0.0000	54.7867
Total	**0.0608**	**0.5951**	**0.3746**	**5.9000e-004**	**0.0543**	**0.0316**	**0.0859**	**0.0289**	**0.0296**	**0.0585**	**0.0000**	**54.4731**	**54.4731**	**0.0149**	**0.0000**	**54.7867**

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	0.0351	0.5172	0.4597	1.2900e-003	0.0293	7.1500e-003	0.0365	8.0500e-003	6.5800e-003	0.0146	0.0000	117.7636	117.7636	9.0000e-004	0.0000	117.7824
Vendor	2.5800e-003	0.0263	0.0342	6.0000e-005	1.7600e-003	4.0000e-004	2.1600e-003	5.0000e-004	3.6000e-004	8.7000e-004	0.0000	5.7237	5.7237	4.0000e-005	0.0000	5.7246
Worker	4.0000e-004	5.9000e-004	6.1200e-003	1.0000e-005	1.0100e-003	1.0000e-005	1.0200e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.9837	0.9837	6.0000e-005	0.0000	0.9849
Total	0.0380	0.5441	0.5000	1.3600e-003	0.0321	7.5600e-003	0.0397	8.8200e-003	6.9500e-003	0.0158	0.0000	124.4710	124.4710	1.0000e-003	0.0000	124.4919

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0201	0.0000	0.0201	0.0107	0.0000	0.0107	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.5200e-003	0.0552	0.3516	5.9000e-004		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	54.4730	54.4730	0.0149	0.0000	54.7866
Total	7.5200e-003	0.0552	0.3516	5.9000e-004	0.0201	9.2000e-004	0.0210	0.0107	9.2000e-004	0.0116	0.0000	54.4730	54.4730	0.0149	0.0000	54.7866

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	0.0351	0.5172	0.4597	1.2900e-003	0.0198	7.1500e-003	0.0270	5.7100e-003	6.5800e-003	0.0123	0.0000	117.7636	117.7636	9.0000e-004	0.0000	117.7824

Vendor	2.5800e-003	0.0263	0.0342	6.0000e-005	1.2100e-003	4.0000e-004	1.6100e-003	3.7000e-004	3.6000e-004	7.3000e-004	0.0000	5.7237	5.7237	4.0000e-005	0.0000	5.7246
Worker	4.0000e-004	5.9000e-004	6.1200e-003	1.0000e-005	6.3000e-004	1.0000e-005	6.4000e-004	1.8000e-004	1.0000e-005	1.8000e-004	0.0000	0.9837	0.9837	6.0000e-005	0.0000	0.9849
Total	**0.0380**	**0.5441**	**0.5000**	**1.3600e-003**	**0.0217**	**7.5600e-003**	**0.0292**	**6.2600e-003**	**6.9500e-003**	**0.0132**	**0.0000**	**124.4710**	**124.4710**	**1.0000e-003**	**0.0000**	**124.4919**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1207	0.7800	0.5374	8.3000e-004		0.0522	0.0522		0.0508	0.0508	0.0000	70.2781	70.2781	0.0139	0.0000	70.5707
Total	**0.1207**	**0.7800**	**0.5374**	**8.3000e-004**		**0.0522**	**0.0522**		**0.0508**	**0.0508**	**0.0000**	**70.2781**	**70.2781**	**0.0139**	**0.0000**	**70.5707**

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	6.6500e-003	0.0677	0.0879	1.6000e-004	4.5400e-003	1.0200e-003	5.5500e-003	1.2900e-003	9.3000e-004	2.2300e-003	0.0000	14.7223	14.7223	1.1000e-004	0.0000	14.7246
Worker	0.0152	0.0222	0.2315	4.9000e-004	0.0381	3.7000e-004	0.0385	0.0101	3.4000e-004	0.0105	0.0000	37.2109	37.2109	2.1100e-003	0.0000	37.2553
Total	**0.0219**	**0.0899**	**0.3194**	**6.5000e-004**	**0.0427**	**1.3900e-003**	**0.0441**	**0.0114**	**1.2700e-003**	**0.0127**	**0.0000**	**51.9332**	**51.9332**	**2.2200e-003**	**0.0000**	**51.9799**

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	0.0104	0.1159	0.4797	8.3000e-004		1.1300e-003	1.1300e-003		1.1300e-003	1.1300e-003	0.0000	70.2781	70.2781	0.0139	0.0000	70.5707
Total	**0.0104**	**0.1159**	**0.4797**	**8.3000e-004**		**1.1300e-003**	**1.1300e-003**		**1.1300e-003**	**1.1300e-003**	**0.0000**	**70.2781**	**70.2781**	**0.0139**	**0.0000**	**70.5707**

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	6.6500e-003	0.0677	0.0879	1.6000e-004	3.1200e-003	1.0200e-003	4.1300e-003	9.5000e-004	9.3000e-004	1.8800e-003	0.0000	14.7223	14.7223	1.1000e-004	0.0000	14.7246
Worker	0.0152	0.0222	0.2315	4.9000e-004	0.0239	3.7000e-004	0.0243	6.6400e-003	3.4000e-004	6.9800e-003	0.0000	37.2109	37.2109	2.1100e-003	0.0000	37.2653
Total	**0.0219**	**0.0899**	**0.3194**	**6.5000e-004**	**0.0270**	**1.3900e-003**	**0.0284**	**7.5900e-003**	**1.2700e-003**	**8.8600e-003**	**0.0000**	**51.9332**	**51.9332**	**2.2200e-003**	**0.0000**	**51.9799**

3.5 Building Construction - 2017

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	0.2989	1.9894	1.4423	2.2800e-003		0.1284	0.1284		0.1248	0.1248	0.0000	192.9346	192.9346	0.0364	0.0000	193.6984

Total	0.2989	1.9894	1.4423	2.2800e-003		0.1284	0.1284		0.1248	0.1248	0.0000	192.9346	192.9346	0.0364	0.0000	193.6984

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	0.0167	0.1701	0.2294	4.5000e-004	0.0125	2.5000e-003	0.0150	3.5700e-003	2.3000e-003	5.8700e-003	0.0000	39.9643	39.9643	2.9000e-004	0.0000	39.9705
Worker	0.0376	0.0554	0.5767	1.3400e-003	0.1052	9.7000e-004	0.1062	0.0279	9.0000e-004	0.0288	0.0000	98.8040	98.8040	5.3900e-003	0.0000	98.9171
Total	**0.0543**	**0.2255**	**0.8062**	**1.7900e-003**	**0.1177**	**3.4700e-003**	**0.1212**	**0.0315**	**3.2000e-003**	**0.0347**	**0.0000**	**138.7683**	**138.7683**	**5.6800e-003**	**0.0000**	**138.8875**

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	0.0287	0.3197	1.3233	2.2800e-003		3.1200e-003	3.1200e-003		3.1200e-003	3.1200e-003	0.0000	192.9344	192.9344	0.0364	0.0000	193.6982
Total	**0.0287**	**0.3197**	**1.3233**	**2.2800e-003**		**3.1200e-003**	**3.1200e-003**		**3.1200e-003**	**3.1200e-003**	**0.0000**	**192.9344**	**192.9344**	**0.0364**	**0.0000**	**193.6982**

Mitigated Construction Off-Site

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					
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	0.0167	0.1701	0.2294	4.5000e-004	8.6100e-003	2.5000e-003	0.0111	2.6100e-003	2.3000e-003	4.9100e-003	0.0000	39.9643	39.9643	2.9000e-004	0.0000	39.9705
Worker	0.0376	0.0554	0.5767	1.3400e-003	0.0660	9.7000e-004	0.0670	0.0183	9.0000e-004	0.0192	0.0000	98.8040	98.8040	5.3900e-003	0.0000	98.9171
Total	**0.0543**	**0.2255**	**0.8062**	**1.7900e-003**	**0.0746**	**3.4700e-003**	**0.0781**	**0.0209**	**3.2000e-003**	**0.0241**	**0.0000**	**138.7683**	**138.7683**	**5.6800e-003**	**0.0000**	**138.8875**

3.6 Architectural Coating - 2017

Unmitigated Construction On-Site

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					
Archit. Coating	0.6112					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1464	0.1252	2.0000e-004		0.0116	0.0116		0.0116	0.0116	0.0000	17.1068	17.1068	1.8100e-003	0.0000	17.1447
Total	**0.6335**	**0.1464**	**0.1252**	**2.0000e-004**		**0.0116**	**0.0116**		**0.0116**	**0.0116**	**0.0000**	**17.1068**	**17.1068**	**1.8100e-003**	**0.0000**	**17.1447**

Unmitigated Construction Off-Site

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					
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	2.7000e-004	2.7900e-003	3.7700e-003	1.0000e-005	2.1000e-004	4.0000e-005	2.5000e-004	6.0000e-005	4.0000e-005	1.0000e-004	0.0000	0.6563	0.6563	0.0000	0.0000	0.6564
Worker	1.9700e-003	2.9000e-003	0.0302	7.0000e-005	5.5100e-003	5.0000e-005	5.5600e-003	1.4600e-003	5.0000e-005	1.5100e-003	0.0000	5.1718	5.1718	2.8000e-004	0.0000	5.1777
Total	**2.2400e-003**	**5.6900e-003**	**0.0340**	**8.0000e-005**	**5.7200e-003**	**9.0000e-005**	**5.8100e-003**	**1.5200e-003**	**9.0000e-005**	**1.6100e-003**	**0.0000**	**5.8281**	**5.8281**	**2.8000e-004**	**0.0000**	**5.8341**

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	0.6112					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9900e-003	8.6300e-003	0.1228	2.0000e-004		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	17.1068	17.1068	1.8100e-003	0.0000	17.1447
Total	**0.6132**	**8.6300e-003**	**0.1228**	**2.0000e-004**		**2.7000e-004**	**2.7000e-004**		**2.7000e-004**	**2.7000e-004**	**0.0000**	**17.1068**	**17.1068**	**1.8100e-003**	**0.0000**	**17.1447**

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	2.7000e-004	2.7900e-003	3.7700e-003	1.0000e-005	1.4000e-004	4.0000e-005	1.8000e-004	4.0000e-005	4.0000e-005	8.0000e-005	0.0000	0.6563	0.6563	0.0000	0.0000	0.6564
Worker	1.9700e-003	2.9000e-003	0.0302	7.0000e-005	3.4500e-003	5.0000e-005	3.5100e-003	9.6000e-004	5.0000e-005	1.0100e-003	0.0000	5.1718	5.1718	2.8000e-004	0.0000	5.1777
Total	**2.2400e-003**	**5.6900e-003**	**0.0340**	**8.0000e-005**	**3.5900e-003**	**9.0000e-005**	**3.6900e-003**	**1.0000e-003**	**9.0000e-005**	**1.0900e-003**	**0.0000**	**5.8281**	**5.8281**	**2.8000e-004**	**0.0000**	**5.8341**

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	0.5709	1.6324	6.3040	0.0159	1.0510	0.0232	1.0742	0.2815	0.0214	0.3029	0.0000	1,196.9385	1,196.9385	0.0475	0.0000	1,197.9354
Unmitigated	0.5709	1.6324	6.3040	0.0159	1.0510	0.0232	1.0742	0.2815	0.0214	0.3029	0.0000	1,196.9385	1,196.9385	0.0475	0.0000	1,197.9354

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High Turnover (Sit Down Restaurant)	317.88	395.93	329.60	450,688	450,688
Apartments Mid Rise	678.77	737.48	625.21	2,321,974	2,321,974
User Defined Educational	0.00	0.00	0.00		
Total	996.65	1,133.41	954.81	2,772,662	2,772,662

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
High Turnover (Sit Down Restaurant)	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
User Defined Educational	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.531767	0.058060	0.178534	0.124864	0.038964	0.006284	0.016861	0.033134	0.002486	0.003151	0.003685	0.000540	0.001671

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive 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	265.0278	265.0278	6.2600e-003	1.3000e-003	265.5607
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	265.0278	265.0278	6.2600e-003	1.3000e-003	265.5607
NaturalGas Mitigated	6.9300e-003	0.0609	0.0378	3.8000e-004		4.7900e-003	4.7900e-003		4.7900e-003	4.7900e-003	0.0000	68.5706	68.5706	1.3100e-003	1.2600e-003	68.9879
NaturalGas Unmitigated	6.9300e-003	0.0609	0.0378	3.8000e-004		4.7900e-003	4.7900e-003		4.7900e-003	4.7900e-003	0.0000	68.5706	68.5706	1.3100e-003	1.2600e-003	68.9879

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					
High Turnover (Sit Down Restaurant)	582525	3.1400e-003	0.0286	0.0240	1.7000e-004		2.1700e-003	2.1700e-003		2.1700e-003	2.1700e-003	0.0000	31.0858	31.0858	6.0000e-004	5.7000e-004	31.2749
User Defined Educational	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
Apartments Mid Rise	702439	3.7900e-003	0.0324	0.0138	2.1000e-004		2.6200e-003	2.6200e-003		2.6200e-003	2.6200e-003	0.0000	37.4848	37.4848	7.2000e-004	6.9000e-004	37.7130
Total		**6.9300e-003**	**0.0609**	**0.0378**	**3.8000e-004**		**4.7900e-003**	**4.7900e-003**		**4.7900e-003**	**4.7900e-003**	**0.0000**	**68.5706**	**68.5706**	**1.3200e-003**	**1.2600e-003**	**68.9879**

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					
User Defined Educational	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
Apartments Mid Rise	702439	3.7900e-003	0.0324	0.0138	2.1000e-004		2.6200e-003	2.6200e-003		2.6200e-003	2.6200e-003	0.0000	37.4848	37.4848	7.2000e-004	6.9000e-004	37.7130
High Turnover (Sit Down Restaurant)	582525	3.1400e-003	0.0286	0.0240	1.7000e-004		2.1700e-003	2.1700e-003		2.1700e-003	2.1700e-003	0.0000	31.0858	31.0858	6.0000e-004	5.7000e-004	31.2749
Total		**6.9300e-003**	**0.0609**	**0.0378**	**3.8000e-004**		**4.7900e-003**	**4.7900e-003**		**4.7900e-003**	**4.7900e-003**	**0.0000**	**68.5706**	**68.5706**	**1.3200e-003**	**1.2600e-003**	**68.9879**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	358571	199.7102	4.7200e-003	9.8000e-004	200.1117
High Turnover (Sit Down Restaurant)	117275	65.3177	1.5400e-003	3.2000e-004	65.4490
User Defined Educational	0	0.0000	0.0000	0.0000	0.0000
Total		**265.0278**	**6.2600e-003**	**1.3000e-003**	**265.5607**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			

Apartments Mid Rise	358571	199.7102	4.7200e-003	9.8000e-004	200.1117
High Turnover (Sit Down Restaurant)	117275	65.3177	1.5400e-003	3.2000e-004	65.4490
User Defined Educational	0	0.0000	0.0000	0.0000	0.0000
Total		**265.0278**	**6.2600e-003**	**1.3000e-003**	**265.5607**

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	0.4309	0.0124	1.0703	6.0000e-005		7.5700e-003	7.5700e-003		7.5500e-003	7.5500e-003	0.0000	26.4700	26.4700	2.2000e-003	4.5000e-004	26.6567
Unmitigated	0.4309	0.0124	1.0703	6.0000e-005		7.5700e-003	7.5700e-003		7.5500e-003	7.5500e-003	0.0000	26.4700	26.4700	2.2000e-003	4.5000e-004	26.6567

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	0.0611					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3343					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.5000e-003	0.0000	1.4000e-004	0.0000		1.7300e-003	1.7300e-003		1.7100e-003	1.7100e-003	0.0000	24.7341	24.7341	4.7000e-004	4.5000e-004	24.8847

Landscaping	0.0330	0.0124	1.0701	6.0000e-005		5.8400e-003	5.8400e-003		5.8400e-003	5.8400e-003	0.0000	1.7359	1.7359	1.7200e-003	0.0000	1.7721
Total	**0.4309**	**0.0124**	**1.0703**	**6.0000e-005**		**7.5700e-003**	**7.5700e-003**		**7.5500e-003**	**7.5500e-003**	**0.0000**	**26.4700**	**26.4700**	**2.1900e-003**	**4.5000e-004**	**26.6567**

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	0.0611					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3343					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.5000e-003	0.0000	1.4000e-004	0.0000		1.7300e-003	1.7300e-003		1.7100e-003	1.7100e-003	0.0000	24.7341	24.7341	4.7000e-004	4.5000e-004	24.8847
Landscaping	0.0330	0.0124	1.0701	6.0000e-005		5.8400e-003	5.8400e-003		5.8400e-003	5.8400e-003	0.0000	1.7359	1.7359	1.7200e-003	0.0000	1.7721
Total	**0.4309**	**0.0124**	**1.0703**	**6.0000e-005**		**7.5700e-003**	**7.5700e-003**		**7.5500e-003**	**7.5500e-003**	**0.0000**	**26.4700**	**26.4700**	**2.1900e-003**	**4.5000e-004**	**26.6567**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	83.0205	0.2453	6.1300e-003	90.0720
Unmitigated	83.0205	0.2453	6.1400e-003	90.0757

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	6.71086 / 4.23076	76.9769	0.2204	5.5300e-003	83.3201
High Turnover (Sit Down Restaurant)	0.758834 / 0.0484362	6.0437	0.0249	6.1000e-004	6.7556
User Defined Educational	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**83.0205**	**0.2453**	**6.1400e-003**	**90.0757**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	6.71086 / 4.23076	76.9769	0.2204	5.5200e-003	83.3167
High Turnover (Sit Down Restaurant)	0.758834 / 0.0484362	6.0437	0.0249	6.1000e-004	6.7552
User Defined Educational	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**83.0205**	**0.2453**	**6.1300e-003**	**90.0720**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	15.6567	0.9253	0.0000	35.0877
Unmitigated	15.6567	0.9253	0.0000	35.0877

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	47.38	9.6177	0.5684	0.0000	21.5539
High Turnover (Sit Down Restaurant)	29.75	6.0390	0.3569	0.0000	13.5338
User Defined Educational	0	0.0000	0.0000	0.0000	0.0000
Total		**15.6567**	**0.9253**	**0.0000**	**35.0877**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	47.38	9.6177	0.5684	0.0000	21.5539

High Turnover (Sit Down Restaurant)	29.75	6.0390	0.3589	0.0000	13.5338
User Defined Educational	0	0.0000	0.0000	0.0000	0.0000
Total		**15.6567**	**0.9253**	**0.0000**	**35.0877**

9.0 Operational Offroad

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

10.0 Vegetation

605 S. Vermont Future

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High Turnover (Sit Down Restaurant)	2.50	1000sqft	0.05	2,500.00	0
Apartments Mid Rise	103.00	Dwelling Unit	0.25	60,000.00	295
User Defined Educational	30.00	User Defined Unit	0.20	30,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	11			**Operational Year**	2018
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 - Developer information

Construction Phase - Developer information

Off-road Equipment - Developer information

Off-road Equipment - Developer information

Off-road Equipment - Developer information

Off-road Equipment - Developer information

Off-road Equipment - Developer information

Grading - Developer information

Demolition - Developer information

Trips and VMT - Developer information

Woodstoves - Conservative assumption that all units have gas fireplaces

Construction Off-road Equipment Mitigation - Assumes SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	43
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	5.00	67.00
tblConstructionPhase	NumDays	100.00	327.00
tblConstructionPhase	NumDays	10.00	11.00
tblConstructionPhase	NumDays	2.00	23.00
tblConstructionPhase	NumDays	1.00	10.00
tblConstructionPhase	PhaseEndDate	3/6/2018	11/1/2017
tblConstructionPhase	PhaseEndDate	7/29/2016	7/31/2016
tblConstructionPhase	PhaseStartDate	12/2/2017	8/1/2017
tblFireplaces	NumberGas	87.55	103.00
tblFireplaces	NumberNoFireplace	10.30	0.00
tblFireplaces	NumberWood	5.15	0.00
tblGrading	AcresOfGrading	8.63	0.50
tblGrading	AcresOfGrading	15.00	0.50
tblGrading	MaterialExported	0.00	36,076.00
tblLandUse	LandUseSquareFeet	103,000.00	60,000.00
tblLandUse	LandUseSquareFeet	0.00	30,000.00
tblLandUse	LotAcreage	0.06	0.05
tblLandUse	LotAcreage	2.71	0.25
tblLandUse	LotAcreage	0.00	0.20
tblOffRoadEquipment	HorsePower	62.00	226.00
tblOffRoadEquipment	HorsePower	78.00	89.00
tblOffRoadEquipment	HorsePower	9.00	84.00
tblOffRoadEquipment	HorsePower	81.00	97.00
tblOffRoadEquipment	HorsePower	162.00	81.00
tblOffRoadEquipment	HorsePower	162.00	255.00
tblOffRoadEquipment	HorsePower	361.00	97.00
tblOffRoadEquipment	LoadFactor	0.31	0.29
tblOffRoadEquipment	LoadFactor	0.48	0.20

tblOffRoadEquipment	LoadFactor	0.56	0.74
tblOffRoadEquipment	LoadFactor	0.73	0.37
tblOffRoadEquipment	LoadFactor	0.38	0.73
tblOffRoadEquipment	LoadFactor	0.38	0.40
tblOffRoadEquipment	LoadFactor	0.48	0.37
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	4.00	6.00
tblOffRoadEquipment	UsageHours	1.00	0.00
tblOffRoadEquipment	UsageHours	1.00	6.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	6.00	7.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblTripsAndVMT	HaulingTripLength	20.00	15.20
tblTripsAndVMT	HaulingTripLength	20.00	15.20
tblTripsAndVMT	VendorTripNumber	0.00	25.00
tblTripsAndVMT	VendorTripNumber	16.00	17.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	3.00	6.00
tblTripsAndVMT	WorkerTripNumber	8.00	6.00
tblTripsAndVMT	WorkerTripNumber	28.00	8.00
tblTripsAndVMT	WorkerTripNumber	88.00	80.00
tblTripsAndVMT	WorkerTripNumber	18.00	15.00

tblWoodstoves	NumberCatalytic	5.15	0.00
tblWoodstoves	NumberNoncatalytic	5.15	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	8.4431	96.7155	70.7310	0.1705	7.5585	3.4075	10.9660	3.2910	3.1751	6.4661	0.0000	17,172.8486	17,172.8486	1.5261	0.0000	17,204.8966
2017	21.9204	22.8659	23.4443	0.0427	1.1742	1.4480	2.6222	0.3136	1.4159	1.7294	0.0000	3,849.1230	3,849.1230	0.4551	0.0000	3,858.6798
Total	30.3634	119.5814	94.1753	0.2132	8.7327	4.8555	13.5882	3.6046	4.5910	8.1955	0.0000	21,021.9716	21,021.9716	1.9812	0.0000	21,063.5764

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	3.8110	49.7651	68.7371	0.1705	3.6594	0.7360	4.3955	1.4815	0.6834	2.1649	0.0000	17,172.8486	17,172.8486	1.5261	0.0000	17,204.8966
2017	19.0633	4.8390	22.3815	0.0427	0.7419	0.0655	0.8074	0.2075	0.0630	0.2705	0.0000	3,849.1230	3,849.1230	0.4551	0.0000	3,858.6798
Total	22.8743	54.6041	91.1186	0.2132	4.4014	0.8015	5.2029	1.6890	0.7464	2.4354	0.0000	21,021.9716	21,021.9716	1.9812	0.0000	21,063.5764

	ROG	NOx	CO	SO2	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	24.66	54.34	3.25	0.00	49.60	83.49	61.71	53.14	83.74	70.28	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.6305	0.0994	8.5720	4.5000e-004		0.1849	0.1849		0.1834	0.1834	0.0000	2,196.4845	2,196.4845	0.0570	0.0400	2,210.0776
Energy	0.0380	0.3338	0.2069	2.0700e-003		0.0262	0.0262		0.0262	0.0262		414.1706	414.1706	7.9400e-003	7.5900e-003	416.6912
Mobile	3.5189	9.2600	37.8303	0.0999	6.4983	0.1406	6.6389	1.7377	0.1295	1.8672		8,271.1187	8,271.1187	0.3180		8,277.7963
Total	6.1874	9.6932	46.6092	0.1024	6.4983	0.3517	6.8499	1.7377	0.3392	2.0769	0.0000	10,881.7738	10,881.7738	0.3829	0.0476	10,904.5651

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.6305	0.0994	8.5720	4.5000e-004		0.1849	0.1849		0.1834	0.1834	0.0000	2,196.4845	2,196.4845	0.0570	0.0400	2,210.0776
Energy	0.0380	0.3338	0.2069	2.0700e-003		0.0262	0.0262		0.0262	0.0262		414.1706	414.1706	7.9400e-003	7.5900e-003	416.6912
Mobile	3.5189	9.2600	37.8303	0.0999	6.4983	0.1406	6.6389	1.7377	0.1295	1.8672		8,271.1187	8,271.1187	0.3180		8,277.7963
Total	6.1874	9.6932	46.6092	0.1024	6.4983	0.3517	6.8499	1.7377	0.3392	2.0769	0.0000	10,881.7738	10,881.7738	0.3829	0.0476	10,904.5651

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	7/1/2016	7/15/2016	5	11	
2	Site Preparation	Site Preparation	7/16/2016	7/31/2016	5	10	
3	Grading	Grading	8/1/2016	8/31/2016	5	23	
4	Building Construction	Building Construction	9/1/2016	12/1/2017	5	327	
5	Architectural Coating	Architectural Coating	8/1/2017	11/1/2017	5	67	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0.5

Acres of Paving: 0

Residential Indoor: 121,500; Residential Outdoor: 40,500; Non-Residential Indoor: 48,750; Non-Residential Outdoor: 16,250 (Architectural Coating –

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	0.00	81	0.73
Demolition	Excavators	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	0	0.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Site Preparation	Excavators	1	7.00	255	0.40
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Rubber Tired Dozers	0	0.00	255	0.40
Site Preparation	Scrapers	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Grading	Bore/Drill Rigs	1	8.00	205	0.50
Grading	Cement and Mortar Mixers	1	8.00	9	0.56
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41

Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Rubber Tired Loaders	1	8.00	199	0.36
Grading	Sweepers/Scrubbers	1	8.00	64	0.46
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Welders	1	8.00	46	0.45
Building Construction	Aerial Lifts	1	6.00	226	0.29
Building Construction	Air Compressors	2	6.00	89	0.20
Building Construction	Cement and Mortar Mixers	2	8.00	84	0.74
Building Construction	Concrete/Industrial Saws	2	6.00	97	0.37
Building Construction	Cranes	1	6.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	0	0.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	1	6.00	0.00	287.00	14.70	6.90	15.20	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	6.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	11	8.00	25.00	4,510.00	14.70	6.90	15.20	LD_Mix	HDT_Mix	HHDT
Building Construction	11	80.00	17.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	15.00	1.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Replace Ground Cover

Water Exposed Area

Clean Paved Roads

3.2 Demolition - 2016

Unmitigated Construction On-Site

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
	lb/day										lb/day					
Fugitive Dust					5.6416	0.0000	5.6416	0.8542	0.0000	0.8542			0.0000			0.0000
Off-Road	0.4960	4.9099	3.8176	5.0300e-003		0.3589	0.3589		0.3302	0.3302		522.4446	522.4446	0.1576		525.7540
Total	**0.4960**	**4.9099**	**3.8176**	**5.0300e-003**	**5.6416**	**0.3589**	**6.0004**	**0.8542**	**0.3302**	**1.1843**		**522.4446**	**522.4446**	**0.1576**		**525.7540**

Unmitigated Construction Off-Site

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
	lb/day										lb/day					
Hauling	0.3873	5.6858	4.6655	0.0149	0.3454	0.0826	0.4281	0.0946	0.0760	0.1706		1,503.8945	1,503.8945	0.0114		1,504.1329
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
Worker	0.0267	0.0336	0.4162	8.7000e-004	0.0671	6.3000e-004	0.0677	0.0178	5.8000e-004	0.0184		73.7413	73.7413	4.0100e-003		73.8256
Total	**0.4140**	**5.7194**	**5.0817**	**0.0158**	**0.4125**	**0.0832**	**0.4958**	**0.1124**	**0.0766**	**0.1890**		**1,577.6357**	**1,577.6357**	**0.0154**		**1,577.9585**

Mitigated Construction On-Site

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
	lb/day										lb/day					

Fugitive Dust					2.0902	0.0000	2.0902	0.3165	0.0000	0.3165			0.0000			0.0000
Off-Road	0.0626	0.2712	3.8586	5.0300e-003		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003	0.0000	522.4446	522.4446	0.1576		525.7540
Total	**0.0626**	**0.2712**	**3.8586**	**5.0300e-003**	**2.0902**	**8.3400e-003**	**2.0985**	**0.3165**	**8.3400e-003**	**0.3248**	**0.0000**	**522.4446**	**522.4446**	**0.1576**		**525.7540**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3873	5.6858	4.6655	0.0149	0.2327	0.0826	0.3153	0.0669	0.0760	0.1429		1,503.8945	1,503.8945	0.0114		1,504.1329
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
Worker	0.0267	0.0336	0.4162	8.7000e-004	0.0420	6.3000e-004	0.0426	0.0116	5.8000e-004	0.0122		73.7413	73.7413	4.0100e-003		73.8256
Total	**0.4140**	**5.7194**	**5.0817**	**0.0158**	**0.2747**	**0.0832**	**0.3580**	**0.0786**	**0.0766**	**0.1551**		**1,577.6357**	**1,577.6357**	**0.0154**		**1,577.9585**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0530	0.0000	0.0530	5.7300e-003	0.0000	5.7300e-003			0.0000			0.0000
Off-Road	1.8243	19.3318	9.5104	0.0170		1.0695	1.0695		0.9840	0.9840		1,771.8380	1,771.8380	0.5345		1,783.0614
Total	**1.8243**	**19.3318**	**9.5104**	**0.0170**	**0.0530**	**1.0695**	**1.1225**	**5.7300e-003**	**0.9840**	**0.9897**		**1,771.8380**	**1,771.8380**	**0.5345**		**1,783.0614**

Unmitigated Construction Off-Site

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
	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		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
Worker	0.0267	0.0336	0.4162	8.7000e-004	0.0671	6.3000e-004	0.0677	0.0178	5.8000e-004	0.0184		73.7413	73.7413	4.0100e-003		73.8256
Total	**0.0267**	**0.0336**	**0.4162**	**8.7000e-004**	**0.0671**	**6.3000e-004**	**0.0677**	**0.0178**	**5.8000e-004**	**0.0184**		**73.7413**	**73.7413**	**4.0100e-003**		**73.8256**

Mitigated Construction On-Site

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
	lb/day										lb/day					
Fugitive Dust					0.0197	0.0000	0.0197	2.1200e-003	0.0000	2.1200e-003			0.0000			0.0000
Off-Road	0.2079	0.9010	10.4605	0.0170		0.0277	0.0277		0.0277	0.0277	0.0000	1,771.8380	1,771.8380	0.5345		1,783.0614
Total	**0.2079**	**0.9010**	**10.4605**	**0.0170**	**0.0197**	**0.0277**	**0.0474**	**2.1200e-003**	**0.0277**	**0.0298**	**0.0000**	**1,771.8380**	**1,771.8380**	**0.5345**		**1,783.0614**

Mitigated Construction Off-Site

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
	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		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
Worker	0.0267	0.0336	0.4162	8.7000e-004	0.0420	6.3000e-004	0.0426	0.0116	5.8000e-004	0.0122		73.7413	73.7413	4.0100e-003		73.8256
Total	**0.0267**	**0.0336**	**0.4162**	**8.7000e-004**	**0.0420**	**6.3000e-004**	**0.0426**	**0.0116**	**5.8000e-004**	**0.0122**		**73.7413**	**73.7413**	**4.0100e-003**		**73.8256**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.7170	0.0000	4.7170	2.5120	0.0000	2.5120			0.0000			0.0000
Off-Road	5.2861	51.7516	32.5711	0.0516		2.7516	2.7516		2.5718	2.5718		5,221.4147	5,221.4147	1.4314		5,251.4732
Total	**5.2861**	**51.7516**	**32.5711**	**0.0516**	**4.7170**	**2.7516**	**7.4686**	**2.5120**	**2.5718**	**5.0838**		**5,221.4147**	**5,221.4147**	**1.4314**		**5,251.4732**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.9107	42.7314	35.0633	0.1122	2.5962	0.6208	3.2170	0.7109	0.5711	1.2820		11,302.5608	11,302.5608	0.0853		11,304.3529
Vendor	0.2106	2.1877	2.5417	5.4900e-003	0.1559	0.0342	0.1901	0.0444	0.0315	0.0758		550.5515	550.5515	4.0400e-003		550.6364
Worker	0.0356	0.0448	0.5550	1.1600e-003	0.0894	8.5000e-004	0.0903	0.0237	7.8000e-004	0.0245		98.3217	98.3217	5.3500e-003		98.4341
Total	**3.1570**	**44.9640**	**38.1599**	**0.1189**	**2.8415**	**0.6559**	**3.4974**	**0.7790**	**0.6033**	**1.3823**		**11,951.4340**	**11,951.4340**	**0.0947**		**11,953.4234**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.7477	0.0000	1.7477	0.9307	0.0000	0.9307			0.0000			0.0000
Off-Road	0.6541	4.8011	30.5771	0.0516		0.0801	0.0801		0.0801	0.0801	0.0000	5,221.4147	5,221.4147	1.4314		5,251.4732
Total	0.6541	4.8011	30.5771	0.0516	1.7477	0.0801	1.8278	0.9307	0.0801	1.0108	0.0000	5,221.4147	5,221.4147	1.4314		5,251.4732

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.9107	42.7314	35.0633	0.1122	1.7489	0.6208	2.3698	0.5030	0.5711	1.0740		11,302.5608	11,302.5608	0.0853		11,304.3529
Vendor	0.2106	2.1877	2.5417	5.4900e-003	0.1069	0.0342	0.1411	0.0323	0.0315	0.0638		550.5515	550.5515	4.0400e-003		550.6364
Worker	0.0356	0.0448	0.5550	1.1600e-003	0.0560	8.5000e-004	0.0568	0.0155	7.8000e-004	0.0163		98.3217	98.3217	5.3500e-003		98.4341
Total	3.1570	44.9640	38.1599	0.1189	1.9118	0.6559	2.5677	0.5508	0.6033	1.1541		11,951.4340	11,951.4340	0.0947		11,953.4234

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7737	17.9315	12.3536	0.0190		1.2000	1.2000		1.1670	1.1670		1,780.8826	1,780.8826	0.3531		1,788.2969

Total	2.7737	17.9315	12.3536	0.0190		1.2000	1.2000		1.1670	1.1670		1,780.8826	1,780.8826	0.3531		1,788.2969

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1432	1.4877	1.7284	3.7400e-003	0.1060	0.0233	0.1293	0.0302	0.0214	0.0516		374.3750	374.3750	2.7500e-003		374.4328
Worker	0.3563	0.4484	5.5496	0.0116	0.8942	8.4600e-003	0.9027	0.2372	7.7700e-003	0.2449		983.2170	983.2170	0.0535		984.3410
Total	0.4995	1.9361	7.2779	0.0154	1.0002	0.0317	1.0319	0.2673	0.0292	0.2965		1,357.5921	1,357.5921	0.0563		1,358.7738

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2390	2.6639	11.0276	0.0190		0.0260	0.0260		0.0260	0.0260	0.0000	1,780.8826	1,780.8826	0.3531		1,788.2969
Total	0.2390	2.6639	11.0276	0.0190		0.0260	0.0260		0.0260	0.0260	0.0000	1,780.8826	1,780.8826	0.3531		1,788.2969

Mitigated Construction Off-Site

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
	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1432	1.4877	1.7284	3.7400e-003	0.0727	0.0233	0.0959	0.0220	0.0214	0.0434		374.3750	374.3750	2.7500e-003		374.4328
Worker	0.3563	0.4484	5.5496	0.0116	0.5599	8.4600e-003	0.5684	0.1551	7.7700e-003	0.1629		983.2170	983.2170	0.0535		984.3410
Total	0.4995	1.9361	7.2779	0.0154	0.6326	0.0317	0.6643	0.1771	0.0292	0.2062		1,357.5921	1,357.5921	0.0563		1,358.7738

3.5 Building Construction - 2017

Unmitigated Construction On-Site

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
	lb/day										lb/day					
Off-Road	2.4908	16.5783	12.0191	0.0190		1.0698	1.0698		1.0401	1.0401		1,772.2837	1,772.2837	0.3341		1,779.2997
Total	2.4908	16.5783	12.0191	0.0190		1.0698	1.0698		1.0401	1.0401		1,772.2837	1,772.2837	0.3341		1,779.2997

Unmitigated Construction Off-Site

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
	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Vendor	0.1310	1.3562	1.6227	3.7300e-003	0.1061	0.0207	0.1268	0.0302	0.0191	0.0492		368.3967	368.3967	2.6600e-003		368.4525
Worker	0.3202	0.4056	5.0281	0.0116	0.8942	8.1000e-003	0.9023	0.2372	7.4700e-003	0.2446		946.4220	946.4220	0.0495		947.4608
Total	**0.4512**	**1.7618**	**6.6508**	**0.0154**	**1.0003**	**0.0288**	**1.0291**	**0.2673**	**0.0265**	**0.2939**		**1,314.8187**	**1,314.8187**	**0.0521**		**1,315.9134**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2390	2.6639	11.0276	0.0190		0.0260	0.0260		0.0260	0.0260	0.0000	1,772.2837	1,772.2837	0.3341		1,779.2997
Total	**0.2390**	**2.6639**	**11.0276**	**0.0190**		**0.0260**	**0.0260**		**0.0260**	**0.0260**	**0.0000**	**1,772.2837**	**1,772.2837**	**0.3341**		**1,779.2997**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1310	1.3562	1.6227	3.7300e-003	0.0727	0.0207	0.0934	0.0220	0.0191	0.0411		368.3967	368.3967	2.6600e-003		368.4525
Worker	0.3202	0.4056	5.0281	0.0116	0.5599	8.1000e-003	0.5680	0.1551	7.4700e-003	0.1626		946.4220	946.4220	0.0495		947.4608
Total	**0.4512**	**1.7618**	**6.6508**	**0.0154**	**0.6327**	**0.0288**	**0.6615**	**0.1771**	**0.0265**	**0.2036**		**1,314.8187**	**1,314.8187**	**0.0521**		**1,315.9134**

3.6 Architectural Coating - 2017

Unmitigated Construction On-Site

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
	lb/day										lb/day					
Archit. Coating	18.2460					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.6646	4.3701	3.7361	5.9400e-003		0.3467	0.3467		0.3467	0.3467		562.8961	562.8961	0.0594		564.1441
Total	**18.9106**	**4.3701**	**3.7361**	**5.9400e-003**		**0.3467**	**0.3467**		**0.3467**	**0.3467**		**562.8961**	**562.8961**	**0.0594**		**564.1441**

Unmitigated Construction Off-Site

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
	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.7000e-003	0.0798	0.0955	2.2000e-004	6.2400e-003	1.2200e-003	7.4600e-003	1.7800e-003	1.1200e-003	2.9000e-003		21.6704	21.6704	1.6000e-004		21.6737
Worker	0.0600	0.0761	0.9428	2.1800e-003	0.1677	1.5200e-003	0.1692	0.0445	1.4000e-003	0.0459		177.4541	177.4541	9.2800e-003		177.6489
Total	**0.0677**	**0.1558**	**1.0382**	**2.4000e-003**	**0.1739**	**2.7400e-003**	**0.1766**	**0.0463**	**2.5200e-003**	**0.0488**		**199.1245**	**199.1245**	**9.4400e-003**		**199.3226**

Mitigated Construction On-Site

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
	lb/day										lb/day					
Archit. Coating	18.2460					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Off-Road	0.0594	0.2575	3.6648	5.9400e-003		7.9200e-003	7.9200e-003		7.9200e-003	7.9200e-003	0.0000	562.8961	562.8961	0.0594		564.1441
Total	**18.3054**	**0.2575**	**3.6648**	**5.9400e-003**		**7.9200e-003**	**7.9200e-003**		**7.9200e-003**	**7.9200e-003**	**0.0000**	**562.8961**	**562.8961**	**0.0594**		**564.1441**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.7000e-003	0.0798	0.0955	2.2000e-004	4.2800e-003	1.2200e-003	5.5000e-003	1.2900e-003	1.1200e-003	2.4100e-003		21.6704	21.6704	1.6000e-004		21.6737
Worker	0.0600	0.0761	0.9428	2.1800e-003	0.1050	1.5200e-003	0.1065	0.0291	1.4000e-003	0.0305		177.4541	177.4541	9.2800e-003		177.6489
Total	**0.0677**	**0.1558**	**1.0382**	**2.4000e-003**	**0.1093**	**2.7400e-003**	**0.1120**	**0.0304**	**2.5200e-003**	**0.0329**		**199.1245**	**199.1245**	**9.4400e-003**		**199.3226**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.5189	9.2600	37.8303	0.0999	6.4983	0.1406	6.6389	1.7377	0.1295	1.8672		8,271.1187	8,271.1187	0.3180		8,277.7963
Unmitigated	3.5189	9.2600	37.8303	0.0999	6.4983	0.1406	6.6389	1.7377	0.1295	1.8672		8,271.1187	8,271.1187	0.3180		8,277.7963

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High Turnover (Sit Down Restaurant)	317.88	395.93	329.60	450,688	450,688
Apartments Mid Rise	678.77	737.48	625.21	2,321,974	2,321,974
User Defined Educational	0.00	0.00	0.00		
Total	996.65	1,133.41	954.81	2,772,662	2,772,662

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
High Turnover (Sit Down Restaurant)	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
User Defined Educational	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.531767	0.058060	0.178534	0.124864	0.038984	0.006284	0.016861	0.033134	0.002486	0.003151	0.003685	0.000540	0.001671

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

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
	lb/day										lb/day					
NaturalGas Mitigated	0.0380	0.3338	0.2069	2.0700e-003		0.0262	0.0262		0.0262	0.0262		414.1706	414.1706	7.9400e-003	7.5900e-003	416.6912
NaturalGas Unmitigated	0.0380	0.3338	0.2069	2.0700e-003		0.0262	0.0262		0.0262	0.0262		414.1706	414.1706	7.9400e-003	7.5900e-003	416.6912

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Educational	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
Apartments Mid Rise	1924.49	0.0208	0.1774	0.0755	1.1300e-003		0.0143	0.0143		0.0143	0.0143		226.4108	226.4108	4.3400e-003	4.1500e-003	227.7887
High Turnover (Sit Down Restaurant)	1595.96	0.0172	0.1565	0.1314	9.4000e-004		0.0119	0.0119		0.0119	0.0119		187.7599	187.7599	3.6000e-003	3.4400e-003	188.9026
Total		**0.0380**	**0.3338**	**0.2069**	**2.0700e-003**		**0.0262**	**0.0262**		**0.0262**	**0.0262**		**414.1706**	**414.1706**	**7.9400e-003**	**7.5900e-003**	**416.6912**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Educational	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
Apartments Mid Rise	1.92449	0.0208	0.1774	0.0755	1.1300e-003		0.0143	0.0143		0.0143	0.0143		226.4108	226.4108	4.3400e-003	4.1500e-003	227.7887
High Turnover (Sit Down Restaurant)	1.59596	0.0172	0.1565	0.1314	9.4000e-004		0.0119	0.0119		0.0119	0.0119		187.7599	187.7599	3.6000e-003	3.4400e-003	188.9026
Total		**0.0380**	**0.3338**	**0.2069**	**2.0700e-003**		**0.0262**	**0.0262**		**0.0262**	**0.0262**		**414.1706**	**414.1706**	**7.9400e-003**	**7.5900e-003**	**416.6912**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.6305	0.0994	8.5720	4.5000e-004		0.1849	0.1849		0.1834	0.1834	0.0000	2,196.4845	2,196.4845	0.0570	0.0400	2,210.0776
Unmitigated	2.6305	0.0994	8.5720	4.5000e-004		0.1849	0.1849		0.1834	0.1834	0.0000	2,196.4845	2,196.4845	0.0570	0.0400	2,210.0776

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3349					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.8315					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1999	1.0000e-005	0.0109	0.0000		0.1381	0.1381		0.1367	0.1367	0.0000	2,181.1765	2,181.1765	0.0418	0.0400	2,194.4508
Landscaping	0.2641	0.0994	8.5611	4.5000e-004		0.0467	0.0467		0.0467	0.0467		15.3080	15.3080	0.0152		15.6268
Total	2.6305	0.0994	8.5720	4.5000e-004		0.1849	0.1849		0.1834	0.1834	0.0000	2,196.4845	2,196.4845	0.0570	0.0400	2,210.0776

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3349					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.8315					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Hearth	0.1999	1.0000e-005	0.0109	0.0000		0.1381	0.1381		0.1367	0.1367	0.0000	2,181.1765	2,181.1765	0.0418	0.0400	2,194.4508
Landscaping	0.2641	0.0994	8.5611	4.5000e-004		0.0467	0.0467		0.0467	0.0467		15.3080	15.3080	0.0152		15.6268
Total	**2.6305**	**0.0994**	**8.5720**	**4.5000e-004**		**0.1849**	**0.1849**		**0.1834**	**0.1834**	**0.0000**	**2,196.4845**	**2,196.4845**	**0.0570**	**0.0400**	**2,210.0776**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

605 S. Vermont Avenue
GHG Emissions Impact Compared to "No Action Taken" Scenario

Source	NAT (2018)	As Proposed (2018)	Reduction from NAT	Change from NAT
Area	27	27	-	0%
Energy	577	335	(242)	-42%
Mobile	1,706	1,198	(509)	-30%
Waste	35	35	-	0%
Water	90	90	-	0%
Construction	23	23	-	0%
Total Emissions	2,458	1,707	(751)	-30.5%

Land Use	NAT	As Proposed	Difference
Land Use	103 DU, 30ksf museum	103 DU, 30ksf museum,	None
Traffic	824 gross ADT	824 gross ADT	None
Area	Same as proposed	Project assumptions	None
Energy	No State measures	See below	State measures
Mobile	No State measures	See below	State measures
Waste	Reduce construction w	Reduce construction wa	None
Water	Project assumptions	Project assumptions	None

Mobile source emissions: Pavley emission standards (19.8% reduction)
Low carbon fuel standard (7.2% reduction)
Vehicle efficiency measures (2.8% reduction)

Energy Production Assur: Natural gas transmission and distribution efficiency measures (7.4% reduction)
Natural gas extraction efficiency measures (1.6% reduction)
Renewables (electricity) portfolio standard (33% reduction)

FORM GEN. 160A (Rev. 1/82)

CITY OF LOS ANGELES
INTER-DEPARTMENTAL CORRESPONDENCE

605 S. Vermont Av
DOT Case No. CEN 15-43945

Date: February 24, 2016

To: Karen Hoo, City Planner
Department of City Planning

From: Wes Pringle, Transportation Engineer
Department of Transportation

Subject: **SUPPLEMENTAL TRAFFIC IMPACT ASSESSMENT FOR THE PROPOSED MIXED USE DEVELOPMENT PROJECT AT 605 SOUTH VERMONT AVENUE**

A traffic impact study for the mixed-use project was submitted to the Department of Transportation (DOT) on January 2015 and a corresponding DOT assessment report was issued to the Department of City Planning (DCP) on April 20, 2015. Since then, the developer has made some amendments to the original project including an increase in land use quantities and the provision of 48 parking spaces off-site for the museum.

The project description has been modified and a supplemental traffic analysis, dated December 16, 2015, was prepared by Raju Associates and submitted to DOT. The latest proposal is described in the table below that provides a comparison between the new project scope and the scope that was last reviewed by DOT. This revision does not change the findings or recommendations of DOT's previous assessment.

Land Use	Proposal from April 2015 DOT Letter	New Proposal
Residential	101 Apartment Units	103 Apartment Units
Museum	30,937 SF	30,937 SF

A trip generation comparison between the original project description and the latest project scope reveals that the daily trips are expected to increase by 10 trips from 745 trips to 755 trips. The a.m. peak hour trips are expected to increase by one trip from 55 trips to 56 trips and the p.m. peak hour trips are expected to increase by one trip from 78 trips to 79 trips. The previous traffic analysis determined that none of the six analyzed intersections would be significantly impacted by project related traffic. The revised project is also not expected to result in any significant traffic impacts. In addition to providing the new off-site parking mentioned previously, the revised project would still provide a three-level subterranean parking structure containing 150 parking spaces. This represents an increase over the 146 spaces originally proposed. Vehicular access would continue to be via a driveway located along the north/south alley west of Vermont Avenue. The alley can be accessed from 6th Street and Vermont Avenue.

DOT concurs with the updated analysis that the project's expected impacts would not change. On August 11, 2015, the City Council adopted the Mobility Plan 2035 which represents the new Mobility Element of the General Plan. A key feature of the updated plan is to revise street standards in an effort to provide a more enhanced balance between traffic flow and other important street functions including transit routes and stops, pedestrian environments, bicycle routes, building design and site access, etc. The applicant should check with BOE's Land Development Group to determine the specific highway dedication, street widening and/or sidewalk requirements for this project. Other than any previously

made highway dedication and street widening recommendations, all of prior conditions of DOT's April 20, 2015 (attached for reference) shall remain in effect.

If you have any questions, please contact me at (213) 972-8482.

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c: Deron Williams, Council District No. 10
Jeannie Shen, Hollywood-Wilshire District Office, DOT
Taimour Tanavoli, Citywide Planning Coordination Section, DOT
Gregg Vandergriff, Central District, BOE
Srinath Raju, Raju Associates